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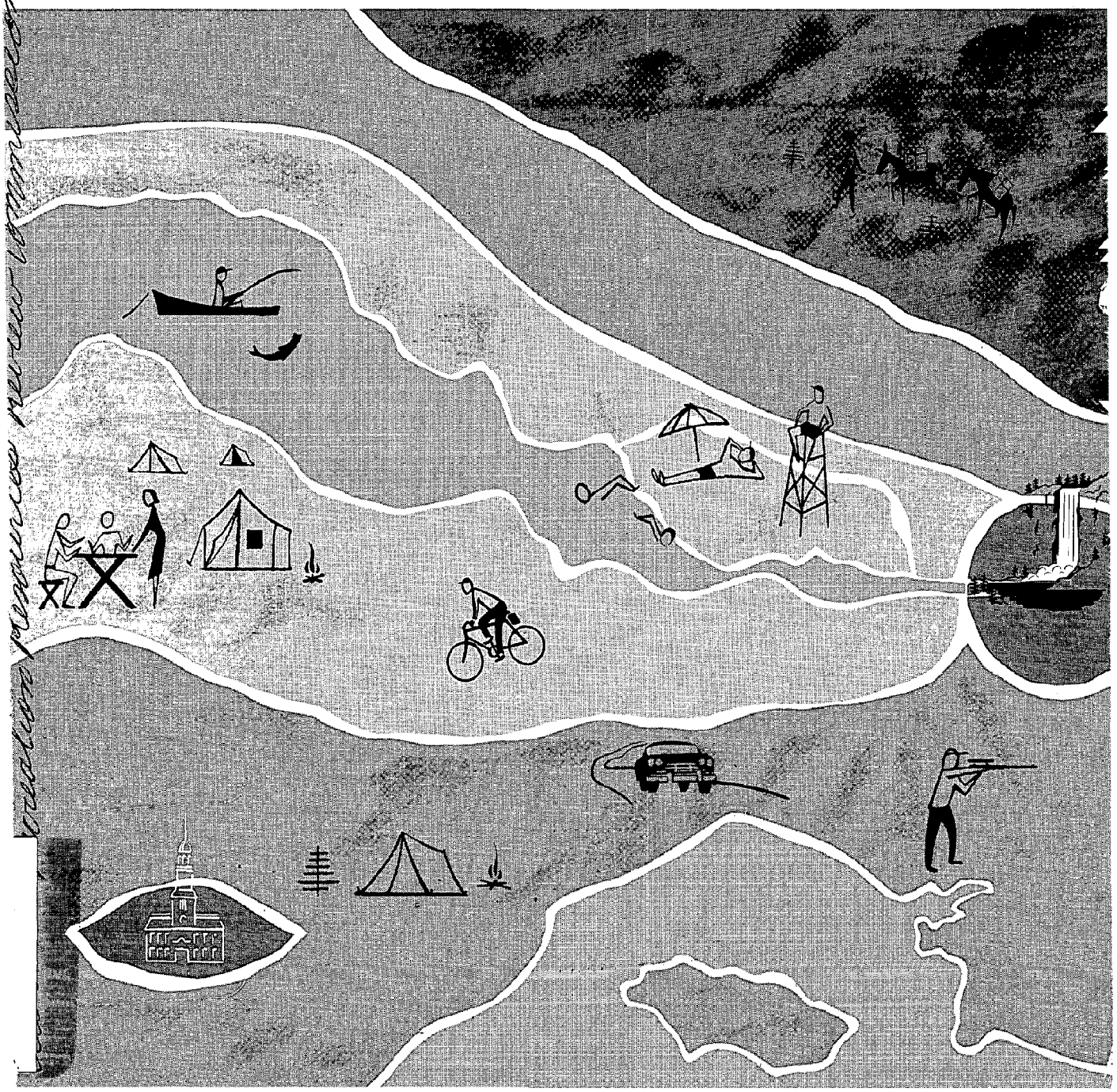
ORRRC STUDY REPORT 21

THE FUTURE OF OUTDOOR RECREATION IN METROPOLITAN REGIONS OF THE UNITED STATES

Volume I The National View—Present Condition and Future Prospects of Outdoor Recreation for Residents of the Metropolitan Centers of Atlanta, St. Louis and Chicago

A Report to the Outdoor Recreation Resources Review Commission



OUTDOOR RECREATION FOR AMERICA

The Report of the Outdoor Recreation Resources Review Commission to the President and the Congress

This report surveys our country's outdoor recreation resources, measures present and likely demands upon them over the next 40 years, and recommends actions to insure their availability to all Americans of present and future generations.

The first part of the 246-page volume reviews the place of outdoor recreation in American life, drawing largely on the finding of the Commission's expert studies. It describes the supply of recreation resources, the demand for recreation, the economics of recreation, and the problems of relating all three to assure present and future generations of the outdoor recreation opportunities they require. The second part contains recommendations for programs and policies, with chapters concerning the responsibilities of the Federal Government, the States, local government, and private enterprise. There are chapters on special problems of management, financing, water, and research. The report is for sale by the Superintendent of Documents, U.S. Government Printing Office, Washington 25, D.C., for $2.

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ORRRC STUDY REPORT 21

THE FUTURE OF OUTDOOR RECREATION IN METROPOLITAN REGIONS OF THE UNITED STATES

Reports to the Outdoor Recreation Resources Review Commission
by Commission Staff
and Selected Universities and Planning Agencies

Volume I **The National View—Present Condition and Future Prospects of Outdoor Recreation for Residents of the Metropolitan Centers of Atlanta, St. Louis and Chicago**

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OUTDOOR RECREATION RESOURCES REVIEW COMMISSION

The Outdoor Recreation Resources Review Commission was created by the Act of June 28, 1958 (Public Law 85–470, 72 Stat. 238). The task assigned to the Commission was to seek answers to the following basic questions:

> What are the recreation wants and needs of the American people now and what will they be in the years 1976 and 2000?
>
> What are the recreation resources of the Nation available to fill those needs?
>
> What policies and programs should be recommended to insure that the needs of the present and future are adequately and efficiently met?

The Commission's report, Outdoor Recreation for America, which was presented to the President and to the Congress on January 31, 1962, contains the findings of the Commission and its recommendations for action required to meet the Nation's outdoor recreation needs in 1976 and 2000.

In the course of its work, the Commission obtained many special reports from its own staff, public agencies, universities, nonprofit research organizations, and individual authorities. It is publishing these reports because of their potential interest to officials at all levels of Government and to others who may wish to pursue the subject further. A descriptive list of the study reports appears at the end of this volume.

In the development of the findings, conclusions, and recommendations presented to the President and to the Congress in January 1962, the Commission considered this report and other study reports, but its conclusions were based on the entire study and on its own judgment. Publication of the study reports does not necessarily imply endorsement of them in whole or in part.

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This study report of the Commission is published in three volumes:

Volume I--The National View--Present Condition and Future Prospects of Outdoor Recreation for Residents of the Metropolitan Centers--Atlanta, St. Louis, and Chicago.

Volume II--Outdoor Recreation and the Megalopolis--A Study of Present and Future Needs of the People Living in the New York-New Jersey-Philadelphia Region.

Volume III--The Impact of the Growth of the Los Angeles Metropolitan Region on the Demand for Outdoor Recreation Facilities in Southern California--1976 and 2000.

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ORRRC STUDY REPORT 21

THE FUTURE OF OUTDOOR RECREATION IN METROPOLITAN REGIONS OF THE UNITED STATES

REPORTS TO THE OUTDOOR RECREATION RESOURCES REVIEW COMMISSION BY THE COMMISSION STAFF AND SELECTED UNIVERSITIES AND PLANNING AGENCIES

Volume I The National View—Present Condition and Future Prospects of Outdoor Recreation for Residents of the Metropolitan Centers of Atlanta, St. Louis and Chicago

WASHINGTON D.C. 1962

Preface

Large metropolitan centers are prodigious users of land and water resources. These centers, with all their power and wealth, lay an imperious hand on woodlands and watersheds drawing them out of earlier uses and transforming them into building lots, streets, shopping centers, school yards, throughways, and airports. This process of subjugation of resources to metropolitan use has not followed any planned sequence or orderly procedure. Consequently, the resulting patterns of resource utilization are not likely always to provide efficient satisfaction of the needs for outdoor recreation generated in a metropolitan society.

In general, the provision of outdoor recreation facilities and the development of adequate access to outdoor recreation opportunity for the residents of densely settled metropolitan areas have not been accorded equal weight in the metropolitan resource utilization contest. And, looking ahead as far as 1976 and 2000, there seems to be little doubt that the provision of outdoor recreation opportunities will become a more difficult and complex task as existing metropolitan centers increase in size and as new population centers of substantial size appear. At the same time the need for outdoor recreation will become increasingly important for metropolitan residents.

Such considerations led the Outdoor Recreation Resources Review Commission to undertake a study of outdoor recreation against the background of the development of large, metropolitan agglomerations. The study was designed primarily to examine the present and future demand of metropolitan residents for outdoor recreation and to consider also the means, present and future, by which these needs are or may be satisfied.

The plan for this study was developed by the ORRRC staff after consultation with several students of resource problems as related to the metropolitan economy. Among these authorities were: Dr. Harvey Perloff of Resources for the Future, Inc., and Prof. Gilbert White of the University of Chicago. The study plan entitled, "Study of the Recreation Needs, Habits, and Preferences of the People of Selected Metropolitan Regions," was approved by the commission on May 25, 1960, as Project No. 10. The overall title for the published study was to be, "The Future of Outdoor Recreation in Metropolitan Regions of The United States." It would consist of two parts: one, The National View, and two, The Present Condition and Future Prospects of Outdoor Recreation for Residents of Five Metropolitan Centers.

The ORRRC staff was assigned responsibility for developing part 1: The National View. Part 2 required the selection of five metropolitan areas for intensive case study. The ORRRC staff planned that such studies should provide information and insight concerning the specific characteristics of outdoor recreation in a metropolitan context. And while these studies could not constitute a representative sample in any rigorous sense, yet it was contemplated that, taken together, the findings of the five separate studies would present to the public an array of outdoor recreation problems encountered in the metropolitan centers with some indication of the directions in which solutions might be found. A somewhat secondary but nonetheless important consideration was the availability of competent research agencies willing to undertake such detailed studies in the designated metropolitan centers. Accordingly, the following criteria for the selection of five diverse metropolitan areas was established:

1. The metropolitan area should be located within a large physical region of distinctive character. These regions might be climatological, topographical, or they might be river basins, or some combination of these.
2. The region within which the metropolitan center to be studied was located should be one which manifested characteristic growth patterns of metropolitan centers—a relatively stable growth pattern in the central city, accompanied by an extremely rapid growth in the periphery.
3. The metropolitan area selected should be one in which there was available a considerable body of data concerning recreation resources and planning as a result of general recognition of a pressing need of the metropolitan population for outdoor recreation.
4. The metropolitan area selected should have within it a planning organization, academic institution, or other qualified research organization which might be employed as a contractor for the study.

With the aid of these criteria and recognition of budgetary and time limitation, five metropolitan areas were selected for study as follows:

1. New York-New Jersey-Philadelphia.—This North Atlantic regional complex of metropolises is the heart of the much discussed megalopolis of the future which is expected to extend from Portland, Maine, to Washington, D.C., and beyond. It contains from 15 to 20 million residents, a major fraction of the total American metropolitan population. It has been and is currently the object of considerable research in resource development and land use planning. As the oldest metropolitan area in the United States, it promised to provide in detail the most extensive catalog of outdoor recreation problems in a setting of the most varied social, ethnic, economic, and political structures to be found in the United States.
2. Atlanta, Ga.—This metropolitan area in the southeast provided an excellent opportunity to examine the play of social and economic forces in the urbanization process of the South. Further interest in Atlanta derived from the fact of its location away from large natural bodies of water, yet within reasonable traveltime of both land and water recreation opportunities. A secondary consideration was the fact that the U.S. Study Commission—Southeast River

Basins was headquartered in Atlanta, and discussions with the staff of that commission resulted in an arrangement for mutual and helpful interchange of information.

3. St. Louis, Mo.—This metropolitan area is located in the Midwest near the confluence of three large rivers—the Mississippi, the Missouri, and the Illinois. It is a physiographic region in which a large number of urban centers are developing metropolitan characteristics. It is also a region where the provision of recreation opportunities will probably entail more capital investment in artificial water impoundment than in the reservation of natural recreation sites. Another consideration was the fact that the Meramec Basin research project, headquartered at Washington University in St. Louis, would provide considerable data which would be helpful in the prosecution of the ORRRC investigation of this metropolitan center.
4. Chicago, Ill.—This metropolitan area is one of the ranking population centers of the United States and will probably remain among the four largest population centers indefinitely. Its location along the extreme southwestern shore of Lake Michigan seemed particularly suitable for purposes of the ORRRC study. Residents of the Chicago region have relatively easy access to a considerable range of water and other recreation resources, and their search for these recreational opportunities quickly carries them over State boundaries. Chicago also is a region which has been subjected to a considerable number of economic and social studies carried on through university and foundation personnel. In addition, the Northeastern Illinois Metropolitan Planning Commission has undertaken a number of studies which promised to provide resource data relevant to studies of recreation opportunities.
5. The southern California complex of communities centering on Los Angeles.—This metropolitan region, although one of its boundaries is the Pacific Ocean, is part of the arid Southwest. It has experienced an extremely rapid population growth, and it is located in a region where other metropolitan areas are growing at a rapid pace. The problems of this area have been prominently considered in connection with the report of the California Outdoor Recreation Plan Committee. The research recently completed by this committee seemed to provide assurance that competent researchers familiar with outdoor recreation problems would be available as well as the data developed in the California Outdoor Recreation Study.

After these five centers had been selected, the ORRRC staff proceeded to negotiate with responsible research agencies in each of the five selected metropolitan centers that were willing to undertake the necessary work. The five study agencies which were selected are as follows:

New York-New Jersey-Philadelphia.—The Institute of Public Administration, New York City.

Atlanta, Ga. (The Atlanta Standard Metropolitan Statistical Area).—The University of Georgia, Department of Political Science, Athens, Ga.

St. Louis, Mo. (The St. Louis Standard Metropolitan Statistical Area).—Social Science Institute, Washington University, St. Louis, Mo.

Chicago, Ill. (Cook, Kane, Du Page, Will, Lake, and McHenry Counties).—The Northeastern Illinois Metropolitan Area Planning Commission, Chicago, Ill.

Los Angeles, Calif. (Ventura, Los Angeles, Riverside, Orange, San Bernardino, and San Diego Counties).—The Real Estate Research Program, Graduate School of Business Administration, University of California, Los Angeles, Calif.

These several agencies assigned principal responsibility for each of these studies to the following individuals:

New York-New Jersey-Philadelphia.—Mr. Sumner Myers
Atlanta, Ga.—Prof. Frank Gibson
St. Louis, Mo.—Prof. Gregory Stone
Chicago, Ill.—Mr. George Hartman
Los Angeles, Calif.—Prof. Fred Case

Perhaps a word should be said about the means employed to coordinate the work of these five separate study groups. Coordination was provided initially by a detailed prospectus of the project which was circulated to each of the directors of the five study groups. In addition, the study directors traveled to Washington for a joint meeting with responsible members of the ORRRC staff on January 5, 1961. At this meeting, the ORRRC prospectus for this project was explained in detail. Also the overall ORRRC study program was outlined and a procedure was developed to make available to each of the five study groups the results of related studies as soon as they became available. In addition to their joint group meeting, several of the study directors made independent trips to Washington to discuss specific study details. Several trips to the metropolitan centers under study were made by responsible members of the ORRRC staff in 1960 and 1961. Aside from these visits, there was constant communication by correspondence and telephone.

As a result of fairly detailed planning, it was possible for the ORRRC staff to pass on to each of the five study directors a considerable volume of fresh research material. Among these perhaps the most important were: (1) the basic economic and demographic projections which form the central part of ORRRC Study Report 23, "Projections to the Years 1976 and 2000: Economic Growth, Population, Labor Force and Leisure and Transportation"; (2) the preliminary results of the two national surveys of outdoor recreation needs and preferences, ORRRC Study Report 19, "The National Recreation Survey"; and ORRRC Study Report 20, "Participation In Outdoor Recreation: Factors Affecting Demand Among American Adults."

The result of these efforts at coordination tended to give a common orientation to the five separate studies. At the same time, it is apparent that research methods and the study approaches differed considerably.

Part I

THE NATIONAL VIEW

CHAPTER ONE

THE DIMENSIONS AND LOCATION OF THE OUTDOOR RECREATION PROBLEM OF LARGE METROPOLITAN CENTERS

The volume of outdoor recreation activities of the American people is increasing rapidly in response to increases in population, income, leisure, and mobility. Equally important to these influences is the tendency of this great volume of activity to become concentrated near metropolitan centers.

While urbanism has long been a characteristic of our national development, its emergence as a dominant cultural attribute dates back only to 1920, when for the first time urban residents exceeded half of the total population. Today there are over 5,000 urban places in which reside nearly 70 percent of the Nation's population. 1/ More important, perhaps, for its impact on outdoor recreation, is the even more rapid growth of large metropolitan regions. This growth is measured by the census in terms of standard metropolitan statistical areas defined as counties with central cities of 50,000 population or over plus contiguous counties essentially metropolitan in character, socially and economically integrated with central city or cities. 2/

About 89 million persons resided in 212 standard metropolitan statistical areas in 1950. Between 1950 and 1960, the increase in metropolitan population accounted for over 80 percent of the total national growth. When this increased metropolitanism is focused on the demand for outdoor recreation, the effect is to establish general geographical locations of outdoor recreation. Thus the location of residence and the location of the sites for outdoor recreation are closely related.

A further expression of the trend toward urbanism is the development of very large population centers, those with a million population and over. There are 24 of these large-scale population centers in the United States today and they include about 34 percent of the national population. These are places where central problems of outdoor recreation planning and administration have become most acute. Residents of these areas often find access to outdoor recreation is lacking or is impaired. Here too the recreation potentials in land and water are preempted to satisfy other needs of the metropolis. Available recreation facilities are frequently subject to vast overcrowding or are badly located with poor access.

The causes of increasing urbanism and the growth of large metropolitan centers are rooted in the developments of technology and social organization of the country. This in-gathering of humanity is, in ecological terms, a response to an environment favorable to population agglomeration; it is easier for people to make a living and easier to provide for their needs in the metropolitan form. For example, there can be no effective mass market in a predominantly rural society, and without the possibilities of a mass market, much of our present economy could not have developed. So metropolitanism is here to stay, and metropolitan conditions become increasingly more favorable to further metropolitan development.

The trend towards size of metropolitan areas is already apparent. The great population complexes centering around New York, Chicago, and Los Angeles have already involved many nearby cities and towns. Indeed, much of the growth of these great centers in the last decade resulted from annexation and from coalescence of independent communities with a common center.

The outward push of these centers forces the relocation of some outdoor recreation areas, overcrowds other recreation sites, and greatly impairs access to still others. Already difficult problems of intergovernmental relations, taxation, police protection, traffic control, zoning regulation, and land acquisition become acute and ever more complex.

It was the recognition of the key position of metropolitan growth in planning the future of outdoor recreation in the Nation that led ORRRC to undertake studies of outdoor recreation in five large metropolitan areas which form the major portion of this study. 3/

The number of metropolitan centers in the United States with more than a million residents each has increased from 15 in 1950 to 24 in 1960. Over 60 million people now reside in large-scale metropolitan agglomerations; by the year 2000 more than half of the U.S. population—over 180 million people—may reside in such mass residential areas.

Search for outdoor recreation among metropolitan residents creates central problems for recreation planners, developers, and administrators. The sheer weight of numbers presses heavily on available recreation resources. In the summer of 1960, residents of large (1 million and over) standard metropolitan

1/ U.S. Census of Population: 1960, Final Report PC(1)-1A, "United States Summary, Number of Inhabitants," Bureau of the Census, U.S. Department of Commerce, p. XIV—"Urban and rural population under the current and previous definition."

2/ U.S. Census of Population 1960, "Number of Inhabitants, United States Summary," U.S. Department of Commerce, Bureau of the Census, p. XXIV. In New England the city and town replace counties as the basic unit of data compilation.

3/ These metropolitan areas are: The New York-New Jersey-Philadelphia complex; the Atlanta, Georgia SMSA; St. Louis; the Chicago area consisting of the six counties of northeastern Illinois; and the six southern California counties: Ventura, Los Angeles, Orange, San Bernardino, Riverside, and San Diego. Throughout the remainder of this discussion, reference to those studies will be by name of the principal city, viz: the New York Study, the Chicago Study, etc., although these are not the actual titles of these studies.

statistical areas, our largest population centers, generated 1.6 billion days of recreation activity among 17 different recreation activities or about 37 percent of the national recreation activity total. With increasing numbers of people in such areas and with anticipated increases in leisure income and transportation, the corresponding estimates for 1976 and 2000 will be 2.8 billion and 5.7 billion separate days of recreation, 40 and 46 percent, respectively, of the national total; provided, of course, that the facilities for these activities are accessible.

The geographical distribution of these vast population agglomerations specifies to a considerable extent the places in which recreation facilities must be available, because the search for outdoor recreation is closely linked to place of residence. The average recreation outing is not of long duration, and journeys to recreation areas are relatively short.

Thus a very large proportion of the total amount of outdoor recreation of the future must be located within a short distance of two principal population axes, both in the northeast quadrant of the country: A north-south axis some 500 miles long running from Washington, D.C. to Boston, Massachusetts, and an even longer east-west axis extending roughly from Pittsburgh along the Great Lakes to Chicago. About 70 percent of all large-scale metropolitan population live and will probably continue to live in this quadrant. Here too, the density of population will be greatest and, accordingly, the pressures on resources most extreme, both for recreation and for all other space-using activities.

There may be as many as 35 million residents of these large centers on the Pacific coast with principal concentrations at San Diego, Los Angeles, San Francisco-Oakland, Portland, and Seattle.

Table A-1. Percent of recreation activity of residents of large-scale metropolitan centers by region—1960-1976-2000

	1960	1976	2000
U.S.	100	100	100
NE quadrant	73	66	60
South	9	12	14
West	18	22	26

By 2000, south Florida and Georgia may have several metropolitan centers of 1 million and over. Other concentrations now exist or may appear in east Texas, at St. Louis, at Kansas City, and in the Twin City area.

These centers will generate a great volume of recreation activity. But it is not only a question of numbers of people but also of attitudes towards outdoor recreation. On the quantitative side is the large volume of recreation activity generated by metropolitan agglomerations. But on the qualitative side too, there are equally important considerations. As the Nation becomes more and more committed to urban life, the old division between rural and urban, between country and city, and between city people and country folks tends to disappear. The city reaches out into the surrounding countryside and claims it as a service area. The national point of view becomes urban, and urban need commands national attention. The open countryside becomes an adjunct and an amenity of metropolitan life.

The typical American two generations ago was rural in outlook and tradition. Today's grandchildren of these earlier Americans are urban in outlook, and rural traditions are a romantic memory.

Qualities of confinement and regulation inherent in urban life may require the contrasting freedom resulting from outdoor activity in the open country as an essential corrective. Rural surroundings provide a temporary refuge from, but not an alternate to, urban environment. And as urban well-being becomes a dominant goal in a nation increasingly urbanized, a claim on forests, lakes, streams, ocean front, mountainside, and valley as recreation resources gain national endorsement.

All the former ease and informality of access to outdoor recreation so long characteristic of rural village and small town society are replaced by carefully formulated plans, either of private entrepreneurs or at the several levels of government. These seek specific goals of profit or of welfare through well-defined rather formalized recreation objectives, cast in terms of large numbers of city people.

Looking again at the large metropolitan concentrations, it is apparent that the streams, lakes, mountains, valleys, beaches, swamps, and woodland of the northeast Atlantic seaboard, the Piedmont, the Allegheny Uplands, the Great Lakes, the westward flowing portion of the Mississippi drainage, and the glacial lakes of Wisconsin and Michigan must bear the brunt of much of the metropolitan pressure for outoddr recreation. Here must be available the swimming and water-sport areas, the picnic and camp grounds, the hiking trails, the scenic spots, and the parking areas. All these must be available by reasonable routes of travel and most frequently within a radius of not much more than two or three hours drive from the home base—the metropolitan nucleus which sets in motion, through its inherent dynamics, the system of outdoor recreation.

Similarly, the resources of the Pacific Coast will be mobilized: the long Pacific Ocean front, the Pacific drainage basins, the coastal ranges stretches of Sierra and Cascade forest and upland, and even the arid desert. These are the predesignated recreation areas to which the people of the population complex extending from Santa Barbara to San Diego, of the San Francisco Bay region, of the lower Columbia and of the Puget Sound regions have already laid implicit claim. The Georgia-Florida population concentrations will seek the Gulf and Atlantic beaches, the Coastal streams, the forested Georgia upland, and the TVA lake region. The Corps of Engineer reservoirs of the Arkansas-White-Red River basins, and the Gulf coast of Texas will serve the metropolitan regions of the west-south central States, while the Mississippi and its tributaries in Missouri and Kansas and the Ozarks will serve St. Louis and Kansas City.

If we distinguish between SMSA's of over a million population, and SMSA's in general (50,000 and over), consideration of recreation location largely

unchanged insofar as the northeastern quadrant and the Pacific coast are concerned. The smaller SMSA's tend to cluster along the axis of larger centers. Again 36 out of 51 cities of 250,000 or more population cluster along these main axes or are adjacent to the groupings of larger metropolitan centers in the west, south central, and southeast seaboard States. 4/ Insofar as pressure on resources is involved, these lesser centers simply increase the load. But the principal dynamics of movement and change are centered in the larger concentrations. This is because the volume and synchronization of mass movement due to superior numbers and greater wealth create dominant forces to which smaller communities conform.

4/ U.S. Census of Population: 1960, United States Summary Number of Inhabitants, table 28, pp. 1-66.

CHAPTER TWO

THE METROPOLITAN STRUCTURE AND OUTDOOR RECREATION

The principal condition which determines the availability of outdoor recreation for residents of large metropolitan centers is encompassed in the term "access." Several aspects of metropolitan development may control or limit access to outdoor recreation:

> Since the open countryside by definition cannot lie within the heart of the megalopolis itself, it is necessary that urbanites travel to it. The recreation opportunities afforded by the countryside to residents of a given community in the megalopolis depend on the accessibility of the countryside to that community. Accessibility, in turn, depends on the extent and distribution of built-up areas and the geometrics and efficiency of the highway system. 1/

The relative residential densities of the metropolitan area and its geographical location are important factors in determining the pattern of outdoor recreation. A resident of Manhattan who wishes to avail himself of recreation on the Long Island beaches confronts a discouraging traffic problem. A resident of the Chicago outer suburbs who goes to the Lake Michigan beaches of the Chicago Park District encounters a similar handicap as would a resident of Berkeley, Calif., who goes to the ocean beaches south of San Francisco. In contrast is Denver, Colo., where the proximity of the Rocky Mountains places a variety of recreation sites within a short distance of urban residential areas.

Large American cities have expanded according to no overall plan. Each has its own unique history of economic development and physical structure. Consequently, their configurations vary greatly, roughly shaped by principal physiographic features but also influenced by dominant economic functions, past or present.

Port cities developed around the ocean, lake, or river front and then pushed inland. Some cities are strung in narrow bands along valleys of deeply intrenched rivers. Some, like Los Angeles, sprawl in all directions across coastal plains to the foot of steeply rising hills and mountains. Oakland, Berkeley, and Alameda form one continuous chain of metropolitan development north and south along the east side of San Francisco Bay with residential development marching up the eastern coastal upthrust. San Francisco, on its seven hills, originally at the tip of a peninsula, spreads southward further and further to dominate the entire peninsula. Chicago's urbanized area is a somewhat elongated semicircle or elipse fronting on Lake Michigan with the radial sectors extending from the semicircular mass. Boston is, roughly, semicircular with the harbor as its center; New York is, roughly, L-shaped, down the Hudson from Westchester, across the length of Manhattan and the boroughs of Brooklyn and Queens, turning north and east across Long Island Sound; Atlanta, uninhibited by physical barriers, expands along radial lines of its expressways, and Philadelphia extends northward, westward, and southward from a front on the Delaware River.

These configurations shape major traffic patterns. Residential subdivisions promote or impede the development of recreation areas by determining the larger confines within which open space and water can be used for recreation. Also within these larger natural confines economic and institutional lines of metropolitan development are laid down over time and, in turn, provide further limitations on recreation access. Thus each city impedes or facilitates access to outdoor recreation originally by location and configuration, later by its own institutional decisions.

But all metropolitan developments have similarity as well as contrast. There is the old central city composed of the downtown business, shopping, hotel, and apartment areas alongside older residential areas which generally become slums as former residents move out toward the metropolitan edge where a continuous ring of suburban communities is formed. This metropolitan edge expands still further and older suburbs, in turn, develop some of the blighted character of the old inner city.

The suburban edge becomes more discontinuous as more recent subdivisions clump around new shopping centers. The interstitial open space between the more recent developments gradually expands into the open country beyond the metropolis.

THE CENTRAL CITY

The residents of the central cities generally do not have ready access to outdoor recreation. For example, Atlanta, in concert with most large cities, has a hard core of low income housing in its downtown area, the residents of which are almost without available outdoor resources. 2/

One of the reasons for this deprivation is the obliteration of environmental open space for recreation areas as one encircling concentric band of urban development succeeds another. The Atlanta Study says: "Past planning on the subject of park areas has too often taken the form of recommending park locations then permitting the loss of those areas to demands for industrial locations." 3/

1/New York Study, ch. 3, "Access to the Countryside."

2/The Atlanta Study, ch. 3, sec. 4, "Conclusion on Facilities."

3/Ibid., ch. 3.

In addition to the awkward location of the inner city with respect to outdoor recreation sites, there is the fact that many inner city resident areas are slums. The socioeconomic characteristics of the residents often place them at a disadvantage with respect to outdoor recreation:

> The difference in the socioeconomic character of these people in the city of Chicago as against that of those in the suburbs, in the relative accessibility and the availability of outdoor recreation opportunities and facilities, are two of the most striking factors. A higher portion of the people in the city have less mobility and below median incomes; the city has much higher net residential density with less per capita public or quasi-public open space; a greater variety or urban type recreation opportunities exist in the city. Place of residence thus has a most important influence on outdoor recreation practices and interests. 4/

In Los Angeles it is the senior citizens and racial minorities whose residence in the older portion of the metropolitan area tends to establish a pattern of leisure time activity. 5/

One may suspect that it is not the factor of age or of race alone but low economic status associated with these characteristics which is expressed in the lower mobility of the residents of metropolitan regions in search of outdoor recreation. "Older persons tend to congregate in central city areas because of their lesser mobility and to demand types of recreation facilities which favor less active pursuits." 6/

One may strongly suspect that the decreased mobility of these Los Angeles residents is very likely more associated with low car ownership and low income than with a specific "preference" for short trips and city parks as in the case of the New York Study. "However, the family that cannot afford an automobile tends to be barred from participation in a broad range of recreational opportunities." 7/

There seems to be only one conclusion: that the people on whom the environment of the city with its close-packed living, its constant pressure of the concrete brick and asphalt environment, and its lack of pleasant surroundings which is most oppressive, have less than average access to the out of doors. The New York Study states unequivocally, after a careful analysis of outdoor recreation resources of the New York-New Jersey-Philadelphia metropolitan complex:

> The open countryside is barely accessible to the people who need it most for recreation, those being in the highest density counties of the region. 8/
>
> For all the families surveyed (in New York City), 53 percent had no cars. Applying this percentage to the approximately 2 million families in the city's total population, we estimate that about 1 million families belong in the group that must seek outdoor recreation either by mass transportation or in the cars of friends. 9/

The same study points out:

> With few exceptions—notably ocean beaches—the region's outdoor recreation areas are practically impossible to reach by scheduled common carrier transportation. 10/

The conclusion is then that there are in the neighborhood of 1 million people in New York City who by reason of location of residence and income must either patronize overcrowded beaches or depend on friends to secure access to nonurban recreation.

Who are these disadvantaged people? To a considerable extent they are in-migrants to metropolitan areas from rural areas. And also to a very large extent they are members of minority groups—Puerto Ricans and Negroes in New York, Negroes and Southern whites in Chicago, Negroes and Mexicans on the Pacific Coast. 11/

St. Louis, once a station on the underground, still functions as the stopping place and distribution center of rural Negroes on the way up the Mississippi to Chicago and Detroit. Atlanta's Negro population is large, and the downtown residential areas are heavily and increasingly populated by Negroes. 12/ These people probably account largely for the hard core, low income housing areas which are almost without any recreation facilities. There is a continual replacement, as out-migrants from among the better educated move north, by in-migrant from the rural areas. 13/ And Los Angeles has long been a haven for elderly people seeking to spend declining years in a favorable climate.

These residents of the inner city make up the bulk of the lowest income metropolitan residents. Typically they do not own cars and also they have the large families of rural people. They probably possess only rudimentary recreational skills, yet the children and adolescent members of these slum dwellers would probably benefit from outdoor recreation, both as an environmental factor in making life more pleasant and also as a technique of acculturalization. For it takes a long time for the acculturalization process to bring such groups into the main stream of modern American life and to provide them with the industrial skills leading to higher incomes and standards of life. In a very practical sense, access to outdoor recreation for the inner city residents is essential not only for his comfort and well-being but also for the advantages occurring to society from his advancement.

There are, of course, large proportions of the residents of the older parts of the large metropolitan centers who are not slum-dwellers. These people

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4/ The Chicago Study, ch. 2, "Summary and Conclusion."

5/ The Los Angeles Study, ch. 5: "Larger Younger Families"; "The Import of the Southern California Culture on Outdoor Recreation Demand"; "Basic Economic Considerations."

6/ Ibid.

7/ The New York Study, ch. 2, "Income."

8/ Ibid., ch. 3, "Access to the Countryside."

9/ Ibid., ch. 2, "Income."

10/ Ibid., ch. 3, "Other Outdoor Recreation Areas,"

11/ The Editors of Fortune—"The Exploding Metropolis." Doubleday & Co., Inc., Garden City, New York, 1960, ch. 4, Daniel Seligman, "The Enduring Slums."

12/ The Atlanta Study, ch. 2, "Leisure Time Activities."

13/ The Atlanta Study, ch. 1, "Migration, The People;" ch. 2, "Conclusions with Respect to Race."

are not subject to all of the handicaps which confront slum-dwellers. Indeed, many of them occupy positions in the top rung of the economic and social ladder and enjoy very large incomes. Such people live in the inner city from choice. Yet even this advantaged group shares in common with the slum-dweller the disadvantages of an awkward locational situation principally in the form of transportation difficulties, the nonexistence of common carrier transportation to recreation areas, and the demoralizing weekend traffic congestion.

Even for these people occasional out-of-door outings during the weekday are out of the question. This is a simple fact of the environment. Nevertheless, overall participation in outdoor recreation activities of inner city residents and their proportion of these activities do not differ very greatly from those of residents of other portions of the metropolitan complex. This might be interpreted to mean that among those residents of the inner city who do engage in outdoor recreation, the felt needs and the responses to it are quite similar to those of residents of the suburbs or of smaller communities.

Even so there may be significant deprivation of outdoor recreation among the children of the inner city. Thus, if adult residents of slum areas are unable to get access to outdoor recreation facilities, it is quite likely that their children will also be denied access. Unless specific plans are made to provide outdoor experiences for children in these closely packed residential areas, it is probable that they will come to maturity lacking all the benefits of the American outdoor heritage.

In New York City it is estimated that there are 180,000 children who would be unable to pay for a day camp because of poverty and upwards of half a million additional New York City children could only attend camp if the cost were defrayed by substantial subsidies. 14/ One of the principal adverse factors to city living by middle class people could be removed and the inner city environment greatly improved for children if more adequate access to the outdoors could be provided.

THE OUTER RING

Surrounding the inner portions of the large metropolitan complex is the ring of older and newer suburban developments. As conditions toward the metropolitan edge grow to resemble the density and other characteristics of the inner city, some people move still further out as older commuting towns are absorbed into the major complex.

The initially favorable access of these older suburbs to outdoor recreation declines as the city in its growth absorbs more and more of the surrounding countryside. Indeed the older portions of this largely unplanned development in many instances exhibit symptoms of the same blight which has overtaken many of the residential portions of the central city. Hence, in respect to access to outdoor recreation, the outer portions of the metropolitan center are mixed. Older portions tend toward more limited recreation access and low income residents. Newer portions are closer to outdoor recreation in general, although in some instances the expansion of the metropolitan edge intersects the growing edge of adjacent metropolitan centers and blots out intermediate open space completely.

In general, residents of more distant suburbs have higher incomes and more favorable access to outdoor recreation. But this condition depends somewhat on competition, location, and highway development. In some instances these can intervene effectively to impede access of suburban residents to outdoor recreation at certain locations. Westchester County, N.Y., has many advantages as a suburban residential area of New York City, but it is distinctly handicapped with respect to access to weekday, day-use, and short overnight outdoor recreation outings, or to any outdoor recreation involving a 1- or 2-hour drive, because of the overcongestion caused in part by New York's city traffic passing through. Some of the worst traffic jams in the New York metropolitan area occur on the Westchester parkways. 15/

The far greater numbers of Los Angeles County residences (approximately 40 percent of the dwelling units of the 14 southernmost counties of California) tend to swamp recreation areas in the adjacent counties of the six-county metropolitan region. 16/ Moreover the infiltration of ever-increasing Los Angeles County population tends to change the suburban character of the outlying areas. As population density increases in the outer portions of the area, more and more land which might have been used for recreation disappears with the result that the former city resident who has moved to the suburbs soon finds himself again in a thoroughly urban environment and forced to travel farther and farther to find adequate recreation. 17/ The outward rush of single-unit housing creates wave after wave of real estate development and real estate speculation. This places such high prices on any land which otherwise might be suitable for recreation that its use for this purpose is foreclosed. 18/ Thus the suburban resident of the Los Angeles metropolitan area finds himself having to travel farther and farther to find suitable recreation, but when he arrives, particularly on weekends, he may find the site overrun with his neighbors from the central city.

The mean level of income among suburban residents is probably higher than among those of the central city although the extremes of central city incomes may be greater. One-ninth of the suburban residents of the Chicago area have incomes of less than $5,000 as compared with one-third of the city residents. 19/ These higher income levels may enable the suburban residents to have greater access to outdoor recreation. Nevertheless, the suburban resident is still subject to

14/New York Study, ch. 4, Recommendation, 3: "Develop More Recreation for Children."

15/New York Study, ch. 3; "Access to the Countryside."

16/Los Angeles Study, table 2-3.

17/Ibid., ch. 2, "Land Use of the Lowlands"; ch. 3, "Recreation Areas"; ch. 5, "The Problems of Multiple Government Jurisdictions."

18/Ibid., ch. 5; "Mobility."

19/Chicago Study, ch. 2, "Outdoor Recreation and Place of Residence."

many of the same controls of physiography, traffic, site-crowding, and physical availability which restrict the inner city residents. This situation is not so difficult in Atlanta largely because the heavy concentration of the Negro population in downtown Atlanta probably means that this less mobile group is not a competitor with suburban whites for available recreation sites beyond the metropolitan region. The residential congestion along freeways leading from the metropolitan area is not yet so great as that experienced elsewhere. 20/

CONCLUSION

While metropolitan areas differ greatly in configuration and physiographic locations, they all exhibit a similar structural arrangement as between the older central city and the suburban range. It is in this latter area that the most rapid growth is occurring among all American metropolitan areas.

Theoretically suburban residents should have better access to close by outdoor recreation areas than do central city residents. However, there are exceptions. In both Los Angeles and New York large enough segments of the cities' population are sufficiently mobile as to dominate day-use and overnight recreation sites. By the sheer weight of their numbers city dwellers crowd suburbanites out of parks and off the highways that lead to them.

Low income city residents, particularly in the slum areas among recent in-migrants, minority groups, and elderly people, have little or no access to outdoor recreation except in neighborhood parks and playgrounds. These groups have far less than average car ownership and public transportation to many recreation areas is not available. Children of the central city in the high-density, low income neighborhoods and even many middle income neighborhoods need but do not have access to camp facilities.

20/The Atlanta Study, ch. 2, "Leisure Time Activities."

CHAPTER THREE

CHARACTERISTICS OF OUTDOOR RECREATION BEHAVIOR OF METROPOLITAN RESIDENTS

The history of cities contains many dark chapters, and it is small wonder that men are mistrustful of cities and doubtful of the merits of urban life. The city seems to deny so much that men value in life—open fields, fresh air, freedom of movement, the joy of outdoor living, and the virtues of calm and contemplation. Indeed, the reluctant and grudging concessions to these values in the life of the city have until recently been achieved only at the cost of lifelong dedicated struggle of a few people. On the other hand the needless sacrifice of these values which the process of urbanism extracts is the more common experience.

One of the difficulties immediately encountered is the transitional quality of metropolitan life. Examination of the socioeconomic subgroups in the American metropolis reveals a great deal of movement. When we consider the present size of our metropolitan population and its rapid growth, it becomes apparent that only a minority of Americans have a traditional urban background that extends more than a generation or two. Consequently, we are not sure that the outdoor activity preferences of today's urban residents are at all fixed as urban characteristics. They may be more representative of a previous nonurban background or evidences of income, age, education, or of occupation than of an indigenous urban culture.

People from rural backgrounds, from minority groups or off-shore islands are drawn into the slums of the central city. There is also a constant influx to the central city of young, single people who seek opportunity and excitement of big city life. With marriage, children, and improved economic status, there comes the search for the space of the suburbs and the single family residence. Then finally, in the later years after the marriage of the last child, there is the problem of the "empty nest" and possible migration back to a central city apartment. An interesting compromise is noted in the case of the northeast region, particularly in the New York-New Jersey-Philadelphia complex with the widespread ownership of second homes in the country or near the ocean front.

Studies conducted for ORRRC indicate that there is a limited but statistically significant difference in participation in outdoor recreation activities among urban residents, suburban residents, residents of areas adjacent to suburbs, and residents of outlying areas. 1/ In general urban residents tend to participate somewhat less in outdoor activities than do residents in the other three categories. This difference remains statistically significant when other factors, such as income, age, and sex are held constant. 2/ Suburban residents participate more than urban residents, although a considerable portion of this difference is accounted for by income, education, and occupation.

In terms of specific outdoor activities, urban residents engage more frequently in such activities as sightseeing, driving, picnicking, and swimming in preference to camping, fishing, and hunting, activities which involve more vigorous and perhaps more skilled activity. These are more popular with people in outlying areas. 3/ However, these differences in rates of participation should not obscure the fact that residents of large urban centers are the numerically dominant group in recreation areas. This is because the difference in participation is in most instances not very great and the participation rates for urban centers when applied to large urban population will produce large numbers.

Much of this demand is for day-use and must be satisfied close to the metropolitan residence. This is probably because people are unwilling or unable to spend more than 2 hours in reaching the recreation area which is somewhere within a maximum range of 60 to 120 miles under weekend traffic conditions from home to site. The miseries of traffic congestion that confront the family seeking a 1-day outing have a tendency to limit distance traveled.

Thus, in order to serve the greatest need of metropolitan residents, the recreation area, park, or beach must be within 1 or 2 hours driving distance. The implication of this observation is that if day-use recreation areas are not accessible within this time and distance limit, then day-use type recreation activity is foreclosed to many metropolitan area residents. Or else—in the case of inadequate provision within the permissible time-distance zones—available facilities will be inundated beyond limits of enjoyment for many, and the use-pressure will cause deterioration of the recreation site itself.

Much of the pleasure of outdoor recreation is related to feelings of freedom of movement in a spacious environment. Consequently the day-use recreation areas of the metropolitan areas must truly be out-of-doors, that is, in the open country. But how much open countryside is available in a 1- or 2-hour drive from a large metropolitan center?

1/ORRRC Study Report 20, Eva Mueller and Gerald Gurin with the assistance of Margaret Wood, "Participation in Outdoor Recreation." Commission Report 19, National Recreation Survey conducted for the Commission by the Bureau of the Census, National Recreation Survey.

2/ORRRC Study Report 20, ch. 2, "Place of Residence and Region."

3/Ibid., table 12.

Table A-2. Relationship between place of residence and frequency of engaging in specific outdoor activities by adults 18 years of age and over

[Frequency of Engaging in Activity Last Year]

Specific activity	Often (percent)	A few times (1-4 times)	Not at all	Frequency n.a.[1]	Total (percent)	Number of cases
Outdoor swimming or going to a beach:						
Cities	23	21	54	2	100	799
Suburban areas	36	22	41	1	100	733
Adjacent areas	28	17	54	1	100	534
Outlying areas	18	16	65	1	100	691
Boating and Canoeing:						
Cities	9	16	73	2	100	799
Suburban areas	13	20	66	1	100	733
Adjacent areas	15	12	72	1	100	534
Outlying areas	11	15	73	1	100	691
Fishing:						
Cities	13	16	69	2	100	799
Suburban areas	19	19	61	1	100	733
Adjacent areas	22	16	61	1	100	534
Outlying areas	26	20	52	2	100	691
Hunting:						
Cities	5	5	88	2	100	799
Suburban areas	7	6	86	1	100	733
Adjacent areas	10	9	80	1	100	534
Outlying areas	14	14	71	1	100	691
Skiing and other winter sports:						
Cities	2	4	92	2	100	799
Suburban areas	3	4	92	1	100	733
Adjacent areas	3	3	93	1	100	534
Outlying areas	2	4	93	1	100	691
Hiking:						
Cities	6	12	80	2	100	799
Suburban areas	8	12	77	3	100	733
Adjacent areas	7	12	79	2	100	534
Outlying areas	8	9	81	2	100	691
Driving for sightseeing and relaxation:						
Cities	46	23	29	2	100	799
Suburban areas	49	24	24	3	100	733
Adjacent areas	50	24	25	1	100	534
Outlying areas	42	23	32	3	100	691
Nature and bird walks:						
Cities	4	8	86	2	100	799
Suburban areas	6	9	83	2	100	733
Adjacent areas	7	9	83	1	100	534
Outlying areas	6	6	86	2	100	691
Picnics:						
Cities	29	36	34	1	100	799
Suburban areas	37	35	26	2	100	733
Adjacent areas	32	34	33	1	100	534
Outlying areas	27	32	40	1	100	691
Camping:						
Cities	5	5	88	2	100	799
Suburban areas	8	9	82	1	100	733
Adjacent areas	5	8	86	1	100	534
Outlying areas	8	12	78	2	100	691
Horseback riding:						
Cities	2	3	93	2	100	799
Suburban areas	3	5	92	1	100	733
Adjacent areas	3	2	94	1	100	534
Outlying areas	4	4	91	1	100	691

[1] Not available.

Source: ORRRC Study Report 20, table 13.

For those people who reside in the most densely settled portions of the vast New York-New Jersey-Philadelphia metropolitan complex, the open country is inaccessible to a considerable extent. 4/ Mercer County, N.J., with about 4,300 square miles of open countryside within a 1 hour's drive has the best access in the region. But in contrast, Nassau County, N.Y., has only 180 square miles, and the residents of New York County (Manhattan) have only 730 square miles of open country accessible within a 1-hour drive. Within a 2-hour drive, the recreationists of Chester County, Pa., will have access to 14,400 square miles of open country, but Suffolk County, N.Y. residents, at the other extreme, will have to be satisfied with finding recreation on 730 square miles after a 2-hour drive.

In the Chicago metropolitan area, there is further evidence of great need for day-use areas close to place of residence:

> Three generalizations, therefore, are possible from a study of available data. The first is that group picnicking is widespread in popularity, and day outings of this type take place at the closest suitable place. The second is that while no overall difference exists between participation rates between Chicago and the builtup suburban area, the incidence of group picnicking is less in the lower income neighborhoods of Chicago. Place of residence does play a part—juxtaposition to Lake Michigan tends to orient activity toward lake front opportunities while somewhat less group-picnicking activity takes place among the lower quartile income groups in the city than among their counterparts in the suburbs. 5/

The Commission's Atlanta Study makes several references to the need for developing regional parks to serve the day-use needs of the Atlanta metropolitan region. 6/ Although it is apparent also that many Atlanta residents have ready access to open country, well within an hour's drive of place of residence, nevertheless, there is evidently a failure to recognize the specific and separate character of day-use needs of the Atlanta area. Several public areas of a day-use type are located beyond the limits of day-use travel for St. Louis residents but nearby day-use facilities are overrun and in short supply. With respect to the Los Angeles metropolitan area, designated as the six southernmost California counties:

> The trips made by Los Angeles and San Diego residents for day recreation were typically much shorter than those of other southern California residents, probably because of the nearness of many excellent beaches. For example, 44 percent of the Metropolitan Los Angeles and 74.5 percent of the San Diego population traveled less than 20 miles for their recreation, whereas 55.9 percent of the Riverside, and 61 percent of the San Bernardino population traveled 30 or more miles for recreation. 7/

The significance of this statement is readily apparent in the overwhelming visitor-load on summer weekends. The beaches are so accessible that stays of 2 or 3 hours are common, and on a weekend when the temperature in Los Angeles reaches 95° or 100° with a heavy smog pall, the beaches are literally mobbed to the point where one must thread his way between closely packed blankets and umbrellas. At such a time it is not uncommon for more than a million people to visit southern California beaches in a single day.

The specific activities in which residents of large metropolitan centers engaged in the summer of 1960 are shown in table 3 below.

Table A-3. Actual number of outdoor recreation occasions (million) by persons 12 years of age and over in 17 selected recreation activities, summer of 1960, United States and standard metropolitan statistical areas of 1 million population and over, in rank order

Activity	United States	Rank order	SMSA (1 million and over)	Rank order
All	4,377	.....	1,606	.....
Driving for pleasure	872	1	298	1
Swimming	672	2	260	3
Walking for pleasure	566	3	277	2
Playing outdoor game and sports	474	4	187	4
Sightseeing	287	5	118	5
Picnicking	279	6	106	6
Fishing	260	7	58	9
Bicycling	228	8	71	7
Attending outdoor games	172	9	59	8
Boating	159	10	56	10
Nature walks	98	11	37	11
Hunting 1/	95	12	14	13
Camping	60	13	17	12
Horseback riding	55	14	11	16
Water skiing	39	15	12	15
Hiking	34	16	14	14
Attending outdoor concerts	27	17	11	17

1/Fall of 1960.

Source: National Recreation Survey, Commission Report No. 19.

4/New York Study, ch. 3, "Access to the Countryside."

5/Chicago Study. Cases supplementary to ch. 2 and 3, "Group Picnics."

6/The Atlanta Study, ch. 3, sec. 4.

7/Statement provided by Dr. Fred E. Case, Associate Professor, Graduate School of Business Administration Real Estate Research Program, University of California, Los Angeles in unpublished material developed for the Los Angeles Study.

This table indicates the 17 outdoor recreation activities most frequently engaged in for both the Nation as a whole and for residents of large metropolitan areas. Table A-4 below indicates groups of activities in terms of the principal resources on which they depend.

Table A-4. Number of outdoor recreation occasions by persons 12 years and over residing in large standard metropolitan statistical areas by types of activities—summer 1960

Activity type	SMSA's 1 million and over number of occasions (million)
All occasions	1,606
Nonlocale oriented	730
Water oriented	386
Organization oriented	257
Land area	137
Trail oriented	96

Nonlocale oriented activities:

- Pleasure walking
- Pleasure driving
- Sightseeing
- Nature walks

Organization oriented:

- Playing outdoor games
- Attending outdoor concerts
- Attending outdoor sports

Water oriented activities:

- Swimming
- Fishing
- Boating
- Water skiing

Land area oriented:

- Camping
- Hunting
- Picnics

Trail oriented:

- Bicycling
- Horseback riding
- Hiking

The total number of separate days in the summer of 1960 on which these activities were engaged was 1,606 million, 37 percent of the national total of 4,377 million outdoor recreation occasions in the same period. The six most popular activities among metropolitan residents which accounted for 100 million or more occasions each are:

Driving for pleasure
Walking for pleasure
Swimming
Playing outdoor games or sports
Sightseeing
Picnicking

These six activities account for 1,246 million separate occasions or 78 percent of the total. Aside from swimming and playing outdoor games or sports, the skill requirements for this group of activities are quite low. Similarly, the equipment requirements are also low, except for the playing games category. The swimming classification probably included a considerable amount of nonswimming activity, such as lying on the beach and wading or playing in the water.

The largest number of activities in a single group are those designated in table A-4 as "nonlocale oriented." The 730 million activity occasions indicated for this group, represent 45 percent of the total outdoor recreation activity occasions of residents of large metropolitan areas. These "nonlocale" oriented activities do not require a specific place or resource, nor special skills or equipment. There is some lack of clear distinction between "sightseeing" and "driving for pleasure" although this disappears when both activities are grouped in the larger classification. It might be maintained that sightseeing does have specific resource requirements and is not properly "nonlocale" oriented. However, the requirement may be very different for different individuals so that no one locale is in fact specified by the "sightseers" considered as a group. In that sense the requirement is "nonlocale" oriented.

The importance of water as an outdoor recreation resource is reflected in the 386 million occasions which required access to water. Moreover, swimming, the third most popular outdoor recreation activity among metropolitan residents, accounted for 260 million occasions, 16 percent of the total. But water is an important environmental factor. People like to engage in outdoor activity near streams, lakes, or ocean front. Also recreation outings frequently involve several activities, one of which may involve water oriented activity. For this reason the 260 million summer swimming activity occasions might be added to the total of nonlocale oriented summer activities—the national total of nonlocale oriented summer activities plus swimming is 2.5 billion and for metropolitan residents is about 1 billion, or 40 percent of the national total. The portions which the totals of the nonlocale oriented activities plus swimming bear to national and metropolitan totals is 57 and 62 percent, respectively. Thus this group of activities is somewhat more popular among residents of large metropolitan centers than for the total national population. In contrast, the 11 remaining activities (table A-3) total 616 million occasions for metropolitan residents which is about 33 percent of the corresponding 1,882 million activities of the national population.

Thus there is reason to believe that residents of large metropolitan centers engage in relatively passive recreation activities which require little skill or equipment to a larger extent than the population as a whole. The rank ordering of activities (table A-3) seems to bear this out. In contrast to the total population 12 years of age and over, metropolitan residents participated in walking more than in swimming; bicycling more than fishing; camping more than hunting; and hiking more than horseback riding.

The qualities which these activities share in common are rather limited skill and equipment requirements and the relative lack of physical exertion and, aside from the sightseeing component, rather modest landscape and physiographic specifications. These are then activities which can be engaged in without a great deal of fuss or bother and in which several or all family members can engage as a group. The economic burden is limited to gas and oil, car depreciation, and perhaps the cost of a meal or two for the family. The principal outlay is the time and effort of driving the family car. The principal impediments

are traffic congestion and overcrowding of the recreation site expressed either as lack of available parking space or lack of access to picnic grounds and tables, toilets, and drinking water.

MOBILITY

The relative degree of mobility is an important characteristic of the outdoor recreation behavior of people. In 1959, some 74 percent of American families owned an automobile; some 50.3 million automobiles owned by families and individuals averaged over 9,500 miles of travel in 1959. 8/

There is apparently considerable difference in the rate of car ownership by place of residence; about 55 percent of households in large metropolitan centers reported car ownership as compared to 87 percent of households in suburban portions of metropolitan areas among which are also the bulk of the multicar owning families. 9/

Car ownership widens the area of choice of outdoor recreation activities. Families with cars are able, granting favorable or uniform traffic conditions, to select among available sites the particular recreation site which more nearly suits their taste. They are also able to repeat the experience quite frequently. Thus the relative population magnitude of urban centers and the frequency of recreation trips are important considerations in appraising the volume of recreation participation.

In a single 3-month summer period the frequency with which residents of large metropolitan areas engage in a single activity, such as swimming, can result in a very intensive use of swimming facilities. For the country as a whole in the summer of 1960, 52 percent of the population 12 years of age and over residing in the urban portion of large metropolitan areas engaged in swimming. Each such person engaged in swimming 11.4 times in that period. To illustrate the effect of this behavior let us assume that a central city of 1 million persons would have approximately 722 thousand residents 12 years of age and over. Thus the combined effect of population concentration and frequency of swimming is to generate over 4 million visitors to the swimming sites largely concentrated within a 1- or 2-hour automobile drive of the central city in the 3-month summer season.

The American people value their ability to travel; it receives most frequent mention as a desired leisure time activity. 10/

The difference of 8 percent between suburban and city vacation percentage appears under multivariate analysis to result almost entirely from the higher income of suburban residents. It is also possible, although the hypothesis cannot be tested since data are lacking, that the somewhat lower rate of car ownership mentioned above may be a significant effect of lower incomes in the higher residential density section of the central city.

Vacation trips, since they involve relatively long periods of time, include some fairly extensive travel. However, nearly two-thirds of such travel is confined to the State or region of residence. The remaining travel is interregional or to foreign countries. 11/ The trips varied in length from 100 to 500 miles (one way) with a 400-mile one-way median and the median time per vacation trip of 8 to 9 days. These trips were usually made in the family car and often included children as well as parents.

Outdoor recreation was a part of vacation travel for 75 percent of adult vacation travelers and they engaged on the average in 1.9 different recreational activities while on such trips away from home. 12/

Table A-5. Vacation travel by adults 18 years and over by place of residence

Place of residence	Took vacation trip 1/ (percent)	Took vacation at home (percent)	No vacation (percent)	Total (percent)	Number of cases (percent)
Cities	42	15	43	100	799
Suburban areas	50	14	36	100	733
Adjacent areas	40	13	47	100	534
Outlying areas	40	8	52	100	691

1/A vacation trip is defined as a trip of more than 3 days which the person interviewed regarded as a vacation.

Source: Adapted from "Participation in Outdoor Recreation," ORRRC Study Report 20, table 37.

Table A-6. Relationship between place of residence and outdoor recreation away from home 1/ (includes only people who engaged in outdoor recreation)

Place of residence	Engaged in outdoor activities while on a trip (percent)	Engaged in outdoor activity only at home (percent)	Total (percent)	Number of cases
Cities	53	47	100	631
Suburban areas...	60	40	100	630
Adjacent areas...	49	51	100	427
Outlying areas ...	47	53	100	532

1/Includes those who engaged in at least 2 activities or in any 1 activity more than 4 times on a weekend or vacation trip. Also refers only to adults 18 years of age and over.

Source: Adapted from Mueller and Gurin op. cit., table 49, Relationship between Demographic Characteristics and Outdoor Recreation away from Home.

8/ORRRC Study Report 23; A. James Goldenthal, "The Future of Travel in the United States." Tables: Simplified Projection Model for Number of User-Operated Vehicles: 1976 and 2000; Percent of Families Owning Automobiles; Auto Travel Volume: 1941-76.

9/Ibid., ch. 4, "Suburban and Regional Trends."

10/Mueller and Gurin, op cit.

11/Ibid., ch. 4.

12/Ibid., p. 110.

Here again the 7 percent difference between city and suburban areas is not the result of residence as such but is explained almost completely by income, education, and occupation. On the other hand the hypothesis that people in suburban areas prefer their own backyards as recreation areas is not supported at all.

The following table indicates the volume of participation in weekend travel and vacation travel.

Table A-7. Weekend travel by place of residence

Place of residence	Took weekend trip[1] (percent)	Took vacation trip only (percent)	Took neither (percent)	N.A. whether took trip (percent)	Total (percent)	Number of cases
Cities	20	31	45	4	100	799
Suburban areas	23	36	39	2	100	733
Adjacent areas	17	29	49	5	100	534
Outlying areas	16	30	48	6	100	691

[1]Includes people 18 years of age and over who took weekend trips only and those who took both vacation and weekend trips.

Source: Mueller and Gurin op. cit., table 38, Weekend Travel by Socioeconomic Characteristics.

It is clear that both city and suburban residents take more weekend trips than those residing farther from the city. Not only do people want to travel in their leisure time but they are able in very large measure to attain this objective because of the incidence of automobile ownership. These travels for the most part do not exceed 500 miles though a sizeable portion travel to a greater distance. However, a large part of this overnight, weekend, and vacation travel involves families with children and also involves engagement in outdoor recreation and visits to State and Federal parks.

It seems clear that place of residence, as such, is not responsible for lower or higher rates of travel although suburban residents, because of higher incomes and correspondingly greater incidence of car ownership do travel more than individuals living in the city. However, the central cities generate a very large proportion of all such travel. This behavior seemed to point to a predominant desire for travel by all classes of residents in the metropolitan area. Moreover, the relatively short distances involved imply a search, not for points of rare natural beauty, but rather for open space, for a change of scene and the opportunity to engage in moderately active recreation. Thus the metropolitan agglomerations contain a vast potential for movement principally by automobile. This simultaneous movement, at periodic intervals, of large numbers of people radiating out of the metropolises and criss-crossing their travel trajectories makes outdoor recreation travel an important aspect of American life.

VACATIONS, TRIPS, AND OUTINGS

Data from the National Recreation Survey makes possible a comparison of the behavior of several residential classifications during vacation, overnight recreation trips, and day outings. This information concerns the numbers of persons 12 years of age and over engaging in vacations, trips, and outings, the frequency of engagement, the distance traveled, and the time and money expenditures by season of the year for each class of travel.

There were approximately 130 million persons 12 years of age and over in the United States at the time the survey was conducted (September 1960-June 1961). Approximately 44 million of these persons resided in the urban portion of standard metropolitan statistical areas containing 1 million or more persons.

Volume of recreation travel

The following table shows the annual per capita distribution of recreation travel in the 12-month period—June 1960-May 1961.

Table A-8. Number of vacations, outdoor recreation trips, and outings per person 12 years and over, June 1960-May 1961 by place of residence

Place of residence	Vacations	Trips	Outings
In SMSA:			
Urban:			
Over 1 million	0.66	0.80	6.5
Under 1 million	.60	.94	6.0
Rural	.65	1.13	6.5
Not in SMSA:			
Urban	.64	.77	5.6
Rural farm	.39	.43	5.3
Rural nonfarm	.57	.86	6.5

Source: National Recreation Survey, ORRRC Study Report 19, table 5.38.

Persons in large metropolitan centers take slightly more vacation trips than residents of rural areas near such large centers or of the smaller urban centers. Although, as indicated above, the residents of large urban agglomerations face a number of handicaps when they go on day-outings, still they manage in the course of a year to have about the same outings per capita as the residents of rural

areas who do not encounter the same obstacles. However, large urban centers do not indicate as large a per capita participation in overnight recreation trips as several other residential classes. Indeed, in this respect residents of large cities fall below those in all other residential classes except residents of the smaller urban centers and of the rural farming areas. This might be explained by the possibility that a substantial amount of recreation travel by persons resident of areas outside large metropolitan centers involves travel to these larger centers for some forms of recreation not otherwise available whereas the residents of these larger centers can enjoy such recreation without travel.

Seasonally, the larger portion of all recreation travel occasions of all metropolitan dwellers 12 years of age and over is concentrated in the summer and fall quarters, but the pattern of distribution of trips is not very different for all classes of residents by season. There were about 29 million vacation trips, 35 million short overnight recreation trips and 286 million day outings distributed among the 44 million residents of large metropolitan centers 12 years of age and over. However, there is an observable tendency for the activities to occur in larger numbers in the first three or highly urbanized classes of residents than in the last three classes indicated in the table. However, the proportion in the population who did take such trips is remarkably high as indicated in the following table which shows the percentage of persons taking recreation outings.

It is clear from this table that the greatest pressure on those recreation sites within a few hours travel of large cities will occur in the summer months when some 26 million persons will make on the average 5.7 such trips. The fall, winter and spring quarters will not be as popular either in terms of the numbers of people or frequency. It is also possible that regional variations for winter and spring months would show relatively greater declines or increases than the national averages indicate. However, even at these lower rates a very considerable volume of activity is indicated.

There is greater participation in summer outings by residents of rural areas located close to metropolitan centers. Yet those metropolitan residents who take such outings tend to engage more often in this activity than residents in other classifications.

Table A-9. Percent of persons 12 years and over 1 or more outdoor recreation outings and outings per person with 1 or more outings by season of the year, June 1960-May 1961 and place of residence

Place of residence	Percentage of persons with 1 or more outings[1]				Outings per person with 1 or more outings[1]			
	I	II	III	IV	I	II	III	IV
In SMA:								
Urban:								
Over 1 million	60	36	17	24	5.7	4.5	3.6	3.2
Under 1 million	60	44	17	34	5.0	3.6	3.2	2.7
Rural	63	48	25	38	4.5	4.4	2.9	2.1
Not in SMA:								
Urban	52	42	13	33	5.1	3.8	2.8	2.8
Rural, farm	51	42	13	28	3.5	4.6	6.5	2.7
Rural, nonfarm	57	35	20	29	5.6	4.3	4.9	2.8

[1] I–June-August 1960; II–September-November 1960; III–December 1960-February 1961; IV–March-May 1961.

Source: National Recreation Survey, ORRRC Study Report 19, table 5.40.

Travel distance

The distance which people travel is a significant index of their desire for outdoor recreation. The following table shows per capita in the population 12 years of age and over in each residential class, the amount of recreation travel in the year June 1960-May 1961.

Residents of large metropolitan centers travel somewhat longer distances per capita for vacations

Table A-10. Distance traveled per person 12 Years and over on vacations, outdoor recreation trips, and outings, June 1960-May 1961, by place of residence

[Round trip miles per person]

	All occasions (miles)	Vacations (miles)	Trips (miles)	Outings (miles)
In SMSA:				
Urban:				
Over 1 million	1,501	974	192	335
Under 1 million	1,371	831	208	332
Rural	1,498	833	266	399
Not in SMSA:				
Urban	1,197	765	156	276
Rural farm	727	410	90	227
Rural nonfarm	1,072	589	178	305

Source: National Recreation Survey, ORRRC Study Report 19, table 5.42.

than do residents in other classifications. On shorter trips and outings, however, the per capita travel of rural neighbors of urban portions of large SMSA's travel somewhat longer distances. Again this difference may represent travel to the larger center for outdoor recreation purposes by residents in the smaller communities and rural areas plus the fact that the same driving time may mean less mileage per capita for urban than for rural travelers because of traffic congestion. Also to be noticed is the greater overall per capita distance of all SMSA classes of residents representing the more highly urbanized residential locations as compared to non-SMSA residents. The larger portions of all this travel occur in the summer months. Fall travel mileage is, roughly, one-half of the summer mileage, and winter travel distances are smaller than in the other seasons.

The following table shows the average distances traveled and days spent by those persons 12 years of age and over who reported engaging in vacation and trip travel. These figures reflect the average amount of travel and average amount of time spent on vacations and shorter recreation trips by those persons in the population who engage in these activities.

Table A-11. Average per person vacation and trip distance traveled and days away from home for the year June 1960-May 1961, by place of residence

Place of residence	Vacations		Trips	
	Round trip miles	Days	Round trip miles	Days
In SMSA:				
Urban:				
Over 1 million	1,476	11.5	240	2.4
Under 1 million	1,385	10.0	221	2.6
Rural	1,282	8.8	235	2.4
Not in SMSA:				
Urban	1,195	12.0	203	2.5
Rural farm	1,051	9.5	209	2.3
Rural nonfarm	1,030	10.4	207	2.6

Source: National Recreation Survey; ORRRC Study Report 19; tables 5.45, 5.46.

In terms of distance traveled by persons who took trips and outings, the first three residential classes in the table above indicate longer distances for both vacation and trips than the latter three less urbanized classes with residents of large metropolitan centers traveling the greatest distance. Such persons took longer vacations than those in other residential classes except for non-SMSA urban residents but fell below several other residential classes in the amount of time spent on the average short trip.

Time expenditures

The vacationing residents of large metropolitan centers spent 11.5 days on the average vacation in the 12-month period June 1960-May 1961 which is next to the largest interval—12 days, reported by residents of small urban centers. There does not appear to be any consistent relation between residential class and the number of days spent either on vacation or on shorter trips. However, when time spent away from home for all recreation travel is considered on a per capita basis by residential classes it seems that the more urbanized areas have higher scores than the less urbanized.

Days per person per year 1/
(June 1960-May 1961)

In SMSA-urban over 1 mil.	16.0
In SMSA-urban under 1 mil.	14.4
In SMSA-rural	14.9
Not in SMSA-urban	15.2
Not in SMSA-rural farm	10.0
Not in SMSA-rural non-farm	14.6

1/ National Recreation Survey, ORRRC Study Report 19, table 5.43.

And residents of larger urban centers spend more days away from home for vacations and short trips than any other residential class.

Financial outlay

In these days of affluence and full employment, the leisure time dedicated to recreation may be a good guide to the relative recreation appetite and the capacity to satisfy it. But generally, willingness to spend hard cash is the real test of the relative demand for goods and services. The following table indicates the average expenditures per capita of residential classes in connection with recreation travel.

Table A-12. Expenditures away from home per person 12 years of age and over on vacations, outdoor recreation trips and outings, June 1960-May 1961, by place of residence

Place of residence	All occasions	Vacations	Trips	Outings
In SMSA:				
Urban:				
Over 1 million	$119.6	$88.4	$13.3	$17.9
Under 1 million	77.8	56.7	9.1	12.0
Rural	69.2	42.8	11.7	14.7
Not in SMSA:				
Urban	61.5	44.3	7.3	9.9
Rural farm	27.2	17.1	3.7	6.4
Rural nonfarm	45.8	25.6	8.1	12.1

Source: National Recreation Survey; ORRRC Study Report 19, table 5.41.

This array seems to reflect not only the willingness of residents of large metropolitan areas to pay for recreation but probably also the superior economic status of many of them. These people spend more in the aggregate for recreation travel and also

more in each category of recreation travel. Overall residents of large metropolitan centers average 41.8 dollars per capita more than the per capita average of the next highest residential classification (residents of metropolitan centers under 1 million) and 92.4 dollars more per capita than the lowest average per capita expenditures registered by residents of farming areas. The aggregate total expenditures of this large SMSA residential class for recreation associated travel is over 5 billion dollars annually. Of this amount, over 750 million dollars would be spent on the approximately 280 million total day-outings engaged in by this residential class.

SUMMARY

Among residents of large metropolitan centers there is a marked propensity to engage in travel related to outdoor recreation. In terms of time, distance traveled, travel expenditures, and frequency of such occasion the ranking of residents of large metropolitan areas is equal to or greater than similar behavior by individuals in other residential classes. Moreover, even in those travel categories in which residents of larger metropolitan centers are outranked by other residential classes such ranking classes also tend to fall in an urbanized residential class. Thus when the various indices are expanded to the scale of the residential population of large metropolitan centers, dominance of this class as a participant is clearly demonstrated particularly in the summer and fall quarters. The data then imply the magnitude of outdoor recreation participation among large urban residents and its potential pressure on resources. This would seem to follow from the fact that large metropolitan centers contain more people, control more wealth, have more regular patterns of employment and hence more regular leisure than do the smaller residential units. On the other hand, the differences between per capita averages by residential class in a number of these tabulations are not very great, probably not great enough to support conclusions about recreation behavior based on residence class. In fact, the only decisive differences seem to be those based on higher incomes and possibly somewhat better education and occupational status. Thus large SMSA's dominate the outdoor recreation scene because of numerical and economic superiority and not because of inherent differences attributable to residence.

CHAPTER FOUR

THE DISTRIBUTION AND LOCATION OF OUTDOOR RECREATION RESOURCES FOR METROPOLITAN RESIDENTS

Outdoor recreation is provided to large metropolitan centers in a variety of forms and under several different conditions. To some extent these forms and conditions are related to the development of the large population agglomerations. This is so because the impact on natural resources, including resources adaptable for outdoor recreation of these large metropolises affect the quality and location of outdoor recreation as well as its availability. These effects arise in part from the heavy demands imposed by metropolitan centers on adjacent land and water resources. But important effects may stem also from the particular conditions of metropolitan living and the role of individual centers in a national metropolitan system.

THE METROPOLITAN INFLUENCE

Both intermetropolitan coordination and metropolitan specialization probably exert influences reflected in the occupational concentration, in the social structure, in residential preferences, and in recreational propensities and behavior. The dominant economic functions of Atlanta permit it to exist in a substantial agricultural region with a considerable amount of surrounding open space. In contrast, the individual elements of the great New York-New Jersey-Philadelphia agglomerations, dependent on a specific location, have long since industrialized and urbanized adjacent lands and water resources and put them to work in behalf of their particular metropolitan needs.

If one accepts the concept of an urbanized nation in which major metropolitan centers, arranged in hierarchy of functions, are the foci of economic forces and in which these centers also perform related and coordinated functions, then it follows that each metropolitan center is an entity which exerts influence over an adjacent natural resource region. At the same time some of the influences which emanate from each center arise out of the total metropolitan system of which it is a part and in which it functions. Thus the emergence of the metropolitan center represents not only a series of localized developments but also the dynamics of a total national arrangement.

For this reason, development of outdoor recreation for the residents of metropolitan regions has wide implications. These recreation developments relate not only to a single population concentration but to the entire nation.

To the extent that reasonably adequate recreation outlets are provided for the recreation needs of the residents of a metropolitan center, the residents of other communities in the region or in adjacent regions may be able to find reasonable satisfaction. But if the outlets are too limited, then it is likely that superior numbers of metropolitan residents will tend to control the conditions of use of available facilities whether designed primarily for their use or not. Moreover, the very considerable mobility of individual recreationists enables them to move across political jurisdictions, including State lines and to exert dominant influence on the kind and character of recreation activities in regions which may be attempting to serve quite a different population concentration.

It is by now well established that the Yosemite Valley portion of Yosemite National Park has been converted from its original purpose, the preservation of scenic grandeur, into a playground for residents of the Los Angeles metropolitan region. Again, the State parks of Monterey County, Calif., are about 270 miles from Los Angeles and about 125 miles from San Francisco. Yet in recent years the annual visitation to these parks by Los Angeles County residents was nearly 250 thousand and ranked third in the volume of attendance at all State parks by Los Angeles County residents as against sixth for all users. 1/ These comparative figures might be interpreted to mean that the dominant use of this area by large numbers of Los Angeles County people had the result of crowding out other California residents particularly those from the San Francisco Bay area. Again overcrowding of Wisconsin resorts results from the proximity of Chicago and Milwaukee, and numerous other communities. This condition burdens Wisconsin taxpayers and adds to the cost of the maintenance of the physical resources of the recreation areas in Wisconsin, to say nothing of the discomfort of residents of smaller Illinois and Wisconsin communities seeking similar accommodations.

In addition to the overall domination of outdoor recreation by national metropolitan systems, there is a characteristic metropolitan recreation dynamic. This derives from the daily, weekly, and seasonal ebb and flow of metropolitan life plus a widely prevalent propensity to engage in outdoor recreation.

More particularly, we are concerned here, not with the long distance recreation traveler but with those who seek recreation in large numbers at relatively short distances from the metropolitan center, people who seek a day-outing involving an average round trip of not much more than 100 miles with maximum trips up to 250 miles. This is the group which makes the preponderant impact on resources, whose needs require a substantial investment in development and facilities, and which more or less dictates the kind

1/Los Angeles Study, table 2-3, Los Angeles County Residents Attendance at State Parks and Distance to Such Parks.

of resources to be mobilized as well as the kind and amount of development.

As we indicated previously (table A-8), residents of metropolitan centers of over a million population average annually between 6 and 7 day-outings per capita, largely in the summer and fall. The kinds of resources which are mobilized and developed for these people are those which facilitate some half dozen or so simple activities requiring no particular skill or much equipment: walking, picnicking, swimming, playing games, sightseeing and driving for pleasure. The principal resource requirement for such activities are land and water areas conveniently located with respect to the population center. The physical specifications of such recreation sites permit the inclusion of land with considerable slope and topographic irregularity although some amount of fairly level land is essential. Some tree cover for shade purposes is indispensable for summer and fall use, particularly in picnic areas in most parts of the country although artificial shade structures are sometimes utilized in arid areas. In addition to the specifications of the recreation site itself, certain environmental conditions are important—principal among these is creation or preservation of the illusion of spaciousness. The recreationist seeks to engage in activities in an environment which contrasts with the confinements and regulation of movement enforced by the disciplines of metropolitan existence. Thus qualities of openness and spaciousness are needed in the approaches and surroundings of the recreation as well as at the site itself.

In this connection attention is called to the tendency to impair the quality of the outdoor environment adjacent to large metropolitan centers by the poor location of certain metropolitan artifacts which are imposed on open space surrounding such agglomerations. The study director of the New York Study says:

"I, for one, am convinced...that the open countryside is not being gobbled up by urban development. It is, however, becoming lost to outdoor recreation because it is becoming thoroughly uglified by a scatteration of metropolitan artifacts like billboards, gas stations, custard stands, and diners. These structures have been designed and erected not to serve rural needs, but to pander to the 'tastes' of recreating urbanites with purchasing power.

"How important will pleasure driving and sightseeing be when the countryside is completely uglified? How much outdoor recreation will a summer house provide if its picture window overlooks a gas station? How useful is a new park that must be reached through an alley of billboards?" 2/

SELECTION AND DISTRIBUTION OF RECREATION RESOURCES

The selection of recreation sites now used by metropolitan residents, and their development and management have followed no consistent pattern except that of inconsistency. Indeed, the entire historical process of selection and development of outdoor recreation sites reflects a range of decisions based on somewhat ad hoc personal judgment without systematic criteria or systematic inquiry into the needs or preferences of the metropolitan user. Some of the recreation sites were originally located and developed for purposes no longer germane to the present outdoor recreation needs of metropolitan residents. An example of this is the Cook County Forest Preserve District formed in 1915 which presently provides a mass outdoor recreation outlet for residents of the Chicago metropolitan area. Yet the original concept was not recreational use but natural preservation. This idea still persists to some extent in spite of 15 million annual visits to the reserve. 3/

An even more exaggerated situation exists with respect to the Adirondack State Park program in New York—an area where even today recreation development has been subordinated to concepts of preservation and conservation with minimum use.

One general conclusion, however, is possible: recreation as a purpose has not enjoyed, in past times, a very high priority, either as an object of private or public investment. 4/

Publicly provided outdoor recreation is sometimes awkwardly located with respect to place of residence of users and consequently serves inefficiently. Also, there are indications, with marked exceptions, that privately operated recreation facilities have often been developed as a side line to more highly valued pursuits and many such enterprises are small, undercapitalized, and frequently understaffed. More frequently such establishments cater to a selective rather than a mass trade. 5/

It seems to be a paradox of outdoor recreation resources that the areas of greatest need are often the most poorly endowed with recreation opportunities. The areas of greatest recreation opportunities on the other hand are often remote from population centers. 6/

The importance of the distribution of recreation resources in the hinterland of great population centers has been emphasized in several of the Commission's studies of outdoor recreation for five great American metropolitan areas. In some instances it is not the lack of available land and water resources in the metropolitan hinterland which lies at the center of the problem of the recreation resources; rather it is the spatial distribution of the designated recreation areas over the region.

New York-New Jersey-Philadelphia

At first one would presume that the heavily populated northeast quadrant of the Nation where over one-quarter of the population resides and which contains

2/Sumner Myers, letter to L. I. Hewes, Jr., Chief, Forecasts and Economics Studies Group, Outdoor Recreation Resources Review Commission, April 26, 1962.

3/See Chicago Study, ch. 3: "County Forest Preserves," "Cook County Forest Preserve District."

4/Loss Angeles Study, ch. 2, first paragraph and "Continuing Crisis."

5/ORRRC Study Report 11, "Private Outdoor Recreation Facilities," Synopsis, V to XII.

6/New York Study, ch. 2, "Access to the Countryside," Los Angeles Study, ch. 2.

only 4 percent of the publicly designated recreation acreage of the 48 contiguous States would have an absolute scarcity of available recreation resources, but on closer examination this turns out not to be true:

> ... Thus within 120 miles of the New York-Philadelphia axis there are a total of 72,000 potential recreation sites, a surprisingly large number.
>
> The supply of potential sites is in fact probably so large that a good number of them would undoubtedly remain available in spite of the intensive demands of subdivision housing and industry. 7/

Part of the explanation for this rests on the natural endowments of this particular region. However, it is probable that it is a condition which, on closer examination, may be found to exist in other regions. But in the case of New York, an intensive analysis has been more or less enforced because of difficult problems of providing outdoor recreation for the New York agglomeration. In this northeast quadrant the topographic relief is fairly low, water is abundant and widely distributed, and there are large areas of tree cover. Almost any open space anywhere in the region is susceptible of adaptation for an outdoor recreation site.

In the New York-New Jersey-Philadelphia metropolitan complex privately owned recreation resources provide a significant recreation outlet. The number of summer or vacation homes is large and is growing. 8/ Near one New Jersey lake there are approximately 15,000 homes, and similar developments exist throughout the area. The Catskill area near New York City and the Poconos provide impressive quantities of outdoor recreation which have been privately developed. Again private enterprise provides important service adjacent to public recreation areas in the form of restaurants, lodges, etc. Although the effect of these private developments is quite often confined to the higher income customers, yet, nevertheless, these amenities do enhance the recreation enjoyment of public areas. Indeed, in some instances the public area could not really provide much recreation if such adjacent private installations were not available.

Over 18 million of the nearly 20 million acres of nonurbanized land within 120 miles of the New York City-Philadelphia axis are privately owned. 9/ This is a great resource for one of the major metropolitan recreation activities, driving for pleasure. But the opportunity to use this resource is unevenly distributed throughout the 1- and 2-hour driving zones of the region.

With some exceptions, residents of the more densely populated areas of the great Atlantic megalopolis have the least access to open countryside. In the near future some of these conditions may be alleviated by construction of highways now in the planning stage. But it is important also to note that in some instances existing barriers to open country are caused by location and distribution of existing travel routes and by the traffic these engender. The negative impact of this condition on the recreation prospects of a very large number of people in these areas is quite definite and specific at the present time.

A recent survey of recreation areas, other than ocean beaches, within 120 miles of the New York-Philadelphia axis indicated a capacity to serve 375,800 persons at any one time. 10/ Yet these facilities were called upon in 1960 to serve 32.6 million visitors. On a summer weekend day these facilities have to handle 552 thousand people on the average and about 233,100 visitors are served on weekdays. 11/ Since 92 percent of these people arrive by automobile, the location of these areas becomes a decisive factor. Residents of Long Island, New York City, and northern New Jersey, as well as people without automobiles are at a considerable disadvantage in their ability to use these areas both because of location and because of parking space capacity. The 15 thousand parking spaces available within a 2-hour drive from Philadelphia contrast with 473 thousand privately owned automobiles in that city. 12/

It seems very likely that some part of the difficulties of access and of ability of recreation areas to serve public needs more efficiently in this large metropolitan region may be attributed to two causes: (1) preoccupation with the attractive physical attributes of a particular site rather than a careful appraisal of access and location of the several publics to be served, (2) the failure to accord a sufficiently high value to outdoor recreation in land use and development for other purposes particularly highway and throughway construction and real estate subdivision.

Thus a considerable amount of existing imbalances in recreation opportunity in this metropolitan region are manmade. These exist in the forms of highway location and highway traffic, encircling bands of urban and industrial development, relative population density, and finally in the relative degrees of efficiency in selection, location, development, and management of existing recreation areas. Some portion of this urbanized area has adequate recreation outlets and other portions are not so fortunate. 13/ In general, recreation sites in this area must be located within zones from 60 to 120 miles of the built-up portion of the metropolitan center. Regardless of quality, sites located beyond this zone become almost irrelevant for mass access except for long overnight trips and vacations.

Atlanta

In terms of open space, Atlanta, Ga., is relatively favorably located. Here again the climatic, topographic, and other physiographic aspects of the Atlanta setting generally favor the location of outdoor recreation facilities for the residents of the Atlanta SMSA

7/New York Study, ch. 3, "Estimated Supply of Potential Recreation Sites."

8/Ibid, ch. 3, "Private Recreation Sites."

9/Cf. New York Study, ch. 3, "The Outdoor Environment."

10/New York Study, ch. 3, "Other Outdoor Recreation Areas."

11/Ibid.

12/New York Study, ch. 3, "Outdoor Area Parking Capacity."

13/Ibid. ch. 3, "Access to the Country Side; Supply of Publicly Owned Outdoor Recreation Resources."

over a wide area of more or less unemcumbered hinterland. There are few intervening residential zones. Highway locations and traffic conditions are much more favorable to recreation seekers than in many parts of the country, but, according to the commission's Atlanta Study:

> Most of the parks are too small and contain too little in the way of overnight facilities to operate effectively as weekend recreation facilities."
>
> * * * * *
>
> Suffice it here to state that under present conditions the State park system is too frequently performing a role more legitimately within the purview of city or county parks. To illustrate this further, two State parks are actually located inside boundaries of municipalities, two are just outside municipal boundaries, and one, Stone Mountain Confederate Memorial, is within the Atlanta SMSA." 14/

This statement seems to imply that the decision to locate these parks was not based on any clear idea of how best to distribute recreation areas to serve metropolitan areas; also, the specific recreation function of these parks appears to have been confused. This is borne out by the further statement, "outdoor recreation per se has not been completely accepted by Georgians as a legitimate function of government...." 15/

In general, however, Atlantans do have a very favorable situation with respect to outdoor recreation resources. There are 10 State parks and several major Federal recreation areas within a reasonable distance—70 miles from Atlanta. The basic difficulty seems to be lack of coordination in developing and managing these areas and locations which do not maximize their potentials. These deficiencies, however, do not now tend to deprive most white citizens of adequate opportunities. The same cannot be said for nonwhite residents although some provision is made for them.

Aside from the problem of segregation, the outdoor recreation problems of Atlanta residents lie in the easily foreseen potential for future difficulty rather than in the present situation. It is apparent that Atlantans are subjecting available recreation resources to heavier and heavier use and that residents of smaller communities must anticipate more and more competition for available recreation space from their Atlanta neighbors. The selection of recreation sites primarily because of their immediate esthetic appeal without clear comprehension of the purpose and public they are to serve, can only lead to trouble. The most important consideration then, which appears now to have been overlooked, is the appropriate distribution and location of the outdoor recreation facilities to serve the Atlanta metropolitan concentration.

St. Louis

St. Louis in contrast to the New York-Philadelphia complex and to Atlanta faces clearly defined physiographic limitations in its recreation hinterland. This makes the problem of recreation site distribution and location quite urgent.

Here long, hot, and humid summers place a premium on water for recreation. However, the geological structure of the region tends to confine water impoundments to the Ozark Highland regions south and west of the city where the nonporous rock structure makes water impoundment feasible. Also, the poor soils and rough, broken topography of this natural area make its less suitable for agriculture and hence less valuable than either lands of the central lowlands of the Mississippi alluvial plain to the south, north, and east. Consequently, the pressure of St. Louis residents for outdoor recreation tends to concentrate southward and westward on the Ozark Highlands.

At St. Louis the greatest pressure on recreational resources is for day-use. For that reason the commission study of St. Louis was concentrated in zones of 50, 100, and 150 miles from the city. 16/ The analysis showed that by far the greatest amount of public recreation space tended to be concentrated in the most distant zones, 100-150 miles from the population center. This is particularly true of lands owned by the Federal Government and, while State facilities exhibit the same tendency, there are larger amounts of these State facilities in the 50- and 100-mile zones. County and municipal facilities are more evenly distributed. Of 36 stocked municipal reservoirs and 26 public fishing lakes, only 6 are located within 50 miles of St. Louis.

The inverse relationship between recreation site location and the area of greatest need is highlighted by the intensive use of the Mississippi River pool formed by the Alton Locks and Dam 35 miles north of St. Louis. This facility had 2.7 million visits in 1960, more than any other facilities within 150 miles of St. Louis. 17/

With respect to privately owned or managed recreation, a somewhat similar locational imbalance exists as indicated in table A-13 on following page.

While these figures are based on incomplete reports and, consequently are underestimates, they tend to establish a high degree of imbalance in locational distribution of those private recreation outlets enumerated in the St. Louis Study. The net effect of this analysis then is to demonstrate that while no shortage of recreation sites now exists in the St. Louis area, the available space, because of location, does not lend itself to day-use recreation, the preponderant need of the St. Louis metropolitan residents.

Chicago

In the six county area which comprises the Chicago SMSA (the Chicago metropolitan area), outdoor recreation sites are principally provided by park districts, county forest preserves, and State controlled and operated properties. 18/ The park districts in the Chicago area have a total of 13,797 acres, more than

14/ The Atlanta Study, ch. 3, "State Parks."
15/ Ibid.

16/ The St. Louis Study, ch. 3, par. 1.
17/ Ibid.
18/ Data for this and subsequent discussion of the Chicago metropolitan area were obtained from the Chicago Study, ch. 3, "Facilities in the Chicago Area."

Table A-13. Location of privately owned recreation areas adjacent to St. Louis [1]

Type	Number reported	Distance from St. Louis		
		0 to 50 miles (percent)	50 to 100 miles (percent)	100 to 150 miles (percent)
Hunting clubs	51	18	20	63
Rifle and gun clubs (target)	129	43	26	30
Conservation clubs (hunting and fishing)	320	28	24	48
Fee fishing lakes	128	44	34	22
Resorts	485	10	12	78
Motels	518	23	29	48
Industrial tracts in disuse	23	30	39	30
Other large undeveloped tracts	24	8	17	75
Wooded farm land (million acres)	7.2	18	38	44
Stocked farm ponds	81,521	16	48	36

[1] Areas consist only of those for which information was available. Consequently, these figures are underestimates.

Source: St. Louis Study, ch. 3, "The Present State of Outdoor Recreation in the St. Louis Metropolitan Region."

half of which are in the Chicago Park District. These districts, among other functions, administer the Lake Michigan beaches, a major recreation outlet for Chicagoans. The Chicago Park District alone had over 12 million visitors in 1959. The other major recreation resource of the Chicago area are the 49,523 acres in the county forest preserve districts, of which 46,208 acres are in the Cook County Forest Preserve District. This district currently has an annual visitation in the neighborhood of 15 million.

Among private facilities within close driving distance of the Chicago metropolitan area are at least 47 local day camps, 4 scout camps, 6 Y camps, 15 others, and 9 shooting areas with a total of about 1,600 acres. Public areas outside the immediate metropolitan area, but within 60 miles of the city, include 15 parks distributed—8 in Illinois, 7 in Indiana and Michigan.

However, over three-fourths of the Illinois public recreation land is located beyond a 150 mile radius from Chicago, where 62 percent of the Illinois population resides. A similar imbalance exists in the adjacent States of Indiana, Michigan, and Wisconsin. [19] This imbalance exists with respect to lands owned by Federal agencies as well.

Aside from Lake Michigan, the physiographic setting of Chicago is undistinguished, the topography is gently undulating, summers are hot, winters cold. There are no extensive natural forests besides Cook County Forest Preserve. Lake Michigan provides an opportunity for water recreation but also serves as a natural barrier to eastbound traffic. Aside from this obstacle, the only other impediments to recreation seekers are adjacent urban developments to the north and south. In general, there is little to inhibit the development of extensive recreation development particularly of a day-use type. The present scarcity indicated in the table above arises from policy and management decisions rather than from physical limitations. It is clear that within the limits of the original concept the establishment of the Cook County

[19] Chicago Study, ch. 3, "Public Sector."

Table A-14. Proportion of State population and State recreation acreage within 150 miles of Chicago

State	Population (percent)	State park and similar acreage (percent)	State forest (percent)	State hunting and fishing acreage (percent)
Illinois	78	31	0	12
Wisconsin	59	24	7	32
Indiana	39	30	2	1/
Michigan	10	4	1	1/

[1] Not obtained.

Source: Chicago Study, table 24, "Ratio of State Population and State Recreation Acreage within the Chicago Region," based on 1960 Census of Population and various reports from State Conservation Commissions.

Forest Preserve does meet adequately a criteria for maximum outdoor recreation service to a large population. The same conclusion might be drawn as well with regard to the Chicago Park District facilities along Lake Michigan. These are good examples of adequate planning. It is unfortunate that this type of decision was not more carefully followed in connection with the location of State-owned facilities.

The following table indicates, for a number of heavily used recreation areas within 150 miles of Chicago, the estimated amount of visitation, acreage, and type of available recreation activity.

Attention is called to the fact that some of the more distant areas from Chicago have more visitations than do areas nearer at hand. However, in these instances, Warren Dunes, Starved Rock, White Pine Forest, and Devils Lake are reached from Chicago by high-speed highways or tollways which apparently serve to offset distance. It should be added, however, that in the case of Devils Lake a considerable amount of the visitation may originate within the State of Wisconsin. On the other hand, the heavy use estimated

Table A-15. Heavily used State parks, forests, and recreation areas in Chicago regions (150 miles)

Name	Estimated 1960 visitation	State	Acres	Activities available						
				Picnics	Swimming	Tent camping	Trails	Boating	Fishing	Hunting
10-40 miles: Illinois Beach	556,224	Illinois....	1,651	X	X	X	X	.....	X	.....
40-60 miles:										
Indiana Dunes	421,824	Indiana....	2,182	X	X	X	X	X	X	.....
Kankakee River	306,475	Illinois....	2,121	X	.....	X	X	X	X	.....
Chain O'Lakes.....	143,109	....do	738	X	.....	X	X	X	X	.....
60-80 miles:										
Warren Dunes	568,219	Michigan ..	1,414	X	X	X	X	.....	.....	.....
Illini	247,000	Illinois....	406	X	.....	X	X	.....	X	.....
Big Foot Beach	209,159	Wisconsin..	268	X	X	X	X	X	X	.....
80-110 miles:										
Starved Rock	845,000	Illinois....	1,437	X	.....	X	X	X	X	.....
White Pines Forest ...	514,614	....do	385	X	.....	X	X	.....	X	.....
110-130 miles:										
Kettle Moraine (North Forest).....	472,500	Wisconsin..	17,843	X	X	X	X	X	X	X
Terry Andrae	217,167	....do	186	X	X	X	X	.....	X	.....
130-150 miles: Devils Lake	1,339,035	....do	2,538	X	X	X	X	X	X	.....

Source: Chicago Study, ch. 3, table 25, based on data in official publications of the Departments of Conservation of Illinois, Wisconsin, Indiana, and Michigan, and information specifically requested.

at Starved Rock and White Pine Forest is in spite of the absence of swimming facilities. In these cases, it may be reasonable to conclude that easy access to the available facility is more important than the absence of swimming facilities.

Los Angeles

The physiographic setting of the Los Angeles metropolitan region, the six southern California Counties—Los Angeles, Orange, San Diego, San Bernardino, Riverside, and Ventura—is, paradoxically, quite circumscribed. Moving inland from the Pacific Ocean, there is a narrow ocean beachfront in some places and in others bluffs and cliffs rising steeply with little or no beach at all. The coastal area some miles in extent is largely urbanized and in some cases, as in Los Angeles County, completely urbanized. This urbanized coastal area is ringed by steeply rising hills and mountains which are almost waterless up to several thousand feet elevation. At higher elevations in some places, a pleasant mountain environment is encountered and eastward beyond these is a great desert expanse.

Thus from a recreational standpoint, the southern California metropolitan complex is quite restricted. Aside from the long ocean front, the coastal area affords little in the way of available recreation space aside from urban parks, some of which, like Whittier Narrows, are quite extensive. The steep dry hills and mountains offer little, if any, recreation outlet and even at higher elevations parklike areas in the mountain mass are quite localized. The surrounding desert seasonally affords a wide area of space and unusual types of desert recreation to those who have adjusted, as many have, to the unique desert environment. However, the extreme summer temperatures foreclose use of this area for day and weekend use for several months each year. To a lesser extent, the very rugged dry mountain masses constitute something of a seasonal resource, but for long periods of the year they too are unpleasant even for driving and, in any event, contain very little level ground. They are largely undeveloped. The rugged mountainous country which makes up most of the local ranges is essentially a landscape to get through. The rapid, extensive and aggressive exploitation of the coastal area for residential subdivisions practically removes this area as a resource for outdoor recreation or even for attractive open space. One writer says of this area: "Flying from Los Angeles to San Bernardino—an unnerving lesson in man's infinite capacity to mess up his environment—the traveler can see a legion of bulldozers gnawing into the last remaining tract of green between the two cities, and from San Bernardino another legion of bulldozers gnawing westward." 20/ The dilemma which thus arises has definite and adverse effects on the location of outdoor recreation in those areas most accessible and most easily developed:

> In their natural state these basins had much to offer in recreation; but the most important benefits they offer is the aesthetic value of open space. Unfortunately, this commodity cannot compete with the higher economic use for land and most of the flat land of southern California has made the transition in very short time from the orchards and fields to residential and commercial centers. Even

20/Editors of Fortune, "The Exploding Metropolis," ch. 5, William H. Whyte, Jr., "Urban Sprawl," Garden City, N. Y., Doubleday and Co., Inc., 1958, p. 133.

with improved transportation, the open spaces—so vital to outdoor recreation—are getting more and more distant from the urban centers, requiring even more time to get to them. 21/

One is not surprised, in view of this situation, to discover that southern Californians seek recreation in considerable numbers as far away as the Colorado River, as much as 300 miles from Los Angeles, or that 8 of the 10 most heavily used California State parks are among the first 10 preferred by Angelenos. Visitors from the six county southern California region in the period July 15-September 1, 1956, accounted for a high percentage of all State park attendance: day use, 34 percent; camping, 49 percent; and trailer camping, 60 percent. 22/ In terms of population, this is not startling since this region had over half of the State population; but, in terms of location and distance traveled, it reflects the serious problem of the location and distribution of recreation outlets within reasonable distance of this large metropolitan agglomeration.

There are estimated to be nearly a million acres of land in the State of California which could reasonably be developed for recreation, but less than 10 percent of it is in the six southern counties. 23/

CONCLUSION

The conclusion which seems to emerge from this analysis of recreation resources for large metropolitan regions is that location is a central problem in providing adequate services. In the New York-New Jersey-Philadelphia region traffic, suburban encirclement, industrial development, and relative degrees of efficiency by recreation authorities create man-made barriers. Atlanta has apparently not yet become aware of the need to consider the problem of the location requirements of the metropolitan residents in selecting recreation sites. St. Louis confronts a difficult physiographic problem which dictates the direction of expansion. This is complicated by existing patterns of public land ownership. Chicago is handicapped because State policy has not been oriented toward the metropolitan recreation market, and Los Angeles suffers from physiographic limitations which tend to restrict recreation rather narrowly and from the enormous encroachment of residential development on available open space.

Large metropolitan concentrations in recent times have become the dominant feature of American economy and of the American society, including the various forms of activity subsumed under the term "outdoor recreation." The countryside which serves as the setting of these population agglomerations tends to become a tributary area serving the imperious needs of the urban complex. Outdoor recreation is one of these needs.

The resources—land, water, topography, and climate—of the surrounding area are called upon to serve a variety of urban requirements. The priorities of use to which these resources are dedicated by the needs of metropolitan existence do not now conform to any planned schedule. In general, however, the resource requirements of outdoor recreation have not been given a high priority.

The present distribution of recreation resources of five great American metropolitan complexes does not permit these resources to serve metropolitan recreation needs with a high degree of efficiency. Some of this maladjustment may be inherent in the natural environment as in the case of southern California, Chicago, and the New York-New Jersey-Philadelphia area. Physiography determines the main distribution of land forms and water, but, to a considerable degree, the difficulty of obtaining access to outdoor recreation arises from causes located in society and in the relations between individuals and their environment. These are expressed in poor site locations for outdoor recreation and are sometimes evidences of the low priority of outdoor recreation relative to priorities accorded other resource uses. It is also evident that little thought has in the past been given to the relation between recreation site locations and the mass demand for recreation emanating from large population concentrations. Recreation site selection has tended in some instances to be site- rather than use-oriented, with the result that many sites—in themselves quite beautiful and attractive—are too small or do not provide opportunities for the more popular recreation activities. Day-use sites near metropolitan centers without adequate parking facilities for example are bound to be used below potential capacity.

21/ Supplementary material provided by Dr. Fred E. Case with Los Angeles Study—unpublished.

22/ Los Angeles Study, table 2-3, Los Angeles County Residents Attendance at State Parks and Distance to Such Parks; table 2-4, State Park Visitor Survey, July 15-September 1, 1956.

23/ Los Angeles Study, ch. 2, "Geography and Outdoor Recreation."

CHAPTER FIVE

WATER RESOURCES AND OUTDOOR RECREATION FOR METROPOLITAN RESIDENTS

A great deal of the outdoor recreation activity of metropolitan residents is water-oriented. And if the recreationist does not use water directly as a medium for his activity, water enhances the pleasure which he obtains from the recreation environment. We know too that aside from the rather specialized forms of winter sports or desert-related activities, water in the form of oceanfront, streams, or lakes, is an almost indispensable attribute of the recreation environment. We have seen in the preceding chapter the critical importance of water in relation to recreation behavior of metropolitan residents. For in addition to all the water activities—swimming, boating, fishing, water skiing, and underwater exploration—which actually use water, are other activities directly enhanced by the presence of bodies of water. Such activities include picnicking, walking and driving for pleasure, nature walks, as well as practically all forms of waterfowl hunting. Thus it may not be a great exaggeration to say the presence of appropriate water bodies exert almost as much influence as access in determining the adequacy of recreation resources of metropolitan residents.

And here a paradox appears, for metropolitan population agglomerations are dependent on adequate water for several purposes that are essential to existence. Thus recreation as a water-use near metropolitan centers must compete with the use of water for a number of other, and very important, purposes: water for domestic and culinary use; water as a basic requirement of many manufacturing processes as a coolant and dilutant; and water-borne traffic an important element in the economic life of many great cities preempting many miles of waterfront. Metropolitan centers are prodigious sources of pollution not only from sewage and industrial waste but also because of sediments contributed by streams in construction areas and in suburban developments. Thus the metropolitan complex simultaneously restricts the available quantity while it impairs the quality of a resource which is basic to the recreation purposes of metropolitan residents:

> Since the turn of the century, the volume of municipal and industrial waste put into our streams has increased over 550 percent. Our surface water is receiving twice as much pollution from municipal systems as was considered allowable in 1955. 1/
>
> The closing of bathing beaches has been widely reported. Two beaches in the San Francisco Bay, two beaches in the Milwaukee . . . only 35 miles of New York City's 575 miles of waterfront are fit for swimming. The portion of the Potomac River that flows through the Nation's Capital is unfit for swimming. 2/

New York-New Jersey-Philadelphia

In the New York-New Jersey-Philadelphia area, the use of public beaches is tremendous. Yet the public resources represented by the beaches are only 1.3 percent of the total area for all forms of outdoor recreation. The 71 miles of State and Federally-owned recreation shoreline in Connecticut, Delaware, New Jersey, and New York contrast with 1,294 miles of ocean shoreline in this region suitable for recreation. 3/

County and municipal beaches in this area number 224 and these receive almost 90 million visits a year. Overall the beaches represent a small fraction of the outdoor recreation area of this region but handle over one-third of all recreation visits. The imbalance between available beaches and an enormous demand for beach recreation results in a high degree of overuse and overcrowding of some beaches closer to New York while there is some underuse of more distant beaches. 4/

In addition to problems of overuse of the beaches in the New York area, there is the threat of loss of beach areas to pollution. The Hudson River below Poughkeepsie has been lost to swimming because of pollution. 5/ With the continuing increase in population, these losses become a serious threat.

Another important question concerns the need to obtain some increased recognition of public rights on private beachlands. While a great deal of recreation is undoubtedly provided on private beachlands, there is also tremendous over-use on public beach areas which are manifestly inadequate. At the same time there exists a tremendous fresh water recreation reserve in the many large water supply reservoirs close to this metropolitan complex which are now unavailable for public recreation due to current sanitation policy. There is reason to believe that existing policies which bar recreation use from these reservoirs should be reexamined.

The great crowding of people to the famous close-in New York City beaches, Coney Island, Jones Beach, and Atlantic Beach is an example of the penalty which a demanding public imposes on correct judgment as to the location of recreation developments. Also this experience points to the importance for metropolitan

1/Luna B. Leopold and Hallard B. Kinnison, "Water for Recreation: Values and Opportunities," ORRRC Study Report 10., ch. 2.

2/Ibid.

3/New York Study, ch. 3, "Beaches."

4/Ibid.

5/Ibid., ch. 4, "Utilizing the Hudson River."

residents of common carrier access to water recreation areas; these overcrowded beaches are all accessible to New York City residents by common carrier. In the same vein the rather small use of existing fresh water beaches and the contrasting heavy use of salt water recreation areas in the New York-New Jersey-Philadelphia area may be explained by the existence of accessible ocean beaches and the relative scarcity of less accessible fresh water areas.

The development of the Delaware Basin water recreation potential is certainly an essential component in planning to meet future water recreation needs of the area. Moreover, several of the existing New Jersey and New York State parks (e.g., Farney State Park in New Jersey, and Hook Mountain State Park in New York) should be carefully studied to determine the water recreation potentials which could be realized by extending or enlarging existing impoundments or by the construction of enclosed pools.

It is particularly important that this type of analysis be undertaken in areas where the 1- and 2-hour driving zones from the major residential nuclei along the New York-Philadelphia axis overlap one another. Another important possibility for redevelopment and reappraisal is presented by the Pepacton and Ashokan water supply reservoirs of New York City, which might be declared surplus and integrated with the possible recreational development of zoned portions of the Catskill Forest Preserve. This potential should be explored in detail.

The New York Study emphasizes that further water recreation development should take into account the needs of nonautomobile owning residents of the region. Sandy Hook in lower New York Bay, recently released by the Federal Government to the State of New Jersey, could serve such nonautomobile owning recreation seekers from New York City by ferry from Coney Island and Manhattan; thus providing some relief at over crowded beaches presently serving this segment of the public.

But the pressure for new water recreational outlets should be accompanied by programs to rehabilitate beach areas which have deteriorated under heavy use pressure. There is too much beach slum, and possibly some of this originates from management practices of private owners. A potential conflict is inherent in the public quest for beach recreation, and the presently almost untrammelled rights of private owners of beach property in this region. A principle of public control of beach resources which would insist on adequate maintenance and protection against deterioration should be developed, although great care would have to be taken in the formulation and application of such a principle in order to secure the cooperation of private interests.

The Raritan Bay shoreline is suitably located to serve portions of New Jersey and New York City. But storm damage and beach erosion and neglect of maintenance of beach structures have created a deplorable condition. It is possible that cooperative endeavor between the Corps of Engineers, the State of New Jersey, and local communities could improve and develop a system of beaches which would constitute an important recreation resource. Such a development, however, will require the rehabilitation or clearing away of some deteriorated structures now in private ownership. In addition to the deterioration of existing beaches and the pollution of the Hudson, a continuing threat of encroaching pollution confronts several existing salt water beaches—Orchard in the Bronx and Coney Island in Brooklyn, as well as others along the New York-New Jersey waterfront.

Although some progress has been made in solving the basic pollution problem, formidable political obstacles confront efforts to secure the necessary financing. The New York Study recognizes the difficulties in securing adequate depollution measures in areas adjacent to large metropolitan centers and suggests as a partial solution the construction of enclosed beaches not too far from the shore into which purified water could be fed.

These various proposals indicate that the problems of providing more beach recreation in the New York-New Jersey-Philadelphia metropolitan complex may be partially solved. However, such solutions largely depend on the intensive application of ingenuity and capital available and, in some cases, previously developed resources. In effect there are no new resources on the oceanfront which can be called up; consequently, the approach to the provision of more adequate water recreation resources now depends almost entirely on the techniques of planning and the ingenuity of developers in redeveloping or restoring, or redirecting the use of already developed resources.

Atlanta

Atlanta is an inland city. It has no ocean front. The nearest seaside resort is Jekyll Island some 280 miles distant, a vacation resort area of high quality. But within day-use range of Atlanta are a number of fresh water recreation resources. Principal among these are several Corps of Engineers reservoirs with extensive opportunities for water recreation. These have been developed to some extent for water activity and there seems to be little evidence of crowding or pollution.

The wisdom of operating a considerable number of quite small State parks with little or no water acreage may be questioned. But at the same time there is evidence that white residents of the Atlanta SMSA can obtain fairly ready access to fresh water for recreation purposes, both public and private. This is not true of nonwhite residents of Atlanta who are handicapped by lack of transportation. George Washington Carver State Park on the Corps of Engineers Allatoona Reservoir has approximately 10 acres of water for boating, fishing, water skiing, and swimming. This is the only Negro park within 100 miles of Atlanta. 6/

This region seems well adapted for the development of water recreation. Near Atlanta there are several streams where impoundments are successful. However, Atlanta has only recently arrived as an SMSA with over a million population, and its hinterland is not subject to large-scale competing pressures as yet. There is some evidence, however, of a lack of focus on the problems generated in recreation areas by the heavy demand for water recreation. For example, no very clear distinctions seem to have

6/ Atlanta study, ch. 3, "George Washington Carver State Park."

been made between public and private recreation. Several of the public parks are operating by licensed private concerns. Moreover, it is the water recreation byproduct of Corps of Engineer impoundments rather than the action of local or State authorities which accounts for the great bulk of water resources near Atlanta.

There seems to be a considerable element of coincidence and historical accident which has brought about the present satisfactory situation for Atlanta. On the other hand, several State parks have very inadequate water resources or none at all. Thus the distribution and availability of water resources in the Atlanta region have not been a specific result of careful study of the needs of the Atlanta population. The Corps of Engineers reservoirs were not built for recreation as their primary purpose. It so happens that water recreation has become an important purpose subsequent to the development. Consequently there is need for more careful appraisal and analysis of the water-oriented recreation needs of the Atlanta metropolitan area and particularly for the activities which can be enjoyed on a day-use basis.

If we regard Atlanta as a young metropolitan center in contrast to the more mature Chicago and Los Angeles areas, then the lack of a consistent water recreation policy may be associated with an early stage of large-scale metropolitan development. This carefree policy should be discarded now in favor of a more coherent body of policy in order to avoid the very clear problems which have emerged in the case of the older metropolitan areas and which seem also to have resulted from a similar failure to realize that the time would come when choices can no longer be made. The present shortage of water recreation for nonwhites implies the need to reexamine current recreation policy.

St. Louis [7]

Reports made to ORRRC of the water facilities available for St. Louisans indicate a severe shortage of such facilities particularly within 50 miles of the city, in spite of the fact that St. Louis is located near the confluence of three large rivers, the Illinois, the Mississippi, and the Missouri, and is also quite close to the Meramec River. However, most of the water recreation available within 50 miles of St. Louis is at Corps of Engineers facilities on the Mississippi, northwest of the city, particularly at Alton Lake. At a minimum 8 million recreation visits were made by St. Louisans in 1960, and about 40 percent of these occurred within 50 miles of the central city. The great bulk of this percentage was concentrated at the two Corps of Engineer pools formed by the Alton Locks.

Within 150 miles of St. Louis, there are at least 300,000 acres in lakes and water impoundments but a considerable portion of this is in private farm ponds. Of 36 municipal reservoirs stocked with fish and 26 fishing lakes, only 6 are located within 50 miles of St. Louis. There are at least 19 municipal and 47 private commercial pools within 50 miles of St. Louis. Yet, of some 81,000 stocked farm ponds in the region of study, only 16 percent are located within the 50-mile zone. In this zone municipal, private, and commercial pools had a 1960 summer attendance of 660,500 at a minimum. Moreover, as the distance from St. Louis increases, fishing as an activity tends to outrank swimming in importance at the State parks; the two activities taken together constitute major demands on resources. Apparently St. Louisans will indulge this propensity for water-related activity even when the opportunity is not good. For example, at Meramec State Park, 55 miles from the city, swimming in the river ranks high as it does at Pere Marquette State Park about 35 miles distance from the city, but the Illinois River at the latter park is a most undesirable swimming site, and the Meramec is regarded as treacherous and dangerous.

Thus there is a clear and present deficiency of water recreation resources for residents of St. Louis where a long, hot, humid summer makes provision of adequate water areas an important requirement. If present trends are an indication, the contribution of private enterprise to swimming and other water sports, while important, is nevertheless minor consisting largely of pools scattered throughout the region rather than the extensive beach and water areas needed for mass accommodations as indicated by the tremendous use of publicly owned Alton Lake. It seems inevitable that this challenge will become increasingly difficult to resolve as time goes on. The solution is clear—more efficient location and provision of water recreation facilities designed for mass use.

Chicago

The Chicago Standard Metropolitan Statistical Area, with 6.2 million residents, ranks third among the five metropolitan regions—Atlanta, Chicago, Los Angeles, New York-New Jersey-Philadelphia, and St. Louis, selected for study for ORRRC. However, the city of Chicago, with 3.5 million residents, ranks second to the total New York-New Jersey-Philadelphia urban population. The Los Angeles SMSA is larger than Chicago, but more of its residents are outside the central city limits in contrast to the more densely settled Chicago central city. Thus in terms of meeting water-oriented recreation needs of a dense population, Chicago has a larger problem than Los Angeles.

In the case of Chicago, the major water resource is the Lake Michigan waterfront of the SMSA itself and adjacent lake shorelands. In overall magnitude, Chicago's shoreline location would be more like that of New York and Los Angeles than that of St. Louis and Atlanta. However, while there is evidence of a substantial use of the Lake Michigan beaches, available data does not reflect the same degree of intensive mass use as that reported for some of the beaches in the Los Angeles or New York area. One might suspect that this could be due to the lack of a beach area development in depth extending back from the lake. One reason for this is that the lake waters themselves are quite cool, and hence swimming in the lake is not as attractive as it is under more favorable circumstances, but there is contrasting evidence that beach activities are eagerly sought.

[7] Material for this section is largely the St. Louis Study, ch. 2-3.

The Chicago Park District which is responsible for the major Lake Michigan beach recreation, with 14 miles of lake beach property, provides 32 beach areas for public use and 42 outdoor pools. In 1959 there were about 12.6 million beach visits and about 2 million pool visits. These are within the Chicago City area. Peak weekend day use is reported at about 200 thousand visits at all of these beaches contrasting with estimates running up to a million or more for southern California and New York beaches. 8/

The National Recreation Survey data on swimming for large SMSA's in the north-central division, indicates 5 days per person of swimming activity in the population 12 years of age and over. At this rate the city of Chicago should have an estimated summer swimming participation of over 12.8 million, and the corresponding participation for the Chicago SMSA would be between 20 and 25 million. 9/

Thus Chicago Park District beaches, the most highly developed beach areas on the lakefront area with 12.6 million visits, appears to be fairly well monopolized by city of Chicago residents, forcing the remaining 2.7 million residents of the SMSA to use other resources for their water-oriented activities. But as indicated by the following table, the water-oriented facilities of the remaining park districts are not impressive.

Table A-16. Selected outdoor water recreation areas managed by Chicago Park District and by all reporting park districts in Chicago SMSA

Park district	Swimming pools	Beaches	Marinas	Inland lake and lagoon
Chicago.....	42	32	7	14
Total.....	68	46	9	17

Source: The Chicago Study, table 21, Park Districts in the Chicago Area–Selected Outdoor Facilities.

Note: The amount of acreage is understated for the SMSA outside Chicago because of failure to respond to request for information by 17 districts.

The other major resource in the Chicago SMSA is the Cook County Forest Preserve which has 1,435 developed water areas in the nine divisions of the district. The following table indicates the type of water development by divisions:

The largest developed water acreage is 770 acres in the Palos division of the forest preserve district. While this forest preserve is a fine public recreation resource for the six-county Chicago SMSA, it certainly does not represent a resource for water activities comparable to those possessed by other large SMSA's under study particularly since the swimming areas are listed as swimming pools rather than beaches, and much of the swimming activity in general is beach play rather than actual swimming.

8/The Chicago Study, ch. 3, "Chicago Park District" and "Summary and Conclusion."

9/Based on Chicago city population 3,550,000 and Chicago SMSA population 6,220,913–U.S. Census of Population 1960; United States Summary, Number of Inhabitants, table 35, pp. 1-113. Population 12 years and over estimated at 72 percent of total.

Table A-17. Cook County Forest Preserve District by type of water oriented activity by number of district divisions and developed water acreage

Activity	Number of divisions	Developed water areas
Fishing only.....	3	115
Fishing and boating	3	1220
Swimming only.....	1	0
Fishing, boating and swimming.....	1	5
Fishing and swimming	1	95

Source: The Chicago Study, ch. 3; table 23, Divisional Characteristics of the Cook County Forest Preserve District. Based on various Cook County Forest Preserve District Reports.

The poor location of most of the State's recreation areas relative to use by Chicago residents has been mentioned above. Table A-18 indicates these areas within 80 miles of Chicago which have water for swimming, boating, or fishing. Swimming is available at only six of these sites while fishing is available at every site and boating at nine sites. Additional publicly owned recreational resources available to Chicago residents within a radius of 150 miles are 39 State fishing and hunting areas and 12 fishing areas with visits ranging from 209 thousand at the Chain O'Lakes conservation area with 3,476 acres to 900 visits at Deansville, Wis., which owns 41 acres and leases 2,630 acres. 10/

The various figures of annual visitation to public water oriented recreation areas are not very significant when considered in the light of the general propensity of urban residents.

As we have seen above, the recorded swimming activity of the Chicago Park District (12.6 million visitors) was far under the theoretical participation indicated by the National Recreation Survey for the Chicago SMSA (20-25 million occasions). Even when allowance is made for possible swimming activity at the Cook County Forest Preserve and all other public resources within 50 miles of Chicago, possible totals fall far short of the swimming participation Chicagoans should exhibit.

This difference could be accounted for by activity at several other places, such as private and public indoor pools, private outdoor pools, public water areas further than 80 miles from Chicago, and in privately-owned open water areas such as lakes and impoundments and streams. Of course it might be argued that the actual swimming rate for Chicago is lower than the average rate for residents of SMSA's of 1 million and over in the north-central region. This might be true, but this rate could not be very much lower, considering the dominant population ranking of Chicago in the region without lowering the north-central average swimming rate for residents of portions of SMSA's of one million population and over, and, while the rate is indeed low, it is not drastically lower than the national average (5.95 days per person).

What is perhaps a more plausible explanation is that the private resorts on the lakes of Lake County,

10/Chicago Study, ch. 3; table 26, State Hunting and Fishing Areas in the Chicago Region by Distance Rings and Sectors.

Table A-18. State parks, forests, and recreation areas within 80 miles of Chicago with water facilities

Name	Acres owned	Swimming	Boating	Fishing	1960 estimated visits
10-40 Miles:					
Illinois Beach	1,651	X	....	X	556,224
Wolf Lake ..	580	....	X	X	....
Wolf Lake (Ind.)	1,414	X	....	X	....
40-60 Miles:					
Chain O'Lakes	738	....	X	X	143,109
McHenry Dam	94	....	X	X	88,534
Channahon Parkway...	20	....	....	X	77,691
Gebhard Woods	30	....	....	X	107,000
Illinois and Michigan Parkway ..	450	....	X	X	....
Kankakee River Dam	6	....	....	X	....
Kankakee River	2,121	....	X	X	306,475
Kankakee River (Ind.)	1,794	....	X	X	9,112
Indiana Dunes	2,182	X	X	X	421,824
60-80 Miles:					
Big Foot Beach (Wis.)	268	X	X	X	209,159
Fox River ..	64	....	....	X	....
Illini	406	....	....	X	247,000
Bass Lake Beach (Ind.)	20	X	....	X	42,603
Tippecanoe River (Ind.)	2,744	....	....	X	25,756
Warren Dunes (Mich.)	1,414	X	....	....	268,219
Total	15,996	6	9	17	2,802,706

Source: Chicago Study, ch. 3, table 25, State Parks, Forests and Recreation Areas in the Chicago Region by Distance Rings and Sectors. Based on official publications of the Departments of Conservation of Illinois, Wisconsin, Indiana, and Michigan, *and information provided in specific request.*

Ill., adjacent areas in Wisconsin, and areas in Michigan, reinforced by many private pools provide a much more substantial resource for Chicagoans than they do elsewhere. This would seem to be borne out by the significance attached in the Commission's Chicago studies to such establishments:

> Numerous lakes and swamps are found in the morainic areas of northeast Illinois, southeastern Wisconsin, and southwestern Michigan with the large attractive ones serving as major centers for private resorts. Commercial picnic beach developments and public hunting and fishing opportunities are also concentrated in the areas of lakes and wetlands. 11/

11/The Chicago Study, ch. 1, "The Physical Settings."

There are a number of other handicaps in respect to water facilities which confront Chicagoans, particularly inadequate opportunities for boating which extend almost across the board from inadequate stream and lake areas to shortages in storage, launching, and mooring facilities. There are also serious conflicts between fishermen and swimmers. Swimmers, in addition to chilly Lake Michigan waters, encounter pollution and safety problems in natural bodies of water.

All in all, recreation water users of the Chicago area are not very well served at the present time, and since water is the key to much of the recreation potential of any region, it seems that Chicago metropolitan residents are not in a particularly favorable situation in spite of the proximity of Lake Michigan.

The driving force, originating in the manifold desire of Chicagoans for water-oriented recreation, pushes farther and farther into the Chicago hinterland and draws more and more of the available water resources into the zone of the Chicago metropolitan influence. At the same time, it is likely that the quality of the water recreation experience may deteriorate particularly for disadvantaged groups. A widening of the metropolitan influence at the periphery will accompany a deterioration of the quality at the core, but the impact of this will be felt by different residential groups in the metropolitan area. The scope of the water recreation search has already widened, so that the Chicago influence now overlaps and competes with other Lake Michigan communities and with the Milwaukee and Madison as well as the smaller Wisconsin communities.

Los Angeles

The six southern California counties which make up the metropolitan Los Angeles complex rank second in population size to New York among the five metropolitan regions selected for the ORRRC metropolitan studies. This population tends to reside in single family houses. Consequently residential density of the Los Angeles central city does not approach either that of New York or Chicago.

It is a region which contrasts markedly with the other four because of its arid climate and consequent lack of rivers and natural inland lakes. The fresh water supply of this region is a matter of great economic significance because water must be collected at considerable expense and transported many miles before it can be used. There are few problems of fresh water pollution. On the other hand, the amount of fresh water for recreation is very limited which means that the population is extraordinarily dependent on the beaches of the Pacific Ocean from Point Conception, north of Santa Barbara, to San Diego Bay on the south. Climatically, this area is quite unique because of extremely high summer temperatures at relatively short distances from the Ocean which make water an important contrast to summer discomfort and also because the mild climate enables use of the beaches throughout the entire year.

The public water recreation resources of the arid southern California region consist principally of Pacific Ocean beaches, a number of water impoundments such as Lakes Arrowhead and Big Bear in

San Bernardino County, the Colorado River reservoirs—Lakes Mead, Mohave, and Havasu—and the Salton Sea. The following table indicates the dimension of these resources, together with principal improvements.

Table A-19. Selected water recreation facilities and resources of southern California

Beaches:	
Ocean beaches (length in feet)	602,613
Inland lake beaches (length in feet)	41,303
Effective feet of beach	165,693
Boat moorings	16,681
Boat launching units	332
Lakes:	
Less than 50 surface acres	22
50 surface acres or more	19

Source: Adapted from appendix, table "I", Selected Recreation Facilities and Resources, 1958—California Public Outdoor Recreation Plan, part II.

According to the standards developed by the California Public Outdoor Recreation Plan, an "effective foot of shoreline" is the equivalent of an area of shoreline 1 foot wide by 665 feet long, composed of 100 square feet of water surface suitable for swimming. Two hundred square feet of beach for sunbathing and play, 100 square feet of buffer zone and 265 square feet for parking. Each 1,000 persons in the population requires 25 effective feet of shoreline.12/ Thus the gross linear measure of southern California public beaches of about 114 miles is reduced to about 31 effective miles and on this measure can adequately serve a population of about 6.3 million persons, whereas the 1960 six-county population was 8.8 million persons.

The California Public Outdoor Recreation Plan comments with respect to this situation, "At the present time no publicly owned beach exists in southern California where there is opportunity to establish a proper ratio between sand area and required uplands for parking and other facilities." 13/ This comment and the preceding estimates mean that although Southern California has many miles of beach, much of it cannot be used effectively, partly because of inadequate parking facilities. According to the California Public Outdoor Recreation Plan, swimming is by far the dominant form of outdoor recreation in the two counties Orange and Los Angeles at the heart of the metropolitan area. Out of a total of 48 recreation activities in Los Angeles and Orange Counties, swimming accounted for 59 percent compared with 20 percent for the next highest recreation activity, picnicking. 14/

Actually it is not the lineal footage of water edge that is so important as it is the area of sand beach. This is because the cold ocean water tends to discourage swimming. The basic recreation at the beach primarily involves use of the beach itself. Although there are a number of mountain lakes in the region, these are the result of artificial impoundments, and of these only Lake Arrowhead and Big Bear Lake in the San Bernardino Mountains provide any great amount of swimming. Other available surface water and reservoir sites have progressively been appropriated for urban water supply. This leaves the remainder of the inland swimming to be provided at the Salton Sea some 3 hours drive from Los Angeles and the Colorado River with its three large reservoirs about 300 miles from Los Angeles. In contrast, the great proportion of the Los Angeles metropolitan population lives only 20 miles or so from the ocean beaches, and these are quite accessible by highway. This tends to make the beaches primarily day-use areas.

In addition to the lack of effective beach area described above, commercial, industrial, and residential developments have monopolized considerable area of beach: The Los Angeles-Long Beach Ports; U.S. Navy and Marine Corps installations in San Diego Bay and at Camp Pendleton; unbroken stretches of beach clubs and residences north of Santa Monica, and along the Popanga-Malibu portion of the highway; and south of Santa Monica oil wells and attendant structures.

Of course there are extensive areas of public beaches which can support a variety of water recreation activities in the six-county area. However, these resources are called upon to serve almost the total swimming demand of the Los Angeles metropolitan region. Altogether the southern California Pacific Ocean beaches provide a large portion of all the water-oriented recreation of a very large population concentration. Moreover, these particular forms of recreation are much preferred by the people of the six-county area. The very aridity and high summer temperatures and smog of the interior portions of the region make ocean beach recreation an almost essential element in the way of life of these millions of highly mobile people. This makes these beaches considerably more important than a casual accommodation for outdoor recreation; they provide a complement, for which there is no substitute, to a way of life.

While the inland waters of the region are a welcome addition to water recreation of the ocean beaches, they provide a somewhat different recreation outlet. The great Colorado River reservoirs, as well as the river itself, so heavily used by Los Angeles residents, require a long trip and an overnight stay. A great deal of the activity in this area is in the form of boating, water skiing, and fishing. A somewhat similar situation obtains at the Salton Sea which requires a 6-hour round trip drive. Some of the water impoundments, including Lake Arrowhead and Big Bear, lie closer to the population concentrations, but they tend to be overcrowded on weekends for that very reason and they are somewhat beyond the distance of easy day-use travel. Moreover, some of these reservoirs do not permit swimming.

Consequently the publicly owned Pacific beaches of southern California, with all their variation of land form, wave action, type of surf, and bottom are a tremendous asset to the vast population of the region. In addition to swimming and some bathing, these areas

12/California Public Outdoor Recreation Plan, pt. II, app. table "I", footnote f, p. 185.

13/Ibid., part II, p. 107.

14/Ibid., p. 105 (figures cited are for 1958).

present a variety of opportunities for fishing and boating; skin diving in this area becomes a major activity with 200,000 devotees in the region.

These public beaches were made available through a number of government bodies. Although the State of California appears as the dominant title holder, the operation of the beaches is divided among several counties and municipalities. Facilities seem to follow no standard pattern. Some beaches have only basic sanitary facilities, but Mission Bay at San Diego is highly developed with the finest artificial marina on the California coast; developed day-use areas of sandy beaches and grassy parks, picnic grounds, and anchorages, and protected water for sailboating.

From an overall point of view, however, it does not appear that either the people of the Los Angeles metropolitan complex nor their representatives at any level of government have become sufficiently aware until very lately of the urgent need to husband and develop a very precious recreation resource of the Pacific shoreland.

CONCLUSION

Water is an essential element of the recreation environment. Consequently the five metropolitan regions have been analyzed in terms of the relation of water resources to established recreation areas. Wherever water is available at designated recreation areas, very heavy use tends to follow. But again in the case of these five metropolitan agglomerations, recreation water supply has frequently been insufficient or inadequately developed or inefficiently controlled. The result has been the vast overcrowding of some areas and the underuse of others.

Some developments are highly successful, but quite frequently the example of a successful development has not been fully exploited. This is shown in the case of Alton Lake near St. Louis, in the park districts of counties adjacent to Chicago which could have capitalized on the experience of the Chicago Park District in the development of the Lake Michigan waterfront, and at some of the southern California beaches.

There tends to be a steady encroachment on the water resources of many great American cities due to poorly controlled pollution and through unregulated private development and control of shoreland areas. However, these adverse situations are attracting more and more public attention. The evidence of the popularity of outdoor recreation for these outdoor concentrations is manifest in the very large use which is made of the available areas.

CHAPTER SIX

THE CHALLENGE OF THE FUTURE - OUTDOOR RECREATION AND THE ROLE OF GOVERNMENT

The task of providing and distributing adequate outdoor recreation opportunities for residents of large metropolitan areas is already complex and difficult. As metropolitan population concentrations grow in density and extent, the associated problems of maintaining adequate levels of public services of all sorts will also increase.

We have referred in earlier chapters to the manner in which metropolitan residents seek outdoor recreation and have described some of the impediments to fulfillment of their recreation needs and preferences. We confidently expect, with further metropolitan growth, the development in several parts of the country of metropolitanized regions. We also expect a concomitant increase in the demand for outdoor recreation and an increase in the complexity of outdoor recreation planning and management. Possibly this may bring about an increased recognition and status of these functions. And while a considerable portion of recreation facilities for metropolitan residents will continue to be provided by private enterprise, overall planning and management functions will necessarily be performed by government at some level.

METROPOLITAN GROWTH AND THE DEMAND FOR OUTDOOR RECREATION

The growth of large metropolitan centers is one of the dramatic tangible forms in which our national development is now expressed. This present national form, shaped by several preceding stages, is underlain by two fundamental forces: technological development on the one hand and the drive for economic opportunities on the other. Present-day technology makes possible both mass production and distribution to a mass market; these function most effectively in a metropolitan environment.

The search for economic opportunities, in part a function of technology, draws people away from rural areas and smaller communities with more circumscribed opportunities and lower wages to the wider opportunity horizons and larger rewards of the metropolitan complex.1/ Outdoor recreation is one of the components of the complex of goods and services which comprise the material component of this better life. To some extent, too, the outward residential movement to the suburbs from the central city of the metropolitan complex seems to reflect perhaps some of the same motivation as the search for outdoor recreation—a desire for more freedom of movement—a more spacious environment. And while this outward movement has, with almost explosive force in quite recent years, transformed metropolitan shape and structure it has also made provision of outdoor recreation more difficult and more complex as we have seen.

People have found in suburban living a way to enjoy the best of two worlds; the greater economic opportunity of the large metropolis and the illusion, at least, of a spacious environment. Thus, the continual growth of large metropolitan agglomerations, and the progressive subordination of an extensive hinterland to the imperious forces inherent in metropolitan organization, constitute not only the principal physical form of our more recent national development, but also an expression of less tangible social objectives. This development provides the principal problem areas for planning and management of outdoor recreation. The following table indicates the 1960 and estimated 1976 and 2000 populations residing in the population centers of 1 million and over in this country.

In terms of the future rate of increase of large metropolitan concentrations, the West is expected to be the most rapidly growing region, rising from a population in 1960 of 11.7 million to over 40 million by 2000. The Northeast which contains large portions of the great eastern megalopolis is expected to decline from its dominant position with a 1960 population of nearly 24 million, to second rank with a population of nearly 43 million in 2000, while the north-central region, now in second position with a metropolitan population of over 19 million, moves to first rank by 2000 with a population in large metropolitan concentrations of over 47 million.

And with increasing per capita income, more leisure, more transportation, a metropolitan way of life means also an increasing emphasis on the amenities of life. The increased rates of growth of large metropolitan centers and their wide proliferation is a rough guide to what might be termed consumer sovereignty with respect to choice of place of residence.

People could live and could raise families in the denser population areas of central cities with attendant restrictions on movement. But now many of them choose suburban life and its amenities.

Outdoor recreation is such an amenity. We may, therefore, confidently expect that pressure for outdoor recreation among the residents of large metropolitan centers will expand at a rate somewhat greater than the rate of population growth. The following table presents estimates of the volume of outdoor recreation activities which the residents of large metropolitan centers will seek by 1976 and 2000.

1/Harvey S. Perloff, Edgar S. Dunn, Jr., Eric E. Lampard, Richard F. Muth, "Regions, Resources and Economic Growth," published for Resources for the Future, Inc., by the Johns Hopkins Press, Baltimore, copyright 1960, pp. 225-232, 601.

Table A-20. Actual and estimated population of large SMSA's [1] by major census regions, 1960, 1976, and 2000, United States [2]

Region	1960		1976		2000	
	Thousands	Percent	Thousands	Percent	Thousands	Percent
Total Unites States	179,323	100.0	230,019	100.0	350,477	100.0
Large SMSA's total	61,778	34.4	87,175	37.9	152,753	43.6
Northeast	23,930	13.3	28,679	12.5	42,955	12.3
North Central	19,171	10.7	27,454	11.9	47,411	13.5
South	7,021	3.9	11,216	4.9	21,934	6.3
West	11,656	6.5	19,826	8.6	40,453	11.5

[1] For these purposes "Large SMSA" means an SMSA with a 1960 population of 1 million and over.
[2] Excludes Armed Forces overseas.

Source: "Population Projections of the United States for 1976 and 2000;" Commission Staff; included in "Projections to the Years 1976 and 2000" ORRRC Study Report 23.

Table A-21. Actual and estimated number of occasions [1] by persons 12 years and over residing in large standard metropolitan areas, [2] by selected recreation activities and major regions, 1960, 1976, and 2000 (millions)

*Occasion	1960					1976					2000				
	United States	North-east	North-Cen-tral	South	West	United States	North-east	North-Cen-tral	South	West	United States	North-east	North-Cen-tral	South	West
All activities	1,606	622	547	150	200	2,700	310	220	226	623	5,742	1,616	1,827	783	1,514
Driving for pleasure	298	107	126	27	38	502	160	187	59	96	952	264	324	131	133
Walking for pleasure	277	132	74	27	45	442	163	130	53	95	892	267	270	124	230
Swimming	260	115	71	22	52	498	176	148	56	118	1,107	323	335	149	300
Playing outdoor games or sports	187	65	68	15	39	356	110	121	40	85	810	221	262	108	221
Sightseeing	118	32	49	10	26	201	56	74	22	49	408	105	137	54	112
Picnicking	106	45	36	7	18	172	60	57	18	38	325	94	104	42	85
Bicycling	71	20	19	15	17	104	29	30	19	26	138	48	55	33	52
Attending outdoor sports events	59	18	25	7	8	95	28	35	13	18	180	48	61	26	44
Fishing	58	20	23	5	11	89	27	32	10	20	159	43	53	21	42
Boating other than sailing or canoeing	56	24	20	4	9	110	38	38	11	23	248	72	81	32	63
Nature walks	37	19	11	3	4	63	24	20	7	12	124	38	39	16	30
Camping	17	4	6	2	5	36	10	12	4	11	88	22	28	12	27
Hunting	14	4	6	2	2	21	6	8	3	5	36	9	12	5	9
Hiking	14	4	3	1	6	28	8	7	3	10	62	16	17	8	21
Water skiing	12	5	3	1	3	30	10	8	4	7	79	23	23	11	22
Horseback riding	11	4	3	1	3	18	6	6	2	5	39	10	12	5	11
Attending outdoor concerts, drama, etc	11	4	4	1	2	20	7	7	2	5	45	13	14	6	12

[1] Number of separate days on which persons engaged in activity during June-August except hunting for which September-November period was used.
[2] Population 1 million persons and over.

This table affords some insight into the nature of recreation needs and preferences of residents of large metropolitan centers which seem likely to prevail for the next 40 years. As indicated in chapter 3 above, a number of the activities listed seem particularly meaningful in gaging the type of resources which need to be provided to meet future needs of this particular segment of the population. One significant aspect of these forecasts is that outdoor recreation participation among metropolitan residents is expected to outpace population increase largely due to factors inherent in the characteristic economic and social structure of metropolitan residents.

The population of large SMSA's (Standard Metropolitan Statistical Areas of 1 million population and over) increases over 40 percent in 16 years while

Table A-22. Comparison of rates of growth of large metropolitan population and of outdoor recreation demand, 1960, 1976, and 2000—summer months

	Population increase (percent)	Recreation demand increase [1] (percent)
1960-76	41	73
1976-2000	75	106
1960-2000	147	257

[1] Source: Tables 20 and 21.

recreation demands increase by over 70 percent—an average annual increase of recreation demand of about 3-1/2 percent per year compared with an average annual metropolitan population growth of 2.2 percent. In the 24-year interval between 1976 and 2000, metroplitan population increases at an annual rate of 2.3 percent while recreation demand grows at an annual rate of 3 percent. Thus the expected average annual effect of economic growth on outdoor recreation demand is to raise per capita participation for the future. This, of course, implies that the recreation demand of each year is somehow satisfied.

Another set of comparisons is that between anticipated regional population growth of metropolitan regions and the anticipated regional outdoor recreation demand in the following table.

This table demonstrates that the distribution of the demand for outdoor recreation among residents of metropolitan centers by major census regions is anticipated to conform closely to the distribution of metropolitan population by major census regions. The rank order of metropolitan populations and the rank order of anticipated recreation demand of metropolitan residents are the same.

If these forecasts of the conformity of regional distribution of outdoor recreation demand and the population in 1976 and 2000 are realized, then it follows, in terms of absolute volume, that the heaviest demand will originate in the Northeast and North-Central regions, but the largest relative increases will be experienced in the west and more probably these will largely originate in the Pacific coast metropolitan centers. Population change is the bases for these relative increases.

The rapid population growth of the Pacific coast and the accompanying increase in outdoor recreation demand are the results of an assumed high rate of in-migration, relatively higher wages, and a population relatively heavily weighted with young, well educated, married couples with families. These people are expected to be concentrated particularly in the southern California counties. Population growth and regional distribution are the dominant factors determining the direction in which metropolitan recreation demand will grow, also of the areas of impact since the largest portion of demand is for short trips to day-use and overnight recreation areas. While the South as a region will remain in its present relative position, large scale metropolitan development and accompanying heavy demand for outdoor recreation opportunities will occur in Georgia, Florida, and east Texas.

In chapter 3 the activity composition of outdoor recreation demand was discussed. Table 24 identifies the amount of activity in those forms of outdoor recreation most typical of metropolitan residents which are expected to originate in metropolitan regions in 1976 and 2000. This table also indicates the relative importance of these activities.

Out of a total of 17 principal outdoor recreation activities (cf., table 21) engaged in by residents of large metropolitan centers in the United States the eight activities listed in table 24 account for about 85 percent in 1960, 1976, and 2000. Moreover, rank order of the participation in these activities among residents of the large metropolitan areas in the United States changes entirely due to socioeconomic causes, and not because of population growth. Thus three activities: driving for pleasure, walking, and swimming, are affected by changes in the socioeconomic variables to a greater degree than the last five activities: playing outdoor games and sports, sightseeing, picnicking, bicycling, and attending outdoor sports events. Driving for pleasure retains first rank in 1976 but drops to second place in 2000. Walking for pleasure in second place in 1960 drops to third place in 1976 and 2000, whereas swimming, ranking third in 1960, moves to second place in 1976 and is expected to be the most popluar activity nationally among residents of all large metropolitan centers in 2000.

These eight most popular outdoor recreation activities of metropolitan residents also account for very close to 85 percent of regional totals in each

Table A-23. Percent of total metropolitan population by major census region and percent of total outdoor summer month recreation demand of metropolitan residents by major census regions, 1960, 1976, and 2000

Region	1960		1976		2000	
	Metropolitan population (percent)	Recreation demand (percent)	Metropolitan population (percent)	Recreation demand (percent)	Metropolitan population (percent)	Recreation demand (percent)
Total	100.0	100.0	100.0	100.0	100.0	100.0
Northeast	38.7	38.7	32.9	32.9	28.1	28.1
North Central	31.0	34.1	31.5	33.0	31.0	31.8
South	11.4	9.3	12.9	11.7	14.4	13.6
West	18.9	17.9	22.7	22.4	26.5	26.4

Source: Tables 20 and 21.

Table A-24. Number of activity occasions by selected types of recreation activity among residents of large metropolitan regions: United States, 1960, 1976, and 2000—summer months and rank order

Recreation activity	1960		1976		2000	
	Rank	Million	Rank	Million	Rank	Million
All		1,606		2,785		5,742
Driving for pleasure	(1)	298	(1)	502	(2)	952
Walking for pleasure	(2)	277	(3)	442	(3)	892
Swimming	(3)	260	(2)	498	(1)	1,107
Playing outdoor games and sports	(4)	187	(4)	356	(4)	810
Sightseeing	(5)	118	(5)	201	(5)	408
Picnicking	(6)	106	(6)	172	(6)	325
Bicycling	(7)	71	(7)	104	(7)	188
Attending outdoor sports events	(8)	59	(8)	95	(8)	180
Total		1,376		2,370		4,862
Percent of all activities		85.7		85.1		84.7

Source: Table 21.

of the four major census regions for 1960 to 2000. However, rank order changes which are anticipated among activities vary considerably among regions and between these and the United States activity totals (cf. table A-21). Thus in the Northeast, walking for pleasure had first rank in 1960, swimming was in second place. Driving for pleasure was first in the North-Central region in 1960 and rank order of the first four activities was the same in that region in 1960 as national totals. This was true in the South also. In the West swimming was in first place in all years, but shifts occurred in the rank order of driving for pleasure and walking for pleasure. Playing outdoor games and sports remained in fourth place for all regions and years.

It is to be noted that among the first four most important activities, changes were confined to shifts in the first three, and in no region or year did any of the first three most popular activities in 1960 fall below third place to the year 2000. Shifts in rank order occurred among the last four activities between years and among regions but in no case was an upward shift in these activities large enough to cause a rank order higher than fifth with the single exception of bicycling which in the southern region in 1960 tied for fourth place with playing outdoor games and sports.

The outlook in the years ahead for outdoor recreation demand among residents of large metropolitan regions is for steady increases in the quantity. This demand will grow in proportion to population increases but at a somewhat greater rate. The difference in growth between population and recreation reflects the anticipated impact of a number of socioeconomic variables particularly income, leisure, occupation, and education. These, however, do not tend to cause much shift among regions except that the North-Central region will move from second to first place in terms of the amount of recreation demand which residents of large metropolitan centers will generate. Changes of great magnitude will not occur in the recreation activity "mix" although by the year 2000 swimming will be the dominant activity in all regions. Within regions shifts will occur in rank order of the more popular activities but these will not be sufficient to affect current patterns of preference sufficient to alter the relative requirements for supply.

In terms of what is implied for facilities to be provided to meet this anticipated growth the key appears to be properly located day-use facilities. More specifically the demand would seem to be greatest for a recreation environment which would: (1) emphasize adequate water, beach and parking facilities; (2) permit automobile driving under pleasant conditions of traffic and scenery; (3) permit walking under pleasant conditions of space and environment; and (4) provide adequate play and sport areas.

While these are the factors which would facilitate the most popular activities of metropolitan residents it should be borne in mind that probably no activity is single valued. The individual recreationist probably selects a mix of activities in every outing, and the value of the outing is heightened to the extent that he can engage in all the activities of his particular mix. Thus many walkers will also be drivers, sightseers, and picnickers. Fishing, a very important activity, will be engaged in by people who are also picnickers and boaters, and so forth.

But all activities share a common need for certain "backbone" facilities without which no recreation area has great appeal. Primary, of course, is a pleasant environment with ample space in the recreation area and around it as well, and with natural cover of some sort. Sanitary facilities and drinking water are essential everywhere. Cleanliness and maintenance of access roads are likewise essential. These are considerations which arise from analysis of likely behavior patterns discernible today and which probably can be counted on in the future.

THE PLANNING AND POLICYMAKING FOR OUTDOOR RECREATION

The process by which outdoor recreation opportunities for metropolitan residents are provided has three major stages: (1) determination of the need and its characteristics; (2) plans to meet the need; and (3) management of recreation areas and facilities to provide maximum opportunity. In the past, efforts to deal with these three stages have been concentrated

on the recreation site itself and solutions have tended, therefore, to be stated in terms of the area of the site. In the same fashion the needs and preferences of the recreation seeking public were based on observations of the behavior of recreation seekers at the site of a designated recreation area. The result of these observations was frequently to impute this behavior to the public at large.

This particularized approach did not permit differentiation between people who traveled long distances and those who traveled shorter distances. Besides it gave no insight into the specific problems of the residents of large metropolitan areas as contrasted to residents of other areas or the problems arising out of efforts of both groups to use the same recreation area. Nor did this method sufficiently analyze one recreation site and its use in relation to other recreation sites and their use. In more technical terms this method tends to assume that the persons who visit a given site truly represent a population universe when in fact the data tended to reflect only the behavior of the group actually observed and nothing else.

A somewhat related method is based on observation of the relations between the areal extent of sites and the number of users. 2/ This approach seems to have led to the notion that a satisfactory criterion for recreation development was gross park acreage—so many acres per thousand people in the population universe. The very wide range of such land—man ratios among public authority attests to its lack of scientific foundation and broad applicability.

A similar preoccupation with site tends to focus attention on the inherent qualities of sites rather than on the purposes to be served at one site in relation to other sites and to public needs. As a result, some sites have much land and too little water as in the case of some of Georgia's State parks. Other sites tend to provide water only for certain recreation uses as in the case of some divisions of the Cook County Forest Preserve District in Illinois, in spite of the almost universal preference for swimming. In the case of southern California beaches, the effective beach area is greatly circumscribed because of lack of parking areas and beach width.

But these apparent deficiencies in planning stem in part from the fact that only recently has the specific outdoor recreation need of large metropolitan populations for recreation opportunities beyond city limits been singled out for study. 3/ In earlier years, city officials have tended to think in terms of city parks. County and State officials have been concerned with their particular constituencies and Federal land management agencies including the National Park Service and the U.S. Forest Service have necessarily been concerned with an undifferentiated national public.

This, of course, emphasizes the essentially public nature of the task of providing outdoor recreation. For although the amount of recreation provided by private enterprise and by private voluntary groups is substantial, the overall task of planning and policy making is directed toward public recreation and is carried out by government agencies at all levels. And the great majority of all recreation areas are publicly owned, 283 million acres in 24,000 publicly designated nonurban recreation areas. 4/ Thus, the problems of planning, policy formulation and management of recreation areas located outside the immediate metropolitan area fell "between the chairs."

More recent efforts to deal with the problem of outdoor recreation for metropolitan residents probably came about to a considerable degree as a result of unbearable congestion experienced in areas which were accessible to the engulfing flood of recreation seekers from the great metropolitan concentrations. As a result, the solutions probably tended to be specific rather than general, limited rather than extensive, piecemeal rather than comprehensive, and finally and most importantly site- rather than market-oriented.

This approach would naturally result in limited planning concepts, and these would tend to oversimplify an inherently difficult problem. This is not to say that the provision of outdoor recreation for residents of large metropolitan centers is essentially more difficult than for other public services but only that in the categories, water supply, sewage, and transportation, recognition of the need for regionwide provision of these services took place earlier because of their acute and immediate impact on comfort and health. But in spite of this analogy to other services, the outdoor recreation planner for metropolitan regions does come late to the scene and does confront an unusual dilemma. Indeed, his absence at the time of earlier planning decisions now places him at a particular disadvantage. He has little to guide him in allocating community resources to recreation or among recreation sites. Lacking any clue to consumer sovereignty except that of residential agglomeration, he has to depend on budgets and political decision making. Moreover, he tends to be separated from the operations and management phases of outdoor recreation. He does not have intimate concrete knowledge of what the public wants in the way of outdoor recreation nor what it actually gets. 5/

2/ In the summer of 1961 members of the ORRRC staff reviewed the literature dealing with outdoor recreation standards to determine the acreage in use by planning agencies throughout the country. For nonurban local areas the acres per thousand population varied from 10 to 20. For State recreation areas the standards varied from 31 to 45 acres per thousand in the population. For regional parks standards varied from 100 acres per thousand in the population to 15. Other miscellaneous standards used by several authorities varied from a minimum of 17 acres per thousand in the population to 500 acres and over for nonurban reservations less than 60 minutes of traveltime from point of residence. Another authority suggested 300 acres per thousand in the population for national, natural, and recreation areas, including parks, wilderness forests and parkways.

3/ For example, the Park, Recreation and Open Space project jointly sponsored by the Tristate New York Metropolitan Region and the New York Regional Plan Association, Inc.

4/ ORRC Study Reports 1 and 2.

5/ See Harvey S. Perloff and Lowdon Wingo, Jr., "Urban Growth and the Planning of Outdoor Recreation," in ORRRC Study Report 22–Introduction–"The Big Issues in Planning Outdoor Recreation."

In preceding chapters an effort was made to indicate the principal characteristics of the demand of metropolitan residents for outdoor recreation and to relate this to salient aspects of the existing supply of recreation opportunity which these residents confront. Among the most critical aspects were the locational relations among recreation areas and between these and the metropolitan public. Another critical relationship is the location and distribution of water for recreation purposes.

Thus areal extent cannot serve as a single or even a very significant criterion for choosing potential recreation sites. Indeed the validity of the areal principle was tested in the study of outdoor recreation along the New York-New Jersey-Philadelphia axis (the New York Study), and it showed that recreation use was related to facilities and degree of development and not to acreage. 6/ An example of the relatively negligible value of acreage as a measure is the ocean shorelines of the New York-New Jersey-Philadelphia metropolitan region, "Hence, beaches . . . representing roughly 8 percent of the total miles of usable recreation shoreline and 1.3 percent of the total acreage reported by all types of outdoor recreation—receive roughly 36 percent of the total visits reported by all types of outdoor recreation areas in the 120-mile zone." 7/

The conclusion which seems to follow from this discussion is that considerable extensions of the recreation carrying capacity can often be achieved without acquisition of additional land. Land acquisition fairly close to large metropolitan centers is always time-consuming, expensive, and sometimes fraught with bitter controversy. Some acquisition of sites to serve the mass recreation needs of metropolitan residents is, of course, necessary. However, this objective should not be confined to increased acreage but rather to obtain a proper balance between need and opportunity. Thus some existing areas can be made more attractive by additional facilities so that a wider array of recreation opportunities is provided. Such techniques as use-zoning can be instituted to solve conflicting use problems which tend to depreciate the value of a site. More adequate parking facilities can enhance the attraction of an underused area. The extension of existing water surface or the creation of a new impoundment may bring out the full use potentials of areas.

But here again the planner is handicapped, because in practice it is not the planners but managers who are in the best position to judge what ends can be obtained by reshuffling the facilities and land and water use of a specific site to achieve increased capacity. Nevertheless, in regions of greatest population and relatively scarce resources, similar resources serve more people than in areas more abundantly endowed; the West has twice the number of picnic developments with larger total acreage than the Northeast which has twice the West's picnic capacity. 8/ This example seems to imply that the West is more lavish with land resources because it has more of them than does the Northeast. Or to put it another way, the pressure to accommodate a large public has resulted in management decisions for more intensive use of existing facilities but in all probability the result was achieved bit by bit, park by park, with varying degrees of regard for the comfort of picnickers and the actual carrying capacity of the particular land resource. Probably these decisions were made with very little consideration of their effects on similar facilities at other sites or of similar decisions on a particular site.

The principal criteria to present-day management decisions about outdoor recreation in the hinterland of great metropolitan centers is congestion. Relative degrees of congestion very largely determine the quality of the recreation experience at a given recreation site in the hinterland of large metropolitan regions, and the more attractive and better located sites are more liable to be subjected to congestion than less attractive, less well-managed sites. The millions who swarm to Coney Island, Jones Beach, Alton Lake, and the Lake Michigan beaches, or who inundate the picnicking facilities of the Cook County Forest Preserve in Illinois demonstrate the wisdom of the decision to establish these facilities and at the same time penalize the area by reducing the quality of the recreation it affords.

A related aspect is intensity of use or the peaking of large numbers of visitors in a short period—a half day or 2 or 3 hours a weekend, a few weeks, or 1 or 2 summer months. In the slack periods attendance may be cut in half or disappear completely, leaving the facilities idle as well as the investment they represent.

In addition to the impact on facilities caused by congestion, management is confronted with problems arising from the presence of large numbers of people. Many of these are safety problems—water is a pleasant but sometimes a hazardous element. Drownings and near drownings among swimmers and boaters occur not infrequently, and the hazard is ever present. People unfamiliar with the outdoors get lost, children become separated from parents, fires start, quarrels and violence erupt, and problems of vandalism are a potential threat in all recreation areas, public or private. The manager of a recreation area subject to heavy use must be able to deal not only with resources but with humanity as well, and the impact of recreation seekers in the mass can test the metal of any area manager particularly, as is frequently the case, when he is understaffed and underequipped.

On occasion the behavior of recreation seekers appears almost mercurial in its swift change. These unanticipated shifts sometimes catch management off guard. A few years ago Lake Havasu, behind Parker Dam on the Colorado River, was established as a wildlife refuge; it was also a fairly good fishing lake. The lake and adjacent lands were administered by a small management staff which carried out duties in connection with the refuge and a relative small number of fishermen.

Suddenly, almost overnight, this lake was discovered by Los Angeles speedboat fans and water skiers. The area erupted with activity. Since there were indequate parking facilities and access roads for the influx, and

6/ New York Study, ch. 3, "Standard for Measuring Use Value of Recreation Resources."

7/ New York Study, ch. 3, "Inventory Within 120 Mile Zone."

8/ "Outdoor Recreation for America," Washington, January 1962, p. 52.

also since this was a younger and somewhat reckless crowd having traveled a long way to enjoy their fun, a serious traffic hazard developed. People arrived at all hours. They parked cars anywhere and anyhow. They sought approaches to the lakeshore down precipitous slopes and launched boats at inappropriate and dangerous sites. The placid meditations of fishermen were rudely disturbed by the athletic antics of enthusiastic speedboaters and water skiiers.

In this remote, thinly populated desert area, the small custodial staff were overwhelmed and harassed by a whole series of problems for which neither training nor experience had prepared them. For a time pandemonium reigned.

Behind such events lie numerous causes. Principal among them is the absence of overall regional plans which comprehend the complex pattern of recreation activity which is imposed on the hinterland of metropolitan centers. There is lack of knowledge by planners of possible interrelations between people and resources and lack of established communications between planners and managers. Managers, primarily site-oriented by experience and training, find themselves at the point of impact of a public in motion over a variety of trajectories from unknown points of origin. Sometimes managers of private facilities tell a similar story of frustrated endeavor to preserve order, maintain sanitation, and prevent vandalism. Proprietors of summer resorts and tourist businesses shake their heads in doleful memory of harassed dealings with swarms of "summer people."

Perhaps all of these are only incidents—rough spots sometimes unavoidable when a large percentage of the population of 180 million people take to the road in search of outdoor recreation. And by and large the public must find a reasonably high level of satisfaction or they would not repeat the experience. And by and large the voracious appetite for outdoor recreation of our vast metropolitan agglomerations is somehow appeased. By and large our national recreation plant is made to serve current need in spite of the fact that much of it was not designed with all these activities in mind. But frequently the job is not well done and the national outdoor recreation capacity is strained to meet current needs; overcrowding and congestion are characteristic deficiencies of that part of the recreation plants serving day use and weekend use of residents of large metropolitan centers. Moreover, the congestion of the recreation site extends to traffic on many ingress and egress routes. Indeed in some cases, such as communities adjacent to the New York-Philadelphia axis, one band of traffic serves as an effective barrier to other bands.

PATHS TO SOLUTION OF THE PROBLEMS OF RECREATION POLICY FOR LARGE METROPOLITAN CENTERS

Perhaps the first step toward a more satisfactory handling of the large volume of recreational demand originating among residents of large metropolitan centers is a full recognition of its difficult and complex nature. In contrast to other public services, recreation covers a multitude of activities. As we have seen, 8 recreation activities account for 85 percent of the 17 outdoor recreation activities most frequently engaged in, but even 8 separate activities mean 8 different kinds of services and, as we have seen, most individuals try to find a mix of at least 2 activities. So in contrast to other services, such as water supply or transportation, no single instrument can serve. Furthermore, there are inherent conflicts, sometimes severe, among even the simpler activities.

On the other hand, no one of these activities makes demands for unique or dramatic resources but rather implies access to areas where rather simple activities can be enjoyed by large numbers of people. As we have seen above, from each population center in the metropolitan region, demand radiates to cover an area any point in which can be reached in not more than 2 hours driving time. In the New York Study the outer limits of these driving time zones determine the "recreation hinterland"—a 120-mile loop roughly 3 hours from the New York-Philadelphia axis of population concentration. The St. Louis Study sets 150 miles as an outside limit. In the Chicago Study the areas within 150 miles of Chicago are defined as the Chicago region. The Atlanta Study sets similar outer limits. The Los Angeles Study sets no specific limits but implies that Los Angeles residents will frequently travel as much as 250-300 miles for their recreation.

In spite of some variations as to its extent, all of these studies of the recreation of metropolitan residents tend to identify for each metropolitan center a corresponding metropolitan recreation region. This region and its recreation resources provide a large proportion of the total recreation activity of the metropolitan center. If satisfactory resources for recreation can be made available in this area, then a considerable part of the recreation "problem" of metropolitan centers would be solved.

Each one of the constituent studies of this series has focused attention on the metropolitan recreation region in recognition of the strategic position it occupies in the recreation problem. It seems to be the consensus that a solution of the existing problems and frustrations now confronting recreation planners consists in bringing about a proper balance between the recreation needs of the metropolitan center and the resources of the metropolitan recreation region. To some extent this involves some redistribution and reorganization of existing resources to provide principal access within a 50-mile zone which, within the larger metropolitan recreation region, is the area of most intense impact.

All studies indicate that a large part of the problem is in terms of location and distribution of facilities and the availability of water. The New York Study emphasizes the concept of balance:

> The concept of a balanced program is a dynamic one ... a recreation program requires internal balance as it moves toward greater overall levels of expenditure. Our inventory shows large amounts of recreation land, often with inadequate facilities, and sometimes with poor and ugly roads leading to them. It shows needs of children disregarded although thousands of acres are put at the disposal of relatively few adults. It shows heavy emphasis on costly projects and little on control measures that would greatly increase the yield of public

and private dollars committed to recreation purposes." 9/

Needs for recreation and opportunities for recreation must be stated. The needs of the New York, Chicago, or Los Angeles metropolitan population cannot be determined solely by counting the people at some, or even all, of the recreation areas in the metropolitan recreation region. They can only be determined by direct inquiry at the point of residence. The ability of the resources of the metropolitan recreation region to meet these needs requires an inventory of all existing and potential sites. The ability of existing sites to meet a portion of the metropolitan demand must be evaluated. A measurement of land and water surface areas is not enough. It is necessary to construct a facilities index or measure (see the New York Study), "Standards for measuring use value of recreation resources" which quantifies the ability of each site to furnish recreation opportunities. Then it is necessary to visualize all the recreation sites in such a fashion that their interrelatedness is taken into account. This means that the recreation sites within a metropolitan recreation region should be conceived as an integrated system which functions as a whole. For this is how they really do function.

Recreation behavior at one site is in part a result of the presence or absence of other sites and the related ability of these other sites to perform, the relative appropriateness of their location, the quality of their environment, and their water endowment. Of course, the basic land and water resources suitable for recreation are frequently distributed throughout the metropolitan recreation region in a highly irregular fashion. This complicates the problem to some extent, but on the other hand the very simple basic specifications of the great preponderance of the recreation activities preferred by metropolitan residents gives a wide flexibility to resource utilization.

Another reason for visualizing the recreation problem of metropolitan centers as a regional problem is the marked personal mobility of many residents of large metropolitan centers. Thus while it is possible to visualize recreational demand and its attendant problems on a region-wide basis, it becomes increasingly difficult to deal with these problems as the planning horizon narrows.

To return for a moment to the Lake Havasu experience, it is possible to explain what happened there and the causes for it only in a broad regional context covering a metropolitan center, an extensive highway system, and a potential resource. The lack of outlets for these particularly desired activities—speedboating and water skiing—closer to Los Angeles, the growing Los Angeles interest in boating and water skiing, are all relevant factors.

There were probably others. Hence, explaining the problem or even attempting to solve it exclusively in terms of Lake Havasu leads to no explanation and little, if any, solution. Perhaps it is only because of the superior accuracy of a backward view, but it does seem likely that knowledge in some detail of what Los Angeles people really wanted plus a realization of their extraordinary mobility, might have exposed the problem in advance and a careful inventory might have given a clue to resources that might have provided a more timely solution.

The factor of mobility causes other problems. Of the five metropolitan centers in this study, three—New York-New Jersey-Philadelphia, Chicago, and the six-county southern California complex—all have problems of overlapping regions within a 2-hour driving distance. The New York SMSA 2-hour driving zone overlaps a large New Jersey SMSA which in turn overlaps the Philadelphia zone and the Philadelphia zone overlaps a Baltimore zone on the south. Chicago overlaps Milwaukee to the north and the southern Lake Michigan-Indiana complex on the south and east. Los Angeles and San Diego are both large SMSA's with overlapping 2-hour driving-distance zones. This overlap condition is bound to increase with the growth and extension of existing metropolitan centers and the rise of smaller centers to become either parts of existing agglomerations or to form new nuclei. What are now problems of metropolitan recreation regions will become more complex as more and more regional overlaps occur, particularly in the north-central region where several large metropolitan areas are likely to develop within a short distance of one another.

The New York Study illustrates that this overlap problem can sometimes be solved by a successive series of shifts across regional lines.

> Where the 1- and 2-hour time zones of deficient counties of one State overlap those of deficient counties of another State an area exists which should be intensively studied for the development of more recreation opportunities. . .
>
> It should be noted at this point, however, that recreation resources and problems cannot be rigidly divided according to State. For example, much of New York's problems can be solved in New Jersey. And according to our inventory data, most of New Jersey's outdoor areas can be made more useful by improving facilities and expanding capacities. Similarly, some of New Jersey's problems can be mitigated by development in Pennsylvania. According to our data, Pennsylvania is well endowed with land but is short of water and facilities. The several impoundments which have been proposed to ring the city of Philadelphia would solve the recreational water problem for that city and for part of New Jersey. 10/

Here we see how the mobility of recreation seekers can become a problem-solving tool. In still another way too mobility can be brought into useful play; highways can be designed to break bottlenecks, thus extending the size of the time-mileage zone so that new facilities are in effect brought into the region.

THE PROBLEM OF JURISDICTION AND RESPONSIBILITY

In the foregoing sections of this chapter, we have discussed the importance, for outdoor recreation among

9/ The New York Study, ch. 4, "Achieving Balance and Efficiency."

10/ New York Study, ch. 3, "Overlap Zones: A Regional Problem."

metropolitan residents, of the relations between the metropolitan center and the 1 to 2-hour driving-distance zone immediately adjacent to it. The recreation resources available in this time-distance zone with a rough maximum radius of 150 miles from the metropolitan center provide the major recreation opportunities for the great mass of the residents of the metropolitan center.

However, this recreation region has many functions to perform in addition to that of recreation. The region is not a vacuum. It contains many small cities and towns. It is the location of industrial sites, highways, airports, rail lines, port and port facilities which also serve both the adjacent metropolitan and other population centers. The recreation resources are usually scattered through such regions in a very irregular fashion, since they are located not in any neat geometric pattern but according to the dominant topographic features.

Nor are the outdoor recreation opportunities in this zone the exclusive domain of residents of large metropolitan centers. Indeed, these are only part of the total public to be served by the area. Thus, not only does recreation compete with many other services for resources, but metropolitan residents also compete with others who use the metropolitan recreation region.

These resources are provided not alone by the public and private recreation agencies of the metropolitan center but by several other levels of government jurisdiction and by a greatly dispersed number of private agencies ranging from nonprofit voluntary groups to the proprietors of a variety of recreation resorts.

However, the great mass of the recreation seekers of the metropolitan center who journey into the metropolitan region engages, as we have seen, in activities most generally provided through public agencies—that is, official bodies which are at one level or another of government.

To a very large degree the quality and quantity of outdoor recreation available to metropolitan residents in the dominant day-use and overnight recreation areas in the metropolitan recreation region are determined by public policy and are supported by public expenditures. To the extent that the government unit favors the type of activities most commonly sought by metropolitan residents and also provides financial support, then the dominant needs of metropolitan residents are likely to be met.

But no clear general policy of public responsibility for the provision for outdoor recreation for metropolitan residents has been established anywhere except possibly and very recently in the New York metropolitan area. Instead there is a tremendously complex array of government jurisdiction and responsibility for the outdoor recreation function.

Usually at least three levels and sometimes four or even more levels of government are involved in the development of recreation policy within the metropolitan recreation region. The usual levels are State, county, and city governments. Frequently however, the Federal Government appears in an important role as in the case of the six-county southern California metropolitan complex. Palisades Interstate Park was originally handled by joint commission representing the States of New York and New Jersey until about 1935 and since then has been handled under interstate compact.

In addition to the several levels of government, many units of the same government level are involved in the metropolitan recreation region. The metropolitan center itself includes a number of counties and autonomous municipalities. The New York-New Jersey-Philadelphia metropolitan complex involves 38 counties, Atlanta 5, St. Louis 6, Chicago 6, and Los Angeles 6. The city of St. Louis is ringed by 98 autonomous communities ranging in size from over 50,000 down to 50. The six-county Los Angeles complex includes 135 incorporated cities, among them such major communities as San Diego with over 1 million population, Long Beach, Santa Monica, Riverside, San Bernardino, and Pasadena. Presumably, each of these governmental bodies has police and tax power and some degree of official responsibility for outdoor recreation within its boundaries. Three of the five metropolitan centers in this study involve more than one State either in the metropolitan center itself or in the adjacent 150-mile recreation region.

The St. Louis metropolitan area spreads from Missouri into Illinois. The Chicago recreation region extends from Illinois into Indiana, Michigan, and Wisconsin. The New York megalopolis spreads from Connecticut across New York into New Jersey and Pennsylvania. Strictly speaking, the southern parts of the six-county southern California complex contains a portion of the Mexican State of Baja California in its recreation region. Parallel situations of the proliferation and complexity of government will be found to exist in all other large metropolitan centers in this country.

In this situation there is ample opportunity for outdoor recreation to suffer from overlapping of responsibility, contradictory policies, and unnecessary duplication of function. It is also possible for a considerable amount of confusion to result. We have seen that some of these things do occur. The bulk of the State provided recreation areas of Illinois, Indiana, Wisconsin and Michigan are so located that they do not serve the dominant needs of Chicago residents, or for that matter, of the residents of other large SMSA's. In the case of the States neighboring Illinois, this is partly because of the location of suitable, natural resources. But it also might be presumed that Illinois officials feel that Chicago should look after itself because of its great tax resources, and because of the dominant population situation it represents in the State population. At any rate, State policy has not made successful efforts to provide an adequate recreation for Chicago residents. While Atlanta suffers no present shortage of recreation outlets, the government of the State of Georgia has not evidenced a willingness to recognize the quantitative pressures of this large metropolitan center, and many State recreation facilities are out of the reach for day and overnight use of the Atlanta population. Outdoor recreation facilities provided by the State of Missouri tend to be located at the extreme edge of the St. Louis 2-hour driving zone or beyond it. On the other hand, the States of New York, New Jersey, and California have

several substantial recreation developments within easy access of the large metropolitan centers.

The development of public recreation policy and its execution are inevitably matters of political process. The State has to decide the allocation of funds for acquisition and development between day-use and overnight facilities, between seashore and mountain, between one part of the State and another, and between the needs of large metropolitan centers and those of smaller communities. In general, however, the State is not as sensitive to the residence of the users of its facilities as are the cities and counties more immediately concerned.

The political concern of county government with respect to the users of county recreation facilities can be a matter of great sensitivity. County taxpayers do not like to see benefits of their public facilities reaped by nontaxpayers. On the other hand, they do not relish the loss of a tax base when land goes into public use, as when the State or Federal Government acquires lands in their jurisdiction.

A resource-rich jurisdiction can find its recreation facilities overrun by residents from other jurisdictions. Orange County, Calif., has developed some fine beaches which serve not only its own residents, but thousands of people from neighboring Los Angeles County as well. The high degree of mobility among Americans almost guarantees a large export of free recreational services from any facilities financed locally, leaving local people to stand the costs of increased operation and maintenance and, perhaps, to witness the deterioration of their facilities caused by overcrowding.

Unfortunately, the increased business due to tourist expenditures does not in the case of day-use and short overnight recreation areas provide much offset to the costs of providing this type of public recreation because, as we have seen, this form of outing does not typically involve much outlay. On the other hand, the expenditures of recreation seeking Chicagoans in Wisconsin apparently are a valuable contribution to that State's economy. These trips, however, tend to be for extended weekends and vacations. They are not strictly of the short, overnight and day-use type.

In the State of Georgia, some public recreation areas are leased to private concessioners who then operate the facilities for a profit. This practice may be feasible if the charges do not serve to bar the general public from the use of the facility. Unfortunately, this device is sometimes used to circumvent the right of minority groups to use public facilities. On the other hand, some private recreation areas in Georgia do apparently provide an excellent array of recreation services to a fairly wide cross section of the white population, and to this extent these private facilities do serve a useful, but limited purpose.11/

The laws of California permit local government to acquire and operate recreation areas outside of their jurisdictional boundaries. The city of Los Angeles operates several outdoor recreation areas in the High Sierras. Indeed, the legal authority to engage in the provision of outdoor recreation in southern California is wide and well established. This authority apparently extends to counties as well as to incorporated municipalities. However, it seems that it is not the legal authority to act which affects the policy and program of public recreation agencies in the metropolitan region. At least, this appears to be the case in the five metropolitan studies of this series. Rather, it is the relative willingness to act, and to assume responsibility within fairly broad legal limits. This can be understood in the case of large cities which are called upon to provide large amounts of community type recreation inside the city limits. This obligation tends to commit a large portion of the recreation item of municipal budgets. Chicago, for example, seems to be in this position. The Chicago Park District provides a large amount of the total facilities made available by all park districts in the entire metropolitan area. These facilities include 338 developed parks, 334 playgrounds, 153 fieldhouses, 42 outdoor and 11 indoor swimming pools, 594 tennis courts, 138 baseball diamonds, 134 ice rinks, 32 beaches and 14 miles of beach property, 7 marinas, 1,815 slips, moorings and space for boats, 4 golf courses, 2 stadiums, a planetarium, 2 conservatories, a zoo, a large underground garage, and several large surface parking lots.12/

In addition, the Chicago Park District conducts a large number of recreation programs and activities. The city of St. Louis similarly tends to focus attention on urban-type recreation developments and activities, the city of Los Angeles recreation authorities confront, as we have seen in previous chapters, a heavy demand for urban-type community facilities to provide for minority groups and aging people, as well as from out-of-town visitors.

It is no wonder that city officials facing demands for this type of service find it difficult and even politically infeasible to propose extensive recreation development outside city limits. But this decision, of course, simply passes the burden onto some other jurisdiction. In the case of Chicago, this is the State of Illinois, or the several county forest preserve districts in the metropolitan counties. In the case of the city of St. Louis, it is the State of Missouri or St. Louis County.

But the county authorities also have to face constituencies, who are not anxious to foot the bill for recreation resources used by their neighbors. In the case of Atlanta, a fortuitous circumstance has partly solved this problem, namely the construction of a large Corps of Engineers reservoir easily accessible to Atlanta residents.13/ The Corps of Engineers installation at Alton Locks and Dam, near St. Louis, solved a similar problem for that metropolitan area. But in neither case were these installations designed for recreation. Consequently, the provision of these facilities does not represent the outcome of planning decisions by local governments but are windfall benefits unlikely to be repeated.

Water enters into the sphere of government relations in the area of recreation in both the New York-Philadelphia and the southern California recreation regions. In these regions, municipal water supply reservoirs are not fully available for recreation uses. The authorities that manage these facilities

11/Cf., Atlanta Study, app. B–"Ida Cason Calloway Gardens."

12/The Chicago Study, ch. 3, "The Chicago Park District."

13/Allatoona Reservoir, and Lake Sidney Lanier.

are reluctant to make them available for recreation on the grounds that use of these reservoirs for recreation constitutes a health hazard to the public, although there is evidence that the hazard can be minimized. This objection has been somewhat modified both in New York and southern California to permit fishing on some reservoirs.

The New York City Croton System has 18 lakes and reservoirs and 186 miles of shoreline, only an hour's drive from New York City. But the use of this system is closed to all recreation use except fishing. 14/ The southern California water supply situation is complicated by the perennial water shortage which means that municipal supplies must be brought long distance at great expense at the same time that the importance of water rights in neighboring watersheds inhibits the use of local streams for recreation impoundments for fear that water rights might be invalidated on the grounds that such use implies a surplus of water for more essential purposes. The restrictions of access to water recreation resources in both these instances arise from policy decisions by government. The policy problem then has as its basis a political conflict at the same level of government developing out of opposed views of the public interest.

When different levels of government possess authority to perform similar acts, pressure is likely to develop to force action at the higher level. Thus, local authorities in a metropolitan recreation region, confronted with public demand for more outdoor recreation outlets, can avoid a decision which may entail taking property off the tax rolls and increasing local taxes by claiming that recreation is primarily a State responsibility. This is reported to be the attitude of some southern California counties. 15/

It is difficult for government authorities to insist on following sound, long-run outdoor recreation policies when short-run problems reach acute proportions, even though this decision may result in a considerable imbalance in the outdoor recreation resources. The Atlanta metropolitan region needs a system of regional parks in order to provide outlets for residents of the more densely populated inner city. At the same time, there is need for overnight camping facilities. However, day-use, not only by Atlanta residents but throughout the metropolitan recreation region, is very heavy. As a result, local and State officials tend to facilitate day-use in the metropolitan recreation region, while the regional park and overnight areas are pushed into the background.

In the six southern California counties, ocean beaches receive very heavy use, not only for swimming but also for boating and other activities. At the same time, as we have seen earlier, there is a dearth of mountain and desert recreation development. Moreover, the financial resources of each of the four ocean front counties are greater than those of the two counties, San Bernardino and Riverside, which contain the mountains and deserts. These two counties have lagged in the development of their own resources which has tended automatically to accent the regional imbalance. In recent years, the pressure of beach activity demand has become so heavy that the State has also concentrated on providing beach and harbor facilities. 16/

But the result of this policy decision is to concentrate State functions in an area where city and county recreation functions are already in action for similar purposes. At the same time, counties, where needed recreation resources have not been developed because the counties have not felt they could stand the burden, remain underdeveloped and without State aid. The result is that the U.S. Forest Service is "the only major supplier of outdoor recreation services in the mountain areas." 17/

The deferral of achievement of a more balanced development of the resources of the metropolitan recreation region results from a government decision based on the weighing of alternates. More people in the Los Angeles complex at that time wanted further ocean front development in areas already developed than appeared to want it in the areas where development would have created more balance. The State of Georgia had to decide between relief of critical overcrowding of existing facilities and the creation of new developments for different kinds of services. Behind these decisions lie the pressures of a rapidly expanding population. It appears probable that immediate pressing needs are politically more important than considerations of future balance of needs not yet manifest. And quite probably the struggle to keep abreast of present need probably stretches available government resources to their limits. So in a sense the decision is between an existing need and a future goal and, on the criteria of numbers and need, both the State and the counties could very probably justify their decisions on the ground of serving "the greatest good to the largest number."

Indeed, a good many of the decisions of government at all levels can be traced back to the push and pull of constituencies. Southern California county commissioners have traditionally opposed committing county resources to outdoor recreation. But this position is not taken arbitrarily or in a vacuum. If it were, then the commissioners would long since have been changed and new attitudes would have been reflected. Rather, the existing attitude reflects traditional attitudes among their constituencies. The citizens simply do not want to be taxed to pay for recreation services which perhaps would primarily apply to nonresidents. Since it is one of the characteristics of outdoor recreation that it occurs at the recreation site, the presence of a site automatically implies a large influx of strangers into communities on the very days on which the citizens of these communities expect to enjoy leisure and peace. Then too, the sites which are desirable for recreation are often the areas adjacent to which the more affluent and influencial citizens have developed their homes and country clubs.

The point is not that such attitudes on the part of a constituency are unselfish, or even public spirited, but rather that citizen behavior is rational, and that

14/ New York Study, ch. 4, Recommendation 7: "Use of Water Supply Reservoirs for Recreation."

15/ Los Angeles Study, ch. 3, "Political Aspects."

16/ L. A. Study, ch. 4, "Division of Beaches and Parks;" "Division of Recreation."

17/ Ibid.

government necessarily reflects constituent sentiments. It is also reasonable under these circumstances for State recreation authorities to solve the problem by elevating it to a higher policy and decision-making level where a different and more diffused constituency is involved.

Indeed, most of the public decisions about recreation in the metropolitan recreation region are rational, responsive to constituency attitude, and within the limits of that constituencies area of political influence—valid. It cannot be denied, however, that the ensuing decisions are frequently adverse in their effects on the recreation seeking residents of large metropolitan centers. For example, those officials responsible for the maintenance of a pure water supply to large metropolitan centers stand pretty rigidly against any form of recreation that involves contact between reservoirs and human bodies. This denies these reservoirs to swimmers.

But even this is a responsible, not an arbitrary, act of government. An element of risk of contamination is involved. The question is, how serious is the risk? The guardians of the reservoir think it too large to permit recreation use of the reservoirs. This is not an attitude to be discounted, even in the interest of overwhelming pressure for water recreation. The officials know that if disease does occur that it may be widespread; in any event, they would be open to criticism in case it should occur. The State of Georgia shifts its recreation activity responsibility to private or semiprivate organizations. Georgia counties pay the State for recreation services in some instances, and the State accepts county assistance in other instances. These actions again correspond to constituent attitudes and are in that sense rational. They achieve an objective sought by a constituency.

The Federal Government, through its landholding agencies, provides recreation resources in metropolitan recreation regions. The administration of these lands reflects policies set at the national level, but frequently modified to reflect regional or local recreation needs. In southern California, forest fires constitute a great hazard for several months in the year. Consequently, southern California forests must be closed to recreationists at a time when the forests are most attractive and in spite also of the fact that these forests constitute the major portion of the region's mountain recreation resources.18/ Sometimes, Federal land holdings are so located that they do not provide a maximum recreation utility for metropolitan recreation needs, as in the case of St. Louis, and to some extent in southern California. This is perhaps an unhappy circumstance but one which can hardly be laid at the door of government action.

The foregoing discussion of the relation between government units in the provision of outdoor recreation in areas adjacent to large metropolitan centers reveals a number of problems, which are sometimes stated as problems in government planning and policy decision. Not infrequently these problems appear as weaknesses or deficiency in the government handling of recreation matters. But on further consideration, it seems that these difficulties reveal themselves fundamentally as problems among and between groups of people, aggravated by the special characteristics of recreation, of mobility, of rapid population change and growth, and of the shifts within metropolitan centers such as the "flight to the suburbs."

Another aspect of government's relation to outdoor recreation in the recreation region of large metropolitan centers is the multiplicity of governments which are involved. This complex structure appears to some people to result in considerable overlapping and duplication of function. In any event, it is not easy to comprehend, and often appears confusing to observers. But when the analysis is focused on specific situations, confusion tends to disappear and the functional arrangements though, far from simple, are valid for the purposes for which they were made. One of the tests which should be applied to this structure is pragmatic—the enormous volume of outdoor recreation activity which this complex structure regularly provides to metropolitan residents—somehow the job gets done. Morton Grodzins argues that the present arrangement of governmental operation in outdoor recreation should not necessarily be "neatened." He says:

> Why does lack of neatness recommend itself? First of all, the overlapping concern of many governments in a single problem in no way prohibits, indeed it invites, the establishment of general goals by the central government. It also invites central authorities to stimulate activity by the smaller governments.
>
> Second, the existence of many governments operating freely in a single program in an area preserves the desirable openness in the system. There is no single source of initiative, rather there are many. ... Third, a system of many power centers is well suited to meet the infinite variety of expressed needs. It responds quickly (sometimes too quickly) to citizen demand. Because there are many points of decision, citizens and citizen groups have multiple opportunities to influence decisionmakers. ... Fourth, many governments operating in recreation even if they do roughly the same thing, are effective in meeting the growing pressure on recreational resources.19/

Perhaps one of the reasons we are able as a nation to produce so much outdoor recreation is because we have so many producers of it.

But fundamentally, it is perhaps not so much a question of the many governments in recreation, but of the many publics in recreation. It seems likely that improvement in the quality and quantity of future recreation resources for the residents of large metropolitan centers depends essentially on the enlightened attitude of informed publics.

18/Los Angeles Study, ch. 4, "State and National Government Aspects of Outdoor Recreation in Southern California;" "U.S. Forest Service."

19/ORRRC Study Report 22, "Trends in American Living in Outdoor Recreation;" Morton Grodzins, "The Many American Governments In Outdoor Recreation," part III—"The Virtues of Chaos."

PROBLEMS OF THE FUTURE

Despite the accomplishments of our multifaceted recreation system, and the confidence expressed in our complex governmental machinery, it must be admitted that a formidable task lies ahead, if our large and growing metropolitan population is to have access to adequate recreation resources.

The pressures on scarce resources which are located near great metropolitan centers is already heavy. Those at the center of the decisionmaking apparatus of government will be called on more and more to make ever more crucial and larger selections among alternate uses of resources, for water supply, highways, military installations, and others perhaps not presently foreseeable. Moreover, these choices will affect not only the immediate constituency of conventional political subdivisions, but of regions interstate in nature.

Up to the present, we have had relatively little experience with interstate regional undertakings. One such undertaking, the Palisades Interstate Park, represents a successful experience. Another, the Delaware Basin Interstate Compact awaits the test of time.

No city and no State has had a longer, larger, or more successful experience in providing outdoor recreation outside metropolitan boundaries for a large metropolitan population than the State and city of New York. 20/ This record of success is very largely a record of massive public support on critical issues.

In 1924, a $15 million New York State park bond issue carried by nearly a million majority. Associated with this great political victory were important planning concepts: (1) provision of recreation resources for metropolitan residents who wish to drive automobiles into the country was a State responsibility; (2) landscaped drives should link New York City with the parks surrounding it and with each other; and (3) parks should be administered jointly by existing units of government, State, county, city, and town.

In November 1960, a similar massive public support was evidenced in the overwhelming majority which supported a $75 million New York State park bond issue. Following this victory, the voters of New Jersey approved a $60 million bond issue, and Pennsylvania is moving towards a similar proposal.

A very significant aspect of this New York record of success is the maintenance over the years of a high degree of public interest in parks expressed through private organizations and individual citizens. This interest has been highlighted by such personal acts of generosity as the 10,000 acre and $1 million gift by Mrs. E. H. Harriman in 1910. The 1924 State bond issue proposal arose partly from the work done by private citizens beginning in 1921. This private group was known as the New York State Association, of which Robert Moses was secretary. The decision as to the form of administration of New York metropolitan area parks was based on a regional survey of New York and its environs, which was privately financed. Finally, there is the present New York Regional Plan Association, Inc., which recently produced a valuable series of influential publications including the "Race For Open Space," and "The Law of Open Space." Thus, at every important step in the development of outdoor recreation programs for the great New York metropolitan population, there has been vigorous, able, and informed participation by private citizens. As a result, the public has been well equipped to make important political decisions about outdoor recreation. Both the 1924 and 1960 bond elections confirmed the desire of the public for outdoor recreation, and their willingness to tax themselves to pay for it when they understood the issues.

As we have seen earlier, public reaction to the political issues posed by the increasing pressure for outdoor recreation for residents of large metropolitan centers can be shortsighted and selfish when it is uninformed, or only partially informed. To some extent, this lack of public education about outdoor recreation reflects the fact that the subject matter as yet is not particularly well known, there is not very much written material on the subject, and very little substantial research has been completed. Altogether, a great deal of digging for essential facts remains to be done. More studies need to be made, more books written, more research accomplished, to provide the basic material for public information and education about outdoor recreation.

But the entire decisionmaking machinery of government at all levels also needs to be energized and oriented to the planning of outdoor recreation in the metropolitan recreation region. The reluctance, hesitancy, and even irresponsibility of local government with respect to outdoor recreation is not irrational in view of the problems posed. Nevertheless, the assistance and coordination of government action at all levels become more and more essential as the recreation problems of the future grow in dimension and complexity.

Here again the New York experience provides an important insight into approaches for securing integration of government action at all levels. This was manifested in the 1928 decision to promote joint functions of existing New York governmental units rather than to create a new level of government to administer outdoor recreation in the New York metropolitan area. The 1960 bond issue election evidences a similar regard for joint government action. This measure allocates the $75 million total as follows: "$20 million to acquire State park plans, $15 million for other State outdoor recreation plans, $12 million for New York City, $12 million for cities other than New York, and $16 million for park plans in counties, towns, and villages." 21/

These two political decisions of 1928 and 1960 imply a great deal of political sophistication—the responsibility for action with respect to outdoor recreation by the existing, conventional government structure is confirmed, and then these units are given the means to carry out their responsibilities by the State. Thus, the role of the State is also maintained. Its powers are properly used to enable local levels of government to discharge their responsibility. State powers

20/ The following discussion of the background of recreation in New York is based very largely on the New York Study, ch. 6, "Government and Outdoor Recreation In The New York-Philadelphia Region."

21/ The New York Study, ch. 6.

are used to promote joint action, and not to supersede local responsibility or to intervene directly as the substitute for action by the local levels. This policy explicitly removes the basis for the claim that outdoor recreation in the metropolitan region is a State rather than a local responsibility. The State contributes 75 percent and the local unit 25 percent of the acquisition costs of park plans. There is a distinct incentive in this provision for full discharge of local responsibility. Also the provision that all facilities developed with the use of these State funds be open to the general public since it applies equally to all local units of government, removes the ground for restricting use of local facilities to local residents.

This very recent legislation has not yet proven itself. However, it is clear that the careful attention to the problems of government decisionmaking and policy formulation are implicit in the design of this proposal, and for its execution.

Thus in the long New York experience there is a lesson which may serve as a guide for metropolitan centers which have yet to face in the years ahead the problems of providing adequate outdoor recreation resources for the people who reside in them.

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Part II

THE FUTURE OF OUTDOOR RECREATION IN THE ATLANTA STANDARD METROPOLITAN STATISTICAL AREA

A Report to the Outdoor Recreation Resources Review Commission

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PREFACE

One measure of the general prosperity of the United States is the growing interest at all levels of government in the matter of the most effective programs for filling the increasing amount of leisure time available to our residents. As the workweek for most Americans decreases, as paid vacations increase, and as more and more people live to take advantage of lower retirement ages, the problem of how to fill idle hours becomes of more than passing importance.

Coupled with the matter of leisure time is the growing menace of the diminution of open spaces and forest land available for outdoor recreation. As urbanized areas flow outward to meet other urbanized areas, the threat of the "vanishing countryside" becomes less fancy, more real. Certain writers, believing that exaggeration is necessary in order to awaken the American people to the dangers of exploding populations and exploding metropolitan areas, paint gloomy pictures of a future consisting of constant streams of automobiles moving from one urban area to another through polluted air, past polluted streams, to a shrinking number of overcrowded, debris-littered recreation areas.

The problems created by more leisure time and less recreation land has lead some recreationists to propose the immediate acquisition and preservation of vast areas of open land before such land disappears. Even if one admits that this type of proposal is attractive, certain questions must be raised concerning its efficacy. One very important question concerns the financing of such programs. As mundane as it is, the question, "Where does the money come from?" has more than a slight amount of validity to it. This Nation is unfortunately in a situation in which most of its public lands are in the West, and most of its population is in the East; acquiring millions of acres of land where it is most needed can, therefore, be an expensive proposition.

A second question relating to vast increases in outdoor recreation turns on the validity of the oft-times exaggerated claims made by proponents of this activity. While there may be an instinctive urge to return to the land on the part of most men, and there may be a therapeutic effect on those who seek the solace of the wilderness, intensive research necessary to prove these assumptions is either lacking or is of a type that is open to serious question. One might, for example, pose the query as to whether the effort and money expended on recreation might not produce better results for more people if spent on increased education, imaginative programs of mental health, medical care, welfare, and the like.

Regardless of the above questions, however, it must be admitted that the demand for more outdoor recreation areas and facilities is increasing in volume with each passing year. That amazing product of the industrial revolution, the automobile, has freed people from the confines of their neighborhood, their city, and their State. More recent innovations in transportation indicate that the mobility of Americans will certainly increase fantastically in the next 40 years, making even more flexible the travel habits of our citizens. The inevitable result will be an inundation of existing recreation facilities.

It is not the intention of this rather brief report to examine outdoor recreation in its many phases as it affects the entire Nation, or even the whole of the State of Georgia. Rather, this is an attempt to look at the future of outdoor recreation in one tiny part of the country—the Atlanta Standard Metropolitan Statistical Area. Those readers who might, with justification, look forward to reading a detailed account of recreation programs and plans for Atlanta and its environs, will be disappointed at what appears below. For this report considers outdoor recreation as simply another activity engaged in by both public and private sectors. As such, recreation is subjected to the same social, political, and economic forces that impinge on such programs as health, welfare, highways, and education. To consider recreation apart from these forces appears to me to be naive in the extreme.

Little is achieved by considering recreation in some Utopian sense in which each family has its own reserved campsite, complete with all the comforts of the living room, situated beside a mountain stream full of hungry trout. This scene never existed, does not now exist, and will never exist. It is equally meaningless to frighten people into hasty unplanned programs by raising the specter of a land in the future in which open spaces will be only a memory. Much more can be achieved if a factual account of existing resources at all levels of government is presented along with a program keyed not only to recreation needs, but also to the manifold other needs of this country. Then, and only then, will it be possible for the people themselves to establish, in an intelligent manner, some type of priority in meeting these challenges in the future.

It should not be necessary to state that any person who attempts to anticipate the economic, political, and social conditions in the year 2000 is either very brave or extremely foolish. Without fully admitting to either of those labels, it does seem discreet to note that all predictions and projections discussed in this report are based on many assumptions, prime among which are a continuation of world peace and a constantly rising standard of living in this country. Should any of the assumptions on which the projections are based prove to be invalid, the projections themselves will, in all probability, be equally invalid.

Most reports of this nature include in the preface acknowledgments to persons who aided in the project. Since such a listing usually results in the omission of some person or persons with attendant hard feelings on all sides, and since I do not wish to have any person other than myself indicted for the opinions expressed herein, let me take this opportunity

to simply thank all those who, in one way or another, helped me finish a study that was begun with many misgivings and was finished with even more.

September 1, 1961

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CHAPTER ONE

THE SETTING

In recreation, as in any other function of government, a consideration of many diverse factors is vital before even the most tentative findings or conclusions are possible. It is essential, for example, that the political, economic, physical, and social climate be examined in order to prepare the context in which the instant problem of outdoor recreation may be explored.

For the reason stated above, this chapter will describe, as briefly as possible, the history and background of the southeastern region, the State of Georgia, and finally the Atlanta Standard Metropolitan Statistical Area.

REGIONAL GROWTH

In considering the southeastern region—that area that has several times in the past been referred to as "America's number one economic problem"—this chapter will rely very heavily on a recent publication of Resources for the Future entitled "Regions, Resources, and Economic Growth." 1/

As used in this section, the term Southeast will include the States of Virginia, West Virginia, Kentucky, North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, and Tennessee.

POPULATION

The Southeast spreading across 533,963 square miles, contained some 33,710,921 persons or 18.79 percent of the total population of the United States in 1960. 2/ The figure of 18.79 percent represents a new low for a region that has for the past 90 years fought a losing battle in the population struggle. Table B-1 depicts the percentage of the total U.S. population represented by the Southeast for the past 10 census decades.

What has happened in the Southeast with reference to population is easily seen by a study of census data. These data demonstrate that the population of the Southeast has increased with each decenial census but that the rate of increase has been below the national average in every census except that of 1940. The decreasing strength of the Southeast can best be demonstrated by a tabular presentation showing the percentage increase in population in the United States by census decade and comparing that with the Southeast percentage increase.

Table B-2. Percentage increase in population by census decade, 1870-1950

Year	United States	Southeast
1870-80	26.0	17.8
1880-90	25.5	17.8
1890-1900	20.7	18.3
1900-10	21.0	15.6
1910-20	14.9	10.5
1920-30	16.1	12.2
1930-40	7.2	10.6
1940-50	14.5	12.0

In the period from 1870 to 1910 the population of the United States increased 131 percent, while that of the Southeast increased only 89.7 percent; in the period from 1910 to 1950 the population of the United States increased 63.8 percent, while that of the Southeast increased 53.5 percent.

If to the above data are added information on density of population and net migration a fairly clear picture of gross population changes in the Southeast may be drawn. These additional data are shown in tables B-3 and B-4.

What has happened to population in the Southeast can be summed up very briefly. This region has had a constantly increasing population but has not kept pace with the rapid acceleration in other regions. Using the census regions of New England, Middle Atlantic, Great Lakes, Plains, Southwest, Mountain, Far West, and Southeast, the period from 1870 to 1910 found the Southeast trailing all other regions in percentage increase in population. In the 40 years from 1910 to 1950 the Southeast trailed all regions except the New England and Plains regions.

From 1870 to 1950 the Southeast has shown a minus figure in net migration figures for every decade. This region is the only one of the eight that can claim this dubious distinction. Unfortunately, precise data on

Table B-1. Percentage of total U.S. population represented by Southeast

Region	1870	1880	1890	1900	1910	1920	1930	1940	1950	1960
Southeast	29.1	27.3	25.5	25.1	23.9	23.0	22.2	22.9	22.4	18.79

1/ Harvey Perloff et al, "Regions, Resources, and Economic Growth," (Baltimore; The Johns Hopkins Press, 1960). Hereafter referred to as Perloff.

2/ U.S. Census of Population, 1960. Except where noted otherwise, all population data are based on the 1960 census.

Table B-3. Density of population: United States and Southeast by selected decades

Region	1910	1930	1950
United States	30.9	41.3	50.7
Southeast	41.2	51.1	63.3

migration are not available to demonstrate the types of persons that are migrating from this region. 3/

Urban Population

The Southeast has typically been characterized by a rural agrarian economy. While this picture has certainly been accurate in the past, it is rapidly changing today. While this region trailed all other regions in urban population in 1910 and 1950, it has been above the national average in rate of increase in every census since 1880.

In rank order of regions by rate of increase in urban population, the Southeast stood eighth in 1870, fourth in 1910, and third in 1950. These data indicate that while the Southeast is losing ground in terms of total population, the trend toward urban centers is strong in this region. The changing character of this urban movement will be examined in greater detail in the section on Georgia.

PER CAPITA INCOME

The Southeast has moved steadily upward in per capita income but still trails all other regions in this vital factor, as shown in table B-6.

In rank order of regions by personal income per capita the Southeast has occupied the last place in every census since 1880. In regional distribution of total personal income the Southeast improves its position but even here it trails two other regions and had in 1957 only 15.4 percent of the Nation's total personal income while having 21.8 percent of its population. 4/ On the brighter side, however, it should be noted that both in per capita income and in total income, the Southeast has shown a consistant increase in every census period except 1900 and 1930.

Regardless of relative increase in income, the fact remains that as late as 1957, the Southeast had a per capita income of less than 71 percent of the national average. More important, however, the relative increase in this region's per capita income was smaller (only 2.7 percent) than in any comparable period since 1930. What is evident in this region was summarized by Perloff and his associates as follows: "The depressing effect of population growth keeping close pace with the growth in total income is evident in the Southeast where, despite steadily increasing economic activity and increasing wage levels, per capita income continues to be far below the national average. 5/

ECONOMIC INDICATORS

The Southeast has long been characterized as having an economy solidly based on agriculture. While this picture is often distorted (by 1920 less than half the labor force in this region was engaged in agriculture) it is true that agriculture has dominated the region's economic, social, and political climate for generations.

As table B-7 indicates, agriculture's share of the labor force has decreased dramatically since 1910, but still is almost twice as large as the national average. Manufacturing has begun a comeback after its rather staggering loss during the 1930's, while service enterprises continue their steady growth.

There are several factors that stand out with reference to the adjustments that have taken place in the economy of the Southeast. These factors may be summarized as follows-

(1) The decreasing share of the labor force devoted to agriculture is indicative of a more diversified economy.

(2) The Southeast has a considerably larger share of manufacturing employment than of value added by manufacturing indicating a relatively low rate of productivity. (See table B-8.)

(3) In labor force related to trade and finance, the Southeast has increased its share far more than any other region in the last three decades but is still furthest below the national average.

3/ But see, C. Horace Hamilton, "Educational Selectivity of Net Migration from the South," Social Forces, vol. 38, No. 1, October 1959, pp. 33-42. Professor Hamilton, on the basis of census survival rates, arrives at the following conclusions:

(1) During the decade 1940-50, the least loss by migration was in the "no education" category.

(2) The greatest migration loss in this decade was among young adults in the 15-29 age group.

(3) On the basis of race, the heaviest migration among whites is in the lower education categories, while among nonwhites the selection is markedly heavy in the higher educated categories. Net migration rates for nonwhites is lowest among those with no education—less than 4 percent— but rises rapidly to nearly 20 percent at the high school and college level.

(4) A heavy migration of white female college graduates.

(5) A heavy migration of white female high school graduates.

(6) The urban and rural-nonfarm areas of the South lost nonwhite adult population by migration in the high school and college categories. At the same time, these areas gained in nonwhite population in migration in the "no education" and "1-4 year" categories. This demonstrates rural to urban movement of lower education, nonwhites.

(7) Analysis of data indicates that net migration has substantially lowered the educational level of the urban and rural nonfarm areas to which migrants have gone both in and out of the South.

4/ Perloff, op. cit. p. 24.

5/ Ibid., p. 26. The Southeast can be contrasted with the Plains States in this respect where, according to Perloff, the slackening population has helped to keep the level of real income from falling in spite of a relatively slow growth in the volume of economic activities.

Table B-4. Net migration per 1,000: Southeast, 1870–1950

Region	1870 to 1880	1880 to 1890	1890 to 1900	1900 to 1910	1910 to 1920	1920 to 1930	1930 to 1940	1940 to 1950
Southeast	-18	-26	-39	-33	-47	-64	-23	-58

Table B-5. *Rate of increase in urban population,* United States and Southeast

Year	United States	Southeast
1870–80	41.0	16.2
1880–90	56.5	63.8
1890–1900	36.4	37.1
1900–10	37.1	48.3
1910–20	29.0	36.0
1920–30	27.3	39.3
1930–40	7.9	18.6
1940–50	19.5	33.5

Table B-6. Regional income per capita United States and Southeast

Year	United States	Southeast
1880	$ 302.1	$150.6 (49.9)
1900	414.0	197.7 (47.8)
1920	578.0	326.2 (56.4)
1930	640.0	321.0 (50.2)
1940	727.4	419.3 (57.6)
1950	1,062.7	719.2 (67.7)
1957	1,236.0	870.1 (70.4)

Table B-7. Labor force distribution by industry, 1910–1950, United States and Southeast

Year	Agriculture	Mining	Forestry	Fishing	Manufacturing	Service
United States						
1910	32.46	2.53	0.45	0.18	27.92	36.42
1920	25.63	2.62	.52	.13	30.90	40.20
1930	21.44	2.02	.36	.15	28.90	47.13
1940	17.53	1.84	.38	.12	21.01	59.12
1950	11.56	1.54	.36	.13	23.92	62.49
Southeast:						
1910	58.93	1.73	.65	.23	14.46	24.00
1920	49.49	2.72	.67	.20	18.38	28.54
1930	42.21	2.52	.57	.28	19.78	34.64
1940	33.41	2.62	.77	.23	15.40	47.59
1950	21.35	2.60	.76	.24	17.79	57.26

Table B-8. Southeast manufacturing labor force and value added by manufacturing as percentage of national average, 1910-1950

Year	Manufacturing Labor Force	Value Added
1910	12.69	10.04
1930	14.38	9.86
1950	15.43	12.49

(4) In the regional distribution of service labor force, the Southeast has replaced the Great Lakes area and now ranks below only the Middle Atlantic States.

(5) The Southeast devotes a larger share of its labor force to domestic services (here used in the restricted sense of those persons who work as domestic servants) than any other region. Since this is a nonproductive factor in the economy, it must be considered as a deficit. This picture is made bleaker by the additional fact that the percentage of labor involved in this category is being reduced very slowly as compared to the rapid decrease in most areas.

(6) While the percentage of the labor force devoted to professional services has increased in the Southeast, this region still ranks at the bottom. Conversely,

this region leads all others in percentage increase in this category.

These factors added together demonstrate that the Southeast is diversifying its economy but if it is to continue to grow it must devote less of its labor force to agriculture and domestic services and increase the productivity of the labor force devoted to manufacturing.

COMPOSITE PICTURE OF THE SOUTHEAST

The Southeast of the 1960's is a radically different region than that termed "the Nation's number one economic problem" some 30 years ago. With each passing decade the face of this region changes as per capita income increases, the educational level of the population rises, less and less of the labor force is devoted to agriculture, urbanization increases in every State, and every economic factor points to a favorable future.

THE STATE OF GEORGIA

In order to understand the nature of the demand for outdoor recreation and the supply of recreation resources, it is necessary to examine briefly the State of Georgia from a political, economic, and social viewpoint. Only after such an examination will the complicated picture of the Atlanta Standard Metropolitan Statistical Area come into focus.

THE PEOPLE AND THE LAND

Georgia, as its residents will proudly acclaim, is the largest State east of the Mississippi River. Consisting of 58,876,000 acres, of which 58,262,000 are land and 429,000 are water, Georgia ranks 21st among the States in order of size. The highest point in the State is Brasstown Bald Mountain with an altitude of 4,784 feet, the lowest point is sea level; the mean altitude is 600 feet. 6/

There are five topographic regions in Georgia: The Coastal Plain, the Piedmont Belt, the mountains, the valley region, and the Lookout Plateau (a part of the Cumberland Plateau). 7/ (See Fig. B-2 for physiographic features.)

Coastal plain

Covering about 60 percent of the area of the State, the Coastal Plain is characterized by a flat surface broken by low hills generally sloping toward the sea. The northern boundary of the Coastal Plain is an irregular line passing through Columbus, Macon, and Augusta. 8/ This northern boundary represents the fall line in Georgia. Georgia's coastline stretches some 100 miles from South Carolina to Florida.

Piedmont belt

Running north of the fall line to the mountains is an extensive area known as the Piedmont Belt. This area is very hilly with an altitude ranging from around 500 feet where it meets the Coastal Plain to something less than 2,000 feet at its extreme northern boundaries. The deep valleys and high hills have resulted in much erosion in this area. Streams move rapidly through this area and the rugged terrain causes a substantial number of waterfalls that are scenic attractions. Rainfall varies from 50 to 60 inches a year and is distributed evenly throughout the year. 9/

The mountains

An area of approximately 1,850 square miles in the northeast corner of Georgia is covered by a portion of the Appalachian Mountains. Brasstown Bald is the highest peak at 4,784 feet, while Rabun reaches 4,696 feet above sea level. There are 14 other peaks in the vicinity that are more than 4,000 feet high. This area with swift running mountain streams, high peaks, and heavy wooded hills is rapidly becoming the major recreation area of the State. The average summer temperature is 71° at Clayton, the principal resort town.

The valley region

The valley region covering the northwest section of the State has a general elevation of from 600 to 800 feet. The region is part of the Appalachian Valley which can be traced north as far as New York.

The Cumberland plateau

The extreme northwest tip of Georgia lies in what is known as the Cumberland Plateau, a region of relatively flat surface with an elevation of between 1,500 to 2,000 feet. To date this area has shown little in the way of economic importance and the relative absence of surface streams precludes its use as a major recreational area.

The temperature range of the State is such that it can rightfully be placed in the temperate zone as table B-9 indicates.

The annual mean temperature is 62.0° and the average percentage of possible sunshine is 60.0 percent. 10/

The population of Georgia in 1960 was 3,943,116; 11/ a 14.5 percent increase over 1950.

As indicated in table B-10, Georgia's percentage increase in population exceeded that of the United States only in the decade from 1930 to 1940. The very small increase in the decade of the 20's is chiefly due to the disastrous cotton crops of that period—a disaster caused by the boll weevil.

6/ U.S. Bureau of the Census, "Statistical Abstract of the United States, 1960." (Eighty-first edition.) Washington, D.C., 1960. Hereafter referred to as 1960 Statistical Abstract.

7/ E. S. Sell, "Geography of Georgia" (Oklahoma City: Harlow Publishing Co., 1958). For more detailed account of the physical base in Georgia, see Belcher, J. C. and Dean, K. I., "Georgia today" (University of Georgia: Athens, 1960), pp. 1-25.

8/ Ibid., p. 9.

9/ Ibid., p. 11.

10/ Ibid., p. 175.

11/ 1960 U.S. Census of Population.

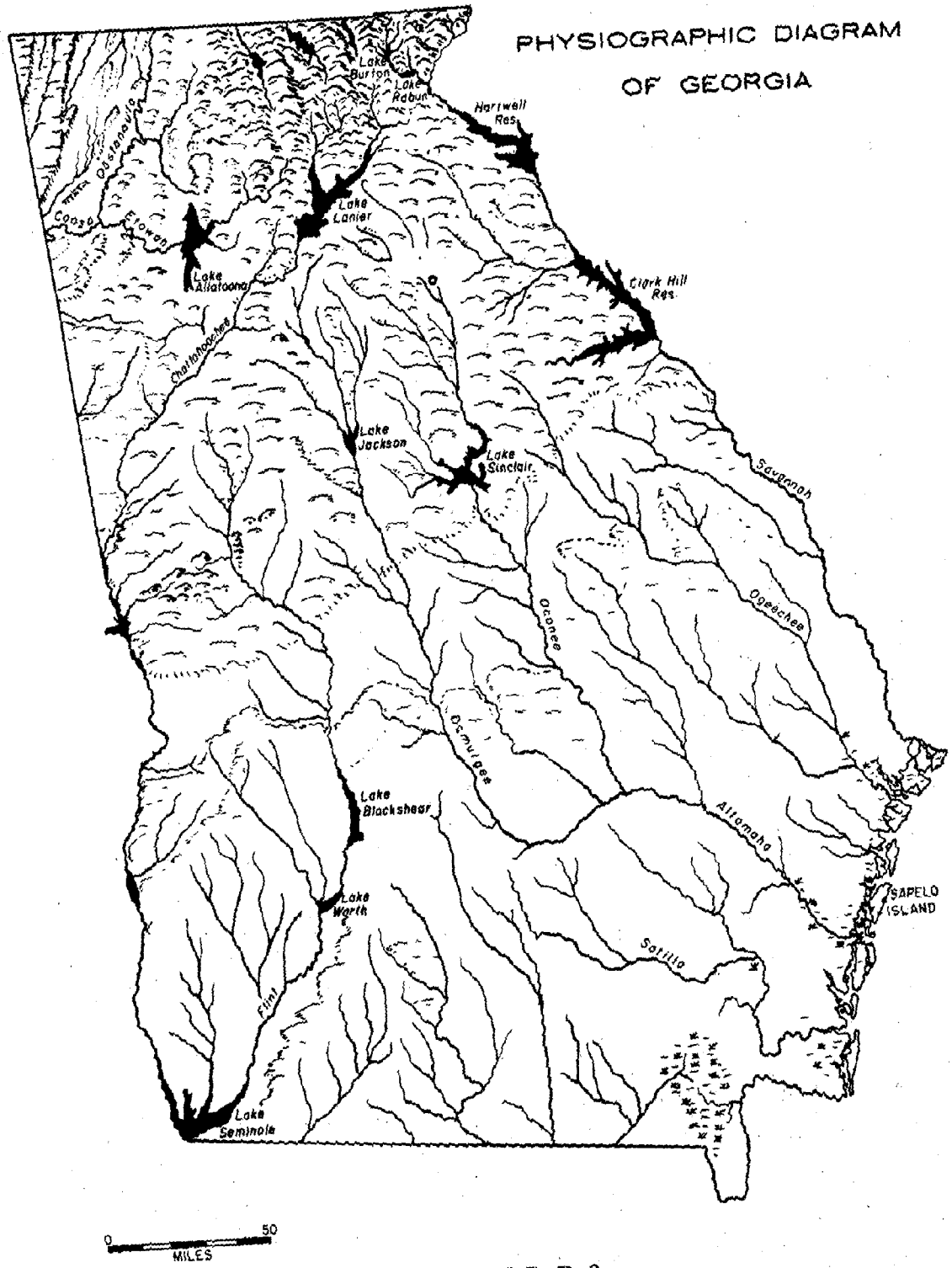

PHYSIOGRAPHIC DIAGRAM
OF GEORGIA
Lake Burton
Lake Rabun
Hartwell Res.
Lake Lanier
Coosa
Etowah
Lake Allatoona
Clark Hill Res.
Chattahoochee
Lake Jackson
Lake Sinclair
Savannah
Ogeechee
Oconee
Ocmulgee
Lake Blackshear
Altamaha
SAPELO ISLAND
Lake Worth
Satilla
Flint
Lake Seminole
0
50
MILES

FIGURE B-2

Table B-9. Normal monthly temperature in Atlanta

Month	Normal monthly temperature	Normal monthly maximum temperature	Normal monthly minimum temperature
January	44.6	52.5	36.6
February	46.6	55.1	38.0
March	53.1	62.3	43.8
April	61.5	70.8	52.1
May	69.5	78.7	60.2
June	76.9	85.9	67.8
July	78.7	87.3	70.0
August	78.1	86.4	69.7
September	73.9	82.3	65.4
October	63.5	72.2	54.7
November	52.1	60.4	43.8
December	45.3	53.0	37.6

Source: 1960 Statistical Abstract, pp. 167, 168, 169.

Table B-10. Population of Georgia and the United States, 1900-1960

Year	Population (000)		Increase		Georgia as percent of United States
	United States	Georgia	United States	Georgia	
1960	179,323	3,943	18.5	14.5	2.16
1950	150,697	3,445	14.5	10.3	2.29
1940	131,669	3,124	7.2	7.4	2.37
1930	122,775	2,909	16.1	0.4	2.37
1920	105,711	2,896	14.9	11.0	2.74
1910	91,972	2,609	21.0	17.7	2.84
1900	75,995	2,216	20.7	20.6	2.92

Source: The Bureau of Business Research, "Georgia Business," vol. 20, No. 5, November 1960, p. 2; 1960 figures from 1960 Census Population Reports, Series P-25, No. 227.

The column in table B-10 entitled "Georgia as Percent of the United States" demonstrates very graphically the losing battle that this State is fighting. With each decade the percentage that Georgia's population bears to the U.S. population decreases. This decrease is also evident in the State's rank position among the other States in the Union. In 1910, Georgia was the 10th largest State; in 1920, the 12th; in 1930, the 14th (a position it retained in 1940); in 1950, the 13th; and, in 1960, Georgia dropped to 16th place, its lowest position to date.

In population per square mile, Georgia now ranks 25th among the States; the first time since 1920 that it has held such a lofty position. Georgia's population density is increasing more rapidly than that of the United States as a whole.

Education

Georgia proudly boasts of being the home of the first chartered State university and of being the first State to support a system of common public schools. Many Georgians are aware, however, that with the median school level of the United States standing at 9.7 years in 1950, Georgia's median was 7.8 years for the total population and only 4.9 years for Negroes.12/

12/See appendix A, table B-38.

In that same year Georgia ranked 40th in the United States in current expenditures per pupil. 13/

It should be pointed out that great strides are being made with respect to expenditures for education in Georgia (at the State level more so than at the local level) and the position of the State should improve in the future.

Migration

One of the principal effects of out-migration in Georgia is the constantly decreasing percentage of Negroes in the population of the State. Out-migration of Negroes has served to more than balance the proportionately high birth rate among Georgia Negroes particularly in the rural areas. 14/

The South has long been known as an area with an extremely high birth rate. While there is some validity to this statement, the gap between the crude

13/1960 Statistical Abstract, p. 111. The average for the United States in 1950 was $294 per pupil; for Georgia the figure was $194.

14/In 1957, almost 39 percent of the live births in Georgia were colored when the Negro race represented less than 29 percent of the population. The live birth rate of Negroes was, in 1957, 8.3 percent higher than that of the white population.

Table B-11. Population per square mile, United States and Georgia

Region	1900	1910	1920	1930	1940	1950	1960
United States	21.5	26.0	29.9	34.7	37.2	42.6	50.5
Georgia	37.7	44.4	49.3	49.7	53.4	58.9	67.7

Source: 1960 Statistical Abstract, p. 13; 1960 figures from U.S. Census of Population, U.S. Summary, p. 20.

Table B-12. Selective Service registrants examined, found acceptable, and disqualified: 1959

	Percent found acceptable	Disqualified			
		Total	Medical disqualification	Mental disqualification	Failed mental and physical
United States	51.2	48.8	21.6	21.6	3.1
Georgia	41.8	58.2	18.8	33.3	4.9

Note: Figures do not add to total because of administrative disqualifications.

Source: 1960 Statistical Abstract, p. 249.

birth rate in Georgia and the United States is rapidly closing, as is the difference in infant mortality. 15/

During the decade from 1950 to 1960, as in preceding decades, Georgia lost a substantial number of its citizens through migration to other States and other regions. Net migration figures for 1940-50 show a loss to Georgia of 290,000 residents (-9.3 percent). Comparable figures for 1950-60 show a net loss of 214,000 residents (-6.2 percent). 16/ The migration loss has meant that only its relatively high birth rate (26.8 percent in 1959) and its comparatively low death rate 17/ has permitted Georgia to show a total population increase through the past decades.

While detailed data on migrants leaving the State are sketchy at best, there is every reason to believe that Georgia's loss is greater in quality than in quantity. Particularly among Negro migrants, but to some degree among whites also, migration appears to be selective of the more productive parts of the population. Negro migrants tend to be younger than the average for the State and are better educated than those who remain in Georgia. The reason for this selectivity among Negroes is both social and economic in character (if the two can be separated). The educated Negro has a difficult time in Georgia in securing a position for which his training has fitted him. He also meets the numerous social, political, and economic barriers, legal and extralegal, that convince many that their futures lie in another region. The rather startling decrease in the proportion of Negroes to whites in Georgia gives mute testimony to the colored exodus.

15/Georgia's gain with respect to infant mortality has been truly amazing. In 1940 when the U.S. rate of infant deaths per 1,000 live births was 47.0, Georgia's rate was 57.8. By 1958, however, the Georgia rate for both whites and nonwhites was actually lower than the United States rate. See "1960 Statistical Abstract," p. 67.

16/1960 Current Population Reports, Series P-25, No. 227, p. 6.

17/In 1959 the mortality rate per thousand for white males at age 45 was 5.7; for white females 3.1; for nonwhite males 11.3; for nonwhite females 8.6; see "1960 Statistical Abstract," p. 59.

Urbanization

Of great importance to the future of this State is the growing trend toward urbanization. During the 1950-60 decade when the total population of the State increased by 14.5 percent, the urban population increased by 39.8 percent while rural areas showed a net loss of -6.5 percent. 18/ Since a table on the urban-rural balance is found in the appendix, 19/ suffice it here to say that census data for 1960 demonstrated that, for the first time, over half (55.3 percent) of all Georgians reside in urban areas.

As in practically all States, the trend toward the city has been accompanied by a flight to the suburbs. Thus, while central cities gained population at a rate of 41.3 percent in the decade of the fifties, the urban fringe gained 71.5 percent. While there are some indistinct factors pointing to a possible reversal of this trend, they are not yet clear enough to be used as a basis for any suggestion that there is a "move back to the city" in Georgia.

In concert with all other States, Georgia is rapidly becoming a State on wheels. Motor vehicle registration figures demonstrate a steady rise (slowed but briefly during World War II) to a point in 1960 when there were almost four vehicles for every 10 people in the State.

Personal Income

In the important matter of personal income, Georgia is rapidly gaining on the national average but started with such a low base that it is having difficulty in achieving success. Table B-14 illustrates the great strides made in the last 30 years but also illustrates the fact that personal income in this State is but 71 percent of the U.S. average. From the viewpoint of percentage increase, however, the picture looks brighter for this State. From 1929 to 1958 the percentage increase in per capita personal income was

18/1960 General Population Characteristics, PC(1) 12-B, p. 5.

19/See appendix A, table B-34.

Table B-13. Motor vehicle registration in Georgia, 1920-1960

	1920	1930	1940	1950	1960
Number of vehicles (000)	146	345	510	898	1,513

Source: 1960 Statistical Abstract, p. 561; 1960 figures from Georgia Department of Revenue, Motor Vehicle License Unit.

193 percent for the United States as opposed to Georgia's gain of 325 percent; from 1950 to 1958 comparable increases were 38 percent for the United States, 46 percent for Georgia. As will be noted in another section of this report, Georgia's per capita income will probably continue to rise more rapidly than the U.S. average but probably will not equal that average before the next century.

The impact on outdoor recreation of the relatively low per capita income in this State cannot be overemphasized. While the Atlanta Standard Metropolitan Statistical Area has a much higher per capita income than the remainder of the State, action in the matter of State expenditures on outdoor recreation by the State Legislature will be based on the entire State not on the Atlanta SMSA. Any program based on a large expenditure of State funds must take this fact into consideration.

THE ECONOMY OF THE STATE

The relationship between a state's economy and the future of outdoor recreation is clearly evident in the data compiled in ORRRC's National Recreation Survey. Among the economic factors that will have an influence on recreation are the percentage of skilled and unskilled workers in the population, the gross earning and average weekly hours of employees, the number of workers engaged in agriculture, the number of persons engaged in personal service type occupations, and the like.

Georgia's economy is constantly under discussion at present. As is true in every Southern State, Georgia spends an increasing amount of money and effort in trying to attract new industry to the State. This section will attempt a brief review of the economy of the State in order to set the background for the following chapters that examine the future of outdoor recreation.

The Farm Sector

Georgia has traditionally been known as an agricultural State. Because of its history as a producer of cotton and tobacco, rural domination of most public institutions was not only accepted but was, until the turn of the present century, an accurate indication of the prevailing balance between agriculture and industry. As tables B-15 and B-16 indicate, however, an important change has occurred since 1900.

The following tables indicate that while Georgia's total labor force has increased with each passing decade, the agricultural labor force has decreased both in absolute numbers and as a percentage of the labor force. By 1910, the agricultural labor force had declined to 43 percent of the total although the farm population continued to represent over 50 percent of the total population until 1930. By 1957, agricultural employment had dropped to 13.7 percent of total employment and is expected to decline even further in the future. 20/ Between 1940 and 1950, Georgia lost 30 percent of her farm population; between 1950 and 1960 her loss was 13 percent.

Other important changes have occurred in the agricultural picture in Georgia. The number of farms has shown a steady decline since 1930 (from 256,000 in 1930 to 166,000 in 1954, the last year for which complete data are available). During the same period, however, there has been a constant increase in the average acreage per farm (from 109.6 in 1940 to 145.1 in 1954), the average value per farm ($2,223 in 1940, $8,710 in 1954), and the average value per acre (from $20.28 in 1940 to $60.03 in 1954). 21/

Along with the increasing size of farms and the rising value per farm has come an increase in professional management. This is best illustrated by the fact that from 1950 to 1954, a brief 4-year span, farm tenants as a percentage of total farm managers decreased from 42.8 percent to 34.6 percent. This professionalization has not been accompanied by a comparable increase in the productive capacity of Georgia's farm population. In spite of this increase, however, in 1950 Georgia ranked 45th among the 48 States in output per farm worker. Only South Carolina, Tennessee, and West Virginia had poorer records. 22/

In gross income per farm, Georgia showed a fine 97 percent increase between 1949 and 1958, 23/ but still ranked some $2,478 below the national average of $8,063.

Cash income per farm came from the following commodities (in rank order): Broilers, cattle, hogs, and cotton lint.

The agricultural pattern in Georgia is apparent. The general exodus from the farm will continue; the number of farms will decrease; the size of farms will increase; and the value per acre of farms will increase. Each of these factors will have a direct influence on outdoor recreation. While farm land is theoretically available as recreation potential, the cost of purchasing large tracts becomes prohibitive for both public and private groups as its value as farm land increases. As important, however, is the fact that farm income is rising very rapidly. If, as the ORRRC National Recreation Survey and the Survey Research Center study 24/ indicate, participation in outdoor recreation is related to income, an increase

20/National Planning Association, "Economic Projections by States for Years 1976 and 2,000," p. 47.

21/"1960 Statistical Abstract," pp. 618-619.

22/Perloff, op. cit., p. 681.

23/Hodge and Jones, op. cit., p. 3.

24/Eva Mueller and Gerald Gurin, "The Demand for Outdoor Recreation," (Institute of Social Research, the University of Michigan, 1961). Hereafter referred to as SRC.

Table B-14. Personal income, per capita: United States and Georgia, 1929-1960

Region	1929	1940	1950	1958	1960
United States	$703	$595	$1,491	$2,057	$2,271
Georgia	350	340	1,016	1,487	1,622
Georgia Per Capita Income as Percentage of the United States, 1929-60					
United States	100	100	100	100	100
Georgia	50	57	68	72	71

Source: 1960 Statistical Abstract, pp. 312-313; Hodge and Jones, "Georgia's Economy," "Georgia Business," vol. 20, No. 10, April 1961, p. 1.

Table B-15. Total labor force and agricultural labor force in Georgia, 1870-1950

	1870	1880	1900	1920	1940	1950
Total labor force (000)	445	598	864	1,129	1,264	1,350
Agricultural labor force (000)	348	468	557	483	389	275

Source: Perloff, pp. 622-625.

Table B-16. Farm population as percent of total population, United States and Georgia, 1920-1960

Year	United States	Georgia
1920	29.9	58.2
1930	24.8	48.8
1940	23.2	43.8
1950	15.3	27.9
1960	11.7	21.2

Source: Georgia Statistical Abstract, 1961, p. 106.

in participation may well be expected in the rural areas of this State.

The Nonfarm Sector

The drive for industrialization in Georgia has brought about a diversification of economic activities during the past several decades. While complete data are not yet available for the decade of the fifties, sufficient information can be obtained to demonstrate that the changes that began to develop in the 1920's and 1930's have continued at an accelerated pace.

Since a detailed table on employment by industry group and sex is included in the appendix of this report, 25/ only a few of the most significant trends need be listed at this point. Such a listing would include the following:

(1) The number of persons engaged in construction activities increased by 133 percent from 1930 to 1950. Seventy-five percent of this increase occurred in the decade from 1940 to 1950, and 20 percent of the increase was among Negroes. Stated differently, in 1930 Negroes represented 34 percent of all those persons engaged in construction; in 1950 this percentage had decreased to 26 percent. It must be noted, however, that construction today utilizes much less unskilled labor than it did in 1930. The Negroes involved in construction today are more likely to be semiskilled laborers and thus receive much higher wages than in previous years.

(2) Transportation, communications, and public utilities increased dramatically between 1940 and 1950 (47 percent) after a slight decline in the decade of the forties. Negroes represent a constantly decreasing portion of those engaged in these activities (from 36 percent in 1930 to 23 percent in 1950) as fewer and fewer unskilled day laborers are used.

(3) Wholesale and retail trade employees increased 99 percent between 1930 and 1950. Of particular interest in this category is the number of white women involved. White women represented 16 percent of all those involved in wholesale and retail trade activities in 1930; 21 percent in 1940; and 27 percent in 1950. This represents an increase of 11 percent during a period when the total white female labor force increased by only 8 percent.

(4) Of particular significance to the economic well-being of a State is the number of persons engaged in personal services. Since this is a nonproductive type of activity the number should decrease as a State's economic health increases. Using this theory, Georgia's economic health is rapidly improving. In spite of a 19 percent increase in population between 1930 and 1950, the number of persons engaged in personal services decreased by 16 percent. The composition of the personal services work group has changed rapidly. Once almost exclusively the domain of Negro women (and still predominantly so), the number of whites, both male and female, has shown a constant increase while Negroes have shown a constant decrease.

(5) The number of persons engaged in professional services increased from 4 percent of the total labor force in 1930 to 7 percent in 1950.

(6) Georgia's total labor force increased less in the period between 1930 and 1950 than did its total population (15 percent compared to 19 percent), but

25/See app. A, table B-41.

that total labor force was engaged in more productive activities in the latter year. The greatest changes in the labor force were the increasing number of white females and the decreasing number of Negroes—male and female. Since Negroes were, for the most part, engaged in agricultural or domestic services, this decrease is a healthy sign.

(7) The number of employees engaged in manufacturing in Georgia has conformed to the U.S. pattern of increases during times of prosperity and decreases during periods of high unemployment. Table B-17 demonstrates this trend.

In the period from 1946 (the first post-World War II year) until 1959, manufacturing employment in Georgia increased by 28 percent. During the same period, manufacturing employment in the United States increased by only 12 percent. In the very important factor of value added by manufacturing Georgia showed a dramatic increase of 108 percent compared to an increase in the United States of slightly less than 90 percent for the period from 1946 to 1959.

The increase in Georgia in manufacturing employees and value added is particularly significant since it is probably closely linked to the decrease in farm employment—a relationship that traditionally has meant higher personal income—both total and per capita—and a more productive economy.

(8) Georgia's production workers work an average of 40.3 hours per week—exactly the same as the national average, but receive an average weekly salary of only $64.88 as compared with a national average of $89.47.

In general it can be said of Georgia's economy that it is rapidly becoming more and more diversified with agriculture playing a less significant role with each passing decade. As the exodus from farm to city continues, more and more of Georgia's population will be concentrated in a relatively small number of metropolitan areas largely in the central and northern parts of the State. Since industry tends more and more to locate in urban areas, particularly in and around metropolitan areas, the amount of space available for outdoor recreation tends to become smaller and smaller in those areas. The effects of these factors on outdoor recreation are discussed in chapter 4.

Table B-17. Employees in manufacturing in the United States and Georgia for selected years, 1880-1959

Year	United States (000)	Georgia (000)
1880	3,841	38
1890	5,526	64
1900	7,199	92
1920	12,861	182
1930	14,111	233
1939	10,078	188
1943	17,381	303
1946	14,461	264
1949	14,178	264
1953	17,238	318
1956	16,903	335
1958	15,468	319
1959	16,168	336

Source: Perloff, op. cit., pp. 632-633; Hodge and Jones, op. cit., p. 5.

CONCLUSION

The State of Georgia is in the midst of a rapid transformation. Its economy has shifted from an agricultural to an industrial base. Its people are moving from the farm to the city; are becoming more educated, and more productive with a higher per capita income. Its political system continues to be dominated by rural residents and is highly conservative, but is undergoing some alterations that may bring about radical changes in the near future.

The Atlanta Standard Metropolitan Statistical Area

Atlanta's future as a great metropolitan center was determined primarily by its becoming a regional rail center but the city was founded as a State rail center. In 1836 the legislature authorized the construction of a State-owned railroad which was to run from the Tennessee line to the southwestern bank of the Chattahoochee River at a point best suited for running branch lines to other points within the State.

In 1837 the terminus of this road was established at a point which is today in the heart of Atlanta. This event signalled the actual beginning of the city, which, still unincorporated, was given the name "Terminus."

With the promise of its becoming a railroad center, a few families moved to "Terminus" in the next few years. The town was first incorporated in 1848 under the name "Marthasville," and 2 years later the name was changed to Atlanta.

Not until branch lines began to come in from other towns in the State did Atlanta begin to grow significantly. Small industries began to appear, and by 1854 the population reached 6,000.

As Atlanta's position as the rail center of the Southeast became solidified, its growth accelerated. In 1845, when the town was just beginning to grow, it had one railroad, a population of about 100, and a few negligible manufacturing enterprises. The State census of 1859, however, provides a picture of Atlanta showing phenomenal growth in just 14 years: the population was about 11,500; there were 15 primary industries producing at a rate of about $415,000 per year, employing 319 persons and having a payroll of about $110,000; four major railroads served the city; the assessed value of real estate was $2,760,000, and the sales of goods amounted to $3 million.

This then was Atlanta just before the Civil War, a small bustling city, growing at a fast pace. The war years that followed and the subsequent reconstruction period proved to be the most important, and certainly the most dramatic, part of the city's history.

With the beginning of the Civil War, Atlanta's commerce and manufacturing took on a somewhat different nature but it continued to grow, as did the city's population. Atlanta became an important military center and supply depot for the Confederacy.

The successful blockade of southern ports forced the South to equip its armies and supply the needs

of its people with very little help from outside supply sources. As a result, Atlanta became one of the Confederacy's largest arms and munitions manufacturing centers. Established factories were converted and scores of new ones were built to manufacture weapons and ammunition of all types as well as the miscellany of war such as brass buttons, uniforms knives, coffins, etc. In 1862 the city passed under martial law and became the headquarters of Confederate quartermasters and commissaries.

Atlanta's vital importance as a supply depot and manufacturing center of the Confederacy led to "Andrew's Raid" in April 1862, when the Union Army was in Tennessee. In this well-known incident a party of Union soldiers stole a locomotive a few miles north of Atlanta and headed toward Chattanooga with the intention of destroying all the major bridges between the two cities, thereby cutting off the major supply route of the Confederate Armies to the north. Historians differ considerably as to what the value of this feat to Northern forces would have been had the attempt been successful, but some believe it would have shortened the war by as much as 2 years.

Atlanta fell to the Union Army in September 1864. Great damage had been done by two months of bombardment during the seige and as the Confederate forces evacuated the city, they blew up the remaining locomotives and carloads of ammunition. In the process the central railroad yards were virtually wiped out.

The destruction of the city, begun before the Union forces occupied it, was completed when they left. Virtually every business house and manufacturing plant in the city was burned, and machinery not destroyed by fire had been broken. Of an estimated 3,800 houses in the city only about 300 were left standing.

Atlantans began returning to the city as soon as the Union forces moved out to the south. Rebuilding was haphazard at first; shanties were thrown up using the debris of the ruins. The rate of reconstruction accelerated in the following months, but there were still formidable obstacles to be overcome before it could get into full swing. The scarcity of buildings made rents enormous and building materials were equally high. Not until about 1869, when a number of planing mills, machine shops, foundries, and other shops producing needed materials had been established was the city able to get on a solid basis in rebuilding substantial buildings at reasonable costs.

Atlanta's position as a rail center and the city's rebuilding boom gave business and industry a double incentive to locate there as the economy became stabilized.

Despite the strife created by Reconstruction policies, Atlanta moved ahead steadily. The city's position allowed it to take full advantage of the railroad's increasing importance. Most of the goods moving between the South Atlantic coast and the Mississippi Valley and beyond went by way of Atlanta as did a large share of the goods moving between the Deep South and the Northeast.

The decade between 1870 and 1880 was one of sound, steady growth. The population rose from 21,000 in 1870 to 37,000 in 1880. In 1873 the Airline Railroad was completed, giving Atlanta a new link with the Middle Atlantic area through northeast Georgia. During this period also, wholesale trade became an important part of Atlanta's commercial structure, and in 1877 the State capitol was moved to this city.

Despite Atlanta's pronounced industrialization movement, the South as a whole was still very much dependent on agriculture, and Atlanta was severely limited by this fact. It was recognized that something had to be done to build confidence in manufacturing, to bring out local financial resources, and to encourage investment from other areas. In an attempt to accomplish these things, a group of Atlanta businessmen promoted the Atlanta Cotton Exposition of 1881. Cotton was the economic staple of the South then, but few cotton products were actually manufactured within the South. The exposition was a demonstration of the possibilities and practicality of textile manufacturing in the South. It was extremely successful and seems to mark the beginning of the development of the textile industry in the South.

With the boom in railroad construction in Georgia beginning around 1880 and the general improvement in rail transportation, Atlanta's strategic position in the Southeast became more and more important. The increased decentralization of business made possible by improved communications and transportation gave more meaning to the city's role as a distribution center for the South. Wholesale trade on a regional basis increased greatly, and the establishment of regional branches by large corporations was intensified.

Atlanta, of course, was the South's principal beneficiary of this trend. The city developed into the Southeastern financial center with bank clearings increasing by 5,000 percent from 1890 to 1926, 12 times as much as the population increase. Insurance companies concentrated on Atlanta as their regional headquarters and the city became the third largest insurance center in the Nation.

By the turn of the century, the pattern for Atlanta's future development had been fairly well established. The city began as a railroad center and had diversified to become an important manufacturing center after the Civil War. As the South began its industrialization movement in the latter part of the 19th century, Atlanta's position as the rail and communications center of the Southeast made it the logical location for the regional service industries which were growing so rapidly at that time.

The growth of Atlanta since the turn of the century has been steady averaging 29.8 percent per census period. Table B-18 indicates that with the sole exception of the depression decade from 1930 to 1940 Atlanta has increased its population by more than 25 percent every 10 years.

RECENT GROWTH

The growth pattern changed radically beginning in 1940. With the advent of World War II, Georgia because of its favorable climate became a great training ground for armed services personnel. The logistics support for these bases, the increase in service industries, and the location of several defense industries in the metropolitan area (notably the Lockheed aircraft plant, still the largest single industrial

Table B-18. Population of Atlanta standard metropolitan statistical area, 1900-1960

Year	Population	10-year increase	
		Number	Percent
1900	214,693	....	....
1910	291,401	76,708	35.7
1920	367,174	75,773	26.0
1930	479,019	111,845	30.5
1940	558,842	79,823	16.7
1950	726,989	168,147	30.1
1960	1,017,192	290,203	39.9

Source: Atlanta Region Metropolitan Planning Commission, "Population Housing," 1960, p. 1.

employer in the area) brought about a sudden spurt in the population.

The Korean War and the continuation of the East-West conflict combined during the fifties to keep defense related activities at a substantial level. The addition of two counties to the SMSA during the fifties is indicative of the spread of population outward from the central city.

Between 1950 and 1960 the population of the city of Atlanta increased by 47.1 percent (331,314 to 487,455) while the population outside the central city increased by only 33.9 percent. Since the pattern of growth in metropolitan areas across the nation is for the central city to lose population, the Atlanta situation appears, at first glance, to be unique. Upon investigation, however, the answer is very simple; the city increased its population only by annexing a substantial area of land during the decade.

Fig. B-4 indicates the boundaries of the city in 1950, and the boundaries in 1960. During the decade, the city annexed slightly over 91 square miles, increasing its area to 128 square miles. The effects of this expansion are given in table B-19 which indicates that had its boundaries not been extended, the city of Atlanta would actually have suffered a loss of some 16,052 persons or 4.8 percent of its population. In other words, Atlanta in company with most other metropolitan areas in the United States, is losing population in its "down town" section.

The Atlanta SMSA as indicated on Fig. B-5, 26/ in 1960 comprised 5 counties and 45 incorporated municipalities; of the municipalities, only 4 (excluding Atlanta) have populations in excess of 20,000 (the largest, East Point, has a population of 35,633); 4 others have populations of from 10,000 to 15,000; 1 has a population of 6,260; and the remainder all have less than 5,000 residents. The overwhelming majority of the last-named group have populations of less than 2,000. Thus, the Atlanta SMSA has a very large central city with a growing number of small towns and cities.

Its land area of 1,724 square miles and its population in excess of 1 million make the metropolitan area the largest in the Southeast and move it to 23d place in the nation. In terms of percentage increase

26/ The boundaries of the Metropolitan Planning District are coterminous with those of the Atlanta SMSA.

Table B-19. Population growth, City of Atlanta, 1950-1960

Area and year	Area (square miles)	Population			
		1960	1950	Number increase	Percent increase
City of Atlanta, 1950	37	315,262	331,314	-16,052	- 4.8
Area added since 1950	91	172,193	106,471	65,722	61.7
City of Atlanta, 1960	128	487,455	437,785	49,670	11.3

Source: Atlanta Region Metropolitan Planning Commission.

in population between 1950 and 1960, the Atlanta area grew faster than all other metropolitan areas with population in excess of 1 million, with the exception of Los Angeles, Houston, Dallas, and San Diego. 27/

THE PEOPLE

The 1,017,188 residents of Atlanta are overwhelmingly Georgians as indicated by table B-20. The almost complete absence of any substantial number of foreign born is typical of all Georgia cities. The population is heavily anglo-saxon, Protestant, with strong ties to southern life and tradition. While the number of inmigrants from outside the South is increasing with the growing industrialization of the metropolitan area, it should remain predominantly native for many years to come.

The number of Negroes in the Atlanta area has increased with each census since 1900 reaching a high mark of 221,000 in 1960. Table B-21 indicates clearly, however, that while the Negro population is increasing it represents an ever-decreasing portion of the total population. From 1950 to 1960 the nonwhite (over 99 percent Negro) population showed its greatest increase since the decade of the twenties but the white increase was still substantially greater.

As fits the national pattern, the Negro population of the area is concentrated in the central city of Atlanta where it now represents 38.3 percent of the

Table B-20. Source of Atlanta metropolitan resident families

Source	Percentage
Georgia	77.6
Southeast other than Georgia	12.4
West of Mississippi	5.0
New England	2.6
Midwest	2.0
Foreign country	(1/)

1/ Less than 0.1 percent.

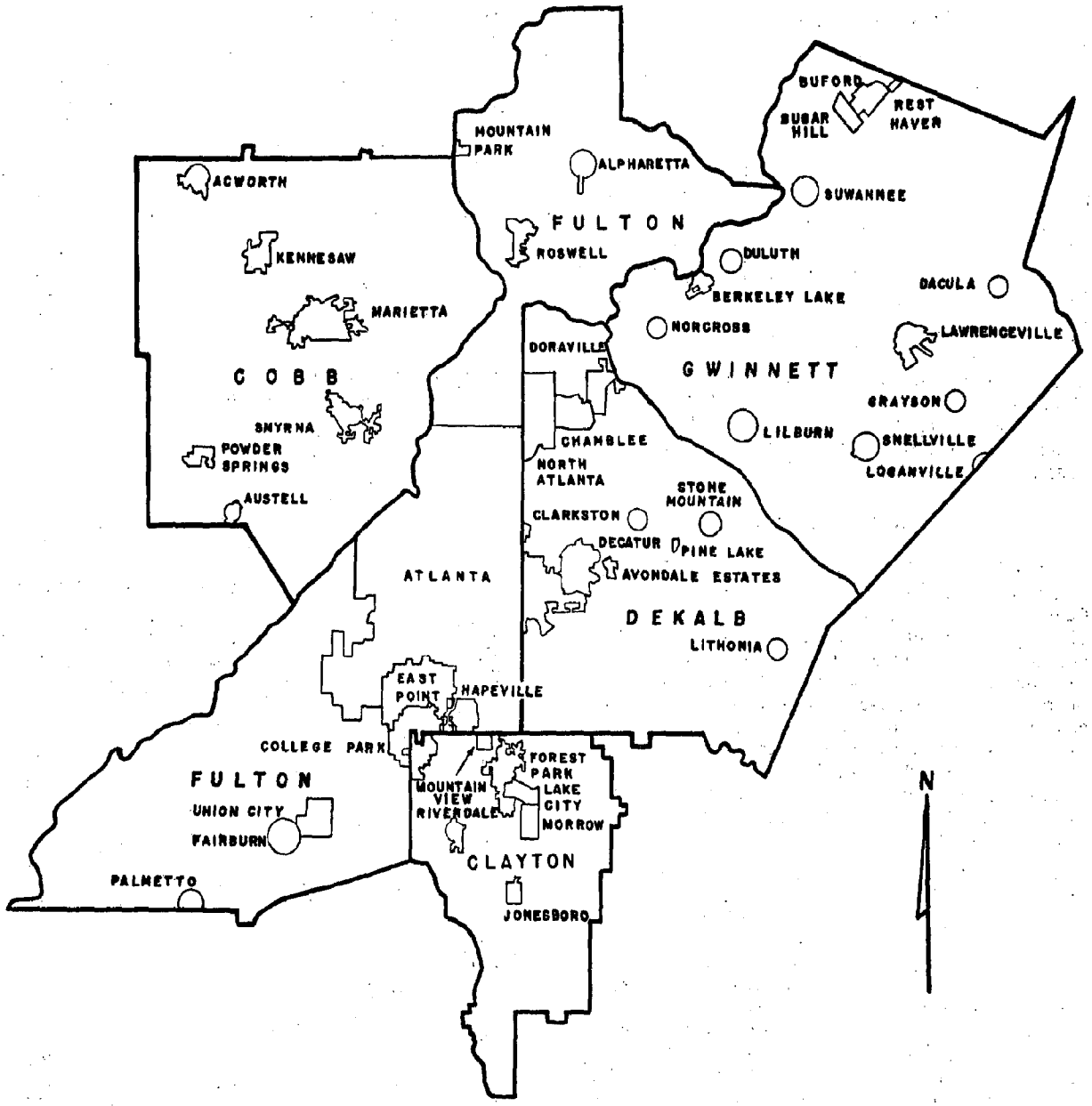
Source: Atlanta Constitution-Journal Research Study (unpublished).

27/ Metropolitan Planning Commission, "Population Housing," 1960, p. 3.

CITY OF ATLANTA

SHOWING MUNICIPAL BOUNDARY, 1950 AND 1960

FIGURE B-4



ATLANTA REGION

METROPOLITAN PLANNING DISTRICT

SHOWING MUNICIPAL AND COUNTY BOUNDARIES

FIGURE B-5

Table B-21. Population of Atlanta standard metropolitan statistical area, by race: 1900-1960

Year	Total population	White population			Nonwhite population		
		Number	Percent increase	Percent of total	Number	Percent increase	Percent of total
1900	214,693	142,542	....	66.4	72,151	....	33.6
1910	291,401	204,152	43.2	70.1	87,249	20.9	29.9
1920	367,174	266,504	30.5	72.6	100,670	15.4	27.4
1930	479,019	348,815	30.9	72.8	130,204	29.3	27.2
1940	558,842	409,128	17.3	73.2	149,714	15.0	26.8
1950	726,989	554,328	35.5	76.2	172,661	15.3	23.8
1960	1,017,192	796,192	43.6	78.3	221,000	28.0	21.7

Source: Atlanta Region Metropolitan Planning Commission.

total population; an increase of 7.1 percent over 1950. There is no reason to expect a reversal of this trend of an increasing Negro population in the city of Atlanta and a decreasing Negro population in the metropolitan area outside of Atlanta.

GROWTH PATTERNS

Table B-22 and Fig B-6 indicate growth trends in the metropolitan area over the past two decades. Fulton County, the largest in area and in population, is increasing its population at a much slower rate than any of the other four counties and comprises an ever-decreasing share of the area's total population. In terms of percentage increase Clayton County demonstrated the most spectacular gain but the base in this case was very small. The most substantial gain was achieved by DeKalb County, the second smallest in land area in the metropolitan complex. DeKalb's density is presently almost equal to that of Fulton County.

A factor of exceeding importance in the whole picture of outdoor recreation is the amount of open space available within and adjacent to the metropolitan area. Since this will be discussed in detail at a later point, suffice it here to point out that only 69 percent of the metropolitan population lives within incorporated areas. A wide range exists among the counties in this respect; only 34.6 percent of Gwinnett County's population resides in municipalities, while 93.0 percent of Fulton County's residents are city dwellers. The other three counties with the percentage of population residing in incorporated areas are: Clayton, 67.2 percent; Cobb, 37.0 percent; and DeKalb, 36.8 percent.

Figure B-1 is a schematic diagram of the directions in which the population of the metropolitan area is spreading. The center octagon in the figure roughly approximates the old 37-square-mile area of Atlanta in 1950. As was pointed out above, this area lost over 16,000 population in the decade between 1950 and 1960. The radial bars represent the suburban population radiating out from the city.

The eight sections represented by the bars on the diagram are ranked below in the order of their population growth. It is worth noting, though not at all surprising, that the areas of greatest growth are those through which the major expressways run as they radiate out from the downtown section.

Table B-22. Population of Atlanta standard metropolitan statistical area by counties, 1940-1960

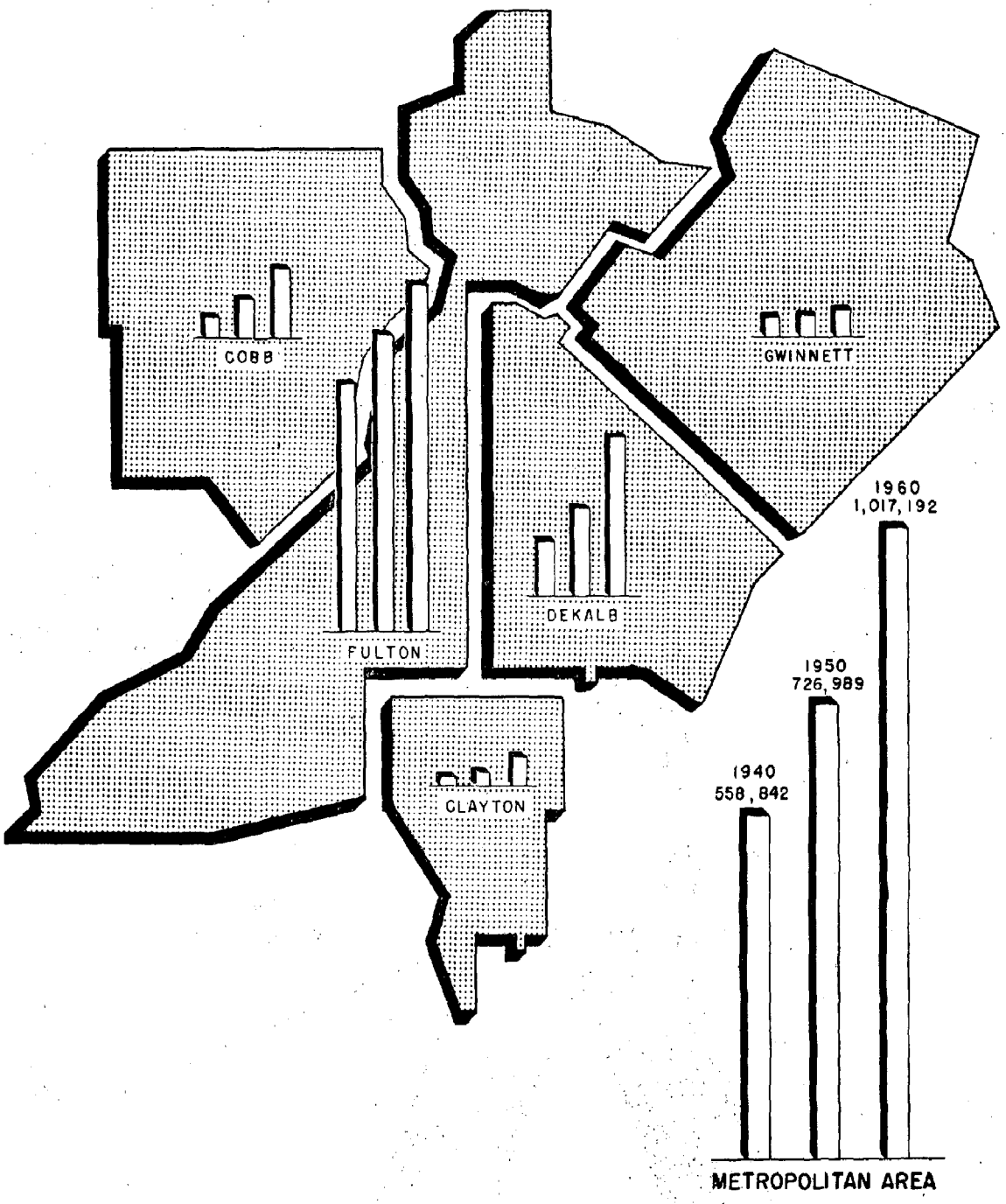
	Land area (square miles)	1940	1950	1960
Population:				
Metropolitan area	1,724	558,842	726,989	1,017,192
Clayton County	149	11,655	22,872	46,365
Cobb County	346	38,272	61,830	114,174
DeKalb County	269	86,942	136,395	256,786
Fulton County	523	392,886	473,572	556,326
Gwinnett County	437	29,087	32,320	43,541
Percent of total:				
Metropolitan area	100.0	100.0	100.0	100.0
Clayton County	8.6	2.1	3.1	4.6
Cobb County	20.1	6.8	8.5	11.2
DeKalb County	15.6	15.6	18.8	25.2
Fulton County	30.3	70.3	65.1	54.7
Gwinnett County	25.4	5.2	4.5	4.3
10-year increase (percent):				
Metropolitan area	....	....	30.1	39.9
Clayton County	....	....	96.2	102.7
Cobb County	....	....	61.6	84.7
DeKalb County	....	....	56.9	88.3
Fulton County	....	....	20.5	17.5
Gwinnett County	....	....	11.1	34.7

Source: Atlanta Region Metropolitan Planning Commission, 1960, "Population Housing" (compiled from Official Publications of the U.S. Bureau of the Census).

The eight sectors of the SMSA represented by the bars on the sketch are ranked below in the order of their population growth over the 10-year period: 28/

1. NORTH NORTHEAST—A gain of 56,822 persons. This sector includes the eastern parts of Buckhead and Sandy Springs, and those portions of DeKalb and Gwinnett Counties which are north of the northeast expressway—the north Atlanta-Chamblee-Doraville-Norcross-Duluth-Buford corridor.

28/Ibid., p. 15.



ATLANTA METROPOLITAN AREA POPULATION

BY COUNTIES, 1940 TO 1960

FIGURE B-6

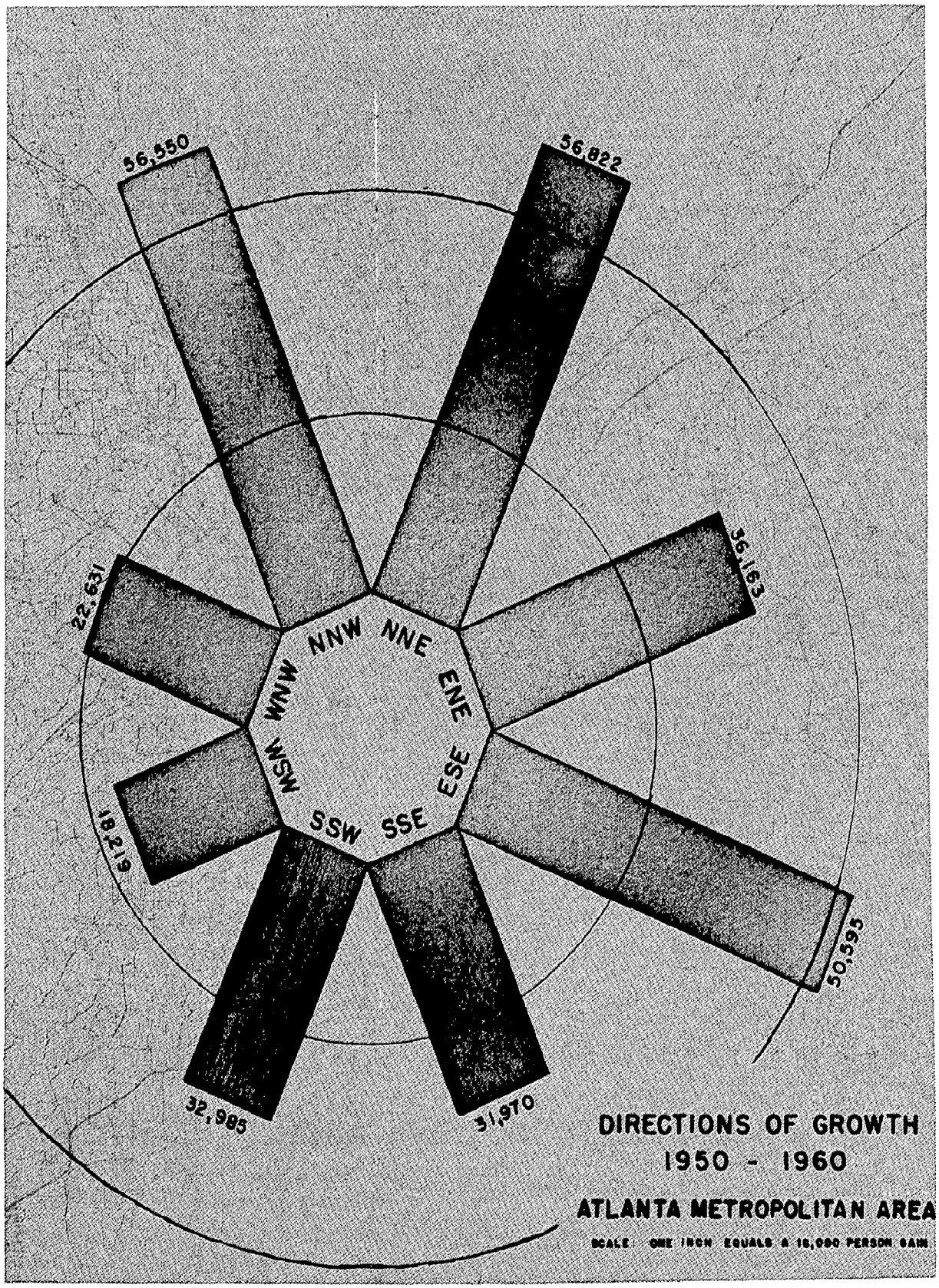

56,550
56,822
36,163
22,631
18,219
50,595
32,985
31,970
NNW
NNE
ENE
ESE
SSE
SSW
WSW
WNW
DIRECTIONS OF GROWTH
1950 - 1960
ATLANTA METROPOLITAN AREA
SCALE: ONE INCH EQUALS A 15,000 PERSON GAIN

FIGURE B-1

2. NORTH NORTHWEST—A gain of 56,550 persons. This sector includes the western parts of Buckhead and Sandy Springs, and the Smyrna-Marietta-Kennesaw-Acworth corridor in Cobb County.

3. EAST SOUTHEAST—A gain of 50,595 persons. This sector includes the south Decatur-Glenwood-Avondale-Belvedere-Panthersville-Lithonia areas of DeKalb County, and is bisected by the new southeast expressway.

4. EAST NORTHEAST—A gain of 36,163 persons. This sector includes the Druid Hills-North Decatur-Clarkston-Tucker-Stone Mountain areas in DeKalb County, and all of Gwinnett County south of the northeast expressway, including the Snellville area and the Lilburn-Lawrenceville corridor.

5. SOUTH SOUTHWEST—A gain of 32,985 persons. This sector includes the tricities area—East Point, College Park, and Hapeville in Fulton and Clayton Counties, and the Union City-Fairburn-Palmetto corridor.

6. SOUTH SOUTHEAST—A gain of 31,970 persons. This sector includes the Lakewood-Thomasville-Blair Village areas in Fulton County, and the Mountain View-Forest Park-Jonesboro corridor in Clayton County.

7. WEST NORTHWEST—A gain of 22,631 persons. This sector includes the Grove Park-Center Hill-Collier Heights-Perry Homes areas in Fulton County, and the Mableton-Austell-Powder Springs corridor in Cobb County.

8. WEST SOUTHWEST—A gain of 18,219 persons. This sector includes the Beecher Hills-Cascade Heights-West Manor-Ben Hill-Campbellton areas, all in Fulton County.

The age distribution of the Atlanta metropolitan area does not differ radically from that of the State as a whole as is indicated by table B-23. The lower percentages in the younger and older groups are, of course, favorable to Atlanta. With respect to age distribution, proportion of male to female, and fertility ratio the Atlanta area does not differ radically from that of other southeastern metropolitan areas. 29/

THE ECONOMY

Atlanta has been for some years now the industrial, trade, cultural, and transportation center of Georgia and the Southeast. Its dominance of Georgia is almost total in every way except in political influence. Indicative of its importance is the fact the metropolitan area has almost 26 percent of the State's population, 37.6 percent of the urban population, 27.4 percent of the households, 38.9 percent of total personal income, 36.0 percent of total retail sales, 68.0 percent of wholesale sales, and 36.0 percent of the value added by manufacturing.

In the following paragraphs an attempt will be made te depict briefly the economical base of the metropolitan area.

Table B-23. Age distribution of population of Georgia and Atlanta standard metropolitan statistical area, 1960

Area	Under 18 years	18-64 years	Over 65 years	18 years and over, percent male	Fertility rates
Georgia	38.9	53.7	7.4	47.7	502
Atlanta	36.5	57.0	6.5	46.8	455

Source: U.S. Bureau of the Census.

29/With, of course, the exception of metropolitan areas in Florida which have large numbers of older people.

Transportation

Beginning as a railroad center, Atlanta has maintained its strategic position in the transportation field. Thirteen main lines of 7 railroad systems operate 58 passenger trains daily out of the city with connections to all parts of the Nation. Sixteen airlines operate over 400 flights daily from the recently opened jet airport. Three hundred and forty-eight buses are scheduled in and out of the city daily and over 70 regulated truck lines serve the area.

Industry

Over the past three decades, the metropolitan area has made great strides in diversifying its industrial base. Once limited almost solely to processing textiles and to transportation, the area can now boast a well-diversified economy not tied to any single base. Table B-24 which uses employment figures indicates how evenly distributed the labor force is in the Atlanta SMSA.

Over 1,100 new plants have located in the metropolitan area since 1946. These industries employ more than 44,000 employees and have an annual payroll of approximately $143 million.

Among the manufacturing industries, transportation equipment is by far the leader in employment with over 22,600 persons on the collective payroll. Also significant are the food trades, the textile, apparel and publishing fields. By far the largest single plant in the area is the Lockheed aircraft plant with an annual payroll of over $90 million.

In any ranking of the 15 largest cities in the Southeast, Atlanta ranks first in such important categories as number of employees in commerce and industry, payrolls in commerce and industry, number of wholesale firms, number of retail sales personnel, bank deposits, and the like. Atlanta's average position in any ranking of southeastern cities marks it as the leading city in the area. In a special market report prepared for "Media Scope" in December 1960, Atlanta was entitled "Distribution Hub of Southeast" and noted that in the important matter of value added by manufacturing Atlanta had risen from 64th to 48th place nationally from 1950 to 1958. Table B-25 indicates the spectacular rise of Atlanta in the area of value added by manufacturing.

Sales and distribution

The importance of Atlanta as a trade area for the State of Georgia is demonstrated in tables B-26

and B-27 depicting the wholesale and retail trade of Atlanta as a portion of Georgia's total.

While the above tables indicate the importance of Atlanta in the trade picture of Georgia, no tabular presentation can depict the actual drawing power of this city. An example of this drawing power is found in the fact that from as far away as the city of Savannah on the coast, shoppers travel to Atlanta to visit the downtown area or 1 of the more than 50 shopping centers that ring the central city. The largest department store in Atlanta, Rich's, offers free delivery within a 100-mile radius of the city. With the completion of the major arms of the expressway system the retail volume will doubtless continue to increase. Wholesale sales increased by 136.0 percent between 1950 and 1960; a 60 percent improvement over the comparable increase between 1940 and 1950.

Per capita income in the Atlanta metropolitan area was $2,390 in 1960, above the national average, and more than $780 more than the average for the State. The 1960 figure of $2,390, represented a rate of annual increase of 6.43 percent during the preceeding decade. In terms of total income, the Atlanta metropolitan area represents a phenomenal 39 percent of the entire State income.

Table B-24. Employment by industry group Atlanta standard metropolitan statistical area, 1959

Industry	Number employed	Percent
Total, 1959	358,250	100.0
Contract construction	21,700	6.0
Manufacturing:		
Durable goods	45,450	12.7
Nondurable goods	41,400	11.6
Transportation, communications, and public utilities	35,100	9.8
Trade:		
Wholesale	36,950	10.3
Retail	58,000	16.2
Finance, insurance, and real estate	24,900	7.0
Service	46,300	12.9
Government:		
Federal	18,200	5.1
State and local	30,250	8.4

Source: Atlanta Constitution-Journal Research Survey (unpublished).

Table B-25. Value added by manufacturing, Atlanta standard metropolitan statistical area and Georgia, 1930-1960

Year	Georgia (million)	Atlanta (million)	Atlanta as percent of Georgia
1930	314	97	30.9
1940	771	195	25.3
1950	897	253	21.2
1960	2,283	822	36.0

Source: Special Study of Industrial Bureau, Atlanta Chamber of Commerce.

THE GOVERNMENT OF THE AREA

The city of Atlanta is governed by a mayor and a unicameral council consisting of two aldermen from each of the city's eight wards. For a city of its size, Atlanta has an antiquated charter that establishes a weak mayor system of government. The strides made by the city in the past two decades are in many ways attributable to the imaginative leadership of Mayor William Hartsfield. Mayor Hartsfield, who will retire from office at the end of his present term, has led in spite of the charter, not because of it. A less persuasive politician would have run into almost unsurmountable barriers.

In recent years, the business community has taken an active interest in city politics. The most recent evidence of this interest is the announced candidacy of the recent past president of the Atlanta Chamber of Commerce, a businessman of high repute in the area.

Fulton County in which most of the city of Atlanta is located, and which has 54.7 percent of the total population of the metropolitan area, is the only county in the State that operates under a county manager system of government. A very modern governmental organization staffed with well-qualified personnel has made this county a highly effective unit of local government.

A certain amount of functional consolidation has taken place between the city of Atlanta and Fulton

Table B-26. Wholesale sales Atlanta standard metropolitan statistical area and Georgia, 1930-1960

Year	Georgia (million)	Atlanta (million)	Atlanta as percent of Georgia
1930	566	278	49.1
1940	787	465	59.1
1950	4,962	2,218	44.7
1960	5,735	3,900	68.0

Source: Special Study of Industrial Bureau, Atlanta Chamber of Commerce.

Table B-27. Retail sales Atlanta standard metropolitan statistical area and Georgia, 1930-1960

Year	Georgia (million)	Atlanta (million)	Atlanta as percent of Georgia
1930	536	155	28.9
1940	714	225	31.5
1950	2,231	745	33.4
1960	4,444	1,600	36.0

Source: Special Study of Industrial Bureau, Atlanta Chamber of Commerce.

County. Of particular interest to this study is the fact that the city operates the entire system of parks for both the city and the county. The county pays a portion of the cost of operation but city personnel have exclusive operating authority. The county retains the right to establish parks outside the city boundaries but to date has not exercised that option.

The remaining four counties and the cities in the SMSA fit no particular governmental pattern. Since the relationship of municipal and county governmental structure is at best peripheral to this study, it need only be stated that with the exception of the Metropolitan Planning Commission no other agency of government has metropolitan-wide jurisdiction.

CHAPTER TWO

RECREATIONAL HABITS AND PREFERENCES OF RESIDENTS OF THE ATLANTA SMSA

It is the intention of this chapter to examine into the recreational behavior of the residents of the State of Georgia in general and the Atlanta Standard Metropolitan Statistical Area in particular. The major source of data in this chapter will be the study on recreational behavior completed by the Survey Research Center 1/ at the University of Michigan and the ORRRC National Recreational Survey.

In order to relate the findings of the surveys noted above to the Georgia picture, it will be necessary to examine the population of the area in some detail. Since the various reports of the ORRRC will discuss the general ramifications of certain demographic characteristics as they are related to recreational behavior, this chapter will give explicit recognition only to those characteristics of the Atlanta population that distinguish this area from other regions of the country or from other standard metropolitan statistical areas.

An example may serve to clarify what is implied in the preceding paragraph. Both the ORRRC National Recreation Survey and the Survey Research Center report indicate that there is a direct and irrefutable inverse relationship between age and participation in outdoor recreation activities, i.e., as a person's age increases, his participation rate decreases. If this thesis is valid—and the evidence is overwhelmingly in favor of its validity—then a high proportion of young people in a given population would indicate a heavy pressure on recreation facilities.

If an examination of the age structure of Atlanta's population indicates that it varies substantially from those of other regions or other metropolitan areas, this factor will be explored in all of its ramifications. If, on the other hand, the age structure of Atlanta's population differs very little from that of other urban areas, this fact will be noted and the matter of its relevancy will be stated but not elaborated.

In other words, only those characteristics that distinguish Atlanta from comparable urban areas in other regions will be discussed at length. Where differences do not exist, the conclusions and criteria that the general ORRRC reports will make will apply to the Atlanta SMSA.

REGIONAL COMPARISON

Both the SRC and NRS reports indicate a slight relationship between region of residence and rate of participation. As indicated by table B-28, the South tends, as a region, to have a lower rate of participation than any other region. By specific activity, the South has a higher rate of participation than any other region only in fishing; rates somewhere in the middle on boating, 2/ water skiing, camping, and horseback riding; and rates lowest in swimming, hiking, driving for pleasure, nature walks, and picnics.

It should be pointed out, however, that with respect to most of the activities listed above, regional differences are not significant and probably should not be emphasized in recreational planning. The SRC and NRS studies are both extremely important pieces of research but if the maximum advantage of the data compiled is to be realized, they will have to be repeated periodically in the future. It is unfortunately true that statistical data on recreation preferences and habits are not available for the years preceding the studies mentioned above. This fact alone means that periodic surveys will have to be made in order to ascertain whether regional differences are significant. 3/

In the following portions of this chapter, participation in individual activities will be examined from the viewpoint of income, race, age, education, rural-urban residency, and profession or occupation. This examination will substantiate the thesis that the reason for the South's low position in any regional ranking is caused by its high percentage of nonwhites; its low per capita income; its low achievement educationally; its higher rural classification, and its dearth of persons in higher status professional positions.

The lengthy treatment accorded racial factors in this chapter calls for a brief word of explanation. While the author has not had the opportunity to subject the data from the SRC and NRS studies to the intensive examination they richly deserve, it does appear that there is a great degree of uniformity among residents of metropolitan areas in this Nation with respect to recreational habits and preferences. The residents of the Atlanta SMSA do not, for example, differ radically in their recreation preferences from the residents of St. Louis or Chicago as those preferences are affected by age, income, occupational status, and the like. With certain exceptions, it can be posited that residence in

1/Eva Mueller and Gerald Gurin, "The Demand for Outdoor Recreation," Institute of Social Research, the University of Michigan, 1961 (hereafter referred to as SRC study). The ORRRC study is hereafter referred to as NRS.

2/The SRC and NRS studies do not agree on boating. According to the latter, the South rates lowest among the regions in this activity, while the former places the South somewhere in the middle group. This, however, is the only major activity on which the two studies disagree with respect to regional differences.

3/For an interesting criticism on the type of correlations used in the SRC study, see W. S. Robinson, "Ecological Correlations and the Behavior of Individuals," "American Sociological Review," vol. 15 (June, 1950), pp. 351-357.

a metropolitan area tends to promote a large degree of uniformity in recreational preferences regardless of where the area is located in the United States. As more and more persons move into metropolitan areas, it can be expected that regional differences now existing will tend to disappear.

However, the element of race and its relationship to recreation do tend to differentiate Atlanta from other regional metropolitan centers. Since over a quarter of Atlanta's population is colored, and since that colored population has, in the overwhelming majority of cases, migrated from rural sections of Georgia, there is a pattern of recreational habits and preferences that, at least at the present time, requires careful and detailed study. It is for this reason that this chapter devotes so much space to the racial factor.

RACE

The SRC report concludes a study of the relationship between race and outdoor activities as follows: "Race shows a marked relationship with outdoor activities, Negroes engaging in these activities relatively infrequently ... This is true even when income, education, occupational status, and place of residence are held constant." 4/ At another point the SRC report states, "Negroes are less likely to take a vacation trip than white people with the same income and vacation privileges." 5/

The NRS study does not include narrative conclusions but an examination of tabular data on white-nonwhite breakdown by activity reveals the following picture:

Fishing

While the southern nonwhite has a higher participation rate in fishing than in any other region, he falls below the white rate in every region. The difference in rate of participation between southern nonwhites and the same group in other regions is probably caused by the large number of southern Negroes who reside in rural areas. The NRS study indicates very clearly that the participation rate for rural nonwhites is much higher than for nonwhites residing either in standard metropolitan areas or in urban areas outside standard metropolitan areas. Since nonwhites in all regions except the South tend to reside in urban areas, this would cause the participation rate in nonsouth regions to be low.

On the basis of the increasing exodus of the Negro from the rural to the urban areas in the State of Georgia, it can be anticipated that, for a time at least, the fishing rate among Negroes will decline. In the Atlanta area, however, this decline will be reversed if additional facilities are provided for Negroes or when the younger Negro becomes aware that segregation is not permitted on facilities administered by the Federal Government. At present, observation indicates the Negroes in the Atlanta SMSA do not have a high participation rate in fishing. This is doubtless due, in part, to the fact that there is a sensitivity to visiting public places on the part of a race that has too often met with discrimination in public areas.

In planning for the future, much will depend on whether additional public fishing facilities are made available on Corps of Engineers reservoirs. If such facilities are made available, it can be safely predicted that the rate of participation among Negroes will increase radically.

Hunting

Whites have a higher participation rate for hunting in the South than do nonwhites although nonwhites have a higher "days per person" rate. The latter is probably due to the high participation rate of southern rural Negroes who tend to hunt not as much for recreational purposes as for food. This factor of

4/SRC study, p. 55.
5/Ibid., p. 99.

Table B-28. Rate of participation in outdoor recreation by activity and region 1/

Activity	South		West		Northeast		North Central	
	SRC participation (percent)	ORRRC participation (percent)	SRC participation (percent)	ORRRC participation (percent)	SRC participation (percent)	ORRRC participation (percent)	SRC participation (percent)	ORRRC participation (percent)
Swimming	21	40	27	48	36	53	22	42
Boating	13	19	6	23	11	21	15	27
Fishing	26	33	18	30	22	21	21	23
Skiing	2	6	1	9	5	4	3	6
Hiking	6	4	12	9	7	7	8	5
Driving for pleasure	43	45	50	56	46	54	49	58
Nature walks	5	12	8	16	6	15	6	15
Picnics	23	43	33	54	32	57	38	58
Camping	5	8	15	17	4	5	5	7
Horseback riding	2	5	6	11	1	4	3	5

1/The SRC and the NRS tables are not exactly comparable. Data on this table for the SRC report were taken from pp. 37-38 and indicate the percentage of interviewees who stated that they engaged in a particular activity "often" during the last year. Data for the NRS report are from the lead table (unnumbered) and purport to show the "percent of persons 12 years old and over participating . . . during June-August 1960 . . ., by activity." The two sets of data should not, therefore, be compared one with the other, but should be used, individually, to compare regional participation.

providing food may also account in part for the high rural participation rate for nonwhites in fishing.

Hunting is an activity peculiarly related to the urban-rural division in Georgia. Rural Negroes participate actively in small game hunting (rabbit, squirrel, opossum, and coon in particular), while those residing in the Atlanta SMSA have a participation rate that is very low. As is true with whites, one reason for a lack of participation is the dwindling supply of open land and game cover. Additionally, however, the low income level of the Negro, his relative lack of vacation time, and the increasing use of hunting preserves from which he is barred, tend to restrict his participation. It is extremely doubtful that this pattern will change radically in the years ahead.

Nature walks

Southern whites have a significantly higher participation rate and a much higher "days per person" rate than nonwhites in nature walks. Among those who reside in large metropolitan areas, there is no significant difference between whites and nonwhites in the South. In small metropolitan areas, in urban and rural areas, the white participation rate is significantly greater than the nonwhite rate. The nonwhite who resides in a large metropolitan area engages in this form of outdoor recreation to a much greater extent than do his counterparts in smaller urban and rural areas.

In the Atlanta SMSA, participation in nature walks by Negroes tends to be low for two reasons. The first, and probably the most important reason, is the lack of facilities. Few of the parks in downtown Atlanta where the Negro population is primarily concentrated, lend themselves to this type of activity. Second, nature walks, as an activity, appear to be closely related to past experience and education. The Negro's background in Georgia has not been one that would tend to make him interested in the wonders of nature. Most of Atlanta's Negro population originated in a rural environment where the outdoors meant long hours of physical labor; this type of experience is not too conducive to acquiring an interest in nature studies.

As the Negro improves his social and economic status, and in particular, as Negro children educated in adequate schools reach maturity, this type of activity should increase. The extent of the increase will, in large part, be determined by the adequacy of available facilities.

Bicycling

Bicycling as a form of outdoor recreation is particularly favored by nonwhites in the South. Except for the West, this region has by far the highest participation rate in bicycling among nonwhites; a rate which is twice that of whites in the South. By place of residence, those nonwhites who reside in non-SMSA urban areas have by far the highest participation rate with males in large metropolitan areas leading the way in this sex group. In days per person, and days per participant, nonwhites in urban areas outside the SMSA have the highest rate of participation.

It is most difficult to determine the importance of bicycling as a form of outdoor recreation in the Atlanta SMSA. Here, as is true in the Nation as a whole, this form of recreation is engaged in almost exclusively by children. While the pronouncements of certain persons, such as Dr. Paul Dudley White, have some temporary effect, in general it can be said that at the present time, and for the future, bicycling will not be a major form of outdoor recreation for adults.

Negro children will doubtless continue to participate in bicycling in the future. For whites, however, the spread of residential areas, particularly in subdivisions without sidewalks, will probably mean that the ratio between white and nonwhite participation will increase in favor of the nonwhite.

Sightseeing

Whites tend to participate in sightseeing in all regions much more than do nonwhites. Among the nonwhites, the rural element participates in this activity much less frequently than does the urban nonwhite; while among urban nonwhites the person residing in a small metropolitan area has the greatest participation rate. Among those persons living in large Metropolitan areas, whites tend to engage in sightseeing about 20 percent more frequently than nonwhites (among women, the white participation rate is almost 25 percent greater than the nonwhite).

Since sightseeing is restricted by the segregation pattern in Georgia, Negroes do not participate nearly as actively as do whites. As per capita income, education, and leisure time pattern increase for the Negro, and as the segregation barrier is breached, it can be predicted that Negroes will participate much more frequently in this activity.

Walking for pleasure

Walking for pleasure, like bicycling, is an activity in which the nonwhite rate of participation is significantly greater than white in all regions of the country except the West. While the difference is greatest in the North Central part of the country, it is significantly greater in the South (33 percent of the nonwhites participate in the South, while only 25 percent of the whites do so). Among nonwhites this activity is particularly attractive to residents of large metropolitan regions, and the same can be said for white residents. Walking for pleasure, in other words, is essentially an urban pleasure.

In a large sense, walking for pleasure is a euphemism in Atlanta as far as Negroes are concerned. White people engage in this form of recreation for the pleasure of it; Negroes tend to participate simply because it is one of the few forms of recreation in which no capital outlay is required and in which few segregation barriers are encountered. As more adequate facilities are made available and as the level of income rises, the rate of participation among Negroes should drop in this activity. Conversely, if more park space is made available, and if there is less congestion on city streets, white participation should increase.

Camping

The tremendous growth in camping in recent years makes this activity one of particular importance. Drawing racial lines on the basis of the NRS report, one finds that whites engage in camping much more than Negroes in every region (four times as often in the South), but the difference in participation rates for large metropolitan areas is statistically insignificant.

There is almost no Negro camping in rural areas, whereas the greatest participation among whites is found in rural areas.

At present, camping (both as a group and individual form of recreation), in the Atlanta SMSA, is almost exclusively a pleasure reserved for whites. The reasons for the lack of participation by Negroes is all too obvious; camping costs money for equipment, and it requires campsites. Both of these factors are in short supply for Negroes. Assuming a long-run increase in the income level and leisure time of both whites and Negroes in the SMSA, it can be predicted with some assurance of safety that camping will increase dramatically among residents of the Atlanta SMSA if additional facilities are made available within a reasonable distance of the area. White participation will, however, continue to exceed that of Negroes through the study period.

Picnicking

The South is the only region where the white participation rate in picnicking is higher than that for nonwhites. The highest rate of participation among nonwhites is found among those in large metropolitan areas where their national rate exceeds that of whites 58 percent to 51 percent. Nonwhites in rural areas have by far the lowest participation rates of either nonwhites or whites.

The lack of picnic facilities bars any substantial amount of picnicking among Georgia Negroes. Since this is a form of recreation that requires little expense other than transportation, any increase in facilities will almost certainly bring about a proportionate increase in participation on the part of Negroes. It is with this type of activity that the absence of Negro facilities close to the SMSA is most dramatically illustrated. With only one colored State park, and few other public or private facilities, the colored person simply has no place to go.

Driving for pleasure

Driving for pleasure is the outdoor recreation activity that rates the number one position in the South with 45 percent of all those interviewed stating that they had engaged in this activity. While whites participated much more frequently than nonwhites, the great racial difference is found among rural residents. Among those residing in large metropolitan areas, nonwhite participation was almost exactly the same as the rate for whites. Rural nonwhites have only about half the participation rate of their counterparts in urban areas and about half the rate of white rural dwellers.

Swimming

Swimming is the most popular form of outdoor activity for youngsters in this country. The participation rate for the South is the lowest of all regions, but a great part of this difference is based on the low rate of Negro participation in swimming, which is only 57 percent as great as the white rate. In the country as a whole, the participation rate for both whites and nonwhites is highest in large metropolitan areas; in the South the rate of participation is lowest among residents of such areas.

Negroes in the Atlanta SMSA do not participate in swimming nearly as actively as whites. Whites, especially those below the age of 21, show a constantly increasing rate of participation that will probably continue to rise as more and more facilities are made available. At present, there are over 1,000 swimming pools—public and private—in Fulton County alone, and the number is increasing annually in all parts of the Atlanta SMSA.

The low participation rate for Negroes is difficult to explain. There is, however, some indication that it is caused, at least partially, by a lack of experience on the part of those Negroes who have migrated to Atlanta from a rural area. The Survey Research Center study indicates that experience in a particular activity as a youth tends to extend that participation into a person's later years. Many Negroes who grew up in a rural area had no facilities available for swimming and thus tend to participate very little even when facilities are made available in the urban areas to which they have migrated.

Boating

Boating is essentially a white sport in the South and in every other region of the U.S. According to the NRS report, 23 percent of those white persons interviewed in the South engaged in this activity during June-August of 1960, while only 3 percent of the Negroes interviewed reported such activity. In the U.S. as a whole, the figures were 24 percent and 6 percent respectively. Among whites, residence in metropolitan areas in the South meant a higher rate of participation.

In the Atlanta SMSA boating is, for all intents and purposes, a form of recreation reserved almost exclusively for whites. The rather formidable capital outlay required for boating acts as an almost insurmountable barrier to Negro participation. There is another less precise, more vague reason. Boating is one of those activities that is by custom in the South closed to Negroes.

Boating should continue to increase among whites in the Atlanta SMSA but at a decreasing rate. A report issued by the Outdoor Boating Club of America and the National Association of Engine and Boat Manufacturers 6/ indicates a deceleration in motor sales in Atlanta in 1959. Since this particular form of recreation is governed largely by facilities available, it can be predicted that substantial increases

6/ "Boating 1959" (A statistical report jointly presented by the Outdoor Boating Club of America and the National Association of Engine and Boat Manufacturers, New York and Chicago, 1960), p. 7.

among whites are dependent on more public access points on existing bodies of water and on new bodies of water such as reservoirs. The establishment of additional reservoirs south of the Atlanta SMSA should mean another spurt in boating participation.

An increased rate of participation (now almost nil) can be expected among Negroes as per capita income increases in this race.

Conclusions with Respect to Race

The presence of large numbers of Negroes in the State of Georgia is significant in planning recreational activities. While the proportion of Negroes 7/ to whites has shown a steady decrease through the years, it still represents 28.6 percent of the total population. Of those persons residing in urban areas, Negroes represent 29.7 percent of the total; in rural areas 27.2 percent of the inhabitants are colored. At the present time, approximately 23 percent of the population of the Atlanta standard metropolitan area is colored, with the heaviest concentration being found in the city of Atlanta (38.3 percent).

The presence of such a large underprivileged group in its population is of significance to Atlanta in studying its recreational needs. The paragraphs above indicating a relatively low participation rate in outdoor activities for the South as a whole, can be explained almost entirely by the fact that the majority of Negroes in the South have been, and are, poorly educated, underpaid, have a minimum amount of leisure time, and have scant recreational facilities available to them.

A glance at certain of the recreational activities listed above clearly illustrates the recreational pattern of the Southern Negro. His rate of participation is extremely low in those activities that require expensive equipment, membership in a club, or long trips to recreational areas. Included in this category are boating, requiring a large capital outlay, and substantial maintenance costs; hunting, requiring purchase of expensive equipment; and camping, again necessitating a substantial outlay for equipment.

The Negro participates heavily in those activities that are: (1) inexpensive or relatively so; and (2) readily accessible in a region where many activities are foreclosed by segregation practices. Thus, he drives for pleasure (38 percent participation); walks for pleasure (33 percent participation); goes sightseeing (27 percent participation); fishes (30 percent participation). Of these activities, only the category of "driving for pleasure" requires a relatively large capital outlay. The rest are the types of activities that one can engage in at little cost.

The relatively high participation rate for Negroes in bicycle riding is confined almost entirely to the 12- to 17-year age category. Following that age group, the participation rate drops to almost nothing. One might well raise the question here of whether Negro boys and girls ride bicycles for pleasure at least partially because their parents cannot afford the recreational activities engaged in by whites.

The Negro in Georgia, particularly in large urban centers, is undergoing a very rapid transformation. Held in a position not unlike peonage for almost a hundred years after his status as a slave had legally ended, the Negro has finally begun to assert his demand for equal status in a loud strident voice.

The Negro in Georgia is changing his status with each passing year. His per capita income, still appallingly low outside the urban areas of the State, has increased in each of the past three decades at a rate greater than that of his white counterpart. His infant mortality rate, once disgracefully high, is now practically equal with that of the whites in the Atlanta SMSA. His death rate is rapidly declining to a point where in the Atlanta area again it approaches that of the white rate. His educational level, while still much lower than the white level, is increasing rapidly among the younger aged groups.

In most urban areas in Georgia, Negroes have participated in the political process on a relatively free and equal basis for some years. In the city of Atlanta, Negro members have sat as members on appointive boards and in June 1961, a Negro candidate for a seat on the city council of Marietta (within the Atlanta Standard Metropolitan Statistical Area) ran a close second to the winner in a field of six candidates.

As agriculture continues its decline in employment, the exodus of Negroes from rural to urban areas will continue. With that exodus will come a better education, and for many, a rapid increase in earning power. When this occurs Negro participation in outdoor recreation activities will increase in the entire State, and particularly in the Atlanta area.

This change will not be as rapid as some would desire, but will not be as slow as have been past changes in the status of the Negro. Certainly those who plan recreational programs must be aware of the changing status of the Negro and should prepare for his increasing participation in such activities.

The fact that the SRC study found that race has a relationship with outdoor activities even when factors of income, education, and occupational status are held constant should come as no surprise. Certainly recreation is a part of a cultural pattern—a pattern that is constantly changing. The culture of the American Negro, particularly the southern Negro, has not included, except in rare instances, such sophisticated pleasures as engaging in boating, camping, and the like. The Negro has been too deeply involved in making a living to concern himself too deeply with such esoteric pleasures as outdoor recreation.

That a segment of the Negro race has decided to change that pattern is best illustrated by the desegregation suits brought against the city of Atlanta for the municipal golf courses; the suit in Virginia that resulted in the closing of that State's most popular park; and the recent moves in Atlanta and practically every large city in the South to desegregate municipal parks and swimming pools. Since the leadership for most of these movements is coming from a young element of the Negro race, and since, as will be seen below, it is the youth of this country that most actively engages in outdoor activities, future years will most certainly show a definite

7/ In discussing Georgia, this chapter will use the term Negro rather than nonwhite since Negroes comprise over 99 percent of all nonwhites in this State. In 1960 the nonwhite population of Georgia was 1,125,893 of which 1,122,596 were Negroes.

change in Negro participation in outdoor recreation. Ascertaining the extent of this increase will be difficult, but a warning should be voiced that to attempt to project current practices by any mechanical means will in all probability result in underestimating Negro demands and participation in the future.

AGE AS A FACTOR

The SRC report after studying several demographic characteristics and attempting to relate them to recreation preferences and habits, concludes as follows: "The relationship (between age and outdoor activity) is a sharp and striking one ... of all the factors analyzed here, age has by far the strongest relation to outdoor recreation." 8/

Rather than analyzing each activity as was done with respect to race, a few general statements will suffice to depict the relationship between age and outdoor recreation as reported in the NRS.

(1) With the exception of driving for pleasure, every activity noted above, i.e., fishing, hunting, nature walks, bicycling, sightseeing, walking for pleasure, camping, picnicking, swimming and boating, is engaged in most heavily by those persons who are from 12 to 17 years of age. Outdoor recreation is very obviously an activity of the young.

(2) Driving for pleasure is an activity in which age has apparently little significant relationship. Even here, however, peak activity is shown at the 18 - 24-age level, with a rather sharp drop after this age group in the South.

(3) There is a partial conflict with respect to camping and nature walks between the SRC and NRS reports. The former states that these two activities show a "curvilinear relationship with age" and reports greatest participation in the 30's and 40's. 9/ The NRS report indicates peak activity in camping in the 12 - 17-year age group with a sharp drop occurring immediately (12 - 17—24 percent participation; 18 - 24—10 percent participation); and shows the same picture for nature walks (12 - 17—27 percent participation; 18 - 24—14 percent participation).

(4) With respect to place of residence, the NRS figures indicate:

A. Camping is lower in every age category in large metropolitan areas except in the 12 - 17-year group where it compares favorably with all other groups.

B. Residency in large metropolitan areas means greater participation for the aged. For example, participation by those over 65 years old is highest in metropolitan areas in such activities as boating, swimming, and walking for pleasure.

C. Residing in large metropolitan areas militates against sightseeing, picknicking, hunting and fishing.

In all activities except driving for pleasure, the youth of the country participate more heavily than their elders. This is true not only in those activities requiring physical stamina, but also the more sedentary pastimes of picnicking, sightseeing, and walking for pleasure.

The age composition of the Atlanta standard metropolitan area is not unlike that of the remainder of the State of Georgia or of other metropolitan areas.

8/SRC study, p. 42.

9/Ibid., p. 46.

The median age in the Atlanta SMSA was 27.4 years in 1960. This was a decrease over the preceding census and is indicative of a trend now evident all over the country. The great increase in population in the last decade was among the very young and the very old, with some middle categories actually losing population. In the State of Georgia, for example, the greatest percentage increases by age category were in the 70-and-over and 14-and-under range, with the categories in the 20- 29-year range actually losing ground.

In the Atlanta SMSA 1960 data indicate population gains in the 14-and-under categories, relative losses in the 15 to 54 categories, and gains in the 55 and over category. The important age groups of 19 and under (important as being the most active participants in outdoor activities), now represent 39.3 percent of the total population. This figure may be compared to the 1940 and 1950 census data when the same age groups represented 33.9 and 33.8 percent, respectively.

It might be noted parenthetically that the greatest gain among the younger groups occurred among Negroes, 43.5 percent of whom now fall in the 19 and under age categories. The figure may be compared to the white percentage of 38.1. The Negro gain in the under 19 category was 7 percent from 1950 to 1960, while the white was 5 percent.

The rapid increase in the aged groups in Atlanta is part of a nationwide trend. Table B-29 indicates the consistent increase in the number of persons over 55 years old in the SMSA. Of greatest impact is the increase among Negroes.

Table B-29. Percentage of persons 55 years old and over, by race, Atlanta standard metropolitan statistical area

Year	Negro	White	Total
1930	6.6	9.9	9.0
1940	8.5	12.5	11.6
1950	10.8	13.6	12.9
1960	12.3	14.2	13.7

Source: U.S. Census of Population (1930, 1940, 1950, 1960).

The median age for the Atlanta Standard Metropolitan Statistical Area is slightly higher than that for the State at large. This difference is obviously accounted for by the in-migration of young adults from the rural areas. With better health standards and increased medical care, Atlanta can doubtless look forward to a continuing increase in its older colored population. Likewise, improved medical care will doubtless reduce infant mortality among Negroes. This reduction coupled with a birth rate higher than that for whites can only mean an increase in the number of Negro children. The combination of a rather vigorous campaign for better recreation facilities now being conducted by Negroes, added to an increased population in an age group whose rate of participation will be very high can only mean a greater and greater amount of pressure placed on recreation facilities for Negroes.

The presence of the aged in Atlanta's population poses the same problem as faced by recreation authorities everywhere in the United States. As that segment of the population over 65 years old increases, as it must surely do, and as an earlier and earlier

retirement age becomes the practice, this problem can become crucial. It would not be wise to forget this group simply because it does not at present participate at a high rate. As more and more youngsters participate in some form of outdoor activity in their early years, an increased adult participation rate can be expected.

INCOME AND EDUCATION

The State of Georgia rates far below the national average in both income and education. Per capita income in Georgia in 1958 was $1,487, while the national average in that same year was $2,057. The median educational level of white Georgians in 1950 was 8.8 years; of Negro Georgians a pathetic 4.9 years. These data should be compared with the national average of 9.7 years for whites, and 6.9 years for nonwhites.

Fortunately, the Atlanta Standard Metropolitan Statistical Area scores much higher on both scales. While final figures are not yet available, preliminary data for the SMSA indicates a per capita income and an educational median far above that for the remainder of the State.

The SRC report, in commenting on the relationship between income, education, and outdoor activities, stated: "It does appear that upper income people and those with more formal education make more active use of their leisure time than others." 10/ At a different point the report concludes that "Education shows a strong relationship with outdoor activity; the higher educated being greater participants." 11/

The NRS report also indicates that for most activities there is a direct relationship between increased education and income and increased participation in outdoor recreation. Rather strangely, those persons with from 1 to 3 years of college tend to be more active participants than those with 4 or more years of college. This is true of camping, walking for pleasure, and boating.

With respect to income, it can be posited that on the basis of the NRS report, a low income, particularly one of less than $3,000 annually, results in a very low rate of participation in outdoor activities. In the South the greatest participation in most activities is found in the $6,000 to $8,000 categories. In no single activity does peak participation occur at an income level below $6,000.

Residency in a large metropolitan area when related to income, education, and outdoor recreation shows the same pattern as indicated above, i.e., the lowest income and poorest educated portion of the population participates at the lowest rate in all forms of outdoor activity.

Since the Atlanta Standard Metropolitan Statistical Area does not differ radically from other areas of the country with respect to income, no problems peculiar to this area are raised. With respect to education, the relatively low educational achievement level means that the participation rate of Atlanta citizens will be lower than those for other metropolitan areas. As the public education improves, however, Atlanta should accept the fact that it faces a heavy demand on such activities as fishing, bicycling, picnicking, and a lesser demand for nature walks, sightseeing, boating, and camping.

While 1960 data on income distributions are not yet available, the 1950 figures demonstrate all too well the low position of the Negro even in the Atlanta area where he is relatively well off when compared with Negro residents of rural areas. Detailed data on income distribution are found in the appendix of this report. 12/ Suffice it here to say that 69.1 percent of the Negro families in Atlanta had annual incomes of less than $2,000, while only 28.1 percent of the white families were in this category. Based on the statement above that outdoor participation of individuals with incomes of less than $3,000 is very low, 86.3 percent of the Negroes in Atlanta would be low participants; whereas among the white population, 54.4 percent of all families had incomes of more than $3,000 in 1950, and would tend to participate much more actively.

OCCUPATION STATUS AS A FACTOR

The SRC report states conclusively that "Occupation shows a clear relationship with outdoor activity. As we go down the hierarchy from professional to unskilled laborer, the rate of participation drops sharply." 13/ But the report then states that, "Multivariate analysis indicates that this is due in large part to income, education, and length of paid vacation." 14/ Thus, it is not the occupational status that determines rate of participation but the concomitants that accompany occupational status.

An examination of the NRS data indicates that there is an inverse relationship between service workers and unskilled laborers and participation rates; in every activity studied these two groups vied for the low spot. Clearly then, any city with a large number of service workers and unskilled laborers would probably have a low rating on any activity scale in the area of outdoor recreation.

The picture with respect to occupational status in the Atlanta SMSA has, with certain exceptions, changed surprisingly little in the past 20 years. Based on the census definition of occupational groups, "professional, technical," and "craftsmen, foremen," groups have shown dramatic increases. Professional and technical personnel, for example, have increased from 6 percent in 1940 to 11.1 percent in 1960, while craftsmen and foremen increased from 5 percent in 1940 to 15 percent in 1960. All other classifications have remained essentially unchanged during the last two decades. Service personnel, for example, represented 8.5 percent of the labor force in 1940, 8.4 percent in 1950, and 8.7 percent in 1960. 15/ Clerical and sales personnel represented 20 percent of the labor force in 1940, 25 percent in 1950, and 21.9 percent in 1960. By adding unskilled classifications together, one can state that approximately one-fifth of the labor force in the Atlanta SMSA represents individuals who, on the basis of both the NRS and SRC reports, are low participants in outdoor recreation.

10/Ibid., p. 79.
11/Ibid., p. 29.
12/See app. A, Tables B-42, B-43, and B-51.
13/SRC study, p. 29.
14/Ibid., p. 29.
15/All 1960 data are estimates.

The unskilled labor force in Atlanta is predominantly colored. In 1950, for example, 12,938 of the 18,057 persons classified as laborers were Negroes; and 15,968 of the 16,719 persons classified as private household workers were Negroes. Thus, Atlanta combines in one group those persons—Negroes and unskilled laborers—who have very low participation rates. As the economic base of Atlanta changes, and as the Negro continues his rise to a position of something approaching equality, this situation will probably change. 16/

LEISURE TIME ACTIVITIES

The SRC report devotes a chapter to leisure time use and outdoor recreation. 17/ One of the major findings of this chapter is that approximately one-half of the American people do not feel a need for more leisure time. On closer examination, however, the data collected revealed that there is a direct relationship between leisure time needs and certain socioeconomic characteristics. Thus, of those persons under the age of 45 and with incomes of over $7,500 "nearly one-half said they would like to have more free time." As age increases, the desire for more leisure time decreases proportionately, until at the age of 65, 21 percent of those interviewed replied that they had too much leisure time. 18/

When interviewed as to the use of their leisure time, a very large percentage (81 percent) listed television as their first preference; 66 percent listed visiting with friends or relatives; 63 percent, reading; 57 percent, gardening or working in the yard; 46 percent, pleasure driving; 44 percent, church or club work; and 41 percent listed "active sports" as consuming most of their leisure time. 19/

Of especial interest to outdoor recreation is the fact that in the category of "active sports," fishing led the list of all sports (slightly more than one of every six persons interviewed spontaneously mentioned fishing in the context of questions asking about activities that they engage in "quite a lot").

The same relationship exists between demographic characteristics and leisure time use as was noted with respect to those characteristics and outdoor activities. Thus, as people grow older they engage less and less in active sports, and participate in fewer and fewer activities. Likewise, the more education a person has had and the greater his income, the more he is likely to make active use of his free time. This does not mean that better educated persons with higher incomes have more leisure time (quite the reverse would appear to be true), but rather that they use what leisure time they have in engaging in more active recreation than do their less educated counterparts with lower incomes. Since most studies indicate a general rise in income and educational levels, the possibility of greatly increased participation in outdoor activities appears strong. The SRC report, however, issues a warning on this point.

Similarly regarding leisure, the assumption that present leisure time activity levels within socioeconomic groups will be maintained as the distribution of the population among these groups undergoes major shifts is not warranted. To be sure, it appears likely on the basis of current data that more income and education will mean increased participation in many leisure time activities. Yet it would not be safe to estimate the magnitude of the increase by applying present participation rates within income and education groups mechanically to projected income and education distributions for some future year. 20/

There is, unfortunately, no data on the relationship between race and leisure time activities, but based on census information the Negroes in the Atlanta SMSA represent that group which is poorly educated, has a low income, is more youthful than the median, works in those types of employment that offer little in the way of paid vacation, and thus probably has little leisure time.

While 43 percent of American families took vacation trips in the year preceding the SRC survey, this percentage varies considerably with such factors as income, occupational status, and whether or not the head of the household received a paid vacation. It is hardly surprising to find that the higher the income and occupational status, and the greater the length of the paid vacation, the stronger the likelihood of a family taking a vacation.

Among the employed groups laborers and service workers were least likely to take a vacation. When it is remembered that in the Atlanta SMSA Negroes represent 83 percent of these two categories, it is easily understood that Negroes take few vacations. The SRC report indicates that of those persons working as laborers, 64 percent took no vacation at all, 11 percent took their vacation at home, and only 23 percent took a vacation trip.

A second factor that must be considered in assessing the recreational demand of the Atlanta region is the relative lack of union activity in this area. While the decline of agriculture and the concomitant increase in manufacturing has meant an increase in union activity, the economic base of the city is still heavily tied to nonunion occupational groups. Laborers, service workers, sales personnel, and clerical workers represent the majority of the employment force of Atlanta, and these groups are traditionally not union oriented.

The lack of strong union forces in the Atlanta region means that the trend toward increased fringe benefits such as longer paid vacations, more holidays, and shorter weeks, has not reached a substantial portion of the work force in Georgia as it has in other regions of the country. 21/ While this picture is

16/ Bureau of Labor Statistics data prepared for ORRRC predict that by 1976 the percentage of professional and technical workers will increase, operatives will decline, laborers and foremen will decline, managers, clerical and sales, will increase. See BLS, op. cit. table 10.

17/ SRC study, p. 65, et seq.

18/ Ibid., p. 69.

19/ Ibid., p. 71.

20/ Ibid., p. 80.

21/ Bureau of Labor Statistics data prepared for ORRRC show the Atlanta SMSA rating far below the other metropolitan areas studied (New York, Philadelphia, Chicago, St. Louis, and Los Angeles) in both the length of average vacations and in average number of holidays per year. Atlanta's figure of 1.9

Footnote 21 continued on next page.

rapidly changing and union activity will almost certainly increase, the traditional southern opposition to such activity will certainly act as a barrier for some time to come. Thus, another warning must be given about projecting regional outdoor participation on the basis of national criteria and standards.

While the matter of accessibility to major outdoor recreation areas within 70 miles of the Atlanta SMSA will be discussed in the next chapter, there are several points that perhaps should be considered at this time.

The population pattern in the Atlanta SMSA is not unlike that of most youthful, rapidly expanding urban areas; the downtown section is heavily and increasingly populated by Negroes. Of the 182 census tracts in the Atlanta SMSA, 35 contain more than 50 percent Negroes. Of these 35 tracts, 33 are in Fulton County, the site of the City of Atlanta, and the other 2 are in adjoining DeKalb County. Twenty-four of the 35 tracts have populations that are 85 percent colored, while 11 contain no whites at all. Comparable figures for 1950 showed only 26 tracts in which Negroes outnumbered whites, 17 with more than 85 percent colored, and none which contained a 100 percent Negro population. Fifty-three of the 182 census tracts lost population between 1950 and 1960. Only 13 of the 53 tracts that lost population were Negro districts and only 7 were in counties other than Fulton.

Surrounding the downtown district are rapidly expanding suburbs tied to the city by a series of expressways. The major population expansion is occurring along the expressways to the northwest, the northeast, the east and the southeast. The proportion of owner-occupied houses and lot sizes increases in direct proportion to the distance from the downtown areas.

As will be seen in the next chapter, the major public and private recreation areas within 70 airline miles of Atlanta lie in direct line with the population expansion and on the routes of the interstate highway system. Atlanta is currently involved in completing its expressway and circumferential systems that, coupled with the interstate network, will make it possible for a resident of the area to travel with ease to a major recreation area 70 miles away in approximately 2 hours from practically anywhere in the Atlanta SMSA.

The onsite study made at Buford Dam, and the inventory of recreation facilities made by ORRRC indicate that the overwhelming majority of Georgians travel to recreation areas by automobile. This means that the extent and condition of the road net connecting major urban areas with important recreation facilities is of great importance. For this reason, an assessment of Georgia's highway system is in order at this time. One starts such an assessment with the knowledge that it is difficult to assess the Georgia road net by using standard criteria. In terms of miles of roads, and accessibility to recreation areas, Georgia rates very well; practically every important recreation facility within a radius of 70 miles of Atlanta is connected to Atlanta by a major highway.

The condition of Georgia's highways, on the other hand, does not represent as bright a picture. Caught in the grip of a rural-dominated political scene, Georgia, not unlike most States, has been criticised for constructing too many miles of highways without adequate planning for future maintenance costs. Critics of the State charge that political figures vie with each other in sponsoring impressive bond issues to build farm to market roads without giving consideration to what such construction will do to an always inadequate maintenance budget.

As a result of such activities, the State was forced, in the 1961 session of the General Assembly to authorize the issuance of $100 million in bonds for heavy maintenance work needed in practically every section of the State. Fiscal experts quickly pointed out that sound financial practices prohibit the use of long-term bonds for maintenance costs, and also noted that the full burden of maintaining the new interstate system will rest on the shoulders of the State.

Next to education, highway construction and maintenance is a function which consumes the heaviest part of the State budget. Table B-30 indicates the extent of highway expenditures since 1955 both in terms of dollars and in percentages of the total State expenditures. While various suggestions have been advanced for reorganizing the highway department, it seems clear that what is most needed is long range planning in the construction of highways.

Table B-30. State highway budget allotments: 1955-1960

Year	Amount	Percent of total expenditures	Per capita
1955.....	$55,738,883.97	23.1	$16.18
1960.....	$75,112,014.10	21.5	$21.81

Source: 1960 official report of the State auditor of the State of Georgia.

CONCLUSIONS

The South as a region tends to participate less actively in most forms of outdoor recreation than do other regions of the country. Only with respect to fishing does this region demonstrate an activity rate greater than the rest of the Nation. Data indicate that the most popular forms of recreation in the South are water oriented, i.e., fishing, swimming, boating, and water skiing.

One reason for the South's low activity rate may be found in its relatively low position with respect to income and education; factors that bear a very close relationship to participation. With a per capita income and a median educational level far below the national average, States such as Georgia will probably continue to be below the national average in participation rate for some time to come.

Residents of the Atlanta SMSA do not fit the pattern found in the remainder of the State. The per capita

Footnote 21 continued.

weeks of vacation rates below the St. Louis figure of 2.2 weeks which is itself much lower than that of the other metropolitan areas. By the year 2000, the Atlanta figure on vacations will rise to 4.0 weeks, while the average number of holidays will increase to 9.1 days. In each case, Atlanta will still be number five in the five metropolitan areas under study by ORRRC. (All figures from BLS, "Estimate of the Decrease in Hours Worked," 1960-2000, June 1961.)

income, educational achievement, and number of skilled and semiskilled workers are all far above the average of the remainder of the State. It can be posited, therefore, that residents of Atlanta, colored as well as white, can be expected to participate far more actively than the remainder of the State.

The slowness with which labor unions are gaining ground, and the substantial portion of the labor force that is still classified as laborers and service workers, means that Georgia and Atlanta residents do not enjoy either the number of paid vacations or the amount of leisure time found in industrial centers in the Northeast and North Central sections of the country.

With its rapidly expanding population and its changing economic base, substantial changes in the demography of Atlanta may be expected in the relatively near future. Whether these changes will mean increased participation in outdoor recreation may be determined in part by the ability of the State and the SMSA to provide additional facilities. Substantial State aid for the Atlanta area will probably not be forthcoming until urban areas gain a greater voice in the policy-making branches of the State government.

The emerging Negro problem is of major significance. Tremendous strides have been made in decreasing Negro infant mortality rates, and the death rate from all causes has fallen rapidly. Accompanying these decreases has been a comparatively high birth rate among the colored population. These factors have combined to produce an ever-growing Negro population in the city; a population skewed toward the very young and the very old. As the status of the Negro improves, he most certainly will begin to demand more and more recreation facilities. No longer prepared to accept facilities that are not, and never have been equal, the Negro race is becoming much more vigorous in its demands for an end to segregation in all forms.

Major recreational facilities are readily accessible to Atlantans by virtue of an extensive highway network, and a planned system of interstate highways that will bring every major recreation area within easy driving distance of the city. The continued problem of maintaining the highways already constructed will doubtless remain as long as political considerations dictate the inefficient use of road funds.

In the next chapter the matter of existing recreation areas and their use will be discussed.

CHAPTER THREE

MAJOR RECREATION RESOURCES IN GEORGIA

Having described in chapters 1 and 2 the social, economic, and political characteristics of the southeastern region, the State of Georgia, and the Atlanta SMSA, as they are related directly or indirectly to outdoor recreation, attention is now turned to the matter of existing outdoor recreation available to the residents of Georgia and the Atlanta SMSA. This chapter will include material on the extent and location of major public and private recreation areas within the State of Georgia, a discussion of the visitation to these areas, a description of potential areas, an examination of the governmental organization used in the administration of the recreation function, and an appraisal of the sensitive subject of financing recreation

State-Owned Recreation Facilities

Unlike many other States that use a manifold classification of publicly-owned recreation areas, Georgia utilizes only one basic title, that of State park. While there are several exceptions to this statement, they are relatively unimportant both in terms of size and number of visitors.

One exception may well be worth noting, since it does attract a relatively large number of users. The exception is the roadside park. Located on every major highway, both State and Federal, the approximate 200 rest stops in Georgia serve two functions. From shortly after 9 a.m., the major users of such rest stops appear, by observation, to be tourists—either from within or from without the State. Frequent checks of selected rest stops indicate that a growing number of travelers, especially those with children, plan to stop for lunch, or between-meal snacks, at rest stops. From approximately 5:30 p.m., until 8 p.m., in the summertime, local residents use the rest stops as picnic areas. This is particularly true of those stops that include outdoor grills.

Rest stops on Georgia's highways are typically very small, averaging from 50 to 100 feet in width, and some 10 to 30 feet in depth. All include picnic tables (from 1 to 10), some include grills, and a small number have rather primitive toilet facilities. Except for a very few built by civic and fraternal organizations close to a city, almost none have drinking water available.

The plans for the new interstate system include elaborate rest areas that comprise 1 to 3 acres, with tables, benches, grills, and toilet facilities.

While rest stops are certainly a legitimate subject for discussion in a study of potential recreation facilities, they are not as presently established capable of acting as anything but a brief respite for the automobile rider. The larger areas planned for the new interstate highway system offer more area but little else. Within 70 air-miles of Atlanta, there are 34 rest stops on State and Federal highways.

STATE PARKS

Georgia has 46 State parks comprising 54,894 acres. Thirty-seven of these parks can be classified as developed and nine are undeveloped. 1/ As shown on Fig. B-7 these parks are concentrated around Corps of Engineers reservoirs, and the Chattahoochee National Forest in the northern part of the State. Thus, three cluster around Lake Seminole in the southwestern tip of the State; two are located around Lake Allatoona; four around the shoreline of Clark Hill Reservoir; one is on Lake Lanier; and six are found in and around the Chattahoochee National Forest.

Before the park system is described in detail, several general comments are in order.

(1) The State park system is water oriented. Visitation data reveal without question that there is no comparison between the number of visitors to parks without swimming, fishing, and boating and comparable data for parks with these facilities. The NRS and SRC surveys, both of which demonstrated that fishing is the one outdoor activity in which the South leads the Nation in rate of participation, give additional weight to the popularity of water oriented parks in Georgia.

(2) The concentration of parks around Corps reservoirs has meant that large areas of the State have relatively little in the way of outdoor recreation facilities. Thus, a broad belt running through the State along the "fall line" is practically devoid of State parks.

(3) The park system itself is of relatively recent origin, beginning in 1943, and has grown without design or long range planning.

(4) Most of the parks are too small and contain too little in the way of overnight facilities to operate effectively as weekend recreation facilities. For this reason, Georgia's parks tend to be day-use facilities. In the last chapter of this report the most effective use of a State system will be discussed in detail. Suffice it here to state that under present conditions the State park system is too frequently

1/ Data on all State parks are listed in ORRRC inventory. The total number of parks and their combined acreage is from National Park Service, State Parks, Acreages and Accommodations, (March 1961), p. 17. Included within the number 46 is the Warm Springs Foundation and Little White House. Georgia Veterans' Memorial State Park is counted only once, although State publications list it both as a white park and as a colored park.

performing a role more legitimately within the purview of city or county parks. To illustrate this further, two State parks are actually located inside boundaries of municipalities, two are just outside municipal boundaries, and one, Stone Mountain Confederate Memorial is within the Atlanta SMSA.

(5) Budget allotments and personnel are inadequate to meet the rapidly increasing pressure on existing facilities.

(6) The greatest single need at present in most State parks is for more camp and trailer sites. While plans are being developed for increasing present facilities, they do not appear adequate.

(7) The State park system is geared almost exclusively to summer activities. Even in those areas of North Georgia where various forms of cold weather activities might be possible, there is little or no attempt to formulate programs for seasons other than summer.

(8) Little if anything has been done to exploit scenic areas and natural wonders in the park system. The concept of the wilderness has been almost entirely omitted from the park programs.

(9) Outdoor recreation per se has not been completely accepted by Georgians as a legitimate function of government in the sense that programs in public health and welfare are accepted. This lack of acceptance has meant that the political leadership of the State has been unwilling to appropriate that amount of money sufficient to permit a planned development of the park system.

(10) State parks are, without exception, readily accessible by automobile. There is little or no use made of public transportation by park visitors.

(11) The periods of peak use in all State parks is the weekend. During the week, the pressure in most parks can be described as "light" to "medium" on both day and overnight facilities.

(12) Except for a relatively few isolated instances, such as Jekyll Island for example, Georgia parks serve Georgians. While present plans call for increased attempts to capture a large volume of tourist trade, the results to date have not been substantial as far as the parks are concerned. An officially stated intention of attracting a portion of the "Florida trade" seems hardly plausible since the Florida tourist season is greatest in the winter—a time of the year not too conducive, climatically, to stopping in most of Georgia's parks. It should be accepted that Georgia's parks for some time in the future will remain essentially resident recreation areas.

Description of State Parks

It is the purpose of this section to describe the major parks in Georgia within a 75-mile radius of Atlanta and to give a less-detailed description of those parks that are beyond the 75-mile radius. 2/

2/ The 75-mile radius as used here, and as used elsewhere in this section, refers to air miles, not highway miles. This scale is used because of the difficulty in arriving at accurate highway mileage.

Fort Mountain State Park

A mountain park located some 70 miles from Atlanta, this park comprises some 2,514 land acres and 12 acres of water. While limited overnight facilities are available at Fort Mountain, it is essentially a day-use park. Overnight facilities consist of one camp area (capacity 25 persons), a trailer camp (capacity 10 persons), and a cabin with a capacity of 4 visitors. Pressure on these facilities is described as from light to moderate.

The typical visitor to Fort Mountain is interested in picnicking, fishing, and boating, in that order. While some camping is reported, as is some viewing of historical sites, these must be considered as secondary. During 1959 a total of 150,241 persons visited Fort Mountain, with the vast majority of these visits occurring during the midsummer months. During late fall and winter this park is practically deserted.

Present plans call for increasing the number of picnic grounds and swimming areas, but there are no plans for increasing overnight facilities at this time. Fort Mountain is an example of a very scenic area that has not become popular primarily because of the lack of modern comfortable overnight and dining facilities. A major error is often made by park planners in failing to develop a particular park because of the limited number of visitors it attracts. With respect to Fort Mountain, a well-planned, rustic type lodge or motel (either privately or publicly owned) with a good dining room could mean the difference between a few visitors and many visitors.

With its excellent scenic trails, water for fishing and boating, and interesting ruins, this park should become very popular. Under present plans, Fort Mountain will be approximately 20 miles from a major interstate highway. The existing concession stand operated by the park will be totally inadequate in the near future and should be replaced. This is the type of area in which the State should try to attract the attention of private motel and restaurant representatives. It is also an area in which plans should be made for more effective use of the park during the winter season.

Amicalola Falls State Park

For scenic beauty, no other park in the State system surpasses Amicalola Falls. The center of attraction, and the basis for the name of the park, is a cascading waterfall that drops a total of over 700 feet. These falls, part of the headwaters of the Amicalola River, form a rapidly moving mountain stream that provides excellent trout fishing. There are no facilities for swimming or water skiing.

Unfortunately, Amicalola Falls park comprises only 244 acres of land area and approximately 20 acres of water. Although it has overnight facilities for only 145 persons, there is only a moderate pressure on these even during the weekend in peak summer season. Present plans call for the development of 5 acres of campgrounds, 2 acres of trailer camps, the construction of 4 additional cabins (there are 4 now in existence), and picnic grounds with a capacity of 200

persons. It is estimated that 10 additional acres could be developed as campgrounds, and 5 additional acres could be developed as picnic grounds.

The relatively small size of this park makes it highly questionable whether it can become a major weekend facility. It should continue to attract sightseers at an ever-increasing rate, but the absence of hiking trails, swimming, and boating facilities will limit the number of family visits. Approximately 45,000 persons visited the park in 1959, the overwhelming majority on weekends. Unless its size is increased greatly, Amicalola Falls will probably continue to be an attractive place to fish for trout, and to take a Sunday afternoon picnic.

Vogel State Park

One of the youngest but most popular of all the State parks, Vogel comprises 134 acres of land area, and from 25 to 40 acres of water.3/ In terms of visitors, Vogel rated third in the park system in 1959 with approximately 300,000 daytime visitors and 8,000 overnight visitors. On its peak day 15,000 persons spent some part of the daylight hours in this very small park located approximately 75 miles from Atlanta.

Vogel is one of three State parks that are leased to private persons. Under the terms of the lease, the State receives $4,500 annually. During the fiscal year that ended in 1959, a total of $3,584 in public money was spent on this park in spite of the lease arrangement.

Vogel offers facilities for swimming, fishing, picnicking, horseback riding, hiking, sightseeing, and camping. Present overnight facilities include 2 campgrounds with a capacity of 200 persons; 26-27 cabins accommodating 150 persons, and a lodge (The Walasiyi Inn) with a capacity of 35 persons. Swimming facilities have recently been expanded and 5 acres of picnic grounds now exist. No expansion of overnight or day-use facilities are contemplated at present but it is estimated that the area could support 25 acres of additional campgrounds and 10 additional acres of picnic grounds.

Picnicking, swimming, and horseback riding are the most popular activities at Vogel during the summer. As is true of all Georgia parks, there is practically no activity at Vogel during the fall and winter (in fact, Vogel closes on December 1 and opens April 15).

Facilities, both overnight and day-use, are under heavy pressure at this park. Parking is a problem on weekends and picnickers face an ever-growing competition for the limited number of tables available.

Vogel will continue to be a very popular park for both Georgians and tourists. Lying just off Route 19-129, and offering a variety of day-use facilities, its crowded condition on weekends can only grow worse. Unfortunately, it is much too small to serve as a major weekend facility, and the lease arrangement under which it now operates will most certainly act as a bar to any development other than more concession stands. If its area could be increased, and if it could be once more brought under the administration of the State Department of Parks, it could certainly be considered a major asset. One would be naive, however, to think that either of these events will take place in the near future. Faced with this assumption then, it can be predicted that the attractiveness of Vogel will tend to diminish under the press of visitors until basic changes are made.

Unicoi State Park

Lying 75 miles from Atlanta but easily reached for a day's outing, Unicoi is rapidly becoming one of the most popular parks in the State system. Though very small in terms of acreage (273 acres of land, and 50 acres of water), and relatively new, more than 160,000 people, including a large number from Atlanta, visited Unicoi in 1959. Lying just adjacent to the Chattahoochee National Forest, this area is full of scenic spots. Within five miles of Unicoi, for example, is the Annie Ruby Falls, a fine sight recently made very accessible by the opening of a newly paved road.

Overnight facilities at Unicoi include campgrounds, trailer camps, and 10 cabins. Total capacity at present is 180 with a planned expansion to 530 within the next 5 years. In addition to the individual facilities, a group campground capable of accommodating 100 persons is in constant use during the summer months.

Present campgrounds are conveniently located to the main beach area but sites are much too close together and provide no privacy. The same can be said of the trailer camp. The cabins, on the other hand, are nicely spaced and are attractive.

Day-use activities include swimming, hiking, picnicking, horseback riding (at private facilities), fishing and boating.

Unicoi's future is limited substantially by its size. Water acreage now provided by an impoundment cannot be increased, and the pressure on this limited acreage will continue to mount. The beach area, while attractive, is very small. Boating and fishing likewise are limited and cannot be increased substantially without becoming unattractive.

Four miles of hiking trails, and an additional 6 miles of roadway are available to the active visitor, while the more passive visitor can picnic in the attractive shady picnic grounds. Observation trips taken to the park confirmed that on any weekend during the summer it is very crowded. Picnic tables, for example, are practically unavailable from noon until 3 p.m. Parking facilities, while adequate during the week, are filled to capacity on weekends.

The popularity of Unicoi is evidenced by the fact that the State received almost as much in revenue as it expended. Total expenditures, including capital improvements, were $32,046.91, while revenues from fees and rents totaled almost $27,000.

A limiting factor in the use of Unicoi is the total absence of any formal eating places either in the park or adjacent to it. The nearest place for a visitor to have dinner is the small town of Helen, several miles away, and eating facilities in Helen are limited. The second limitation for weekend visitors is the relative lack of hotels or motels in the area.

3/ORRRC inventory lists 25 acres, but an official publication of the State Department of Parks lists 40 acres.

All over the northern section of the State, one finds almost a total lack of lodging and dining facilities. Until this gap is filled this beautiful area will not get the recognition it deserves.

Red Top Mountain State Park

A favorite recreation facility for the Atlanta SMSA is the Red Top Mountain State Park, located just 42 miles from the center of the city and almost in the boundaries of the metropolitan area. While this park comprises only 1,457 acres it fronts on the Allatoona Reservoir with its 12,187 acres of water. Over 170,000 persons visited Red Top Mountain in 1959 with the weekend bringing large crowds all summer.

Picknicking, swimming, and boating are the most popular summer activities, while sightseeing, picnicking, and fishing are the most popular in the fall and winter. It should be hurriedly pointed out that while the park is used in the fall and winter, at least 90 percent of all visitations occur in the late spring and summer.

Access to the park is adequate even on weekends and large parking areas are readily available. Overnight facilities are extremely limited, consisting of one campground with a capacity of 100 persons. Plans for the expansion of overnight facilities include campsites for an additional 400 persons and trailer camps for 120 persons. The area is extensive enough to develop another 20 acres of campsites.

Fees, rentals, and concession stands, amounted to more than 61 percent of total expenditures in 1959. Within 5 years, this park should be on a self-sustaining basis.

Red Top Mountain is an excellent example of a park that can serve both as a major day-use facility for the Atlanta SMSA, as a fine facility for group camps, and as a moderately successful weekend resource. If, as suggested later, Lake Allatoona is closely zoned for recreational activities, and if at least two additional public beaches are established, this park should increase greatly in popularity within the next 5 years. Lying as it does, adjacent to the metropolitan area, and almost in the path of a major interstate highway, it will doubtless be a major day-use facility for Atlanta.

Fort Yargo State Park

Located within easy driving distance of Atlanta and comprising almost 1,500 acres, Fort Yargo State Park is an excellent example of a facility in which a total lack of development has meant almost a total lack of visitors. While data on visitation is not available it can be estimated that only a small number of people visit this park. With no overnight facilities except for a very small Scout camp, with only limited picnic grounds, about all Fort Yargo can offer are the ruins of a Revolutionary War Fort—ruins that are neither very attractive nor very interesting. Sightseers and picnickers, many more of the latter than the former, visit this park from the surrounding community.

Plans for the development of Fort Yargo include a substantial increase in picnic facilities and some additional development of the old fort site, but little else.

In its present state of development, the park is almost useless, but it offers great possibilities for the future. Lying in beautiful rolling plateau country, this area could be built into a major weekend camping facility. By the use of impoundments, ponds sufficient at least for swimming and bank fishing could be established in a short time and at a minimum cost. Hiking and nature trails, coupled with a substantial game preserve of native animals could make Fort Yargo a very popular place. While eating facilities are available in neighboring Winder, they are not of the type to be very attractive to visitors. The same can be said of overnight facilities.

With research, imagination, and some expenditure of funds, the original fort could be reconstructed and could then become a site worth visiting.

It is simply not logical to continue to expand the number of State parks when facilities such as Fort Yargo stand relatively undeveloped.

Senoia State Park

More appropriately called a park area, Senoia Park is a small (9.5 acres) recreation area that has a playground, a swimming pool, and some picnic tables. Located very close to the Atlanta SMSA, this area is leased to a private individual. No new development is planned over the next 5 years.

Some 12,000 persons visited Senoia in 1959, with the overwhelming majority being residents of surrounding communities. During the week, teenagers tend to dominate, but the weekend sees many families who use the swimming and picnicking facilities.

In general, it can be said that Senoia represents the type of facility that the State should neither own nor operate. It is basically a commercial amusement center and should be operated as such. The State has many obligations in outdoor recreation but the operation of local amusement parks is not among those obligations.

Hard Labor Creek State Park

Located an hour and a half from downtown Atlanta, Hard Labor Creek State Park must be considered a major recreational area for the Atlanta SMSA. One of the largest of the State parks, Hard Labor Creek comprises 5,186 land acres, 320 water acres, and 300 acres of marshes and bogs. Situated on rolling woodland, this park is extremely popular both as a day-use and group camp area. Two group camps, Camp Rutledge and Camp Daniel Morgan, bring large numbers of youngsters to this park during the summer period.

Planned development of this park rates a high priority. Overnight facilities are to be expanded to accommodate another 250 persons per night while 25 additional acres of picnic space will accommodate another 1,000 participants in this ever-growing pastime. According to a representative of the State Department of Parks, another 500 acres of campgrounds, 100 acres of picnic grounds, and 5 acres

of swimming facilities could be developed at Hard Labor Creek.

Day-use activities at Hard Labor Creek include swimming (the public beach leaves much to be desired), picnicking (tables presently are too close together), 13 miles of hiking trails or roadways, boating, and fishing.

While the presence of large group camps in this park make it less attractive as a weekend site for family activities, it is large enough to accommodate at least five times the total of 66,126 persons who visited the park in 1959. There are areas that can be set aside for pioneer camps, but such areas cannot be very large.

Another factor militating against this park becoming a major weekend area for the Atlanta area is its proximity to several urban areas whose residents tend to use it as a swimming and picnicking facility. An example of this trend is found in the large number of residents of Athens (35,000-40,000) who travel the 35 miles to Hard Labor Creek; Madison (2,680 population) is only 10 miles from the park; Winder is less than 20 miles away; and Covington (8,167 population) is approximately 15 miles away. Pressure on picnic grounds, in particular, must be designated as heavy on weekends. As long as Georgia's municipalities and counties do such an inadequate job of providing recreation facilities for their residents, State facilities will be forced to meet these needs rather than performing a more suitable role as weekend facilities.

Franklin D. Roosevelt State Park

The most popular park in the Georgia system in terms of visitors is the F. D. Roosevelt Park at Pine Mountain. Comprising 5,003 land acres and 60 water acres, this park was visited by 351,000 persons in 1959 (overnight visitors totaled an amazing 75,000–by far the greatest of any State park).

Overnight facilities presently existing consist of a campground for 100 persons; a trailer camp for 50 persons; two large group-type cabins; and an inn with a capacity of 25 persons.

Situated very close to the Warm Springs Memorial and Callaway Gardens, the F. D. Roosevelt Park draws heavily from the Columbus metropolitan area less than 50 miles away, but also attracts many Atlantans from 90 miles away (F. D. Roosevelt Park lies within the 70 air-mile radius). Pressure on all facilities, camping, picnicking, swimming, and parking is rated as "heavy" during the week and "very heavy" on weekends.

This park, like Vogel and Senoia, is leased out for private operation. Georgia must be unique in that the two parks that are the most attractive in terms of visitors are both leased to private individuals. Net return to the State for this very popular park appears to have been $2,076.04.

During the recently completed session of the Georgia General Assembly, legislation was introduced to lease or sell a segment of F. D. Roosevelt Park to neighboring Callaway Gardens. While this threat was turned back in 1961, there is every reason to believe it will rise again.

This park has great potential. With 7 miles of roadway now available for hiking, a rolling attractive topography, and a convenient location (Columbus, Atlanta, and the Warm Springs Memorial), a great increase in visitors can be expected if picnic, camping, swimming, and parking facilities are rapidly expanded. It has been estimated that the park could support another 25 acres of campgrounds and a like number of picnic grounds. Unfortunately, the lease arrangement under which the park now operates militates against any expansion of these types of facilities. Until the F. D. Roosevelt Park is once again under the direction and operation of the State, it will continue to be essentially a group camping site with a heavy influx of local residents into its picnic and swimming areas.

Indian Springs State Park

Located on a major highway only 50 miles from downtown Atlanta, Indian Springs could, with substantial additions, become a major resource. At the present time it serves primarily as a day-use facility for surrounding communities. With a large lake, an historical site (the springs that give the park its name), and two very large picnic areas, the park receives its heaviest use on weekends during the summer season.

Although almost 100,000 persons visited the park in 1959, its location (about midway between the Atlanta SMSA and the Macon SMSA) indicates that, with the addition of a planned swimming area and an expanded camping and picnic area, the number of visitors should double within 5 years, and continue to increase rapidly in the next 20 years.

In the case of Indian Springs, one wonders again about the efficacy of the State offering what is essentially a day-use facility for surrounding local communities. If Indian Springs is to remain a picnic and swimming area, there is really little need for State operation. If it is to be developed into a major overnight camping area, possibilities of conflicting interests of campers and day-use visitors remain rife. Overnight visitors who find their areas inundated by thousands of Sunday visitors will tend to look elsewhere on future trips. The State, has, to date, operated all parks in the same manner, i.e., open to all visitors. As outdoor activity increases, however, this type of operation will not be possible. What must be done is to divide the State system into those parks whose location close to urban areas makes their use as day facilities very appropriate, and those parks whose location far from urban areas makes their use as weekend facilities more logical. Under this division, Indian Springs would probably become a day-use facility.

Stone Mountain Confederate Memorial Park

Now in the developmental stages, Stone Mountain Park has been the object of continuing controversy through the years. Planned around a massive outcropping of granite said to be the largest in the world, this park has been caught between diverse and conflicting views on the most efficient or profitable way to utilize its great potential as a scenic wonder.

The history of this area reads like an Alice-in-Wonderland story. On two different occasions in the past, decisions have been made and sculptors hired to carve a memorial on the face of the mountain depicting a moment of glory for Confederate forces. In each case, however, the commission charged with administering the project and the sculptor disagreed or the commission ran out of funds before the project was finished. The net result at present is a partially completed sculpture on the face of the mountain—a sculpture that will probably never be finished.

Present plans call for a lift to the top of the mountain, picnic areas, swimming and boating facilities, museum, gift shops, and concession stands.

The 3,000 acres that comprise this park lie within the Atlanta SMSA and will be connected to the downtown area by a modified expressway. While Stone Mountain is being developed essentially as a tourist attraction, it will serve the residents of the SMSA as a major day-use facility for swimming and picnicking.

The cost of developing this park is so great and the controversy surrounding it so deep, that a decision was made to administer it through a commission rather than through the Department of Parks. While this proliferation of administrative agencies will be commented on in more detail in a later section, it can be said here that the danger attendant on the use of semi-independent agencies in the recreation field are serious enough to warrant grave consideration for the future. There is, of course, little possibility of returning the administration of Stone Mountain or Jekyll Island to the Division of Parks. Not only are there vested interests now involved, but a public outcry would doubtless occur if a change were suggested. A warning should be advanced, however, about extending the authority device in the future.

More Distant State Parks

The remaining parks in the State system are all some distance from the Atlanta area, and must be considered peripheral in any study of outdoor facilities for that area. For this reason, the description of the following parks will be much less detailed.

Magnolia Springs State Park

This is a very pleasant 1,106 acre park lying some 200 miles east-southeast of Atlanta. Its central attraction is a mineral spring that forms a large pool of extremely clear water in which marine life is clearly visible. Visited by over 90,000 persons in 1959, it is essentially a day-use facility built around swimming and picnicking resources. Pressure on all facilities is moderate during the week but becomes very heavy on the weekend.

Planned expansion will increase camping facilities to a maximum capacity of 300 with additional space for 75 persons in trailer camps. Existing camping sites tend, as do practically all camping facilities in Georgia's parks, to be extremely close together. Planned additions will use the standard four sites to the acre—a vast improvement over present standards.

Because of its relative isolation from large urban areas and its size, Magnolia Springs offers distinct possibilities for both individual and group camping. If a decision in this direction is contemplated, the present day-use facilities, particularly swimming and picnic areas, should be reserved for the public and new facilities should be established for camping areas.

Veterans Memorial State Park

One of the two State parks that have separate areas for whites and Negroes, the Georgia Veterans Memorial Park is located on Lake Blackshear in the south-central part of the State. This is the second most popular park in the State and was visited by over 316,000 persons in 1959. Overnight facilities consist of two campgrounds with a total capacity of 60 persons and 10 cabins that will accommodate 40 persons. Planned expansion includes increasing camping capacity to 160 and adding a trailer camp for 50 persons.

Day-use facilities include swimming (to be expanded from one to three areas), picnicking (also scheduled for a large expansion), boating, and fishing. A restaurant is located on park grounds; horseback riding and plane rides are available.

Veterans Memorial is capable of sustaining substantial development in all its facilities. Park department officials estimate that campgrounds sufficient to handle 2,500 persons are possible, while picnic and swimming facilities could be increased at least tenfold. While land acreage is limited (1,300 acres), it is sufficient to accommodate a large expansion. Care will have to be taken in water sports, however, since Lake Blackshear is famous as a fishing spot of great renown. Unless zoning is applied, a growing controversy between motor boating, water skiing, and fishing could well occur at this facility.

Little Ocmulgee State Park

Located some 170 miles south-southeast of Atlanta, the Little Ocmulgee is a substantial park of 1,397 acres bordering on a sizeable lake that offers swimming, fishing, boating, and water skiing. Overnight facilities include a campground (capacity 75), a trailer camp (capacity 50), cabins (capacity 30), a lodge, and a number of scout huts.

In 1959 this park attracted almost 100,000 persons; some 2,000 of whom were overnight visitors. As is true of all Georgia parks, this is essentially a summer facility and its peak use occurs on the weekend. Pressure on facilities varies, but at present can be classified as moderate. Expansion of camp and trailer grounds is planned to raise the overnight capacity from 155 to 305. No expansion of day-use facilities is planned for the immediate future, although the park is capable of substantial development. With good planning, this park, relatively isolated from urban areas but easily accessible, could become a fine camping facility. Any great increase in the scout encampment would prohibit a like increase in family camping. Here, again, a decision must be made as to the advantages of group camping versus individual camping. The character of the topography

militates against the use of any of this park as a wilderness area.

It should be noted parenthetically that the Little Ocmulgee Park was one of the few State parks that actually showed a profit in 1959. Total expenditures were $2,500, while total receipts were $3,079.54.

Jefferson Davis Memorial State Park

Located in the south-central section of the State, the Jefferson Davis Memorial State Park consists of only 13 acres built around a Confederate museum. There are no overnight or day-use facilities other than the museum and a relatively small picnic area. It can be anticipated that this park will continue to attract a small number of visitors a year but that it will not increase in popularity in any great degree.

Reidsville Park Area

The Reidsville Park Area, located within the city limits of Reidsville, Georgia, poses a problem of some importance in the future development of the Georgia park system. This small (120 acre) facility has all the characteristics of a municipal park, e.g., swimming pool, playground, picnic area. While there are camp and trailer facilities, they are used only lightly.

Expansion plans for the next 5 years include the development of campsites and trailer camps sufficient to accommodate 125 additional persons nightly, and an increase in the picnic area.

Serious questions should be raised concerning this type of park. While only two of the parks in the State system are now inside municipal boundaries, the possibility of several more occupying this status is almost a certainty with the expansion of urban areas. There may well be circumstances that require the State to finance municipal parks, as for example, those instances when a State development or program inundates a small town (the Federal "impacted area" program is the best analogy), but these should occur only very rarely. In the case of the Reidsville area, it is recommended that the State seriously consider transferring this park to the appropriate local governing bodies.

Kolomoki Mounds State Park

One of the most interesting parks, and the only archeological area in the Georgia system, is the Kolomoki Mound State Park located in the southwestern section of the State. Built around one of the largest Indian mounds in the Southeast, and a museum, this 1,283-acre park is a favorite group and family campground. In 1959 over 2,000 persons spent the night either in tents or trailers. Total visitation in 1959 was approximately 150,000.

With a substantial lake for boating, fishing, and swimming, and attractive picnic areas, Kolomoki Mounds attracts a large number of local residents on Saturday and Sunday. During the week, group campers, and those interested in viewing the mounds and the museum tend to dominate. While current expansion of plans are modest in the extreme, it is felt that this park could, without difficulty, increase its camping facilities tenfold, double its picnic facilities, and triple its swimming area.

Favorite summer activities at Kolomoki include picnicking and swimming, while the usual fall combination is camping and viewing the mounds.

Chehaw State Park

Located only a few miles from the city limits of Albany in southeastern Georgia, Chehaw State Park is primarily a day-use recreation facility for the residents of Albany and surrounding communities. While a campground does exist and there are plans for doubling its capacity, the favorite recreation activities are picnicking and swimming. Peak use occurs on summer weekends with very little activity in the fall and winter months.

This park may, within the next 10 years, be surrounded by the growing suburbs of Albany. If this should happen, and all indices point in that direction, the Reidsville Park area situation may well be duplicated, with even more far-reaching effects since the total investment in Chehaw is substantially greater. Any developmental plans should take this matter into account. Long-range planning probably should emphasize group camping, hiking, and other day-use activities rather than increasing overnight facilities for individuals and families. The physiographic features of this area provide excellent possibilities for flora and fauna refuges.

Laura S. Walker State Park

The Laura S. Walker State Park, located 10 miles east of the city of Waycross in southeast Georgia, is a major group camp facility for the southern part of the State. Overnight facilities, including group camp facilities, have a current capacity of 778 with plans for expansion to almost 1,200. Pressure on overnight facilities is termed moderate at present, but there are indications that this park will grow in popularity in the very near future.

At present group camping, water skiing, and swimming are the most popular summer activities at Laura S. Walker Park.

The small area encompassed by this park (160 acres of land and 160 acres of water) preclude any extensive development of activities requiring large tracts. Its proximity to the Waycross urban area again raises the question of whether extensive overnight facilities should be developed in State parks that are located close to large municipalities. In the case of Laura S. Walker, consideration should be given to extending group camp facilities but not individual or family campgrounds. This park will increasingly be used by Waycross residents for day-use activities, such as picnicking, swimming, and water skiing. It should not be planned as a major weekend facility.

Stephen C. Foster State Park

Lying on the edge of Georgia's famous Okefenokee Swamp, the Stephen C. Foster State Park is primarily

a fishing camp. Open the year-round and used all 12 months, this 80-acre park was visited by 13,000 persons in 1959. Visitors come to fish and to sightsee both in the summer and winter. Extensive camping occurs here with pressure on overnight facilities designated as "heavy" on weekends. Present overnight facilities include a campground (capacity 40), 1 trailer site (capacity 4), 3 cabins (capacity 20), and a large bunkhouse that sleeps 36. A small expansion in camping facilities is planned.

Private services available in the park include lodging, food, fishing equipment rental, and guide service.

The unique location of Stephen Foster Park should not be spoiled by extensive development. While this park does not meet the usual definition of a wilderness area, it is certainly one of the unspoiled spots left in the State. While present facilities are strained by weekend visitors, it would be a mistake to enlarge upon them. There are very few places left for the citizen of Georgia to view the flora and the fauna of the Okefenokee in relative quietness and comfort—the Stephen C. Foster State Park should remain as one of those places.

Crooked River State Park

The only park in the Georgia system other than Jekyll Island that offers salt water fishing is the Crooked River State Park. Located on the bank of the river from which it takes its name, this park has not as yet attained the popularity that will certainly come to it. Overnight facilities that include 10 modern vacation cabins with a total capacity of 38 persons are under only moderate pressure even on weekends during the summer. Planned increases in camp and trailer facilities will probably not be undertaken until the pressure becomes much greater than it is today.

A part of the reason for the comparative lack of popularity enjoyed by this park is its location, some distance from any major highway. Another is the presence of much more widely publicized recreation areas to the north and to the south. If Jekyll Island is to continue to serve the needs of higher income groups in Georgia, Crooked River certainly offers excellent possibilities for lower income groups. Any increase in camping facilities will require additional swimming pools and picnic areas.

Seminole County State Park

This park is a typical reservoir facility used essentially for swimming, boating, water skiing, and fishing. Located on the shore of the Jim Woodruff Reservoir in southwest Georgia, it attracted over 150,000 visitors in 1959. While it does have moderate overnight facilities, and a small expansion is contemplated, its greatest attraction is as a day-use facility for outdoor activities. Too small (175 acres) to be extensively developed, it either should be enlarged in area or consigned to remain essentially a day-use park. If the latter course is taken, present plans for expanding swimming and picnic areas should be undertaken very soon.

Bainbridge Park Area

This small park of only 7 acres is located inside the municipal boundaries of the city of Bainbridge. Present facilities include a concession building, picnic areas, a few hiking trails, and limited boating and fishing areas. There are no current plans for extending the facilities or the acreage of the park, and it is recommended that none be made in the future.

This park area is similar in most respects to the Reidsville Park Area. Both are located within municipal boundaries, and both serve almost exclusively as day-use facilities for the residents of the municipalities within which they are located. In neither case is there enough acreage in the park areas to expand presently existing programs or activities.

As was noted above, with reference to the Reidsville Park Area, serious consideration should be given to transferring this type of facility to the local governments involved. The State of Georgia has many needs in its park system; it cannot afford to expend its limited resources on municipal playgrounds.

Unless the State divests itself of these small urban park areas, it is open to a wave of requests and protests from cities that do not have State parks within their boundaries. The city of Athens, for example, has a relatively small park area just inside the city limits. Hampered by inadequate funds, this park has been only partially developed with a very small, and most inadequate, collection of cages containing several species of animals and snakes. What would the State's reaction be if the city were to offer this facility to the State for development as a State Park? Logically, the State could not refuse since it now operates parks in some cities.

Jekyll Island

The largest park in Georgia is Jekyll Island State Park, the star of the system. This park, comprising over 11,000 acres, is operated by an authority not by the Department of Parks. Located a short distance from the coast, just south of Brunswick, Georgia, this island was purchased by the State for $640,000 in back taxes shortly after World War II. Publicized as a vacation spot for all Georgians, it has instead been developed essentially as an extremely attractive recreation area for those Georgians and non-Georgians whose incomes permit them to pay the relatively high prices and fees charged by the motels and restaurants on the island. Since Jekyll Island is described in some detail in a later section of this report, suffice it here to say that Jekyll Island will probably become a very, very popular summer recreation area for well-to-do Georgians, and will become a major convention attraction.

Cloudland Canyon State Park

Located in the extreme northeast tip of Georgia, some 120 miles from dowtown Atlanta, this park comprises some 1,377 acres of Georgia's most

attractive mountain scenery. The lack of any water for swimming, fishing, or boating keeps this park from being one of Georgia's popular areas. While there is only 1 campground with a capacity of 25 people and a trailer camp that can accommodate 20 more persons, the pressure on even these limited facilities is only moderate during the heaviest part of the season. A picnic area of approximately 3 acres has not been expanded in 10 years essentially because of a lack of pressure. Future plans call for additional campgrounds (4 acres with a capacity of 40 persons), trailer camps (4 acres with a capacity of 25 persons), and picnic grounds (5 acres with a capacity of 100 persons). It is estimated that another 10 acres of campgrounds and 5 acres of picnic grounds could be developed in this park if funds were made available.

Some 40,358 people visited this park in 1959 with approximately 3,000 overnight visits. While the heaviest part of the season for Cloudland Canyon is from April through September, this park does attract sightseers during all months of the year.

The typical visitor to Cloudland is one who comes to picnic, to hike along its many trails, and to tent (this is individual not group camping). Camping is permitted only in designated areas, but again the pressure on overnight facilities is so light that the limited facilities are adequate.

Cloudland Canyon is a perfect example of an area that should be retained as semiwilderness. Now relatively off the beaten path, this park will be within 30 miles of an arm of the interstate highway system. Unless action is taken to protect it, the park could become very popular as a day-use area with all the concomitant disadvantages this entails. While additional campsites should be provided, this park should be retained basically for pioneer or rough camping.

Black Rock Mountain State Park

Located in the mountains at the northeastern tip of Georgia, Black Rock Mountain State Park gets its name from a mountain peak that reaches some 3,800 feet. The park itself comprises 1,141 acres of land area and there are no streams or lakes. This is essentially a picnicking and camping area which was visited by over 70,000 persons in 1959. Overnight facilities are limited to one campground with a capacity of 25 persons.

A visitor to Black Rock Mountain State Park can drive on a paved road to the peak of the mountain where a parking area permits him to view the surrounding country side. Since there are no trails for hiking, such a visitor would probably have a picnic lunch at one of the two picnic grounds then go home.

While relatively large in area, this park's terrain bars it from becoming a major recreation facility. Present plans call for an expansion of camping facilities to accommodate an additional 200 persons and an expansion of picnic facilities to take care of an additional 50 visitors. While the area is developable for a large increase in camping facilities, the absence of surface water militates against this park becoming a major facility in the foreseeable future. While Black Rock Mountain State Park is only 120 miles from Atlanta, its visitors include very few persons from the Atlanta SMSA.

Victoria Bryant State Park

Lying along the banks of a tributary of the Broad River, the Victoria Bryant State Park comprises only 45 acres. In the total picture of the State system, this park is insignificant. Too small to be developed extensively, it is, and will remain, a small area used by local fishermen and picnickers. The State has no immediate plans for its development and, in fact, should not spend any appreciable amount. This park can do nothing but serve as a local area for surrounding towns and villages, a service that the State cannot now afford. With the Hartwell Reservoir now open only a short distance from Victoria Bryant, public money should be expended in that area rather than on this inadequate facility.

Nancy Hart State Park

The Nancy Hart State Park, consisting of only 5 acres, is not a park in the traditional sense of the word, but is, instead, an historical site. The area is relatively undeveloped and probably will remain so. Other than the historical site, it contains only a small picnic area, and serves essentially as a picnic area for local residents.

Bobby Brown State Park

Located on the Clark Hill Reservoir, the Bobby Brown State Park comprises 632 acres and was visited by something over 13,000 persons in 1959. Still relatively undeveloped, this park has substantial overnight facilities that are only lightly used at present. State officials obviously expect the park to become more popular since plans exist to double overnight facilities within the next 5 years.

Day-use facilities include picnic areas, a large swimming area, and boating ramps. Summer visitors combine picnicking, boating, and fishing, while fall visitors camp and fish. Swimming and picnic facilities are planned that will more than double present capacities.

Since Bobby Brown Park is some distance from any large urban area, and is too far from Atlanta to be considered in any detail, suffice it to say that this park will doubtless become very popular as a major water sports area.

Alexander H. Stephens Memorial State Park

Consisting of 1,147 land acres and approximately 28 acres of water, the A. H. Stephens Park is built around the restored home of a famous Georgian. Although relatively close to the Atlanta metropolitan area (100 miles) it is not considered a favorite by Atlanta residents. This park is best known for its group camp facilities, which in the summer time represent the main part of the visitor load. In the fall and winter, picnicking and fishing lead the list of visitor interest.

Since this park attracts only a relatively few people from the Atlanta SMSA no detail need be given on it. Suffice it to say that present plans call for an expansion of camping and picnic facilities, and the construction of an additional swimming pool. The future of A. H. Stephens Park appears to lie with group camping. Its location, only a relatively short distance from the Clark Hill Reservoir, where boating, fishing, and other water sports are readily available, means that it is likely to be bypassed by most weekend vacationers.

Attendance in 1959 was 48,000 for the daytime; 9,100 overnight. Peak day visitation numbered 1,200. Use of campgrounds, parking areas, and picnic grounds, is, for the most part, only moderate.

Elijah Clark Memorial Park

Elijah Clark is a very small park in terms of land area (217 acres) but it fronts on Clark Hill Reservoir. It is primarily a spot for campers, fishermen, and persons interested in boating. Since Clark Hill Reservoir offers excellent fishing, this park attracts persons from a wide area and once was very popular with Atlanta outdoorsmen. The convenience of Allatoona and Lanier reservoirs has meant a diminution of visitors from Atlanta, but total attendance at Elijah Clark continues to increase, reaching more than 150,000 in 1959.

Present plans call for an expansion of camping facilities to accommodate an additional 300 persons, a trailer camp with a capacity of 150, and an enlargement of both picnic and swimming areas.

The future of this area appears quite clear. It will continue to be a sportsmen's facility during the week with a heavy visitor load on Sunday for boating, water skiing, swimming, and picnicking. Its attractiveness for Atlanta residents will increase with the completion of a section of the interstate highway running relatively close by, but the park cannot be considered a major facility for the Atlanta SMSA.

Other Facilities

In addition to the above-described parks, Georgia has nine parks that are in an "unimproved status." These parks spread fairly evenly around the State totaling 5,768 acres. Of particular interest to the Atlanta SMSA is Lake Sidney Lanier Park on Lake Lanier. This 1,028-acre area is now open for fishing purposes but has no facilities as yet. When improved, Lake Sidney Lanier Park will be one of the most popular areas in the system in terms of visitors. Two other parks, Cook and Colquitt, and Mistletoe (1,500 and 1,773 acres respectively) offer distinct possibilities as weekend recreation resources.

Colored State Parks

In addition to the colored areas at Jekyll Island and the Georgia Veterans Memorial State Park there are five State parks reserved exclusively for Negroes in Georgia.

George Washington Carver State Park

The only colored park within a reasonable distance of Atlanta is the George Washington Carver State Park located on the Allatoona Reservoir. This 345-acre park has a campground with a capacity of 140 persons. There are no trailer camps, no cabins, and no lodges or inns. All services such as food, equipment rental, grocery stores and the like are provided by private concessioners. Approximately 10 acres of water are set aside for boating, fishing, water skiing, and swimming. Two picnic areas totaling 5 acres are heavily used especially on weekends.

Planned expansion for this facility include camp sites for 100 persons, 6 acres of picnic grounds and an additional 4 acres of swimming area. Park officials estimate that this park could be developed to accomodate another 100 overnight guests, but such an increase will probably not occur any time in the near future.

While more than 60,000 persons visited George Washington Carver in 1959, pressure on most facilities, except picnic areas, is termed moderate by park officials. Favorite summer activities at Carver are swimming, picnicking, and fishing, in that order, while fall and winter sports are limited to fishing and sightseeing.

The fact that this is the only Negro park within 100 miles of the heaviest concentration of colored people in Georgia raises serious questions as to how adequately this State is meeting its responsbility to a large segment of its population. Certainly, if one looks at any combination of numbers of people versus numbers of parks or acres of parkland, the Negro facilities show a strong deficit. There is, however, another side of the argument that must be examined. As long as the rather limited facilities at Carver are used only moderately, there is reason to argue that additional facilities are not needed.

Thus, park division personnel are faced with a very important decision. Data from the Survey Research Center study indicate that the availability of a recreation resource increases outdoor activity in most areas. Following this train of thought one would conclude that additional facilities close to Atlanta would increase the participation rate of Negroes. Conversely, the Survey Research Center study indicated that Negroes participate in outdoor activities less actively than whites even when factors such as income, education, and occupational status are held constant. On the basis of this finding one would conclude that additional facilities close to Atlanta would not increase the participation rate of Negroes to any great extent.

Regardless of the arguments advanced, one indisputable fact remains: there is only one small (345 acre) State park with limited facilities to serve the 230,000 Negroes of the Atlanta SMSA. The nearest park to Atlanta other than Carver is Keg Creek Park over 165 miles away. While it is true that Negroes in the past have not been active participants in outdoor activities, they are presently undergoing a rapid transformation and are increasingly adamant in their demands for equal treatment.

Yam Grande State Park

Located 175 miles from Atlanta, Yam Grande is strictly a day-use facility. Comprising only 64 acres, Yam Grande has no overnight facilities and only very limited day-use facilities (a swimming pool, bathhouse, and small picnic area). There are no plans for expanding either the overnight or day-use facilities. Yam Grande will doubtless continue to serve as a recreation area for the residents of Swainsboro and surrounding communities.

Keg Creek State Park

The largest of all Negro parks is located on the Clark Hill Reservoir. Its total land area of 957 acres offers excellent opportunities for development, but there are no plans for any improvement at present.

Overnight facilities at Keg Creek are limited to one unimproved campground, and no plans exist to expand or improve this campground. Day-use facilities consist of a picnic shed, a picnic area, a boat landing ramp, and a beach area. Favorite summer activities at this park are picnicking, boating, fishing, and swimming. No facilities are overcrowded accord- to State reports.

Fairchild State Park

Located on the shores of the Jim Woodruff Reservoir in southwest Georgia, Fairchild Park is the newest of the State parks. Comprising some 309 acres, this park has no overnight facilities and only limited day-use facilities consisting of a picnic shed, swimming area, and a picnic area. Unlike most of the colored parks, Fairchild is scheduled to receive some improvements. A campground with a capacity of 75 persons, 5 acres of picnic grounds, and 3 additional swimming areas are planned for development within the next 5 years. Park officials estimate that an additional 25 acres of campgrounds could be developed if desired.

Lincoln State Park

This is a small day-use facility located in the eastern part of the State almost 200 miles from Atlanta. Picnic and swimming facilities are available as are hiking trails in limited number. No plans were reported to improve or expand existing facilities.

Other Colored Facilites

At both Jekyll Island and the Georgia Veterans Memorial State Park, areas and facilities have been set aside for Negroes. Since neither of these parks is within 200 miles of Atlanta, these facilities will not be described except to note the absence of overnight facilities at Memorial Park and conversely the presence of a Negro motel at Jekyll Island. It is doubtful that either of these areas will be substantially improved in the near future.

Federal Facilities in Georgia

In terms of acreage and visitation, Federal outdoor recreation facilities in Georgia are far more impressive than State facilities. Even by omitting the wildlife refuges and the game and fish management areas, and counting only national parks, monuments, forests, and reservoirs, Federal facilities total 1,080,155 acres that were visited by 10,859,621 persons in 1959.

Visitation figures for Federal areas, while probably more accurate than most recreation estimates, are, nevertheless, open to some question. There is no evidence, for example, to indicate whether the data for the Clark Hill Reservoir includes or excludes the visitation figures for the several State parks and private encampments in and around that reservoir. Additionally, there are discrepancies between figures furnished by the Corps of Engineers, the Forest Service, and the statements furnished on ORRRC's Inventory of Designated Nonurban Public Outdoor Recreation areas. This section of the report will use data furnished by Federal agencies where such data are available; where data are lacking, inventory figures will be used.

NATIONAL FORESTS

While Corps of Engineers reservoirs are the most popular recreation areas in the State today, the two facilities that, in the long run, will be the most valuable resources to Georgia residents are the Chattahoochee and Oconee National Forests.

Chattahoochee National Forest

Stretching across the northern part of the State, the Chattahoochee National Forest covers 676,655 acres of land and 3,672 acres of water. Of the 3,672 acres of water, all are open for boating and fishing, and 3,422 acres are open for water skiing.

Day-use activities on 37 improved recreation areas include hiking over 100 miles of special trails and 465 miles of roads; swimming at 5 different areas covering 8 acres; picnicking at 32 sites covering 103 acres; sightseeing at 5 different observation sites and one archeological site; boating, fishing, and water skiing; and hunting in season over the entire area.

Overnight facilities include 12 campgrounds with a total capacity of 600, a trailer camp for 45, and a lodge capable of housing 175 persons nightly.

Plans for expansion include 90 additional campgrounds for 1,350 persons, 30 trailer camps to accommodate 450, 75 picnic areas, 3 swimming beaches, an archeological site, and an historical site. In addition to these immediate plans, it is estimated that the forest could support campgrounds for an additional 30,690 persons, picnic areas for 28,320 persons, and 87 swimming beaches.

In 1959, over 1,169,000 persons visited the Chattahoochee during the day, with over 100,000 of these spending at least one night at one of the camps. It has been estimated that on its peak day (usually July 4) as many as 15,000 people visit the forest, while the usual

summer weekend sees 9,000 visitors. While fishing and hunting take place throughout the year, the Chattahoochee is basically a summer vacation spot. During the winter, a visitor can travel for hours through the forest without meeting another person.

The typical summer visitor combines picnicking, swimming, and sightseeing activities, while the fall and winter visitor hunts, camps, and enjoys the sights.

During 1959, 2,315 acres were added to the forest at a total cost of $15,805.

The above figures, taken from the ORRRC inventory, are impressive, but data representing thousands of acres, and millions of visitors are difficult for the average person to digest. While a report of the nature of this one is not designed to point glowing pictures of recreation resources, it would be remiss to fail to point out the great potential of the Chattahoochee Forest as a recreation resource.

The Chattahoochee lies across the most attractive part of Georgia. Consisting of high mountains, bisected and trisected by deep gullies cut by rushing streams, interrupted by numerous waterfalls and rapids, and traversed by a fairly adequate system of roads, this forest is a riot of color in the fall as its hardwood stands and pines blend and contrast. Across the miles that comprise this forest one can ride for hours without meeting a person during the week even in the summer—the peak period of use.

It is certainly true that pressure on campgrounds must be considered as "heavy" during the week and as "very heavy" on weekends. It is equally true that heavy pressure is applied on picnic facilities on the weekend during the summer. The fact that these conditions exist are, however, caused not by any overutilization of the forest but by the lack of facilities available to serve the needs of the visitors. Of the 676,655 land acres in the Chattahoochee, less than 1,000 acres are now being utilized or are planned for immediate expansion for recreation purposes on developed facilities.

As will be commented upon in the final section of this chapter, the U.S. Forest Service is faced with many complex problems as it tries to fulfill the multiple purpose aspects of forest development. 4/ Factors that must be considered include militant hunting and fishing groups demanding that the forest be closed to all except themselves, professional recreationists interested in group facilities, wilderness advocates who wish the forest to remain in a primeval state, and conservationists on one hand and private logging businesses on the other all seeking to achieve their own ends.

For the purpose of this report it can be stated that the Chattahoochee Forest represents a relatively untapped recreation potential for the Atlanta SMSA. With proper development, this area will be the major vacation facility for Atlanta for many years.

4/Public Law 86-517, 86th Congress, 1960, commonly known as the "Multiple Use Law" requires that recreation be an integral part of forest planning

Oconee National Forest

A large expansion of the Oconee National Forest raised the total acreage of this facility to 96,066 acres, of which 95,979 are land, 37 acres water, and 50 acres swamp or marshland.

Located approximately 70 miles from Atlanta, this resource is for all intents and purposes undeveloped. There are no overnight facilities although rough camping is permitted, no swimming beaches, and no hiking trails. A few picnic grounds do exist, water sports are permitted, and hunting occurs throughout the forest. Using the normal definition it can be classified as undeveloped.

Developments planned within the next 5 years ininclude campground accommodations for 180 people, 9 new picnic grounds, and an archeological area. Forest officials estimate that potentially the forest can be developed to accommodate 2,790 campers, 1,710 picnickers, and 300 swimmers.

Approximately 16,000 persons visited the Oconee in 1959. Summer visitors came to picnic, fish, and sightsee; fall and winter visitors to hunt, sightsee, and camp. It seems hardly necessary to state that pressure on facilities in the forest would be designated as light to moderate.

While large in area, the Oconee cannot be considered as valuable in recreation potential as is the Chattahoochee. The physiographic features of the land can be classified as rolling, with few hills. The area covered is basically agricultural and forest lands intermingled. Water acreage is small but can be developed without too much expense. The absence of spectacular scenic areas such as are found in the Chattahoochee, and the scarcity of large water bodies appear to indicate that this forest can best serve a purpose different than that planned for the Chattahoochee. Since it is not the purpose of this report to recommend detailed recreation plans, suffice it to say that the Oconee can be developed into a family camp and vacation area in which a combination of hiking trails, wildlife refuges, aboretums, and other such facilities could be developed easily and at relatively little expense.

PLANS FOR FORESTS 5

Forest Service officials anticipate a substantial increase in recreation in the southern region of which Georgia is a part. Figures showing 1,362,100 visitors to the two national forests in 1960 were divided into the following categories: campgrounds, 92,300; picnic sites, 722,000; organized camping, 2,000; hotels and resorts, 8,000; recreation residences, 1,700; wilderness, none; and other, 535,600.

The plan for developing recreation facilities is twofold in character.

(1) Certain scenic areas will be protected for those who prefer wilderness type outdoor activities.

(2) The remainder of the recreation areas will be more fully developed to provide camping, picnicking, swimming, and boating.

5/Interview with regional director, Division of Recreation and Land Management, U.S. Forest Service, March 14, 1961.

There are no plans for trying to compete with the National Park Service in providing recreation facilities such as playgrounds and other "commercial" facilities. A heavy emphasis will be placed on camping and development of campsites for individuals and families.

CORPS OF ENGINEERS

The absolute absence of any large natural lakes in Georgia has in the past restricted the residents of this State to swimming and fishing in the rather numerous small streams and rivers that, while relatively plentiful, do not lend themselves to such water sports as boating and water skiing. A great part of the sudden interest in boating in Georgia is a result of the construction of large Corps of Engineers reservoirs in the Southwest and along a line running just north of the Atlanta SMSA. In terms of user days, four of these reservoirs, Lake Seminole, Allatoona, Lake Lanier, and Clark Hill, represent the greatest single outdoor recreation resources in Georgia. A fifth reservoir, Hartwell reservoir lying north of Clark Hill in the boundary between Georgia and South Carolina, was closed on February 1, 1961, and will within a few years be an additional attraction.

Since information on each of these reservoirs is readily available from the corps, the descriptions given here will be most general in character.

Allatoona Reservoir

The Allatoona Reservoir is the closest of all reservoirs to the Atlanta SMSA. Comprising 18,758 acres of land, and 12,187 acres of water, it was visited by 2,516,000 persons in 1960. A large majority of this huge number of visitors was from the Atlanta SMSA.

Overnight facilities at Allatoona include 6 campgrounds with a total capacity of 420, and a large cabin for 6 people. Camping is permitted outside designated campgrounds, and such camping probably accounts for more than 10 percent of all overnight visitors (overnight visitors in 1960 numbered 160,000). Pressure on campgrounds at Allatoona is light to moderate during the week, but becomes very heavy on weekends during the summer.

Day-use facilities include 10 picnic areas totaling 28 acres, 4 swimming areas totaling 10 acres, 2 historic sites of 164 acres, hiking trails, boat ramps, and docks. Pressure on all facilities is very heavy during the weekend; only light to moderate during the week. Visitation figures for 1960 breakdown as follows: fishing, 120,000; boating, 1,200,000; camping, 160,000; sightseeing, 395,000; picnicking, 410,000; swimming, 160,000; hunting, 25,000; and miscellaneous, 40,000.

Planned developments in this reservoir include 81 campsites, 44 trailer sites, 91 cabins, and picnic facilities for 1,960 persons. Reservoir personnel estimate that 1,041 additional campsites and 160 picnic grounds could be developed if needed.

Allatoona is, and probably will continue to be, a favorite weekend boating and picnicking spot for residents of the Atlanta SMSA. Fishing has never developed as well at Allatoona as it has at other reservoirs partially because of the tremendous number of motorboats and water skiers. While camping will continue to grow, it will be in the form of additional weekend visits, not vacation camping.

Lake Sidney Lanier

Located a short distance to the northeast of Atlanta, Lake Sidney Lanier has in the few years of existence become the most popular recreation area in Georgia. In 1960, over 5,119,000 persons 6/ visited Lanier: to fish (330,000), boat (1,045,000), camp (360,000), sightsee (580), picnic (2,085,000), swim (150,000), or engage in miscellaneous activities (560,000). When one considers that this reservoir has been in being for less than 5 years, the number of visitors is truly remarkable.

There are no publicly owned overnight facilities at Lanier, and present plans foresee only limited development within the next 5 years. The basic reason for the lack of overnight facilities is doubtless due to the extensive private development around Lanier. Private lots and homes, and subdivisions are increasing daily as an ever-growing number of Atlanta SMSA residents and persons from other areas in central Georgia buy or build summer cottages or year-round homes on the shores of this extensive lake. A large number of persons who work in the City of Atlanta find that the expressway system permits them to live at Lake Lanier and commute to work in an hour's driving time.

As is true of Allatoona, Lanier is much more extensively used on weekends than during the week. Its proximity to Atlanta permits this reservoir to act as a day-use facility on Saturday and Sunday. On those days, families drive to Lanier to motor boat, swim, water ski, and picnic in ever-increasing numbers.

The future of this reservoir is a matter of some conjecture. As available land becomes scarcer around the perimeter of the lake, pressure will probably increase for the development of campgrounds, and additional public access points. For the immediate future, however, it seems likely that Lanier will be the major day-use recreation area for the Atlanta SMSA.

Clark Hill

Located on the boundary between South Carolina and Georgia, the Clark Hill Reservoir is by far the largest water impoundment in the State. With 85,830 acres of land and 71,534 acres of water, this reservoir represents a tremendous potential as a recreation resource. Over 3,010,000 persons visited Clark Hill in 1960, to fish, motorboat, sightsee, or picnic. The most popular combination of activities was picnicking, swimming, and motorboating, followed by water skiing, camping, swimming, and fishing.

Overnight facilities presently existing include 12 campgrounds with a total capacity of 600, 4 trailer camps for 150 persons, and 27 cabins with a total capacity of 135. Current plans call for a limited

6/ Attendance figures taken from tables submitted by U.S. Army Engineers, April 7, 1961. Information on facilities from ORRRC inventory.

expansion of campgrounds to increase campsites by 33 percent. The limited nature of this expansion is odd in the extreme since pressure on overnight facilities is heavy during the week and very heavy on weekends.

Its distance from Atlanta and its proximity to the Augusta SMSA most probably preclude the development of Clark Hill as a major recreation resource for Atlanta. The reservoir will continue to serve as a day-use facility for Augusta and surrounding areas, and will increase as a weekend facility for residents of Georgia and South Carolina who live within 70 miles of its shores. Overnight facilities must be rapidly increased at Clark Hill if it is to fulfill its potential.

Lake Seminole

Located almost 200 miles south-southwest of Atlanta, Lake Seminole is the fourth of the large Corps of Engineers reservoirs in Georgia. Consisting of 6,629 acres of land and 35,617 acres of water, Seminole's greatest attraction lies in its reputation as one of the best fishing spots in the State.

Overnight facilities consist of 2 campgrounds (capacity 50 persons), 8 trailer camps (capacity 128), 3 cabins (capacity 12), and 5 group cabins (capacity 108). Pressure on these facilities at present is light both during the week and on weekends, but an expansion program capable of accommodating an additional 208 overnight visitors is nevertheless planned.

The absence of major urban areas within a reasonable distance of Seminole indicates that this reservoir should be developed as a major overnight facility for Georgians interested in fishing and hunting.

Visitation Data on Corps Reservoirs

The following paragraphs and table B-31 summarize in highly abbreviated form the activities engaged in by visitors to Corps reservoirs in the last 10 years.

Fishing

At Allatoona fishing visits have fluctuated, but have shown a steady increase in each of the last 4 years. It should be noted, however, that visits in 1960 (the peak year) were only 50 percent higher than in 1952, 9 years previous.

Lake Lanier, open to fishing for only 5 years, has shown a steady increase throughout its history, but this activity still represents only 6.4 percent of the total visits to this lake. It is expected that fishing will continue to increase on Lake Lanier, which, by virtue of its location, is the most popular impoundment in Georgia.

Seminole, one of the small corps lakes, is rapidly becoming one of the most popular for fishermen. In spite of the abrupt drop in fishing visits in 1959, fishing is king on this lake, representing 60 percent of all lake visitors.

Fishing reached its peak at Clark Hill in 1956 when it represented almost 40 percent of all visitation. Since 1956 fishing has leveled off at approximately 500,000 a year.

Boating

With the single exception of Clark Hill, boating showed a drop at all corps lakes in 1960. The drop at Allatoona and Seminole was substantial, while that at Lanier almost insignificant. The increase in boating at Clark Hill was insignificant. While these data can in no way be said to indicate that the boating fad has passed its peak in Georgia, they can mean that those interested in this subject should investigate why this drop occurred. There is reason to believe that the number of access points and ramps has a bearing on this question.

Camping

In spite of a general lack of adequate camping facilities, this form of recreation continues to grow in popularity. From visits and conferences with interested officials one carries away the impression that the number of campers is, and will be, dependent only on the number and quality of facilities available. Since campsites are relatively inexpensive, this type of recreation should certainly grow in the future around corps lakes.

Sightseeing

Of all recreation activities, sightseeing is the most difficult of all to isolate as a separate form of recreation. Normally sightseeing is a function of the newness of a recreation spot or of the opening of a new facility at such a spot. At corps impoundments this particular activity will probably decline unless new programs are instituted to attract observers.

Picnicking

Picnicking, long a favorite Sunday afternoon activity in the United States, but one which suffered a decline after World War II, has begun a comeback of rather extraordinary proportions around corps lakes. Here, as with camping, the popularity of picnicking will depend in large measure on the number and quality of facilities available.

Swimming

While swimming is a very popular sport in Georgia, it has not been a major form of recreation at corps lakes until the past 3 or 3 years. Those persons who are listed in the "swimming" column are for the most part members of groups, public and private. The absence of public beaches acts as a bar to a great increase in this activity.

Hunting

Hunting facilities are very limited around corps impoundments. This, more than any other factor,

Table B-31. Public visitation to corps of engineers' impoundments 1951-1960 (based on corps estimates and data—March 1961)

[Figures in thousands]

ALLATOONA

	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960
Total visits	923	907	1,068	1,175	1,241	1,409	1,536	2,375	3,153	2,516
Activity (approx.):										
Fishing	60	80	60	59	35	50	20	80	105	120
Boating	200	200	330	360	460	560	620	1,200	1,520	1,200
Camping	20	15	20	20	19	20	20	140	160	160
Sightseeing	365	305	370	410	400	430	455	375	680	395
Picnicking	85	120	110	150	160	195	210	305	500	410
Swimming	95	40	40	100	75	60	70	140	160	160
Hunting	50	60	55	40	40	40	20	50	80	25
Miscellaneous	50	90	75	35	55	60	50	80	0	40

LANIER

	1955	1956	1957	1958	1959	1960
Total visits	6	1,606	255	2,261	4,906	5,119
Activity (approx.):						
Fishing	0	18	25	80	200	330
Boating	0	40	45	640	1,080	1,045
Camping	0	0	0	170	260	360
Sightseeing	0	45	95	670	2,380	580
Picnicking	0	30	45	540	750	2,085
Swimming	0	30	45	160	235	150
Hunting	0	0	0	0	0	0
Miscellaneous	6	0	0	0	0	560

SEMINOLE

	1955	1956	1957	1958	1959	1960
Total visits	10	32	611	1,316	1,034	1,370
Activity (approx.):						
Fishing	0	0	290	670	300	900
Boating	0	0	150	290	295	100
Camping	0	0	0	15	20	15
Sightseeing	0	0	100	150	160	200
Picnicking	0	0	28	40	55	60
Swimming	0	0	0	80	120	75
Hunting	0	0	40	60	75	20
Miscellaneous	10	32	10	10	10	8

CLARK HILL

	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960
Total visits	181	263	1,294	1,706	1,363	1,869	2,024	2,333	2,907	3,010
Activity (approx.):										
Fishing	0	0	560	456	450	760	485	300	440	475
Boating	0	0	140	298	240	260	360	205	440	475
Camping	0	0	2	4	2	4	29	170	190	200
Sightseeing	181	263	205	310	203	290	420	500	680	700
Picnicking	0	0	300	445	388	380	420	650	860	910
Swimming	0	0	35	64	25	75	140	230	250	230
Hunting	0	0	17	22	15	25	30	48	47	20
Miscellaneous	0	0	35	107	40	75	140	230	0	0

accounts for the relatively small number of hunting visitors.

OTHER FEDERAL AREAS

In addition to the two national forests and the four major Corps of Engineers reservoirs, the Federal Government operates a variety of other recreation areas in Georgia. Time and space preclude the listing and description of each of these areas. Some of the better known Federal areas are described very briefly below.

Ocmulgee National Monument

Located some 93 miles southeast of Atlanta, within the Macon SMSA, the Ocmulgee National Monument occupies some 683 acres of ground and attracts approximately 100,000 persons annually. This is an interesting archeological site that attracts tourists, local residents, and visitors of local residents. Guided tours and a visit to the museum are available at a nominal charge.

No attempt has been made to attract visitors by locating picnic tables on the grounds, and none are planned. This area is, and will doubtless remain, a quiet peaceful spot to visit. Pressure on its facilities are light to moderate, and it is doubtful that this will change substantially either up or down in the near future.

At the present time, a struggle is being waged over this area between the National Park Service and the Bureau of Public Roads. The issue involved is the location of a leg of the interstate highway system now planned to "violate" a portion of Ocmulgee. The Park Service has suggested an alternative route for the highway, and this study would certainly support such a suggestion.

Chickamauga - Chattanooga National Military Park

Located a few miles from the Tennessee border in northwest Georgia, this 8,190-acre park offers sightseeing, picnicking, and hiking to its 900,000 annual visitors. A $0.25 entrance fee permits a visitor to walk over 25.6 miles of trails and 39.4 miles of roads. One picnic area of approximately 13 acres is definitely overcrowded on summer weekends, but appears to be adequate during the week. As is to be expected, the typical visitor combines sightseeing, picnicking and photography during his stay.

There are no overnight facilities at this park, and none are planned. Two additional historical sites will be developed within the next 5 years, but no expansion is planned for picnic areas in spite of their present overcrowded conditions.

Kennesaw Mountain National Battlefield Park

This 2,863-acre park is within the Atlanta SMSA and is located just outside the city limits of Marietta. It is very clean, well managed, and very quiet. While it attracts some 180,000 visitors a year, it cannot be considered a major resource because of its limited facilities. Visitors combine sightseeing and hiking. Picnic facilities are extremely limited and no expansion is planned either now or for the future.

As has been noted with reference to certain State parks, a question can be raised as to the efficacy of a national park located in a rapidly expanding urban area. Because of its location, Kennesaw Mountain will be under a constantly increasing pressure from those seeking day-use facilities. While little can be done about this matter on existing areas, the Park Service should be sensitive to the problems raised in its selection of future sites.

Fort Pulaski National Monument

Located a few miles from Savannah Beach on the coast, Fort Pulaski is essentially a tourist attraction. While it does offer a limited picnic area, and boating and fishing are permitted on designated areas, the typical visitor is primarily interested in viewing the fort as an historic site. As the coastal segment of the interstate highway system is developed, Fort Pulaski should attract more visitors. It cannot, however, be considered a major outdoor recreation source for most Georgians.

Okefenokee National Wildlife Refuge

While this report cannot describe the numerous wildlife refuges and game and fish management areas, it would be remiss to fail to give special mention to one of Georgia's unique outdoor resources. Lying in the southeastern section of the State, the Okefenokee Wildlife Refuge covers approximately 330,973 acres of which only 25,000 acres are land and 800 acres are water. The remainder of the refuge is swampland so dense that only persons with guides are permitted into its interior.

Limited overnight facilities are provided for some 248 persons, and three picnic grounds covering 2 acres exist. The typical visitor to this strange area comes to sightsee, to fish, and to camp, in that order. Sightseers from nearby urban areas visit Okefenokee in substantial numbers during the weekend, but this area's principal function is to attract tourists. Of all the outdoor resources in Georgia, the Okefenokee is the only one that attracts a substantial number of winter visitors.

Little expansion is planned in the way of facilities for Okefenokee. It will probably remain, as it should, a vast swampland in which the visitor can view wildlife and plantlife in their natural habitat.

Andersonville National Cemetery

One of Georgia's most famous tourist sites (made more famous or infamous by the publication of a novel built around its grimmest days), is the Andersonville National Cemetry. As a Confederate prison camp during the Civil War, Andersonville was the scene of mass deaths of Union prisoners of war by malnutrition, disease, and exposure. The commandant of the camp was the only war criminal executed following the end of the Civil War.

Andersonville today is a quietly beautiful cemetry commemorating those prisoners who died there almost a century ago. Visitors from both the North and South come here to see the rows of markers and the numerous monuments erected by northern States. As is true of all national cemetries, Andersonville is immaculately clean and well managed. Its popularity as a tourist attraction will doubtless continue to increase.

Other Areas

Georgia has many fish and game management areas, fish hatcheries, and experiment stations. As the conservation and replacement of this country's rapidly diminishing wildlife becomes a subject of concern to more people, the popularity and importance of these areas will increase. A complete listing of all fish and game areas is available from the Fish and Wildlife Service.

Private Recreation Facilities

Probably the most difficult aspect of any inventory of outdoor recreation resources in Georgia is in finding, describing, and listing privately owned recreation areas. The difficulties encountered in this phase of the project included, but were not limited to, the following:

(1) Location.—Other than driving around the area watching for signs or billboards, examining trade magazines and amusement sections of local newspapers, and talking to various people in the recreation field, there appears to be no valid way of locating and mapping privately owned recreation facilities.

(2) Securing Useable Information.—Once located, a problem arose in securing accurate information that could be used in the report. Some amusement parks were eager to give information believing that publicity would result. Some business concerns, on the other hand, admitted that they operated a recreation area for their employees, but refused to give information for fear of adverse customer reaction. The feeling of these firms was that if customers found out about a company sponsored recreation facility, they would expect to be invited to use the facility. If invited, these people would inundate the facility; if not invited they probably would cease to be customers.

(3) Paucity of Accurate Data.—For one reason or another, privately operated recreation facilities have not been able to supply concise, accurate data. In some cases, this omission was caused by a natural and understandable reluctance to permit examination of business records; in other cases it was caused by a casual method of recordkeeping.

Readers of this section should remember the above difficulties and should excuse the very sketchy description here given.

Facilities Operated by Business Enterprises

There are several major outdoor recreation areas operated as private business ventures within 75 miles of Atlanta. Since these areas are described in some detail in appendix B of this report, suffice it to say that two of these areas, Callaway Gardens and Lake Spivey, offer models that might be used for future commercial development in outdoor recreation.

Callaway Gardens, in particular, is an extremely attractive, efficiently managed, recreation area. While its fee schedule is sufficiently high to discourage large segments of Georgia's population, it does offer to the weekend visitor a complete range of recreation facilities. For the admirer of plant life, Callaway presents imaginative landscaping featuring native as well as foreign trees, shrubs, and flowers. For the active sports enthusiast, it offers golf, swimming, water skiing, and boating. For the passive sportsman boat fishing and attractive picnic areas are available.

Lake Spivey, much closer to the city of Atlanta, is more of a day-use facility. With a 650-acre lake, 14 miles of shoreline, and over 1,200 acres of wooded areas and picnic grounds, Spivey is one of Atlanta's favorite recreation spots.

Both Callaway Gardens and Lake Spivey offer certain facilities not found at publicly owned recreation areas. Amusement rides of one type or another, catering particularly to children, are most attractive to the family with small children. Such items, for example, as miniature golf courses, which have no place in a publicly owned facility, are very popular with youngsters.

There is a definite and growing need for more privately owned recreation areas in and around the Atlanta SMSA. Publicly owned facilities cannot, and probably should not, attempt to compete with private enterprises in certain types of recreation. This does not mean, however, that this report recommends the establishment of cheap, unsanitary, honky-tonk types of carnivals operating under the guise of outdoor recreation. It does mean that serious consideration should be given to some type of tax concession for those businesses or foundations willing to meet established standards in providing recreation facilities. Observations made during the course of this study lead to the conclusion that of the amusement centers relatively accessible to Atlanta, only Lake Spivey and Callaway Gardens would meet the type of standards envisioned here.

Voluntary Associations

In addition to publicly and privately owned recreation facilities, this State, and in particular the Atlanta area, has a large number of quasi-public or private groups that operate facilities for their membership. In this category are included such groups as the Boy Scouts of America, Girl Scouts of America, YMCA, YWCA, and various church groups.

Twenty-three Boy Scout camps, located in every section of the State, serve an ever growing number of youngsters in group camp activities. Eight of these camps are within 70 air-miles of Atlanta and four others are located just beyond the 70-mile circle. These camps vary from very rough pioneer or wilderness camps, to well-developed facilities with shelters, improved sites, water, and sanitary facilities. While no accurate data on number of children served are presently available, a conservative

estimate would approach 100,000 camper days for the entire State.

There are nine Girl Scout camps in the State, four of which are inside a 70-mile circle around Atlanta, and two others are just beyond the circle. With one exception all Girl Scout camps are highly developed with facilities for swimming, boating (canoeing for the most part), hiking, horseback riding, nature studies, and the like. Girl Scout camps recorded a total of 29,494 camper days in 1960.

Eight YMCA resident camps located in various parts of the State (5 within a 70-mile radius of Atlanta) served 4,078 camper days in 1960. In addition, 16 YMCA day camps recorded a total of 6,951 camper days, making a grand total of 11,029 camper days during 1960.

While church group camps appear to be increasing in number, this survey was able to definitely locate only the following:

METHODIST CAMPS.—The Methodist Church has three group camps. One is located at Dahlonega in the mountains, one is located on Lake Allatoona, and one is located on the Clark Hill Reservoir. These camps operate only during the summer months, and records on camper days are incomplete.

PRESBYTERIAN CAMPS.—The Presbyterian Church (or more accurately Presbyterian churches) operates group camps at Lake Allatoona, Toccoa, Hampton, and Hilton Head, S.C. The Hampton camp also functions as a Conference Center and is presently undergoing a great expansion.

BAPTIST CAMPS.—The Baptist Church operates a group camp for youngsters near Clayton, Ga.

All of the major denominations hold retreats for youngsters and adults during the summer period.

Business Firms

Most business firms in the Atlanta area have considered but rejected the idea of employee recreation areas. Most firms sponsor rather extensive recreation programs, but they are usually held on public or private recreation facilities.

Among the firms that have established their own areas, the most attractive surveyed during this project were those operated by the Citizens and Southern Bank and by Delta Airlines. The Citizens and Southern area, in particular, is deserving of commendation. Overnight facilities include 5 cottages each accommodating 6 people, and 12 trailers, 11 of which accommodate 4 people. Both cottages and trailers are tastefully furnished with every need including linens and silverware, are air-conditioned, and rent for substantially less than facilities operated by the State Department of Parks.

Day-use facilities include a large manmade sand beach with lifeguard, cabanas, sun umbrellas and the like; a bathhouse with lockers (towels and soap are available at a nominal charge); and a large lodge with a snack bar, gameroom, dining area, television, and a large kitchen. Outboard motors, motorboats, and large and small sailboats are available for rent. A boat ramp, shuffleboard court, softball diamond, tennis and badminton courts are all available for use by the guests.

This attractive area known as C-S-ta is located on property leased from the Corps of Engineers on Lake Allatoona, a few miles from Marietta, Georgia. The lease runs for 20 years at a cost of $90 a year. C-S-ta is open to employees of the Citizens and Southern Bank, their families, and their guests. Rentals for cabins and trailers are modest indeed. Cottages rent for $32 for seven nights; trailers from $20 to $25 for seven nights. Charge tickets are used instead of cash and are debited to employees checking accounts.

Delta Airlines also operates a recreation area for employees on Lake Allatoona. Offering essentially the same facilities as C-S-ta, this area, known as "Cushing Park," is open to employees on a membership plan. Annual dues are $10, and lifetime membership costing $100 is available. There is an initiation fee. Ten trailers accommodating four persons each and four duplex cabins are available as overnight facilities. While comfortable, these trailers are not as attractive as those at C-S-ta, although the rental is approximately twice as much as C-S-ta. Day-use facilities are essentially the same as those at C-S-ta, except that Cushing Park has more dock and ramp facilities.

Several large business enterprises in the Atlanta SMSA answered our inquiries concerning recreation facilities by stating that they did not have such facilities, but would not want to be identified as not having them. There is a certain sensitivity among business concerns on this question. Some concerns establish recreation areas for employees, but do not want the fact known; others do not have facilities, but are equally sensitive about the fact. The overall impression one gets, however, is that business concerns in the Atlanta SMSA in general do not follow a policy of establishing such facilities. Whether this attitude will change in the near future is impossible to predict on the basis of data now available.

Farm Ponds

While it may seem odd to list farm ponds in a recreation study, these facilities are becoming increasingly popular in Georgia. A circle around Atlanta with a 70-mile radius would include 14,062 farm ponds ranging in size from less than 1 acre to as large as 20-30 acres. As power boating increases on large impoundments, more and more persons are turning to the farm pond, particularly for fishing. While there are a substantial number of such ponds to which an entrance fee is charged, the typical pond is used by the owner, his family, and his friends.

Conservationists in general agree on the beneficial nature of these ponds, since they help to control surface runoff, a strong factor in Georgia's extensive erosion problem.

The topography of Georgia, especially of the land above the "fall line" is conducive to small impoundments such as farm ponds. With the financial help given by both the State and Federal Governments, a steady increase in the number of these ponds can be predicted.

Larger Impoundments

The Georgia Power Company operates eight lakes that are suitable for recreation purposes. At present some 2,588 leases on land surrounding those lakes are held by Georgians. Lots are leased for a term of 15 years with a clause inserted providing renewal for an additional 15 years at the same annual rental. The average annual rental is $50. While Georgia Power does attempt to restrict the types of structures erected on leased lots, the restrictions are lenient to an extreme.

While no accurate records are available on visitation to the 8 Georgia Power Company lakes, the company estimates that "in a 12-month period, 100,000 people would use 26 boat-launching sites ... (and) ... another 100,000 people would use 18 areas available for picnicking." 7/

Parenthetically, it might be noted that under the terms of the lease, lessees agree to install septic tanks or other methods of sewage disposal, and are prohibited from discharging sewage or other objectionable matter in the waters of the reservoir. Lessees are also required to provide garbage or refuse disposal facilities on the leased premises. Such provisions are necessary to the continued value of lakes and lake lots. Some type of control of a nature similar to the arrangements noted above should be in operation around all Corps of Engineers reservoirs and should be rigidly enforced.

Private Forest Land

There is a growing concern in Georgia over the extent of forest land owned and operated by large companies—particularly pulp and paper concerns. Whether this is a valid matter of concern depends in large measure on one's point of view. A request for information on large land holdings by private concerns elicited a response from the Georgia Forestry Commission to the effect: (1) that body has no precise data on the extent of large land holdings, but (2) that from personal observation the situation is not a matter about which Georgians should be concerned. 8/

An inquiry addressed to the Georgia Forestry Association, Inc., elicited the following statement:

> Small privately owned tracts of forest lands in the amount of 18 million acres out of the total of 24 million forest acres in this State are in the hands of private individuals, mostly farmers. 9/

While it can be stated that there are counties in South Georgia in which land holdings by private corporations are very extensive, there is apparently little concern at the State level over this trend.

The matter of land holdings by private corporations is of interest in this study only as the subject relates to outdoor recreation. In this connection, one often hears the charge made that pulp and paper companies are removing from public recreation use (in terms of hunting and fishing in particular) huge tracts of land. On the basis of data available to this survey, it can be stated that this charge is false. On the contrary, there is every reason to believe that land purchased by paper companies is actually more available for recreation than when in individual private ownership.

An example of public use of private forest land is offered by the Union Bag-Camp Paper Corporation. This company, one of the larger land holders in Georgia, sent the following reply to an inquiry concerning public recreation on their holdings.

> ... The matter of use of private forest lands by the general public is receiving more and more attention by our company and the pulp and paper industry as a whole. We recognize the mounting interest on the part of the general public in outdoor recreation, and we would be particularly desirous of enhancing our reputation as "good neighbors" in this sphere of community relations.
>
> At the present time approximately 55 local community organized hunting clubs are availing themselves of the use of our properties, paying a nominal lease rental which covers only the cost of administration for this privilege. The acreage leased by the hunting clubs provides hunting and other forms of recreation for the clubs' members and for their friends in their respective communities.
>
> None of our nonleased land is posted and we do not object to persons hunting on the vast majority of our acreage. We do request that persons wishing to avail themselves of this privilege notify our tract superintendents or their assistants of their intent. The tracts leased to organized hunt clubs may be posted by the individual club, if its members so desire.
>
> The general public is not excluded from enjoying fishing privileges in the rivers and creeks on our properties. We do have some ponds on some of our lands that are not, at the present time, open to the general public.
>
> We have not as yet embarked on an extensive program of providing parks or recreation centers on our properties for use by the public. This particular phase of recreation is, however, being given serious consideration. There are, as you would recognize, a number of problems attendant upon such a program, not the least of which are the questions of liability and maintenance.
>
> We recently completed a study, the purpose of which was to determine where it might be practical for us to institute such facilities and the cost of their development and maintenance.
>
> As a result of this study, we developed and opened a recreation area on company properties in Virginia. The attached tear sheet from one of our company publications describes this area, which is in the nature of a "pilot" project. We are hoping that this particular recreation area will prove popular because it will serve as a stimulus to us to activate similar facilities on properties that we own in Georgia and several other Southern States.

7/ Letter from Mr. J. T. Smith, Jr., assistant manager, Land Department, Georgia Power Co., dated Oct. 13, 1960.

8/ Letter from Mr. James Turner, assistant director, Georgia Forestry Commission, dated July 5, 1961.

9/ Letter from Mr. H. R. Brown, executive director, Georgia Forestry Association, Inc., dated July 11, 1961.

Our forest lands, as you are aware, represent the life blood of our business operations. Not to exercise some reasonable control over the use of them would be inviting fire hazards which, in all honesty, we have faced with some trepidation.... 10/

The Virginia project mentioned in the letter above is a 4-acre tract on a peninsula extending into a mill pond. The company provided the land, and erected picnic tables, fireplaces, toilet facilities, and waste paper barrels. The tract was cleared of underbrush, and a half-mile road was built into the area. The millpond into which the peninsula extends is a public fishpond managed by the Virginia Commission of Game and Inland Fisheries. Under Virginia regulations, no swimming is permitted in such ponds.

This project is a joint venture of the Union Bag-Camp Paper Corporation and the Wakefield Ruritan Club. The club has assumed responsibility for maintenance and supervision of the area, and groups wishing to use the area or its facilities make reservations with the club.

Union Bag-Camp Paper is not unique in permitting its acreage to be used for recreation purposes. During the course of this project, the Georgia Forestry Association submitted to the author the results of a survey entitled "Recreation on Forest Industry Lands in the South." The following paragraphs describe the contents of the report.

Five-hundred forty-three companies owning or leasing 28,954,760 acres of land in the South were surveyed. Over 24,000,000 of the more than 28,000,000 acres of land were reported open, without charge, for picnicking, hiking, swimming, camping, and berry-picking. Something over 10 million acres were open for "organized recreation." Only 25 of the 243 companies included in the survey require a permit for any of the recreation activities mentioned above.

Forty-two (17.2 percent) of the companies operate 63 public parks and 61 picnic areas with a total acreage of 18,476 acres. Twenty additional companies plan to open parks in 1961, and 38 others plan to undertake this activity in the near future. Almost 300,000 acres of industry land are leased to public or private agencies for recreation purposes and 35 more companies plan to lease additional land in the near future.

Over 87 percent of the acreage surveyed is open for hunting, and over 2 million acres are in game refuges and game management areas. Over 60 percent of the total acreage surveyed is open to all hunters without even the requirement of a permit.

Fishing is even less limited than hunting. On 11,287 miles of streams, and 180,530 acres of lakes (artificial, natural, and fishponds) fishing is permitted, and only 9 of the 207 companies with all or part of their land open to fishing require a permit.

The survey concludes with a statement that there were a total of 3,892,617 recreational visits to industry lands.

While one can expect the owners of large tracts of land to give increasing weight to recreational activities in the future both for public relations purposes and for control purposes, it would appear unlikely that such activities can be counted on as representing any substantial answer to the ever-increasing demand for outdoor recreation unless an organized program is undertaken. It is not, however, unrealistic to suggest that local recreation agencies, public, quasi-public and private—should, in consultation with industrial owners, plan programs around the use of private lands.

There seems little doubt that industrial owners of forest land would seriously object to mass, organized recreation programs on their lands. However, with proper planning and adequate supervision, outdoor activities such as hiking, swimming, fishing, hunting, picnicking, and camping could be beneficial not only to the public but to industry as well. As tree farming becomes a major part of Georgia's economy, the use of private land for recreation purposes will increase in importance.

Georgia parks and recreation personnel at both the State and local levels should immediately initiate conferences with industrial land holders in order to ascertain the best policies and procedures for the development of this resource.

Hunting Preserves

While private hunting preserves were well known in Georgia even before the Civil War, the preserve as a commercial venture is of relatively recent vintage. The Georgia Fish and Game Commission and the Sportsmen's Service Bureau list some 28 such preserves in Georgia, 8 of which are within the 70-mile circle surrounding Atlanta. All of these preserves stock quail, some stock quail and pheasant, while a few stock quail, pheasant, mallard, and chukar.

There is every reason to expect that the number of hunting preserves will increase strongly within the near future. As the urban areas expand into previously unoccupied land, and as population increases, the number of persons who can go hunting in the evening after work or in the morning before work will continue to decrease. Hunting then will become, as it has in many areas today, a weekend or vacation venture. The weekend hunter, unlike most of his forebears who shot game for food, is interested almost solely in the sport of shooting. Forced to drive rather long distances to find the ever-decreasing supply of game, his is susceptible to the lure of a commercial preserve that practically insures a full day's bag of game with each visit. Although long-range projections show a negative curve for hunting, it can be predicted, without undue hesitation, that this activity will continue to attract a substantial number of participants in Georgia for some time in the future. If this assumption is valid, the future of the game preserve appears bright.

Conclusions on Facilities

Because of the rather complex network of levels and types of outdoor recreation resources available to the residents of the Atlanta SMSA, conclusions with respect to their adequacy or inadequacy can

10/ Letter from W. Kirk Sutlive, manager, public relations division, Union Bag-Camp Paper Corp., dated June 23, 1961.

probably best be summarized under the three headings: governmental, voluntary, and private holdings or enterprises.

Within the Atlanta SMSA itself, outdoor facilities, while impressive when seen on a map or when presented in terms of acreage, do not meet the standard criteria established for urban areas. On the basis of the commonly accepted standard of an acre of parks for each 100 persons, the SMSA would need something over 10,000 acres of parks to serve its current population. As is true in practically every urban area of the country, gross figures are not an accurate measurement of the adequacy of a recreation resource.

Atlanta's deficit in outdoor resources is based on several factors. First and foremost, there is a relative absence of open space in the downtown area of the central city. If there is value to the individual in outdoor activity, this value must accrue to the low income as well as upper income groups. Atlanta, in concert with most large cities, has a hard core of low income housing in its downtown area, the residents of which are almost without available outdoor resources. It must be made clear that what is being discussed here is not playground facilities, but open areas for walking, picnicking, and other passive types of activity.

Atlanta has accomplished much in its public housing and urban renewal programs. Some recreationists feel, however, that in neither of these programs, particularly in the housing projects, is there a sufficiency of green areas. In public housing projects green areas are practically nonexistent, while in urban renewal projects open spaces are often too restricted in area.

The recreation problem in the city of Atlanta is complicated by its attraction for residents of areas far removed from its own boundaries. Recreation officials in the city estimate that as much as 40 percent of the participants in certain summer recreation programs are from outside the metropolitan area. Grant Park, a major recreation facility, attracts people from all over Georgia and from many sections of neighboring Alabama. This additional load on existing park areas has increased to a point where on weekends facilities must be described as overcrowded.

Another need of the Atlanta SMSA that must be faced soon if it is to be met successfully is the establishment of large regional parks.11/ Chastain Park, the largest local park in the SMSA is much too small to serve as a regional resource. While land is yet available at a reasonable cost, three regional parks of at least 5,000 acres should be established. Past planning on the subject of park areas in the Atlanta SMSA has too often taken the form of recommending park locations then permitting the loss of those areas to demands for industrial location. While it would be naive to fail to recognize the conflicting demands on land, it is suggested that future planning locate parks where they are most needed and instituting programs for the acquisition of land immediately. In this regard, it is suggested that consideration be given to the establishment of a regional park along the Chattahoochee River.

Day-use resources in the SMSA are not limited to local parks. On the contrary, both in terms of acreage and visitation, Federal and State parks exceed the local resources. At the State level, the Stone Mountain Confederate Memorial Park will, when completed, be a major resource for residents of the area. Although this park is being developed primarily as a tourist attraction, its location close to the downtown area will inevitably result in its becoming essentially a day-use facility.

At the Federal level, Kennesaw Mountain offers a quiet retreat for those in the SMSA who are interested in outdoor activities such as hiking, sightseeing, nature studies, picnicking, and the like. Whether this park should remain in Federal hands or be transferred to local supervisors is a matter that requires serious consideration.

The two most important recreation resources measured in terms of visitors are the two Corps of Engineers reservoirs located on the fringes of the SMSA. They serve both as day-use facilities and as weekend camping areas. The heaviest pressure on public access points occurs on Wednesday afternoon when many retail outlets close, and on the weekend. Care in zoning these lakes and in more closely supervised sanitation regulations must be undertaken to preserve health conditions.

The greatest potential in securing the recreation needs of Atlanta residents is the Chattahoochee National Forest which lies some 70 miles north of the SMSA. With over 680,000 acres of virtually undeveloped area, this resource will, if imaginative planning takes place, take care of the weekend and vacation needs of Atlanta for many years to come. More overnight facilities, more dining facilities, more trails to scenic areas, more and better roads, more personnel to police the facilities, and more personnel trained in recreational activities are needed. The resource is there; all that is needed is an adequate program.

In the general area of State parks, a policy against purchasing small sites close to urban places should be adopted, and consideration should be given to transferring those State parks already inside municipal boundaries to municipal authorities.

Present needs of the Atlanta SMSA are adequately served by the State parks now existing except for the major deficit in facilities for Negroes. A single State park within 75 miles of the heaviest single concentration of Negroes in Georgia can hardly be considered adequate.

Greater use should be made of willingness of industry to allow recreation on their lands. Wherever possible public or quasi-public groups should make arrangements to supervise recreation areas on private lands. This will ease the pressure on existing facilities.

Plans for additional recreation areas must be coordinated in the future. At present there appears

11/The term "regional park" as used here refers to a large park serving the needs of numerous communities. It differs from the use of this same term by some national agencies which use it to refer to a recreation area that draws adherents from several States.

to be no coordination of long-range plans between levels of government.

Figs. B-7, B-8, and B-9 represent an attempt to demonstrate the relationship between major recreation resources and the highway system in being and in the planning stages. Fig. B-7 should not be interpreted as including all recreation resources in Georgia—this is an almost impossible task on a limited scale map. Location of recreation areas on the map are only approximate.

Administration of Recreation

The basic program of outdoor recreation in Georgia is the responsibility of the State Department of Parks, which has jurisdiction over all State parks except Jekyll Island and Stone Mountain. This department is theoretically within the Division of Conservation created in 1943 and is carried as such in the State Auditor's Official Report.12/ The department is an outgrowth of the work of the Civilian Conservation Corps and the Works Progress Administration both of which did extensive work in Georgia in 1934, 1935, and 1936.13/ In 1937 a Department of Natural Resources was established, of which the current Department of Parks was one of the divisions. In 1943 the Department of Natural Resources was replaced by the Division of Conservation, consisting of three departments including the current Department of Parks. Today, the department, while theoretically in the Division of Conservation, in reality reports directly to the Governor and considers itself independent of any other agency.

The Department of Parks is headed by a director appointed by the Governor. The administrative structure of the department is uncomplicated, consisting of an assistant to the director, and three major divisions: General Office (accounting, inventories, and records), Engineering Division (parks inspector, and parks maintenance division), and Recreation (recreation officer, and information-publicity). Of the personnel in the central office, both the recreation officer and the assistant to the director have professional training in the field of recreation.

As is true in departments of recreation all over the nation, the Georgia Department of Parks operates with a relatively small permanent staff, and a large number of seasonal employees. Of late, the department has employed college students for summer work in the various parks.

Under current legislation, the department is given the customary right to accept property or money for the purpose of creating or maintaining parks from the Federal Government, counties, private individuals, or corporations. Additionally, the department is empowered to purchase, lease or condemn land (utilizing the right of eminent domain) for use as a park.14/

Section 127 of title 43 of the code permits any county or city to expend funds for the purchase of any land or property within the county or city to become the property of the State if the State agrees to improve and maintain such land as part of the State parks system. In like manner, any county or city, individually or in combination, may contribute funds for the upkeep of any State-owned park or other property within the county or city.

Faced with the possible threat of integration suits, the general assembly in 1956 enacted legislation permitting the sale, lease, grant, or exchange of any property comprising parks and playgrounds to any individual or group. Under the terms of this act several of the parks, including Jekyll Island, passed to private individuals under lease arrangements. Although this act was repealed in 1958 and Jekyll Island has been recovered, two of the most popular parks in the State, Vogel and Franklin D. Roosevelt, are still leased to private individuals. Since the device of leasing parks to private individuals obviously does not act as a bar to integration suits (as the Commonwealth of Virginia discovered when it attempted to lease Seashore State Park), the State should move to recover administration of all privately leased State parks at the earliest opportunity. If outdoor recreation is a legitimate governmental function as is indicated by the State constitution and laws, there is no valid reason for the operation of State parks by any person or group other than a duly constituted agency of the State. To provide otherwise comes perilously close to a delegation of State functions to a private agent.

The Georgia Department of Parks is at present ill-housed and apparently understaffed to do an adequate job of supervising a system of parks spread all over the State and constantly increasing in popularity. Discussions with various individuals in the department lead to the inescapable conclusion that little long range planning is attempted. The basic reason for this lack of planning apparently lies in the rapidly vascillating allotment of appropriations for parks. Additionally, however, staff members feel that more personnel and an acceptance of outdoor recreation as a legitimate function of government would add greatly to giving a stronger sense of direction to the Department.

When the park system was small and visitors few, the year-to-year type of operation now engaged in was probably adequate to the task. In 1961, however, this same system consists of 43 parks that were visited by over 3 million persons annually. Since all indicators point to an ever-increasing pressure on the park system, the time has surely passed when the State could afford the haphazard, ad hoc type of administration engaged in previously. As of this date, however, there is no evidence to indicate any fundamental change.

12/Terminology on this point is confusing. Title 43 of the State Code which creates the department and empowers it to establish and operate a system of parks refers to the agency as the Department of State Parks, but the auditors report designates it as the Division of Parks, in the Department of Conservation. Official stationery of the agency carries a title of Department and it will be so referred to throughout this report.

13/Information in this section is taken from a report prepared for ORRRC by the American Political Science Association and from the annotated Code of Georgia.

14/"Annotated Code of Georgia," Title 43-124.

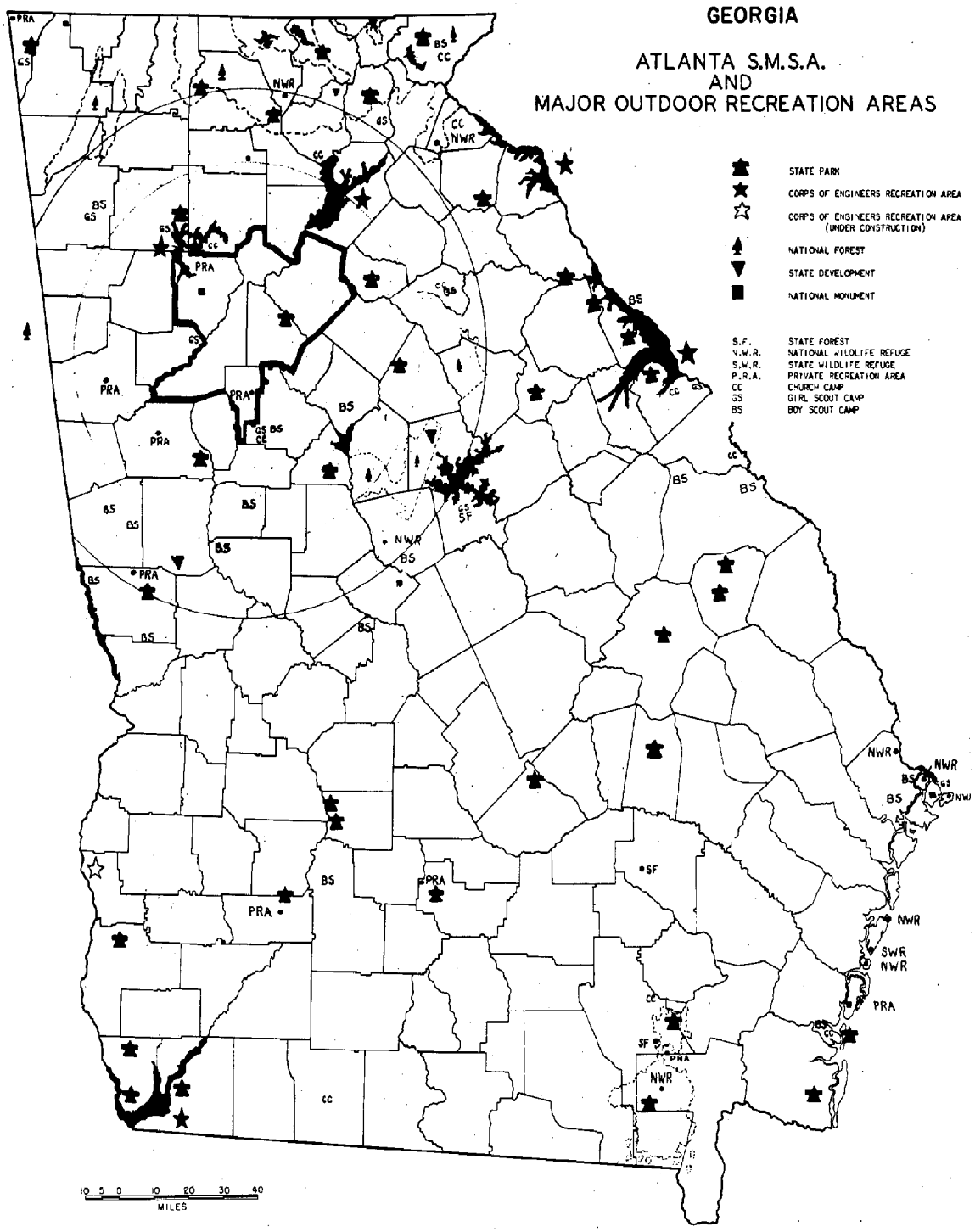

GEORGIA
ATLANTA S.M.S.A.
AND
MAJOR OUTDOOR RECREATION AREAS
STATE PARK
CORPS OF ENGINEERS RECREATION AREA
CORPS OF ENGINEERS RECREATION AREA (UNDER CONSTRUCTION)
NATIONAL FOREST
STATE DEVELOPMENT
NATIONAL MONUMENT
S.F. STATE FOREST
N.W.R. NATIONAL WILDLIFE REFUGE
S.W.R. STATE WILDLIFE REFUGE
P.R.A. PRIVATE RECREATION AREA
CC CHURCH CAMP
GS GIRL SCOUT CAMP
BS BOY SCOUT CAMP
10 5 0 10 20 30 40
MILES

FIGURE B-7

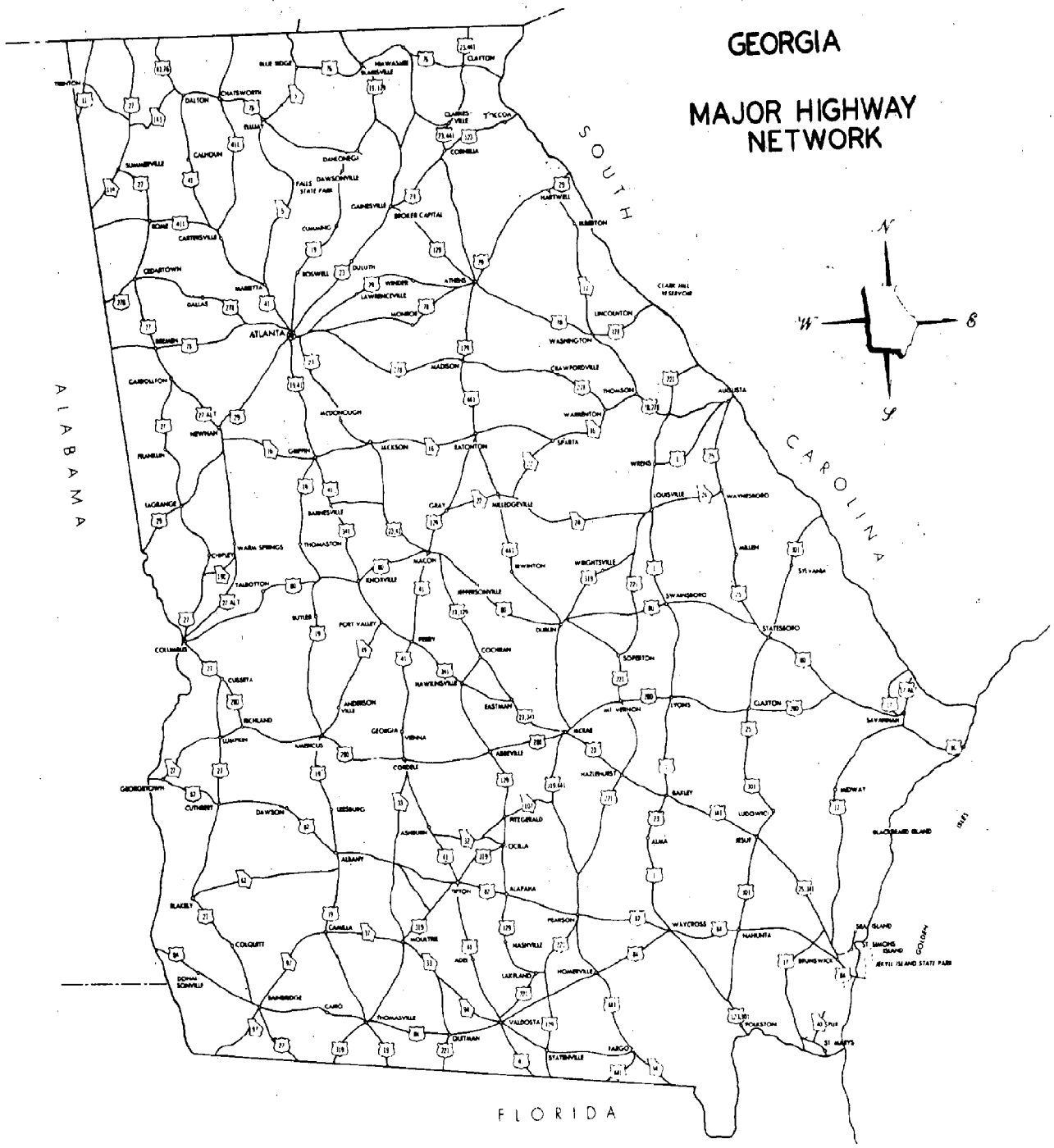

GEORGIA
MAJOR HIGHWAY NETWORK
SOUTH CAROLINA
ALABAMA
FLORIDA
ATLANTA
N
W
E
S

FIGURE B-8

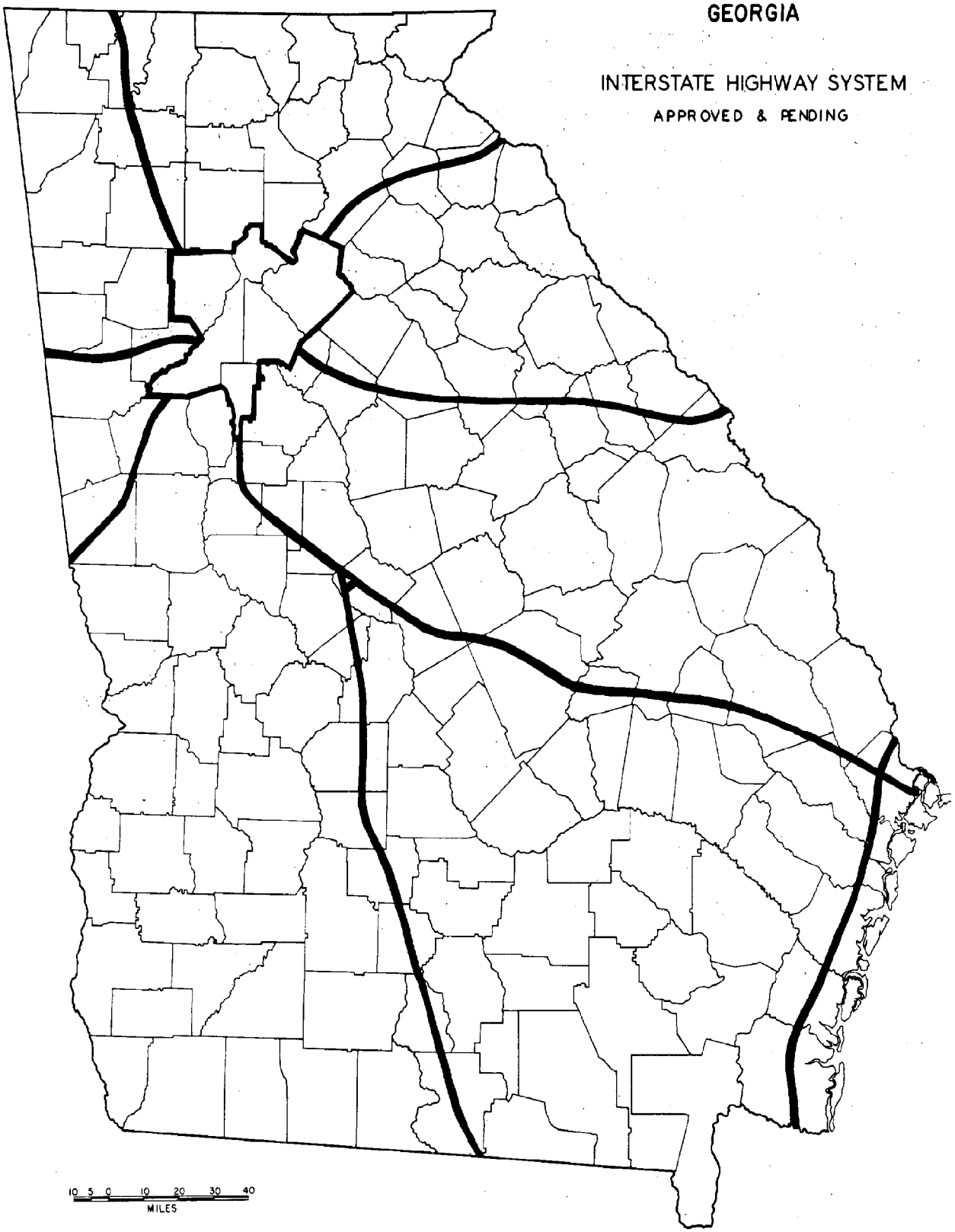

GEORGIA
INTERSTATE HIGHWAY SYSTEM
APPROVED & PENDING
10 5 0 10 20 30 40
MILES

FIGURE B-9

Fish and Game Commission

The popularity of fishing in this State is reason enough for including within this section a brief note on an agency whose functions are essentially those of education and law enforcement. The Fish and Game Commission is the oldest State agency operating in the area of outdoor recreation. Originally established as a department in 1911, it has gone through several changes in organization (from department, to board, to division, to commission), reaching its current status in 1943 when the function of conserving fish and wildlife was transferred to a constitutional commission. 15/

The State Game and Fish Commission consists of 11 commissioners (representing each of the 10 congressional districts, plus one special district comprising the coastal counties) appointed by the Governor and confirmed by the senate for 7-year terms. The commission serves as a policy making body, and supervises the action of its director who is the working head of the agency.

The commission cooperates closely with the National Park Service, the U.S. Forest Service, and with private owners in the propagation and breeding of fish and wildlife, and in the control of hunting and fishing.

While the organizational structure of the Game and Fish Commission is of peripheral interest to this study, it does offer an example of an administrative organization that is deserving of comment. Why should an agency engaged in the function of propagating and breeding wildlife: (1) be given commission status rather than departmental status in the normal chain of organization, and (2) be given constitutional status?

The reason often given by critics of this State is that Georgia has a propensity for establishing boards and commissions which formulate as well as administer policy. In 1960 there were almost 60 such boards and commissions in existence; 9 of which had constitutional status. Included in the nine are the Board of Regents of the University System of Georgia, the State Board of Education, the Public Service Commission, the Board of Pardons and Paroles, the Board of Corrections, the Personnel Board, the Veterans' Service Board, the State Medical Education Board, and the Game and Fish Commission. The reason for this expansive list was stated by the chairman of the State's Constitutional Commission in 1943:

> We have witnessed in the history of Georgia a development, a gradual development, that places large, tremendous powers in the office of Governor of Georgia. At times those powers were exercised wisely according to the public opinion of the people for their interest; at times perhaps they were exercised unwisely. As a result of the unwise exercise of those powers, the people of Georgia went on record as wanting to put in the constitution certain constitutional guarantees as to the independence of various State departments....
>
> ...The people of the State wanted, and the legislature passed, and then the people ratified an amendment to our constitution creating a Game and Fish Commission... (with)... long tenures and staggered terms of office... no matter who is the Governor of Georgia, that agency will continue to function until the people change it, immune to the caprices and whims of politics. 16/

Thus, at least according to this speaker, a basic reason for the establishment of boards and commissions is the desire on the part of the people of Georgia to remove certain functions from the direct control of the Governor. The oft-stated desire of the people to "take education out of politics" is, in Georgia, extended to a host of functions and programs. One critic raised a legitimate question with regard to this matter, however, when he asked, "Shall we continue the trend that has been set to create constitutional boards or agencies to run departments of State independently or shall we cease and desist?" 17/

Fish and wildlife management is a legitimate concern of all the people of Georgia. Since those people elect the Governor, sound organizational principles, in this author's opinion, require that control over State functions be vested in his hands. There is no more valid reason to have a constitutional commission for game and fish than to have one for recreation and parks. If the people of Georgia fear their Governor, their recourse lies to the ballot box, not in the establishment of boards and commissions that are, in effect, beyond the control of duly elected executive officials.

Before leaving the matter of the State Game and Fish Commission, it is worthwhile to note an important function added to this agency's responsibilities. Under the Federal law requiring the registration of all boats employing motors in excess of 10 horsepower, some State agency must be designated to administer the provisions of the act. In Georgia, the agency so designated is the Game and Fish Commission. A Motorboat Registration Unit has been established to handle the large volume of applications that have been submitted during the course of the last year. A fee schedule has been established based on the length of the boat. Fees for a 3-year period are as follows:

Class A, less than 16 feet	$5.25
Class I, 16 feet to 25 feet	7.75
Class II, 26 feet to 40 feet	10.25
Class III, 40 feet and over	15.25

While gross data have been assembled on the number of motorboats meeting the 10 horsepower requirement, an analysis of that data is not possible since the Game and Fish Commission has adopted a policy of giving an exclusive contract to an advertising firm to use these data. In return for the exclusive use of these data, the advertising firm has agreed to furnish certain analyses of the information to the commission. Since this analysis has not yet been made, it is impossible to give any data on motorboat ownership in terms of residence of owners. However, the head of the Motorboat Registration Unit, on the basis of his run-through of the registration applications, was of the impression

15/ The constitution of Georgia, art. V, sec. IV, par. 1.

16/ Albert Saye (ed.), "Records of the Commission of 1943-1944 to Revise the Constitution of Georgia," vol. I, pp. 199-200.

17/ Ibid., p. 201.

that the Atlanta SMSA was no more heavily represented than other urban areas of the State. In other words, Atlanta SMSA residents own proportionately no more and no fewer boats than the residents of other urban places.

Two other State agencies of importance in the recreation area can be considered together since they have essentially the same type of organization. These two agencies, the Jekyll Island State Park Authority, and the Stone Mountain Memorial Association, represent another step in the proliferation of agencies performing similar tasks without the desired amount of control by the executive of the State.

The Jekyll Island Authority, consisting of ex officio members including the State auditor, the director of State parks, the chairman of the State Public Service Commission, the State attorney general, and the secretary of state, was created, as have a number of like authorities in the last two decades, to circumvent Georgia's extremely restrictive constitutional debt limitation. 18/

The net effect of this constitutional limitation is that Georgia can incur no long-term debt. As a result of this unrealistic limitation, this State in order to meet its increasing capital needs has resorted to the establishment of public corporations or authorities and has vested in them the right to issue bonds. The State then rents or leases the facilities from the authorities. Authorities now in existence include, in addition to Jekyll Island, the State Bridge Building Authority, State Hospital Authority, State Office Building Authority, School Building Authority, Rural Roads Authority, and many others.

While one can sympathize with the impossible position into which the debt limitation has pushed this State, a word of caution must be raised with respect, in this instance, to Jekyll Island. Authorities have two principal weaknesses: (1) they issue revenue bonds which traditionally carry a higher rate of interest than general obligation bonds; and (2) they are, in too many instances, not responsible or responsive to the people since they operate as quasi-independent agencies.

The matter of financing capital expenditures will be discussed in the next section of the report. The matter of authority responsibility or lack thereof can be best demonstrated by a recent happening on Jekyll Island. Georgia law forbids the sale or consumption of intoxicating liquor on State property and prohibits entirely the sale of whisky by the drink. This prohibition applies with equal force to property owned and operated by any State authority, including Jekyll Island. Yet, during the early summer months of 1961, an Atlanta newspaperman broke the news that motels on Jekyll Island were openly operating bars in which whisky was being sold by the drink (a practice not now engaged in).

The details of the controversy which arose as a result of this disclosure are of no interest in this report. What is of interest, however, is that the Governor of Georgia, when asked to comment on the story, included in his answer the frank statement that he had no legal control over the Jekyll Island Authority or its operation. In theory, authorities such as that which operates Jekyll Island report to, and are responsible to, the general assembly. As the President's Committee on Administrative Management discovered when it began its investigation of Independent Regulatory Commissions at the Federal level, however, an agency responsible to a legislative body is, in effect, responsible to no one.

The point of this overly long example is that the authority device has two major weaknesses. First it is not effectively responsible to the duly constituted and elected officials of the State. Second, its "raison d'etre" is to circumvent a limitation placed in the constitution at the request of the people. Thus circumvention results in the issuance of revenue bonds requiring the operation of revenue producing ventures. Outdoor recreation is a legitimate form of governmental activity in which all the citizens of the State have an interest. It should not be operated as a business venture by a quasi-independent body.

State Highway Board

The State Highway Board has a peripheral interest in outdoor recreation in its construction and operation of roadside parks along major State highways. Since these parks were discussed earlier, it is not necessary to describe them at this point.

Local Agencies

Local outdoor recreation facilities are administered under a variety of organizational arrangements but typically by a department of parks and recreation. Discussions with local recreation personnel indicate that while there is a growing interest in parks and recreation, it too often is tied to some program such as the attraction of industry or tourists rather than as a phase of education.

In the Atlanta SMSA there is no metropolitan-wide recreation agency. The only functional consolidation in the area of recreation occurred under the Greater Atlanta Improvement Plan which vests operations of parks and recreation in Atlanta and Fulton County in the Atlanta Department of Parks and Recreation. While the city now operates all parks and playgrounds (with financial contributions from the county), Fulton County retains the right to establish its own parks outside the municipal boundaries of Atlanta (an option it has not exercised as yet).

There is no metropolitan-wide system of planning and coordinating the activities of the various parks departments. Recreation personnel do meet informally to discuss their programs, but no formal program of consultation is operating and none is planned.

The Metropolitan Planning Commission has made several studies of recreation needs in the SMSA,

18/Par. I, sec. II, of art. VII of the State constitution provides that "No debt shall be contracted by, or on behalf of, the State, except to supply such temporary deficit as may exist in the treasury in any year for necessary delay in collecting the taxes of that year, to repel invasion, suppress insurrection, and defend the State in time of war, or to pay the existing debt." This section permits debts not to exceed $500,000 to pay teachers, but requires that such debts be repaid within the year.

particularly in the area of park needs. But, even here, there is little if any consultation between the planning staff and city or county recreation personnel. The Metropolitan Planning Commission has no trained recreationist on its staff; a point made very early in any conversation with local recreation staffs.

The net result of the above is a complete lack of long-range, coordinated planning at the Metropolitan level. When to this lack is added the omission of any long-range planning on the part of the State, and the void in consultation and coordination between State and local authorities on future park developments, one wonders how this State has done as well as it has.

Federal Agencies

A study of Federal agency administration is hardly appropriate in a report on outdoor recreation in Georgia. Suffice it to say that the two Federal agencies most heavily involved in outdoor recreation in Georgia are the U.S. Forest Service and the Corps of Engineers.

Conclusions with Respect to Recreation Administration

Georgia is faced with many problems in the area of outdoor recreation. Its financial ability to meet what must be an ever-increasing pressure on existing facilities requires the maximum amount of coordination among all agencies—State, Federal and local—that are concerned with outdoor recreation. Yet Georgia today faces that need with a proliferation of State agencies, some of which are beyond the control of the duly constituted authorities of the State, an absolute lack of any long-range planning at either the State or local level, the absence of any mechanism to coordinate programs of Federal, State, and local agencies, the lack of even a metropolitan-wide planning and coordinating device in recreation, and an apparent unwillingness on the part of any agency to initiate corrective action.

A private agency in Atlanta, the Atlanta Community Council, Inc., has begun a study of recreation facilities in the metropolitan area to ascertain the needs of the area. While the Atlanta Department of Parks and Recreation, the DeKalb Planning Commission, and other local authorities are working with this group, it would be naive in the extreme to expect this type of program to be too successful.

If Georgia is to meet the increased demands of the people for outdoor recreation, the following steps should be taken:

(1) All recreation functions at the State level should be delegated to the State Department of Parks. If the authority device must be used, it should operate only in the financing of capital needs, and should vest in the Department of Parks the operation of all facilities.

(2) A formal metropolitan-wide recreation agency should be created to work with the Metropolitan Planning Commission in studying the needs of the metropolitan area and in recommending needed additions and improvements to the local governments involved. The composition of the Metropolitan Planning Commission, its financial support, and its powers might well be used as a guide for such an agency. The time will certainly come in the SMSA when a functional consolidation in the field of recreation will be demanded. The time for such a consolidation is not yet here, however, and to recommend such a plan at present would be impractical in the extreme.

(3) An intergovernmental body, similar to the present Southeastern Study Commission should be established at once to act as a coordinating device for all long-range planning at all levels of government. Such an agency should also conduct studies on resident preferences and customs in outdoor recreation. The initiation for such an agency should come from the Federal Government.

If these steps are taken, many of the administrative problems now encountered by recreation officials will be considerably eased.

Financing Outdoor Recreation

Since ORRRC is, by law, prohibited from considering urban type recreation activities, this section on finance is, of necessity, limited to a general review of the local tax and expenditure structure. This limitation is necessitated by the impossibility of segregating that part of a recreation budget that is allotted to playground activities and that part that is allotted to parks and other activities.

A second limitation on this section is an unwillingness on the part of the author to consider the matter of Federal finance in the outdoor recreation area. This unwillingness is caused again by an inability to segregate recreation from other activities in such agencies as the National Forest Service, and the knowledge that ORRRC staff members are in a better position to secure data from Federal agencies than is the author.

LOCAL FINANCE

Any study of local finance must be divided into two sections: (1) municipal finance, and (2) county finance. Since the financial structure of Georgia counties, with the possible exception of Fulton County, is relatively simple, this area will be discussed first.

County Finance

Georgia counties depend almost entirely on the property tax in financing all governmental activities, including recreation. Title 69-602 of the Georgia Code specifically empowers counties to acquire land for parks by purchase, lease, or by eminent domain, while title 69-607 permits the issuance of bonds for the purpose of acquiring land and equipment for parks.

Title 69-608 and title 2-5701 both mention parks and recreation as legitimate purposes for which cities and counties may levy a portion of the general property tax. The incidence of tax burdens for outdoor recreation at the county level thus falls directly on the property owner.

Several questions may be raised with reference to the financing of additional parks expenditures at the county level:

(1) Can the counties afford to spend more for recreation? While several persons have tried to establish a formula for determining the true value to a community of its various expenditures, no success has crowned their efforts. Certainly one can state that most counties in Georgia could, by better assessment policies, increase their property tax digests thus creating a larger base upon which taxes could be levied. Since many of Georgia's counties at present, however, contribute relatively small amounts to their education system, it could be posited that increased county revenues would of necessity go to a school system that is badly in need of additional funds. 19/

(2) If educational needs are taken care of by a Federal aid program, could Georgia counties then finance greater expenditures for parks and recreation? An affirmative answer to this question would have to be qualified by stating "Yes, but only at the expense of permitting county roads to deteriorate even further." A few years ago, the State of Georgia established a Rural Roads Authority, and authorized this body to expend $100 million in the construction of county roads, the maintenance of which were to be the responsibility of the counties. It now appears almost certain that the State will, because of the financial position of the counties, be forced to take over the maintenance of the roads built by the authority.

In addition to education and roads, counties must aid in financing programs of health and welfare, police protection, libraries, and the like. In times of relative prosperity the property tax, with adequate assessment procedures, produces sufficient revenue to finance these programs with additional amounts for recreation in the form of a half mill tax in many counties. The property tax, however, has a distressing faculty of falling as the prosperity of the community falls. There is some question then as to the efficacy of planning substantial park improvements based on a tax which may in time of recession produce little in the way of revenue.

(3) Should new sources of revenue be made available to counties, thus enabling them to finance improved park programs? Unlike the case of cities, there is little evidence to indicate any strong movement to give counties additional taxing powers. Since the county, more and more, acts essentially as an administrative district for the State, and, since there continues to be more and more centralization of traditional county functions at the State level, it appears obvious that the only additional revenue that will be made available to counties will come in the form of new State grants. While the matter of State finances will be discussed below, it can be stated here that the possibility of new State grants to counties for recreation purposes is remote indeed.

County financing of outdoor recreation can be summed up very briefly. Recreation expenditures at the county level fall directly on the shoulders of the property owner since the only major source of revenue available to the county is the general property tax.

Municipal Finance in Georgia

Georgia cities, like counties, are authorized to expend general tax revenues for parks and recreation, may issue bonds for acquiring land and equipment, and may levy a portion of the general property tax for the maintenance and operation of parks and playgrounds. The city of Atlanta, for example, levies a half mill recreation tax on real property and, in addition, allocates money from the general fund for parks and recreation.

Unfortunately, as is true with municipalities all over the Nation, Georgia cities face a constantly increasing rate of expenditure without a concomitant increase in revenue, and are rather desperately seeking new sources of revenue. At the present time, most Georgia cities depend on the general property tax and business license taxes as their major sources of revenue. While the cities do a much better job than the counties in their assessment practices, there are serious questions to be raised about increasing the property tax. Georgia cities are faced, as are cities all over the Nation, with an exodus of residents to the suburbs. This exodus is almost inevitably followed by a general fall in the value of residential property in the city. To increase the property tax in the face of this situation might well hasten the exodus and could result in a lower, rather than higher tax return.

Several new sources have been suggested for municipalities. These include a local sales tax, a local income tax, and a local gasoline tax. Each of these taxes would bring in substantial amounts of revenue, but the possibility of the State permitting their use at the present time is doubtful. The State now utilizes all three of these taxes and a rural-dominated legislature looks with a "jaundiced eye" on any attempt to permit the cities a share of the revenue that accrues from their use.

Georgia cities, by and large, spend infinitesimal sums on recreation. What is expended comes, for the most part, from the general fund. The principal sources of revenue for the general fund are the property tax and the business license tax. The heaviest incidence then of recreation expenditures falls on the property owner and local business enterprises.

Faced with serious problems of financing new streets, transit systems, parking facilities, slum clearance, public housing, police protection, and the like, the possibility of increased recreation expenditures at the municipal level is dim indeed. If increased programs of parks and recreation at the municipal level are to come, the best hope at present appears to be from a type of Federal program similar to the Williams bill.

19/ For example, Georgia's elementary and secondary school teachers receive annual salaries almost $1,000 below the national average.

STATE FINANCE

In the fiscal year that ended on June 30, 1960, the State of Georgia expended on activities related to outdoor recreation $3,620,488.24.[20] Of this total, $1,450,000 was allotted to State parks (including Jekyll Island), $1,295,000.00 to the State Game and Fish Commission, $90,770.74 to the Georgia Historical Commission, $434,717.50 to Stone Mountain Memorial Commission, and $350,000.00 for authority rents.[21]

While the total allotments represent almost $0.80 per capita (based on 1960 population of 3,943,116) for the State, this figure is misleading for included in the figure of $3,273,988.24 is $1,081,451.81 in fees collected by the Game and Fish Commission. The total amount expended from State funds is, therefore, $2,192,536.43[22] which represents about $0.56 per capita. In terms of its share of the total budget, allotments for outdoor recreation in Georgia in 1960 amounted to 0.01 percent of total allotments.

To speak of tax incidence on such an insignificant proportion of the budget is difficult indeed. On the other hand, if appropriations are to increase for outdoor activities, funds for such an increase must come from the general fund. An analysis of that fund should therefore indicate on whose shoulders the burden for increased appropriations will fall.

By far the greatest single source of tax revenue in Georgia is the 3 percent sales and use tax. This source produced $146,277,038.10 in 1960, or 39.5 percent of all tax revenues. Following the sales tax as revenue producers were the motor fuels tax ($84,044,284.78 or 22.7 percent of tax revenues), and the income tax ($60,076,154.21 or 16.2 percent of tax revenues). These three taxes account for 78.4 percent of all tax receipts. Other taxes, with the percentage each produces are alcoholic beverages and wine tax (5.6 percent), motor vehicle license tax (4.4 percent), cigar and cigarette tax (5.4 percent), insurance taxes (3.0 percent), and all others (2.9 percent). With the possible exception of the income and insurance taxes, Georgia tax structure is regressive in nature falling heaviest on those least able to pay.

Tax receipts added to Federal grants, returns from investments and a budget system that gave the Governor control over a huge contingency fund, permitted Georgia to operate with a surplus during the decade of the 1950's. In fiscal 1961, however, for the first time in over a decade, expenditures exceeded income by something over $5 million. There was no single cause for the deficit. It was, instead, a result of rapidly rising expenditures coupled with slowly rising revenues.

The deficit in fiscal 1961 was easily financed by a withdrawal from $50 million surplus fund built up over the years. In fiscal 1962, however, it is anticipated that a deficit approaching $24 million will occur, and, unless drastic changes are made or the economy of the State moves forward very rapidly, the total surplus will be wiped out in fiscal 1963. This will occur at a time when Georgia's obligations are constantly increasing.

Georgia is therefore faced with one of two alternatives if it is to meet the needs of its people in such diverse areas as highways, education, mental health, and welfare; either taxes must be increased or expenditures reduced. Since the State suffers deficits in each of the areas listed, the possibility of reducing expenditures is remote. It can be stated, therefore, that taxes will, of necessity, be increased.

The tax most likely to be increased in Georgia in the relatively near future is the sales tax. An increase of 1 cent in this tax should produce approximately $45 million annually, an amount sufficient to balance the budget in the immediate future. While leading State politicians are presently making ringing promises against any tax increase, it is highly probable that a one cent increase in the sales tax will occur within the next 3 years.

Even if the sales tax is increased, however, Georgia's troubles are not over. The additional burden of maintaining the interstate highway system, the State's share of the Federal old-age medical benefits law, and constantly rising costs in the field of education, should wipe out any revenues that accrue from an increase in the sales tax. What then is left? President Kennedy has already asked for an increase in Federal taxes on motor fuels. If he is successful in securing this increase, the possibility of Georgia increasing the State motor fuels tax is limited indeed. Corporation income taxes cannot be increased when the State is seeking desperately to attract industries to locate here. Excise taxes on tobacco and alcohol could be increased, but the amount of revenue realized would be negligible.

The above description of State finance has as its end the author's conclusion that in its present state, Georgia cannot afford any large increase in expenditures for outdoor recreation. On any priority scale, outdoor recreation would probably be listed below education, highways, public health and welfare, mental health, and corrections. Since each of these functions needs additional funds badly, it is unrealistic, either financially or politically, to speak of increasing outdoor recreation expenditures in any substantial amount.

There appears to be a rising sentiment in this State to place more of the burden for financing a particular function on those who use it most, or who most benefit from its existence. In outdoor recreation this would take the form of higher fees for those who visit State parks and use their facilities. This type of philosophy has an attractive ring to it until one begins to realize that those who need outdoor recreation the most are the least able to afford high fees.

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[20] See app. A, table B-56 for data on expenditures for years from 1950 to 1960.

[21] Appropriations to and expenditures of the Georgia Forestry Commission have been excluded from this section because of the difficulty involved in attempting to segregate the amount expended for recreation.

[22] It should also be pointed out that over $88,000 was collected from concessions in the various State parks. This money is available for expenditures by the parks. It is distributed throughout the system, not held by the park which collected it.

If outdoor recreation has beneficial effects on those who participate in it; if it adds to the mental and physical well-being of a State's citizens; then it is a legitimate function for government to undertake. If government undertakes the function, it should not be reserved for those who can probably afford their own outdoor activities without having the government provide them.

What is needed in Georgia is a system of parks that makes available to all residents a basic program in outdoor recreation but that, in addition, establishes a fee system for those who want, and can afford, extra facilities and services. A separate study is needed on establishing appropriate fee schedules that are equitable and adequate to aid in the financing of new facilities.

It would also be a remission of responsibility to fail to note that private capital could, with certain tax inducements, play a major role in future recreation plans.

CHAPTER FOUR

WHAT DOES THE FUTURE HOLD?

In every study that concerns itself with a governmental program or resource, a point is reached in which two basic functions must be performed. First, there must be a "summing up"—or overview of all that has gone before. Second, it becomes necessary to try to predict, within very broad limits, what the future holds for the particular program under investigation.

Before these two specific functions are undertaken, however, certain questions concerning outdoor recreation might appropriately be considered.

Legitimacy of Government Programs in Outdoor Recreation

The existence of extensive local, State and Federal parks appears to imply that there is no longer a need to justify governmental activity in the area of outdoor recreation. Perloff and Wingo, in their highly stimulating paper 1/ note three substantial reasons for government programs of outdoor recreation. One is the uniqueness that characterizes certain types of recreation resources. There is, as stated by Perloff and Wingo, "only one Grand Canyon, and it is not reproducible or divisible." 2/ The continued existence of these resources requires government intervention, for only government has the power and the financial ability to preserve these natural wonders. Secondly, the capital required to acquire, develop, and maintain substantial recreation facilities is beyond the capacity of private individuals or groups and must, therefore, be undertaken by a public agency.

A third reason, cited by Perloff and Wingo, along with the great majority of writers in the field of recreation, is that there is some relationship between the health and well-being of society and the existence of outdoor facilities permitting one to escape the debilitating effects of urban life. Perloff and Wingo state that "Physical activity, fresh air, and sunshine loom as particularly important needs in an urban society." 3/

Other writers, too numerous to cite, note the beneficial effects of periodic visits to a wilderness area where something akin to a spiritual catharsis takes place and one returns refreshed and renewed.

While this study is not the proper forum on which to debate the issue of the validity of those who proclaim the benefits that accrue to those who return to nature, there are interesting questions that might be raised concerning this issue. Certainly it is not too extreme to suggest that serious research into human behavior is necessary before exorbitant claims are made with regard to outdoor recreation. There is, for example, a trend presently developing in the field of juvenile delinquency to establish training programs in forested areas, again based on the assumption that being "outdoors" will somehow change those who live there and make of them better citizens. A review of the literature in this field, however, uncovers little research, worthy of the name, to prove or disprove the thesis or assumption on which these programs are based. (Editor's note: Readers may wish to compare this conclusion with discussions of this subject included in ORRRC Study Report 22.)

For many reasons, the country has recently become quite concerned about the physical fitness or lack thereof of the population. Faced with a long and harsh battle with an ideological foe, citizens of the United States are prevailed upon from the highest office in the land to exercise so as to be better prepared for the battle which may someday come. Those who support outdoor activities have welcomed this physical fitness theme, and have used it to buttress their insistant demand for bigger and better programs of outdoor recreation. While no one would suggest that physical fitness is not a desirable end, it is difficult to relate to the typical individual's use of existing outdoor activities. There is little exercise in picnicking, one of the favorite forms of outdoor recreation, and not much more in fishing, a second very popular activity.

The relationship between physical fitness and outdoor activities is tangential at best. Certainly, it cannot be denied that in the history of selective service those persons from rural areas were rejected for physical deficiencies in much higher proportion than were urban dwellers. Thus, it is rather dangerous to hold that just being outdoors has some clinical effect on a person's physical well-being. A well-supervised program of physical education in the public schools is probably much more important.

Until research is undertaken to substantiate the claims of outdoor enthusiasts, it is suggested that programs for expanding outdoor facilities be urged for the sole reason that the people want them expanded. This, at least, is demonstrable by the ever-growing number of persons who visit outdoor areas of one type or another. In a democracy such as the United States, it is legitimate for a government to undertake a function when its people through one device or another make known their wish that the function is desired.

1/Harvey S. Perloff and Lowdon Wingo, Jr., "Urban Growth and the Planning of Outdoor Recreation," (A paper prepared for the Outdoor Recreation Resources Review Commission, July 1961), pp. 45-48.

2/Ibid., p. 47.

3/Ibid., p. 46.

ABSENCE OF CRITERIA AND DATA

To the initiated, a journey through the literature on outdoor recreation produces a sensation of visiting some never-never land beyond the imagination of Lewis Carroll. Data on visitation and visitors are used for planning and projecting that are often not susceptible of validation. Estimates and guesses become facts from which conclusions are drawn that then become new facts from which new conclusions are drawn. Since there is little to gain from belaboring this situation, it is sufficient to note that accurate planning is not possible if accurate base data are not available.

In regard to data on recreation habits and preferences, it is perhaps not too important to worry about past data. Practically all recreation programs in the past have been based on what a person or group of persons thought was either desired or desirable. Unfortunately, too much planning was based on the latter rather than the former. If facilities for swimming and fishing are all that are available to a population, rather obviously swimming and fishing will be the most engaged in activities for those who visit the resource. What is badly needed in outdoor recreation is a mechanism for determining what the population in a given area wants, not what a group thinks would be good for them.

Some of the aspects of a vicious circle occur in recreation planning. The University of Michigan study, "Participation in Outdoor Recreation: Factors Affecting Demand Among American Adults," indicates that there is some relationship between experience and preference in outdoor activities. Thus, if one experiences the pleasures of swimming as a youth, he tends to engage in this activity as an adult more than does the adult who did not have such experience in his younger life. If this relationship does exist, then those who plan recreation facilities determine in large measure the preference of the population in the area of outdoor activity. For example, if swimming facilities are not available for the youth of a community, swimming will probably not be a recreation preference of that community. The University of Michigan attempt to break through this problem by the use of an aspiration scale is a step in the right direction that should be extended.

A further weakness in recreation planning at present is the lack of any reliable criteria for determining such basic questions as number of campsites per acre, number of picnic tables per acre, and the like. This is not to imply that any magic standard can be established into which all areas can be forced. There will certainly be instances when 10 picnic tables per acre are too many and others when 20 such tables are completely acceptable. The California study of outdoor recreation planning 4/ offers an example of a start in the sliding scale type of standards and criteria that should be agreed upon by those who determine recreation policy.

4/ "Committee California Public Outdoor Recreation Plan," parts I and II, Sacramento, 1960.

Where Do We Stand?

It is the intent of this section to summarize, very briefly, the present outdoor recreation picture in Georgia, and the Atlanta SMSA. This summary will include not only a survey of major recreation resources and their present usage, but will, in addition, involve a description of the economic, political, and social forces at work that will in large measure determine the scope and form of future recreation programs.

State Recreation Facilities and Their Use

In 1946, a total of 458,500 persons visited Georgia State parks. In that same year a total of 10,000 camper days plus 12,000 group days was recorded. In 1960, 3,449,218 persons visited Georgia State parks, and a total of 77,257 camper days and 49,473 group camper days was recorded. Thus, in 14 years, the number of visitors and camper days expanded almost eight times, while the number of group camper days increased over 400 percent. Table B-32 indicates the increase in visitors to State parks from 1951 to 1960.

Table B-32. Number of visitors to Georgia State parks, 1951-60

Year	Visitors
1951	1,750,611
1952	1,859,927
1953	2,795,291
1954	2,870,000
1955	3,161,311
1956	2,863,871
1957	3,007,131
1958	3,049,575
1959	3,172,095
1960	3,449,218

Source: Georgia Department of State Parks.

Table B-32 is interesting in several ways. Not only does it demonstrate an increase in visitations of almost 100 percent in the 10-year period under consideration, but it also shows the vacillatory nature of that increase. For example, an increase of 109,316 from 1951-52 was followed the next year by an increase of 835,364. This gross figure was then followed the next year by an increase of only 75,000. The irregular curve formed by visitation figures is attributable to several causes. The great increases are due primarily to the opening of new parks or to extensive redevelopments of facilities on old park sites. Relatively small increases or losses can usually be traced either to unstable economic or social conditions, or unnatural weather difficulties.

There are at present 46 State parks in the Georgia system. 5/ Of this number, 37 are developed in varying degrees of intensity while 9 are relatively

5/ This figure includes Jekyll Island, Stone Mountain, and Warm Springs, none of which is administered by the Department of Parks.

undeveloped. The parks are spread across the length and breadth of the State, but tend to be concentrated around Corps of Engineers reservoirs or around the perimeter of the Chattahoochee National Forest. The 54,849 acres included in State parks mean that there is an acre of State park for every 73 residents of this State.

Of the 37 developed parks, 31 are operated by the State Department of Parks, 3 are administered by authorities or commissions, and 3 are leased to private individuals. Again considering only the developed parks, 30 are exclusively for use by whites, 5 exclusively for Negroes, while 2 have segregated facilities for both races.

Seven State parks (six white and 1 colored) are within easy access of residents of the Atlanta SMSA. Easy access in this sense means that they are within a 75-mile radius of the downtown area. While 75 miles is a longer distance than is generally applied in ascertaining day-use accessibility, the presence of expressways in and around Atlanta means that each of these parks can be reached by automobile in approximately 2 to 3 hours. When the interstate highway system is completed in Georgia, all State parks will be accessible to Atlantans within a driving time of approximately 4 hours.

Overnight facilities in State parks vary considerably in number and quality. In 1960, developed campsites had a capacity of 2,643 campers, cabins were available for 773 persons, and trailer sites could accommodate another 777 persons. Additionally, group camp facilities were available for several hundred campers.

Georgia's parks are used almost exclusively in the summer. Except for some sightseeing and fishing, there is no cold weather program in existence. During the summer, facilities are under heavy pressure on weekends, but are used very lightly during the week. The activities that are most popular in the parks are picnicking, swimming, fishing, and boating.

Certain glaring inadequacies are evident in the State park system. These can be summarized as follows:

(1) Many of the parks are too small for extensive development. Twenty-seven of the developed parks have less than 1,000 acres; 22 comprise less than 500 acres; 10 have less than 100 acres; and 4 have less than 10 acres.

(2) Some State parks are too close to urban areas. Two parks are now within the municipal boundaries, and several others are so close to municipalities that they too will be within city boundaries, or certainly within urbanized areas within the next few years. These parks are almost exclusviely day-use facilities for nearby urban areas, a practice that raises a serious question as to the possibility of transferring these parks to local ownership and control.

The apparent conflict between this suggestion and the recommendation for three regional parks in and around Atlanta can be solved if one remembers the nature of the two types of urban areas under consideration. Atlanta attracts a large number of visitors to its parks from well beyond its own boundaries; Reidsville and Bainbridge do not. It is rather unfair to expect the residents of Atlanta to pay for the recreation of those persons who live outside the SMSA but who use its recreation facilities. It is equally unfair to ask the citizens of the entire State to finance recreation facilities for the citizens of one community.

What is suggested here is that the State contribute, through the device of helping finance a regional park, to any urban area that attracts a significantly large number of visitors from beyond its own boundaries. But, that municipalities pay the entire cost of operating facilities that are used almost exclusively by their own residents.

(3) Overnight facilities are in need of expansion at most camps. Further developments in expanding campgrounds, however, should improve current conditions that result in far too many campsites in limited areas.

(4) Negro parks are too limited in number and quality. If Georgia is to maintain separate facilities it must increase colored facilities at once. This is particularly true in the area surrounding Atlanta since at present only one Negro park exists within 150 miles of Atlanta.

(5) Recreation administration is badly divided in Georgia. In addition to the State Department of Parks, the State Game and Fish Commission, The Georgia Forestry Commission, the Jekyll Island State Park Authority, the Stone Mountain Confederate Memorial State Park Authority, and the Warm Springs Memorial Commission, all operate in the area of outdoor recreation. 6/

The use of semiindependent authorities in the area of recreation is open to serious question. Such authorities are outside the normal chain of command and are not subject to popularly elected officials; as such they are frequently not responsive to the needs and demands of the population. Additionally, the authority method of financing governmental functions too often results in fee schedules too expensive for the average resident of the State.

The possibilities of conflict between the Georgia Parks Department and the Game and Fish Commission are many and serious. While the latter is essentially an educational and enforcement agency, a recent occurrence indicates what may happen in the future. The Bowater Paper Corp. of Tennessee recently deeded a 650-acre lake in central Georgia to

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6/On the question of the advantages and disadvantages of having many governmental agencies operating in the area of outdoor recreation, the author completely agrees with ORRRC, and violently disagrees with Martin Grodzins. Professor Grodzins holds, "For reasons already given, no attempt should be made to provide among public agencies, 'A clearcut division of responsibility,' as suggested by the first progress report for the Outdoor Recreation Resources Review Commission. Rather, all planes of government...should be encouraged to increase the facilities and services they provide. All of them do roughly the same sorts of things, and this too has been shown to be desirable." Morton Grodzins, "The Many Governments of Outdoor Recreation," first draft of paper prepared for the Outdoor Recreation Resources Review Commission, June 1, 1961; while Mr. Grodzins emphasizes the recreation agencies operating on different levels of government, his paper can apply equally to different agencies on one level.

the Georgia Game and Fish Commission. The Commission plans to develop the area for camping, picnicking, fishing, and boating—the same activities that the State Department of Parks administers in its system of parks. Since the Game and Fish Commission is not a recreation agency and is not staffed to supervise recreation programs, its activities in this direction can only bring it into conflict with the State Department of Parks.

(6) The system of leasing State parks to private individuals was adopted during the early confusion resulting from the U.S. Supreme Court's decision in Brown v. Board of Education of Topeka, Kans. (segregation in public schools). This practice has so many inherent dangers that elaboration is not necessary except to suggest that corrective actions be taken immediately. The fact that two of the most popular parks in Georgia are now leased to private individuals makes the need for corrective action even greater.

(7) Activities at most State parks do not show enough diversification. The typical park has a small beach area, picnic grounds, boating and fishing, and a small camp area. While these facilities are, in many cases, inadequate at least they exist. On the other hand hiking trails, nature walks, wildlife refuges, and the like are conspicuously absent in many State parks.

Local Facilities

Recreation facilities within the Atlanta SMSA vary in quality and quantity depending on where one happens to be. In the downtown areas there is a paucity of recreation facilities other than playgrounds. In those parks such as Chastain and Grant where splendid facilities exist, the pressure, especially on weekends, is very great. To those residents of the Atlanta area who visit these parks are added the growing number of persons from outside the metropolitan area who visit Atlanta on the weekend and add to the pressure.

Other than the Atlanta City system of parks, and the planned expansion of DeKalb County's system, the only recreation resource of interest in the SMSA is the Cobb County Recreation Authority. Financed through the sale of lots and admission fees, this facility is essentially an attempt to build a subdivision around a large recreation area. Consisting of a mammoth swimming pool, a golf course, and picnic areas, this facility offers a possibility for future use in the increasing number of subdivisions being established in the SMSA.

The lack of any regional parks in the SMSA is, next to the absence of open space in the downtown area, Atlanta's greatest weakness. Regional parks of a size adequate to meet the needs of Atlanta's residents as well as visitors are a must.

Federal Facilities

Within a 70-mile radius of Atlanta, two great national forests and two large Corps of Engineers reservoirs dominate the outdoor recreation picture. With over three-quarters of a million acres of land and water, these facilities, if properly developed, should serve the weekend and day-use recreation needs of the Atlanta metropolitan area for years to come.

The two reservoirs were visited by over 8 million visitors in 1960. A large portion of these visitors were Atlantans who use the reservoir as day and weekend facilities for swimming, boating, fishing, and water skiing. An increasing number of residents of the SMSA are building either summer or year-round cottages on one of the two reservoirs.

Two needs, evident at both reservoirs, are studies leading to the creation of zoning regulations for boating, fishing, swimming and water skiing, and more adequate regulations concerning sanitation facilities for the growing number of private residences. While neither of these problems is of pressing importance at present, they will increase in severity unless corrective steps are taken soon.

The two national forests accessible to the Atlanta SMSA offer tremendous possibilities for outdoor recreation. The Chattahoochee Forest in particular, can, if properly developed, be a major resource. At present, the greatest needs in the Chattahoochee are additional overnight facilities (both public and private), more hiking trails, better directions and pulloffs for scenic areas, and, most importantly, more imaginative planning on the part of those who develop new recreation activities.

The Oconee Forest is new and is practically undeveloped. While it is not as attractive scenically as the Chattahoochee, the need for the future is for land in large quantities. This need can be met, in part, by the more than 98,000 acres of the Oconee.

Private Facilities

There are a paucity of private outdoor recreation areas in the usable range (75-mile radius) of the Atlanta SMSA. Private areas as used here include both commercial-type parks open to the public on a fee basis, and private facilities operated by industrial concerns for their employees. Except for two very attractive commercial parks, Lake Spivey and Callaway Gardens, there are no large-scale recreation areas within 70 miles of Atlanta that offer facilities other than swimming, boating, and amusement-type facilities.

With respect to recreation areas operated by industrial or business firms for their employees, it can be stated that this type of fringe benefit is not too popular in the SMSA. With several striking exceptions described in chapter 3, business firms have preferred to use public or private facilities for sponsored company programs. No evidence was secured during this survey to indicate any change in this policy.

There is a growing trend among church groups to purchase or lease land for group camps. These groups and such groups as the YMCA, the Boy Scouts, the Girl Scouts, and the Boys' Club, are forced to locate their camp areas further and further from the city of Atlanta as the price of land close to the metropolitan area makes the cost of large tracts prohibitively high.

There is a growing amount of criticism about the extensive land holdings of certain industries in Georgia, particularly those of pulp and paper companies. While these holdings seem small in terms of

the total area of the State, they do represent substantial portions of some sections of Georgia. The enlightened attitude of most companies with reference to the use of their lands for certain recreation activities may, however, actually operate to the advantage of many Georgians.

A growing number of business firms, some with holdings close to the Atlanta SMSA, have adopted policies permitting free access to their lands for hunting and fishing, and are now considering the possibility of establishing formal recreation areas. Some few companies employ recreation specialists, and are weighing the advantages and disadvantages of increasing this phase of their activities.

Summation

In summary, the raw materials exist for a vastly expanded outdoor recreation program relatively close to the Atlanta SMSA. There is, however, much to be done to develop these raw materials to meet what is certain to be an increasing demand for more adequate overnight facilities and day-use activities. These needs will be discussed below.

The Economy of the Area

Before turning to the specific recreational needs of the Atlanta SMSA, a brief summary of the economic and social environment of the region is in order.

Georgia is undergoing a rapid transformation from a rural, agriculturally dominated economy, to a mixed economy with a heavy manufacturing concentration. Georgia's labor force has increased with each decade since 1900, while the agricultural labor force has decreased both in raw numbers and as a percentage of the labor force. By 1957, agricultural employment had dropped to 13.7 percent of total employment, and is expected to decline even further in the future. The number of farms has also shown a steady decline over the last 30 years as small farms have been consolidated. The average size per farm and the average value per farm have increased substantially as mechanization permits larger areas to be farmed economically and efficiently. Farm tenants in Georgia are rapidly decreasing as professional management, required by intensive mechanization, becomes the norm.

As mechanization and large farms become the standard in Georgia, the traditional trek to the city by farm laborers, tenants, and small owners increases. This trend to the city, already witnessed in other parts of the country, has been accelerated in Georgia to a point where urban-rural data for 1950 which showed a population of 55 percent rural, and 45 percent urban, were completely reversed in the 1960 census with Georgia now having over 55 percent of its population in urban areas.

Figs. B-10 and B-11 illustrate the pattern of population gain and loss in this State for the decades from 1920 to 1960. On each of these maps the darker the area the longer the county or counties have been gaining or losing population. Thus, on Fig. B-10 showing population increase, those counties containing large urban areas have shown consistent gains, while on Fig. B-11 the rural counties, lying in a band running northeast and southeast, have shown equally consistent losses. There is every reason to expect that this trend will continue through the study period.

The exodus from the farm, accompanied, as it has been, by a drive for industry, has caused dramatic changes in the labor force of the State. Construction employment increased by 133 percent in the period from 1930 to 1950; transportation, communications, and public utilities, increased by 52 percent from 1940 to 1950; and wholesale and retail trade increased by 99 percent in a 20-year period.

Of particular significance to the economic well-being of a State, is the number of persons engaged in personal services. Since this is a nonproductive type of activity, the number of persons so engaged should decrease as a State's economic health improves. Using this theory, Georgia's economic health is improving rapidly. In spite of a 19 percent increase in population between 1930 and 1950, the number of persons engaged in domestic services decreased by 16 percent.

Georgia's total work force increased less in the period between 1930 and 1950 than did its population, but that force is now engaged in more productive activities. The greatest changes in the labor force were the number of persons engaged in manufacturing, construction, wholesale and retail trade; the decreasing number of Negroes employed; and the smaller percentage of persons employed in agriculture. All of these changes are healthy and need no explanation.

The increase in nonagricultural activity has not been uniform across the State. The great increase in industrial development has occurred in a remarkably few urban areas. Nowhere has this increase been more marked than in the Atlanta SMSA. While Atlanta's economy is discussed in detail in chapter 1 of this report, suffice it to say that the SMSA has become the leading industrial, manufacturing, and trade center of the State. The Atlanta SMSA now comprises 25.8 percent of the State's population, and 38.4 percent of its urban population; 27.4 percent of the households; 38.9 percent of total personal income; 36 percent of total retail sales; 68 percent of wholesale sales; and 36 percent of the value added by manufacturing.

In addition to being the leading growth area in the State of Georgia, Atlanta is increasingly becoming the central urban area of the southeast region. Long recognized as the transportation hub of the entire region, the Metropolitan area's function as a wholesale and retail center, and as a manufacturing and distribution center has increased dramatically in the past decades. Its place as the central communications point seems assured for some time in the future.

With no major geographical barriers, with a tax system consciously geared to attract industry, with a planned network of expressways and a well-planned circumferential highway connecting six major segments of the interstate highway system, the Atlanta SMSA appears destined to become the most important Metropolitan area in the entire South.

The People

No one is better aware of the deficits faced by the people of this State than its own residents. Studies in

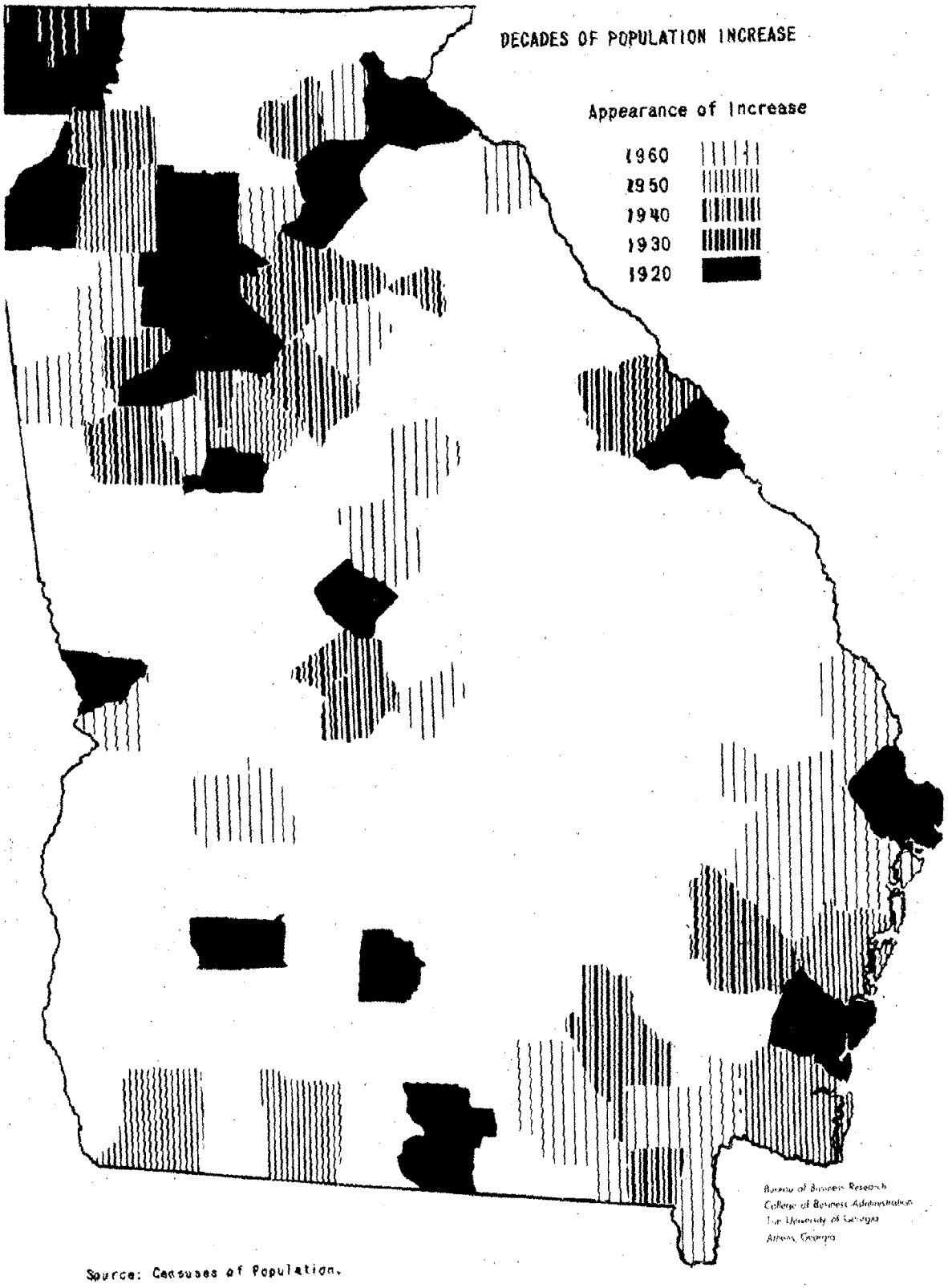
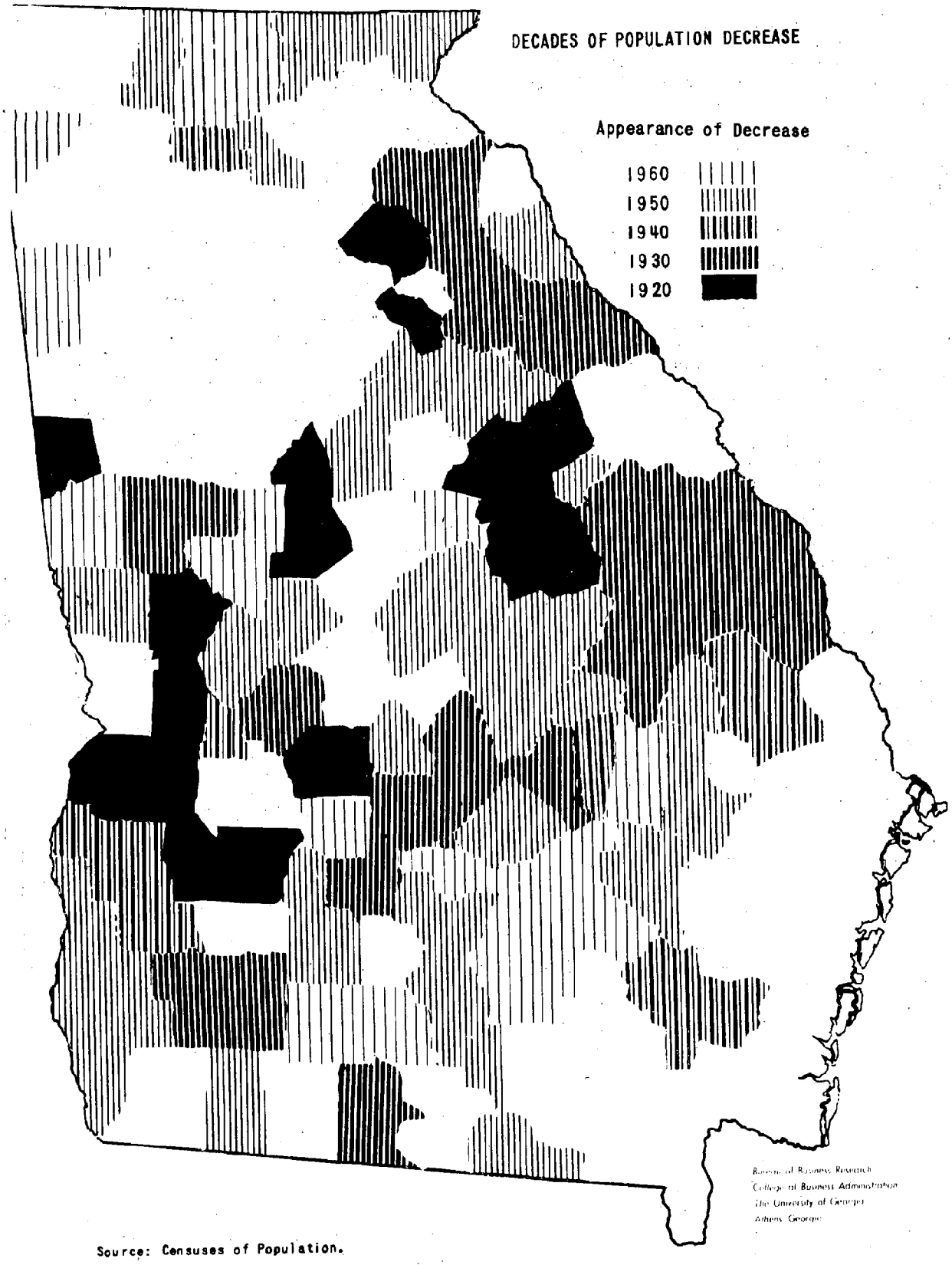

DECADES OF POPULATION INCREASE
Appearance of Increase
1960
1950
1940
1930
1920
Bureau of Business Research
College of Business Administration
The University of Georgia
Athens, Georgia
Source: Censuses of Population.

FIGURE B-10



Source: Censuses of Population.

FIGURE B-11

State agencies point out the relatively low educational level, the low per capita income, high birth rate, high infant mortality rate, and the loss throughout-migration. Such studies point with pride to the great studies made toward meeting these deficits but are honest in admitting that much remains to be done.

Georgia's residents are relatively homogeneous in national origin (British Isles. Only 0.5 percent of the population is foreign born), religion (95.4 percent belong to a Protestant church), and mores. They are younger than the national average. The median age in Georgia is 25.9; in the United States 29.5. A great part of this difference is found in Georgia's rural areas where the median age is only 24.1 years as opposed to an urban median of 27.2 years. The rural figure is, of course, a result of a much higher birth rate and a shorter life expectancy. In general, Georgia has more young people—38.9 percent of the population is under 18 years, compared to a figure of 35.8 percent for the U.S.—and less old people—7.4 percent over 65 years compared to a national figure of 9.2 percent.

The Negro population ratio has been declining steadily. In 1900, 46.7 percent of the population was colored; in 1920, 41.7 percent; in 1940, 34.7 percent; in 1950, 30.9 percent; in 1960, 28.6 percent. The Negro population living in rural areas has declined both as a percentage of the total population and also in absolute numbers. On the other hand, the Negro population in urban centers has increased. Projection of trends from 1950 to 2000 indicates that by the latter year the Negro population will amount to less than 16 percent of the total population, and that it will be concentrated almost exclusively in urban areas.

The crude birth rate in Geogria has consistently averaged 10 percent higher than the Nation as a whole. This differential, however, is found exclusively among the Negro race. The urban nonwhite population in Georgia has a birth rate 20 percent higher than the national average, while the rural nonwhite population has a birth rate 60 percent higher than the national average. As the Negro population concentrates more and more in urban centers, the differential between white and nonwhite birth and death rates will slowly disappear.

Georgia has both gained and lost population due to migration over the years. For the period 1951-58, Georgia lost 41 percent of its natural increase through migration; this was considerably less than the drain from migration during 1940 to 1950, when the loss was 48 percent. A projection of migration data indicates that migration will shift in 1980 from a loss factor to a gain factor in the State's population growth. Such a projection, of course, assumes a continuation of strong economic development.

Educational achievement is also increasing rapidly. With a minimum foundation program assuring certain minimum standards of expenditure; with a substantially improved certification program, an excellent construction program, and the inevitable passage of a Federal grant-in-aid act for education, the deficit existing between the South and the rest of the Nation with respect to educational achievement should disappear by the year 2000.

A Look at the Future Development of the State

Economic

A. The general exodus from farm to city will continue in Georgia with urban areas representing approximately 75 percent of the total State population in the year 2000.7/

B. Agricultural employment will continue to decline sharply, with productivity continuing to increase. The number of farms will continue to decrease, while the size, value per farm, and value per farm acre will increase. By 1976, agricultural employment will account for 7.3 percent of the work force and this will decline to 3.4 percent in 2000. Currently, agriculture accounts for 13.7 percent of the labor force.8/

C. Manufacturing will continue at approximately its present position as a user of labor comprising around 23 percent of the total work force by 2000. Substantial changes will probably occur in the nature of manufacturing employment as textile employment declines due to automation, while market-and-resource based industries, especially metal products, will increase rapidly. Metal working will represent approximately a quarter of all manufacturing by 2000.

D. Transportation, construction, trades, utilities, and government probably will retain about the same relative position in the future that they hold in today's economy.

E. Georgia and the Southeast have been gaining on U.S. per capita income since 1929, but by 1960 Georgia's per capita income was only slightly more than 72 percent of the U.S. average. It is expected that this gain will continue but at a slower rate, and that by the year 2000 will still be less than 85 percent of the national average. The increasing per capita income in Georgia will result from increased urbanization, industrialization, and a continuing rise in educational level. A reduction in low-paying pursuits such as farming and personal service also tends to increase the per capita income.

F. Farm woodland should decrease during the next 40 years while nonfarm woodland should hold its present position or increase slightly.

G. The Atlanta SMSA is expected to continue its position as a major growth area. In the words of one of the foremost economic statisticians in the South: "The city (Atlanta) has a broadly based, diversified economy. It is a regional city, and draws much of its economic strength from outside Georgia. Atlanta is the capital of Georgia and also a great commercial and industrial center. There are no natural barriers inhibiting growth. The result has been a city expansion of the entire 360° perimeter. Factors are mostly enhancing to its future growth. Therefore, we believe

7/Based on projections submitted to the Southeastern River Basin Commission by Professor John Fullmer, Georgia Institute of Technology.

8/Projections from National Planning Association, "Economic Projections by States for the Years 1976 and 2000," (Prepared for Outdoor Recreation Resources Review Commission, 1961), and from projections of Professor John Fullmer prepared for the Southeastern River Basin Study Commission (unpublished).

the city's long-run growth rate will be sustained." This authority projects the population of the Atlanta SMSA to 2,990,000 in the year 2000.

The National Planning Association estimates the population of the Atlanta SMSA in 1976 as 1.8 million and as 3.28 million in 2000; while the bureau of Labor Statistics estimates 1.6 million in 1976 and 2.9 million in 2000.9/ Since the BLS figure is closer to the author's judgement, it will be used in the remainder of this report. Table B-33 includes data on population projections for 1976 and 2000 as well as projections on per capita income and civilian employment for 1976 and 2000. Per capita income in the Atlanta SMSA is estimated by the NPA at $3,010 in 1976 and at $4,338 in 2000. Civilian employment should approximate 650-700,000 in 1976 and 1,150,000-1,200,000 in 2000.

Table B-33. Selected data for Atlanta SMSA, 1976 and 2000

Subject	Year	
	1976	2000
Population (000)	1,600	2,900
Per capita income.....	$3,010	$4,338
Civilian employment (000)..	650-700	1,150-1,200

Source: Population and civilian employment data from U.S. Bureau of Labor Statistics, "Projected Total Population and Total Labor Force for Selected Areas in the U.S. for 1976 and 2000." Per capita income figures from National Planning Association "Economic Projections by States."

Manufacturing in the SMSA will hold about the same relative position it has in 1960: trade activities, construction, and service activities (except for domestic services) will increase with the greatest increase occurring in professional services. Government employment should hold its present position.

The effects of each of the above conclusions on outdoor recreation are obvious.

(1) While farmland is theoretically available for recreation purchase, its increasing value per acre makes prohibitive the cost of purchasing tracts of sufficient size to permit effective use as recreation areas.

(2) For those remaining on the farm, per capita income will rise rapidly. If, as the National Recreation Survey indicates, outdoor activity increases as income rises, an increase in outdoor activities by rural residents may be expected.

(3) The decreasing amount of farm woodland means a withdrawal of land potentially available for recreation purposes. On the other hand, nonfarm forest land should hold its own, and assuming a continuation of the current practice of permitting certain types of recreation on private lands, this resource remains available for exploration.

(4) As more and more of Georgia's population concentrates in urban areas, and as new industry continues its practice of locating in those same areas, the amount and quality of space available for outdoor recreation in and around urban areas will become more and more scarce. This simply means that not only will the total area available for recreation decrease in and around urban areas, but it will also tend to be "chopped up" into sections that are not themselves large enough to provide park areas. The need to protect that green space now available and to hold it for future recreation use, was the prime reason for the Williams bill in the last session of Congress.

(5) A generally higher per capita income and a shift in manufacturing from textiles to metal products with a noncomitant rise in occupational status will mean a general increase in outdoor activity in the State at large and in the Atlanta SMSA.

(6) There are indications that the South will continue to suffer from an excess of unskilled labor. As new industry moves to the South it constructs new plants—modern automated plants—thus decreasing the amount of manpower needed.

(7) The decrease in agriculture and domestic services, activities now engaged in by large numbers of Negroes, will increase the income of those Negroes who move to other occupations.

Land Use Patterns

As the population of the Atlanta SMSA increases to its figure of approximately 1.6 million in 1975 and 2.9 million in 2000, expansion will be greatest along the major expressways and interstate highways. Expansion will probably be greatest in the next two decades to the northeast, northwest, and southeast. The rate of expansion to the north will decrease, however, as the metropolitan area reaches the southern extremes of the mountain area.

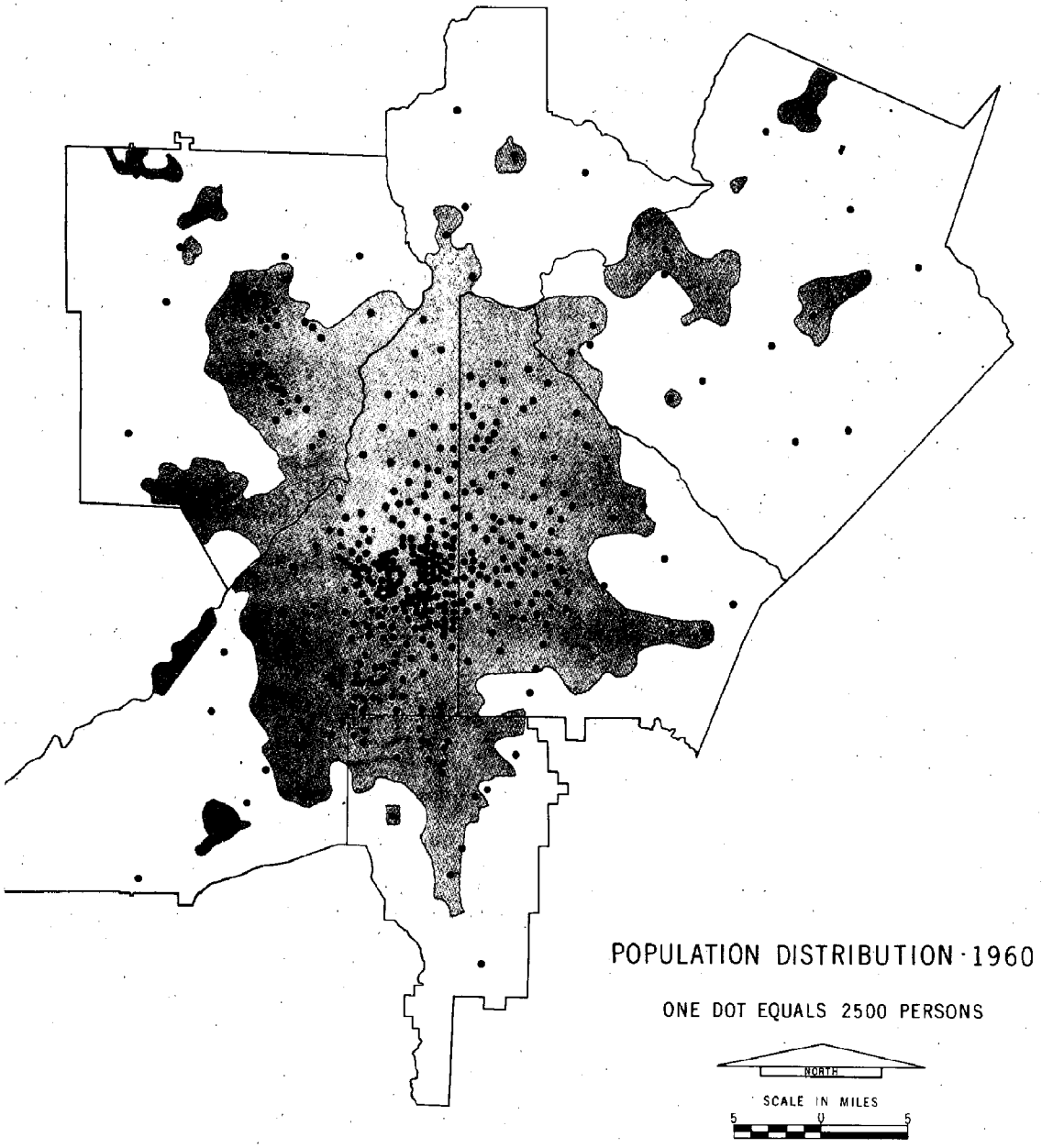
Figure B-3 illustrates the present areas of population concentration in the Atlanta SMSA. An overlay of the expressway system would tie the cluster to the central city in a dramatic fashion.

In the period following 1980, increasing expansion should occur to the southeast and to the southwest. The latter is an area that in decades before 1960 has shown a very slight increase, but long-range plans for developing water routes to the Gulf should change the southeast area to a popular industrial area.

The pattern of land use should follow that by large urbanized areas all over the country. The central city will continue to lose residents to the suburbs as it becomes more and more the commercial heart of the area. Existing residential areas close to the central city will probably take on more and more of the characteristics of the central city, and will, therefore, lose their suburban characteristics.

Industry, in particular light manufacturing, will expand along the expressways. Residential areas spreading further and further from the central city will take the shape of the now familiar cul de sac extending out from the expressways and connection routes. The six major arms of the interstate system will be connected by a series of circumferential belts permitting residents of any one section to travel

9/NPA, Economic Projections by States, p. 149, U.S. Bureau of Labor Statistics, "Projected Total Population and Total Labor Force for Selected Areas in the U.S. for 1976 and 2000," unnumbered table prepared for ORRRC, April 1961.



ATLANTA REGION METROPOLITAN PLANNING COMMISSION

FIGURE B-3

relatively easily to any other section of the city or to the downtown area. A rapid transit system now in the planning stage, will result inevitably in the exclusion of private vehicles from downtown areas. Present plans call for high-speed busses for a rapid transit system, but these will doubtless be replaced with newer forms of transportation such as the monorail, or the air train (a vehicle floating a few inches from the ground and traveling at very high speeds).

Present type industrial districts will most probably be unable to withstand the continuing pressure of industrial expansion and will evolve into a pattern more similar to the sector concept of city growth. The year 2000 should therefore present a picture of a metropolitan area with a less densely populated central city than is found in 1960. Arms will project from this central city in six directions to a distance of 35 to 40 miles in the north and 40 to 45 miles in the south. The area between these arms will be essentially residential in character with the subdivision remaining as a common symbol. Subdivisions now existing close to the central city will have either disappeared or will be comingled with commercial and industrial properties.

The amount of land devoted to farming in this ever-widening metropolitan area will continue to shrink rapidly. Farm land cannot compete in value with either industrial or residential values. Thus, those areas within 50 miles of downtown Atlanta that are now utilized for farming will disappear.

Residential areas extending out from the arms of the expressways probably will not take on the characteristics of Levittown. Instead they should tend to consist of a relatively small number of homes arranged in the now familiar circle. Residential lot sizes should be approximately the same as they are in 1960 unless dramatic break through in utility services make larger lots possible.

The shopping center pattern already set in the Atlanta SMSA will probably continue. As residential areas spread out from the central city, additional shopping centers will be established. In the first half of 1961 over one-half of every retail dollar in the metropolitan area was expended outside the central city. This trend should continue as retail outlets continue to desert the central city in moves to the suburbs. Every major department store and chain food store has now established branch outlets in the growing number of shopping centers.

Wholesale trade will continue strong in the downtown area because of the transportation advantages gained. Almost certainly wholesale distribution subcenters will be established along major expressways.

Finance, professional, and utility operations, along with central business headquarters will dominate the downtown area.

The pattern of growth described above, with industry spreading along the major highways and subdivisions extending out from those highways will result in large areas of open space that will be available for recreational use. The danger inherent in this pattern is that these spaces, though large in the aggregate, will be so chopped up by highways, commercial enclaves, and small subdivisions, as to make large park areas impossible. Action to preserve these open spaces must be taken soon if it is to be successful.

The concept of the green belt surrounding urbanized areas is not tenable in the Atlanta situation. Such a concept envisions a city spreading rather uniformly outward in a series of concentric circles. Atlanta is not growing in this manner and there is little evidence that its pattern will change. The sector theory of city growth comes closer to meeting the pattern set in Atlanta but it too is outmoded by the great changes brought by a system of high-speed expressways.

Trends in Regional Culture

All evidence available points to a diminution of the existing differences in regional culture patterns in the United States. The many factors influencing this trend toward homogeneity include: (1) increased mobility of American residents particularly among the growing number of young educated persons; (2) the tremendous impact of television bringing all sections of the Nation into every person's living room; (3) the increasing standardization of physical vestments and tastes caused by the spread of chain stores; and (4) the overwhelming importance of Federal grant programs that establish minimum standards of health, welfare, and security.

Of the above factors, that which is most important in the South is the Federal grant program. The South's rise from its position as the "Nation's number one economic problem" has been accompanied by rising standards of health and welfare due almost exclusively to Federal "intervention." The inevitable passage of a Federal aid-to-education act will complete the cycle that began with the passage of the Land Grant College Act in 1862. An education act will provide the means of meeting the South's greatest single defect today—an education median far below that of other sections of the country.

Georgia expends a greater portion of its total revenue on education than do 42 of the 50 States; yet the schools in this State are tragically inadequate in meeting the needs of a rapidly increasing population. The 12-year elementary and secondary school system is less than a decade old in Georgia, and while the one-room school is rapidly disappearing, its vestigial remains continue to hang on in many rural areas. The exodus from rural areas to urban centers has completely disrupted the Georgia education picture. While children go to school in shifts in some cities, fine new school buildings stand practically vacant in some rural counties.

With the passage of a Federal aid-to-education act, first for construction purposes, then for supplementing teachers' salaries, will come Federal minimum standards in teacher certification, curriculum composition, and other aspects of Federal aid. The net result of such standards will be an uplifting of the entire educational structure to a point where by the year 2000 the State of Georgia, as well as the Atlanta metropolitan area, should not vary greatly, if at all, from the national pattern. It can be predicted, therefore, that recreational preferences, based on differences in educational achievement, should be essentially the same in Georgia as in every other section of the United States.

Other cultural differences found in the South, such as the traditional large southern family, the relative

absence of mobility, the intensity of religious activity, will probably decline in the future. The differences now existing between the South and other sections will decrease as the urban trend continues in this region. Size of family, for example, should approximate the national average by 1980, since the greatest difference between Georgia and the rest of the Nation at present is found in rural areas.

If it can be assumed that a greater degree of homogeneity will prevail among the various sections of the country with respect to demographic characteristics, there appear to be two very important factors that may well distinguish the South from other sections of the United States.

The first of these factors is associated with the Negro problem in the South. Data to substantiate predictions about the future of the Negro in the South are completely lacking. In their absence one is forced to resort, with many misgivings, to the judgement of those who have observed the southern scene for some time. Based on such judgements, it can be predicted that the Negro problem will not be solved in the South by the year 2000. While great strides have been made in raising the economic and social status of the Negro in Georgia, he still remains in a definitely inferior position.

The decreasing number of Negroes engaged in agricultural production and domestic services will result in a higher income level for this race, but the concentration of Negroes in urban areas, and in particular in the Atlanta area, will serve to intensify rather than mollify the conflict between the races.

One should draw little encouragement from the victories won to date in the struggle of the colored race against the barriers of segregation. While major victories have been won, they have not occurred in areas of great sensitivity. For example, the integration of the city of Atlanta's golf courses was peaceful almost entirely because of the insignificant number of Negro golfers. Had there been thousands of Negroes anxious to participate in golfing, the end result would have been the same, i.e., the integration of the municipal golf courses, but the effects would have been radically different. It can be posited that a wholesale influx of Negro golfers would have probably resulted in either a closing of the golf courses or in an exodus from the courses on the part of the whites.

A pattern of recreational use has already developed in Atlanta that is similar in many ways to the "block-busting" that occurs in most northern and some southern cities. As the colored section in the downtown area spreads, an exodus of whites occurs from those neighborhoods into which the Negroes move. The inevitable result of this spread is that white playground areas tend to become surrounded by mixed or colored neighborhoods. When this occurs, the end product is a transfer of the playground from white to colored status. Within the past 12 months, two previously all-white playgrounds in the city of Atlanta have changed status in this manner.

At the present time Negro recreation facilities in the city of Atlanta are practically equal to the white in most instances. What the colored race lacks badly, what Atlanta and Atlantans lack, are parks in the downtown area and green spaces in public housing facilities. At the State level, Negro outdoor recreation facilities are inadequate. For a race that constitutes 28.6 percent of the total population, there are only five separate parks and two areas in white parks; but raw data do not give a true picture of the adequacy of Negro outdoor parks. Negro parks, for example, have no overnight facilities, no group camping, only one has a restaurant and only four have boating and swimming facilities. Of the 54,849 acres of State park property, slightly less than 2,000 acres (less than 4 percent) are reserved for Negroes.

What the future will bring can be only a matter of conjecture. At present, Negroes in Atlanta have instituted legal proceedings to integrate city parks. Opinion among veteran observers is unanimous in believing that if successful, this action will result in closing all swimming and picnic facilities. Opinion is just as unanimous that an attack on segregated State parks will have the same result. How long such a closure would remain effective may be judged in part by the situation in Virginia.

The Virginia Seashore State Park, probably the most popular of all State facilities, was closed in 1956 as a result of a desegregation order. Attempts to lease the park were blocked by an injuctive proceeding. The park remained closed until 1961 when it was reopened but only for walking and riding purposes. Swimming, camping, and picnic areas are still closed, and opinion in Virginia is strongly against reopening these facilities any time in the foreseeable future.

If Virginia's behavior is any guide, it can be anticipated that Georgia's park system will be disrupted for years in the event of integration. Certainly new park acquisitions and capital expenditures in present parks are both kept at a minimum as a result of the ever-present specter of integration.

The Negro problem slides easily into the second major factor that distinguishes the South from other sections. It is traditional in the South for upper income and, increasingly of late, for middle income groups to purchase private recreation facilities in the mountains or on the shores of private or public reservoirs. The proximity of Lake Allatoona and Lake Lanier has increased this practice for residents of the Atlanta SMSA. While data to substantiate this thesis are not now available, it seems probable that the closing of State parks would not be felt as strongly by those who traditionally make decisions in Georgia as it would be felt by the low income groups.

While the Negro's status will doubtless improve in the South, it would be optimistic in the extreme to expect his assimilation into the traditional southern culture any time in the near future. Should the courts force an end to segregation in State parks, attempts will first be made to circumvent integration by lease or sale of the parks, then closure will be ordered. Since those persons with the greatest political influence in this State have private recreation resources, or are rural residents whose demand for outdoor recreation is low, the pressure to reopen will be resisted for many years.

Rising Demand for Recreation Facilities

Projecting trends is a tricky business under any set of circumstances. Demographers who, as late as

the 1930's, were predicting that this country's population would peak out at something around 175 million have, ever since, been revising their estimates upward often with unseemly haste. Much the same has been true of economic forecasters who have been wrong more often than right as they attempt to predict the intermittent curves of the GNP and its components.

If population projections are dangerous, projections of recreation demand or even more so. The absence of accurate data on past preferences and habits makes difficult the establishment of any base points from which to work. Of like importance is the fact that the segment of outdoor activities that require expenditures for equipment such as camping, boating, water skiing, some types of fishing, and hunting, are often subjects of fadism. All three of these factors require of the researcher a knowledge that he is operating in an area not yet susceptible to precise mathematical calculations.

If it can be assumed that relative peace prevails during the next 40 years (relative in this sense assumes a continuation of the cold war at its present temperature level—no hotter and not substantially colder), and that the economy of the country improves in a relatively smooth ascending curve, it can be predicted that the demand for outdoor recreation in the Atlanta SMSA will triple its present rate of approximately eight user-days per capita. 10/ On the basis of the rate of increases in the past and a continuation of the present move of the population to urban areas, a tripling of demand is a very conservative figure. 11/ Assuming a population of 2.9 million for the Atlanta SMSA in the year 2000, 12/ a figure of 25 user-days per capita represents the enormous total of 72,000,000 user-days by the turn of the century.

This extremely large figure needs some interpretation. It should not be read as implying that 72 million persons will descend on outdoor resources from the Atlanta SMSA. The National Recreation Survey, the Survey Research Center survey, and the Buford onsite study all demonstrate with varying degrees of conclusiveness that single-purpose visits to a recreation area are rare indeed. Thus, an individual, or more appropriately a family, will for example, visit a State park to camp, picnic, swim, boat, and fish. In any projection of user demand, such a family is, in effect, counted five times. While it is true that theoretically all those who participate in an outdoor activity might wish to engage in the same activity at the same time, the probability of this happening is almost nil.

It is apparent, however, that regardless of how one rationalizes recreation figures, there will be a very large increase in the demand for outdoor recreation in the Atlanta area. As per capita income, educational level, and occupational status increase, the rate of participation in outdoor activities will certainly increase even if the total resources available for such activities remain fairly constant. Research on the question concerning the point at which a resource is so crowded that people will look elsewhere for their recreation is too uncertain at present to permit valid conclusions to be drawn. While it can be assumed that such a point does exist, the experience of such divergent areas as Jones Beach and Yosemite National Park indicates that the average individual will accept extremely crowded conditions at his favorite recreation spot before he rebels to the extent of staying away. 13/

What is happening in Georgia is not at all unique. More and more people have achieved an income level that permits more funds to be expended on recreation. Unfortunately, the overwhelming majority of these people participate in outdoor activities almost exclusively in the summer. Thus, in Georgia, at least 80-85 percent of all visits to major outdoor areas occur during the months of June, July, and August. To make the problem of recreation planning even more difficult, demand even during the summer months is concentrated largely on weekends. The result is that facilities that are overcrowded on Sundays in particular, lie relatively unused during the week. Many trips were taken to various parks to test this thesis. Without exception, Sunday visits to State parks, Corps reservoirs, and scenic areas in the national forests, brought back reports of serious overcrowding. Yet, repeat visits on any weekday showed that facilities outside the boundaries of the Atlanta SMSA were being used at approximately 30 percent of capacity.

Checks of campsites and cabin rentals indicate that the pressure on overnight facilities is also essentially a weekend phenomenon. An increasing number of persons arrive at the park or forest on Friday evening and stay until Sunday evening. Visits to campgrounds during the week invariably resulted in reports of only light pressure on overnight facilities.

ORRRC studies on vacation and leisure time indicate no substantial changes in the workweek or in vacation schedule. 14/ In essence these projections indicate a workweek of approximately 30 hours spread over 5 days, and a vacation schedule keyed

10/ The figure of 8 user-days was arrived at by adding the total visitation figures for all recreation areas within a 75-mile radius of Atlanta and allocating these figures to the Atlanta SMSA and other areas on the basis of estimates, observed records and licenses, and discussions with private and public officials. Using this method, the Atlanta SMSA showed a gross figure in 1960 of approximately 8 million user-days. The author would be the first to admit that this figure is not susceptible to a close audit, but it does represent our closest estimate.

11/ The figure of 25 user-days per capita was also arrived at by the Southeastern River Basin Study Commission for their target year of 2000 for the eight river basins under their jurisdiction.

12/ ORRRC and Southeastern River Basin data agree substantially on the figure of 2.9 million.

13/ There are some indications, in fact, that many people enjoy a crowded recreation area rather than a quiet place in which they are alone. A great deal of research needs to be undertaken before any valid conclusions can be drawn concerning recreational preferences. The NRS and the SRC reports represent only a narrow beginning.

14/ See ORRRC, "Leisure Time in the U.S. in 1976 and 2000," Working Paper No. 19, May, 1961

to the 3 summer months.15/ If these projections are valid, the same uneven demand with great peaks on the weekend now observed will continue. Three questions must be raised concerning this problem.

1. Does the projection of vacation time period take into account the increasing interest in suggestions for changing the traditional 9-month school year to one that operates on a four-quarter basis?16/ There is growing criticism of a system that permits a multimillion dollar capital plant to sit vacant for 25 percent of the year, and then to utilize "double shifts" during the regular school term. Pedagogists also question the loss to the student when his 9 months of activity are followed by 3 months of inactivity.17/

Some interesting models can be constructed in this area that are plausible and that would have a tremendous impact on outdoor recreation. Two examples should suffice to demonstrate what is meant.

> A. Assume a system in which children go to school 12 months a year with a vacation period of 1 month following each 3 months of school. Thus, a child would be in school during the months of September, October and November, and on vacation during the month of January. Summer vacations would then be limited to a month. The effect on outdoor recreations of such a system would differ for families with and families without school children. For those with school children, the effect of the system would be to concentrate a fantastic demand on summer vacation facilities for 1 month. Additionally, there would probably be an increased interest and participation in cold weather outdoor activities.
>
> B. Assume a system in which the school system operates 12 months of the year with one-quarter of the school population on vacation each quarter. Pedagogically this system would have no advantage over that now operating, but it would increase the capacity of all schools by one-fourth and would mean that school facilities would be in operation 12 months of the year.
>
> The effect of this system on outdoor recreation would be great indeed. Industrial vacations in the United States are very closely linked to the school vacation. To adopt a system such as described above would necessitate a complete revision of industrial vacations, and would serve to spread the pressure on outdoor facilities more evenly over the year, requiring again a wholesale revision in the current recreation program now tied directly to warm weather activities. Conversely, such a system would almost certainly increase the amount of weekend activity during the summer months.

In any case, long-range plans for outdoor recreation should be drawn only after close consultation with policymakers in the field of education.

2. The second problem that must be raised is tangentially related to the first. Serious questions can be raised about any program designed to meet a demand felt only on weekends. If school systems are criticised for permitting capital structures to sit vacant one-quarter of the time, what criticism could be directed against park facilities that are practically unused over 90 percent of the year?

The problem of severe fluctuations in the demand curve apply to day-use as well as overnight facilities. Picnic tables represent a good example of this category. One gets the impression from demand curves that the acreage of outdoor recreation areas must be literally covered with picnic tables to satisfy all those who wish to engage in this favorite form of relaxation. Yet visits to recreation areas during the week find empty picnic tables starkly demonstrating the peaks and valleys of user-day demand.

3. Still another problem alluded to earlier in a different context faces recreation planners. In an earlier chapter, reference was made to the fact that Atlanta's park system is increasingly used by persons from outside the city, outside the metropolitan area, and even at times by residents from outside the State. To attempt to measure the capacity of Atlanta's parks to meet an increased demand on the part of its own residents is impossible without knowing how many nonresidents will use these same parks.

Likewise, the capacity of existing and planned State and Federal areas to meet increased demands of residents of the Atlanta SMSA, is dependent in large part on how many persons from outside the study area also wish to use these facilities. Assume, for example, that the figure of 72 million user-days is valid for the Atlanta SMSA. Assume further that with intensive development, existing resources (particularly the two national forests) could accommodate this volume. Then, obviously this entire plan could be rendered useless, if by virtue of its development, the Chattahoochee Forest became very attractive as a vacation resource for large numbers of persons from outside the study area.

This interdependency of recreation areas is mentioned repeatedly in the Perloff and Wingo paper, "Urban Growth and the Planning of Outdoor Recreation," where it is noted that persons desiring to use outdoor facilities do not respect political boundaries. To attempt to meet this problem by some division of responsibilities such as national areas for vacationers,

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15/ Precise figures for the year 2000 are a workweek of 30.7 hours and a concentration of 67.4 percent of the population taking vacations during the months of June, July, and August. Projections on vacation periods were not extended beyond 1976. These figures may be compared to a workweek of 38 hours in 1959 and a vacation schedule that concentrated 67 percent of vacation time in the 3 summer months.

16/ For an interesting and provocative study of the relationship between education and outdoor recreation see George D. Stoddard, "The Merging Pattern of Outdoor Recreation and Education—Problems, Trends, and Implications" (Working Paper prepared for ORRRC, July 10, 1961). Unfortunately, Professor Stoddard devotes most of his paper to a presentation of materials on the use of outdoor camps as a part of the regular school curriculum. On the matter of change in the length of the school term, he dismisses this as having been tried with poor results because of parent reaction.

17/ Certainly the need for a 9-month school term with free time in the summer was necessary when children were needed to help on the farm during the growing season. To continue it at present, however, seems indefensible.

State areas for weekend trips, and local areas for day-use facilities seems to ignore a very common human trait of using whatever is available where it is available. Thus, residents of the Atlanta area will doubtless continue to use certain State parks as day-use facilities, and will use the Chattahoochee Forest as a day-use, weekend-use, and vacation area regardless of what this does to recreation planning.

What is needed then is not so much a system with time designations, i.e., annual vacations, weekends, day-use, but rather substantial multiple purpose areas within reasonable commuting distance of major urban areas. Perloff and Wingo note that the need in the future should not be thought of in terms of beautiful scenic areas, but in terms simply of large acreages of land.

The Atlanta SMSA appears to be particularly fortunate with respect to future needs. Not only does it have extensive public areas relatively close to its boundaries, but those areas are very scenic. Additionally, the absence of large urban areas close to north Georgia would indicate that an invasion by gross numbers of out-of-state visitors to the Chattahoochee is unlikely. 18/ With the extensive changes in transportation forecast in the ORRRC study on this subject, however, residents of urban areas in the Midwest and the Middle Atlantic States may begin to use north Georgia as a vacationland.

Since the area of national planning of recreation resources is beyond the scope of this study, it can only be suggested that in a nationwide plan the interdependency of all recreation sources, Federal, State and local, be given a major place. With this request recorded, the following recommendations are made for the future of outdoor recreation in the Atlanta SMSA.

Future Needs of the Atlanta SMSA in the Areas of Outdoor Recreation

Following the general format used throughout this study, recommendations in this section will be presented according to the level of government involved.

Local Facilities

Two major steps must be taken at the local level if the rising demand for day-use facilities is to be met in the Atlanta SMSA. Each of these needs has been discussed in some detail in early sections of this report and will, therefore, be summarized here.

Downtown space

While praise is due the excellent work of the Atlanta Department of Parks and Recreation, its activities like those of recreation agencies in surrounding urban areas, are restricted too much to playgrounds and indoor programs. While no one can criticise a well organized playground program, it must be recognized that this type of program is aimed primarily at children or the relatively few adults who participate in the arts and crafts programs. What is sadly lacking in downtown Atlanta, and increasing in such metropolitan area cities as Marietta, East Point, and Decatur, are green wooded areas with paths, benches, gardens, arboretums, riding trails, and the like.

Acquiring the land for downtown areas will be expensive, but a city that can afford to utilize over half of its area 19/ for parking lots and garages can certainly provide green areas for its residents. Both the urban renewal acts and the new omnibus housing acts provide means of financing such spaces on a limited basis.

In addition to providing green, open spaces downtown, recreation areas for public housing projects are long overdue. Since it appears that public housing, as a part of urban renewal projects, will be a continuing part of the American scene, it is recommended that in all future developments, parks and recreation areas be provided as an integral part of the plan. Current obstacles in Federal legislation to this type of development should be removed and park areas should be required before any funds are made available for housing projects. If outdoor recreation has beneficial results on its participants, then surely those economic unfortunates who are forced to live in public housing can profit from it at least as much as the suburbanite whose home sits on a half-acre wooded lot.

Regional parks

Of equal importance to the Atlanta SMSA is the need for extensive regional parks. Too frequently in the past, park planning in all urban areas has consisted of a land use survey that gives highest priorities to industrial and residential properties, ascertaining what remains and designates that as park or recreation areas. The areas designated for parks are then zoned for recreation, but are not rapidly developed. The resultant in too many cases has been an increase in the value of the land set aside for parks as the consequence of the expansion of industrial use property. Once the recreation property has appreciated in value, the cry is raised that the city cannot afford to set aside such valuable land for such an esoteric purpose. A film of past experiences would thus reveal the designation of park land fairly close to the central city; the inundation of that land by industrial districts, the designation of new park land further from the city and its inundation. This process repeated ad infinitum results in parks being established not where they are needed, but where the land is not useful for any other purpose.

Because of the inability of a city or even a metropolitan area to finance the acquisition of large tracts of land relatively close to the central city it is the recommendation of this study that the Federal Government and the State of Georgia jointly finance the acquisition of land for three major regional parks within the limits of the present SMSA. Major parks

18/ The major urban areas within reasonable distance of the Chattahoochee Forest have large forest reserves of their own.

19/ At the present time over 54 percent of the area of the city of Atlanta is utilized for some type of parking facility.

in the meaning of the phrase as used here would constitute a minimum of 5,000 acres each.

While the location of such parks should be decided upon by common agreement of the governments involved, a strong suggestion is made here that serious consideration be given to the establishment of one park along the eastern bank of the Chattahoochee River where that stream forms the western boundary of Fulton County. A park of the nature envisioned here would extend some 300 to 500 yards back from the river's edge, and would form a strip running parallel to that edge. Development within this park and in the other two required parks should be imaginative and should look to the needs of a population that will increasingly consist of large numbers of young and old people.

The financing of regional parks should be a joint venture. Acquisition costs should be borne by the Federal and State Governments on a pro rata share of something approaching the 50-50 ratio now in use for most grant programs. 20/

The cost of development and maintenance would most appropriately fall upon the shoulders of the constituent governments of the metropolitan area.

The actual operation of regional parks would be under the control of a regional parks commission comprised of representatives of each of the five counties plus an additional representative from the city of Atlanta. The present Metropolitan Planning Commission represents a model that might be used in establishing the structure of the governing body. Powers and duties of the parks commission should clearly establish this body as the policy-making mechanism with the power to hire an executive director to administer the day-to-day operation of the required parks.

A fee schedule should be established for all facilities in the regional park. Such a schedule should differentiate between residents and nonresidents of the SMSA. The schedule should be sufficiently high to discourage the use of the parks by large undisciplined groups, but certainly low enough to attract lower income families. The precise fee schedule should be calculated so as to finance a large part of the special facilities located in these parks.

In proposing the use of a metropolitan-wide commission, the author is aware of the conflict between this suggestion and his criticisms of the Jekyll Island Authority as being outside the normal chain of command. There is, however, a great difference between the two structures. There is in being a State Department of Parks capable of administering a facility such as Jekyll Island; there is no such agency in existence in the metropolitan area of Atlanta. Since it would be the epitome of political naivete to suggest a consolidation of existing governments in the Atlanta SMSA, some joint arrangement is necessary before a metropolitan-wide program can be undertaken. Additionally, under the plan suggested above, parks' commissioners would serve as representatives of the governing bodies of the local units and thus would be responsible to elected officials.

20/ This type of program does not fit the requirement of existing Federal aid legislation, and would thus necessitate new action by Congress.

Action on the proposal for regional parks must be undertaken at the earliest possible date as the amount of available land within the Atlanta SMSA is rapidly dwindling. Data for 1960 on land in farms as a percentage of total land area in each of the five counties comprising the SMSA show DeKalb County with 20 percent, Clayton County with 26.7 percent, Cobb County with 30 percent, Fulton County with 33.9 percent, and Gwinnet County with 42.5 percent. This percentage is dropping rapidly and as it drops the price of that land remaining will increase proportionately. In 1954, over 52.1 percent of the total land area of the SMSA was listed as farmland. Six years later not one county listed as much as 50 percent of its land under the category of farmland. Unless action is taken almost immediately to preserve the 15,000 acres recommended above, the cost of acquisition will increase to prohibitive heights.

State Facilities

Recommendations for future State programs in State facilities are partially negative and partially affirmative. In a negative sense the State should neither purchase nor accept as gifts small tracts of land or water for development as State parks. Many existing parks are much too small (10 comprising less than 100 acres) for extensive development either as day-use or weekend facilities.

Those State parks that are either already within the limits of small towns or that are so close to a small town that they are essentially local parks, should be turned over to local authorities for administration. In future acquisitions care should be taken to see that parks are so located as to be accessible to residents of urban areas but not located in urbanized areas.

Any further use of the authority device as a means of financing and administering additional state parks should be discouraged. All too frequently authorities in order to amortize revenue bonds must establish a fee schedule so high as to preclude the use of the facilities by a majority of the State's citizens. Additionally, the authority serves to proliferate the numbers of agencies involved in recreation making planning more difficult, and making the task of assigning responsibilities almost impossible.

The potential conflict between the State Game and Fish Commission and the State Department of Parks can be prevented if early action is taken to define the respective jurisdictions of the two agencies. The State Game and Fish Commission should retain jurisdiction over the propagation of fish and game, should enforce hunting and fishing regulations, and should cooperate with the State Department of Parks and the State school system in educational programs, but the planning and administration of recreation programs should be the sole prerogative of the State Department of Parks.

With respect to overall administration, a major decision must be made with respect to the efficacy of removing the Department of Parks from the Division of Conservation or making the legal fiction a fact by giving certain administrative control over State parks to the Division of Conservation. Control in this sense includes record keeping, personnel

recruitment and training, central control of financial transactions and records. Under current conditions existing in Georgia, this report recommends the establishment of a separate department of parks in name as well as in fact.

Facilities in certain developed State parks located within a relatively short distance of the Atlanta SMSA should be expanded. Major expansion in camp and trailer grounds should be undertaken at the Fort Yargo (now relatively undeveloped), and Hard Labor Creek parks. These two parks comprise substantial acreages (Fort Yargo covers almost 1500 acres, while hard Labor Creek comprises over 5,500 acres), and both are easily accessible to Atlantans on major State highways. While it is the contention of this report that the Chattahoochee and Oconee National Forests will become the major camping areas of the State in the future, the State should retain a substantial share of the weekend camper in its park system. Fort Yargo has a great disadvantage in its lack of surface water for swimming but site studies for small impoundments should be made here at once. 21/

Red Top Mountain State Park lies so close to the SMSA, and in particular to the Marietta urban area, that it should be developed almost exclusively as a day-use facility, in contrast to a facility that would attract large numbers of overnight visitors. As noted above with reference to the proposed regional parks, the SMSA attracts such a large number of visitors from beyond its boundaries that most State parks here are acceptable where they are not acceptable in smaller urban areas. The possibility of utilizing a portion of this park as a demonstration area by the State Department of Education in developing camping programs in the public schools should be explored.

Day-use facilities at Senoia Park and Indian Springs need extensive developments. These two parks are located very close to large urban areas and will continue to increase as popular recreation spots for picnicking and swimming. Senoia Park's very small area (less than 10 acres) precludes its use for any other type of recreation. Indian Springs on the other hand, can be developed more extensively for hiking and nature walks. Group camping should be emphasized at Indian Springs. If funds are available for the acquisition of land, consideration should be given to increasing the area of Senoia.

The small size of Vogel, Unicoi, and Amicalola parks militates against any substantial expansion of overnight facilities. In each case, the scenic attractions of these parks should be made more readily accessible by hiking trails and interpretive programs. Rustic cabins and some additional campgrounds should be added to existing facilities.

The F. D. Roosevelt State Park, although outside the immediate study area, will obviously continue to increase in popularity. The park is large enough (over 5,000 acres) to stand extensive development. It is, at present, the most popular park in the Georgia system, will probably double its recorded number of visitors by 1976, and double again by the year 2000 if its facilities are expanded. Suggestions that portions of this park be sold or leased to private owners should be resisted, and every effort should be made to return the supervision of the park to the State Department of Parks.

Of the undeveloped parks, the one that will doubtless become very popular is Lake Sidney Lanier State Park. With a substantial land area fronting on the most popular lake in Georgia, and readily accessible to the Atlanta SMSA this park should attract almost 1 million visitors annually by 2000 if extensive public beaches, boat ramps, and picnic facilities are established.

New State parks to the north of the Atlanta SMSA should receive relatively low priorities in considering Atlanta's outdoor recreation needs. New areas should be secured on the Hartwell Reservoir to the northeast and extensive areas should be secured on the reservoirs to the south recommended below. In each case, extensive campgrounds should be planned as well as extended beaches and boat ramps.

Federal Facilities

While the major Corps of Engineers reservoirs should continue to attract more visitors than any other single type of recreation facility (user-days should increase by a minimum of 20 million on Lanier, Allatoona, Hartwell and Clark Hill), the area of greatest potential for comprehensive recreation development lies in the national forests, primarily in the Chattahoochee National Forest. Corps reservoirs will "out-draw" the Chattahoochee as day-use facilities devoted primarily to swimming, boating, and fishing, but, if outdoor recreation is to become a meaningful part of the education process, its future lies in that band stretching over 700,000 acres of North Georgia.

While commonly accepted recreation facilities such as picnicking, camping, hunting, and fishing must be provided in both the Chattahoochee and the Oconee Forests, it is recommended that more imaginative planning be undertaken in developing these areas. It is indeed unfortunate that practically every recreation area in Georgia is almost an exact duplicate of every other area. This is probably necessary on the limited acreages of State parks; it is not necessary in such extensive areas as the National forests.

While outdoor recreation planners are infinitely better qualified to speak on what can and cannot be done with large tracts of land, it seems reasonable to hope that new projects might be undertaken in developing the Chattahoochee. This is not a plea for the maintenance of wilderness areas; the exploding demand for outdoor recreation precludes the luxury of setting aside, as a sanctuary, a large portion of public land for the benefit of a very small portion of the public. Rather, this is a recommendation that much greater use be made of the national resources that abound in the mountainous areas of the Chattahoochee.

Let this area be developed with cabins and campsites fitted to the natural decor of the surroundings. Provide decent sanitation facilities, not the type that are so odious as to drive people from the forest.

21/ As this study was in the process of being completed, the State Department of Parks announced plans to construct a 125-acre lake at Fort Yargo, and to develop its camping and picnic facilities.

Separate the cabins and campsites with stands of trees. Plant plots of ground with flowers and shrubs that are suited to the soil and climate and ask vacationers to help in their cultivation. Stock the area with indigenous animals such as squirrels, deer, rabbits, and the like. Have highly trained personnel available to interpret the program. Invite the cooperation of schools in sending groups of children to live and learn the lessons of nature. Teach children and adults the meaning and sensitivity of the balance of nature. Encourage visitors to help in reforestation by planting a tree or a shrub with their name attached so that, year by year, they can watch it grow.

If a wrong has been committed in the use of national forests, it is not that they have been desecrated by overuse, but that they have not been used as a public resource. The basic claim of the National Park Service that its principal function is to preserve those unique resources that can never be duplicated or can never be replaced if lost, cannot, or at least should not, be used by the Forest Service. A stand of trees can be replaced if the ground upon which they grow is retained in public ownership. If outdoor recreation is actually, as well as legally, one of the multiple uses of national forests, then let it come of age and take its rightful place, not as an overgrown playground, but as an integral part of a comprehensive education system.

With respect to Corps of Engineers reservoirs, this report recommends a substantial increase in public areas including an extensive development of swimming areas with the paraphernalia such as beaches, dressing rooms, and sanitation facilities that accompany this activity. Public areas on corps reservoirs are too often restricted to boat ramps and launching facilities. While such facilities are necessary, they provide little for the person who wishes to swim and picnic.

Lake zoning must be undertaken on reservoirs. The growing conflict between those engaged in fishing, swimming, boating, and water skiing can be mitigated if steps are taken in the direction of operational zoning.

While not strictly within the purview of the corps, this agency should undertake a cooperative program with local units looking to the establishment of building codes and sanitation regulations on lands surrounding reservoirs. 22/ The lack of such sanitation standards can cause health problems since many of the residents use shallow wells and septic tanks, and the lack of building codes can result in dilapidated dwellings that detract from the attractiveness of the area.

The four major reservoirs to the north and east of Atlanta can, with the development of more public facilities, meet the needs of the Atlanta SMSA very well in those directions. To the south, the picture is not as favorable. Since the SMSA will doubtless expand southward in the future, it is the recommendation of this report that at least two reservoirs be established on the Apalachee River, Big Indian Creek, or the Little River. In the establishment of these reservoirs, serious consideration should be given to designating major sections to public use rather than disposing of land through the use of the bid system. 23/ Where possible, State and local authorities should be brought into the planning of such public areas in the very early stages of reservoir planning. Once established, public areas should be turned over to the State and/or local governments for administration.

Other Federal facilities within reasonable access to Atlanta, such as Kennesaw Mountain National Battlefield Park, and Ocmulgee National Monument, will probably continue to increase in popularity although they will be relatively insignificant in the total recreation picture. If new areas such as these two are planned, it is hoped that they will not be located, as are these two, so close to urban areas that they become little more than day-use facilities for some municipality.

Private Facilities

Public facilities cannot, and probably should not, bear the total burden of the increasing demands for outdoor recreation. Facilities such as Lake Spivey, Callaway Gardens, and Radium Springs will continue to increase in popularity as those who can afford their attractions, will for one reason or another, choose them over public facilities. 24/ Lake Spivey, in particular, because of its advantageous location and its numerous attractions, should become one of the most popular swimming and picnic facilities in the SMSA.

It is, of course, impossible for this report to recommend the development of particular private recreation facilities. There are, however, two matters that should be considered if public facilities are not to be inundated.

1. The State of Georgia and its local subdivisions should consider offering tax concessions to persons or groups interested in developing recreation facilities. There is precedent for this plan in the rapid depreciation schedule and other concessions offered to industries willing to locate in this State. Such concessions are based on the principle that the community and the State benefit appreciably more by the presence of the industrial plant than is lost by the tax dispensation. Since one of the factors normally listed as attracting business firms to a community is the presence of adequate recreation facilities, a program based on governmental aid in developing private recreation resources should be established. Any such program should, of course, be based on rigorous standards to be met by the facility. Georgia has little need for cheap, carnival-type resorts.

2. The public use of private forest land has a great potential in Georgia. The more than 2 million acres of forest land in the hands of business corporations

22/ Private power lakes already use such standards, and while the two (Corps of Engineers and private power companies), are not in any way analogous, the experience of these private corporations might be used as a guide in developing codes.

23/ In order to better carry out this recommendation, it is further recommended that the corps policies be changed to permit more liberal purchases of land surrounding the reservoir.

24/ While data to substantiate the thesis are not now available, there is reason to believe that as a family's income increases in Georgia, that family tends to turn from public facilities toward the private facility in seeking its recreation.

in this State represent an area larger than the combined public recreation lands of the Federal and State Governments. If the public statements of officials of industry, particularly the paper and pulp industry, are sincere, State and local officials should cooperate in agreeing to administer acreage set aside for public use. This method is particularly attractive in meeting certain local needs, and can, in some instances, fill a need for county parks. It also can go a long way toward meeting the demand for additional hunting areas.

It is doubtful that either of the above recommendations can be carried out under present State law. Since this is the case, it is recommended that a study be made pursuant to enacting legislation to the end of permitting tax concessions for the establishment of private recreation resources, and to the cooperative administration of public programs on private forest lands.

NEED FOR PLANNING

This study cannot end without a statement concerning the almost total lack of coordination on planning among the various levels of government currently engaged in recreation activities. This fact is so well known that it needs no documentation. Not only has there been practically no coordination between levels, but interagency planning at one level has also been conspicuously absent.

While interagency and interlevel jealousy and bickering may have been permissible in a day when the supply of outdoor resources was greater than demand, it is a luxury that cannot be afforded in the future. If the demand for adequate facilities is to be met, all agencies and levels of government must cooperate. Since no mechanism at present exists to perform the coordinating function, it is the recommendation of this report that a device similar to the Southeastern River Basin Study Commission be established on a continuing basis to aid in making studies at all levels of government and to see that those studies are translated into action. 25/

Pending the establishment of a planning and coordinating agency, it is recommended that there be an absolute moratorium on the disposal of any public lands—State, Federal, or local.

Finally, there appears to be a great need for training those persons who administer outdoor facilities. The well-known conflict, sometimes smouldering, sometimes active, between recreationists and conservationists has no place in an area with as extensive a future as has outdoor recreation. Cooperative training programs initiated at the Federal level and encompasing personnel from all levels of government should be undertaken at once. If there is a sincere belief in the validity of their program by those presently engaged in outdoor recreation, then let them get together and establish standards and criteria badly needed by a public that will, increasingly in the future, seek the pleasure and benefits of the outdoors.

25/ It is probably unnecessary to note that the suggested agency should include representation from the three levels of government and from private groups interested in outdoor recreation.

APPENDIX A

TABULAR DATA

Table B-34. Population of Georgia urban and rural: 1790-1960

[Minus sign (-) denotes decrease]

Census date	The State			Urban territory				Rural territory			Percent of total	
	Population	Increase over preceding census		Number of urban places	Population	Increase over preceding census		Population	Increase over preceding census			
		Number	Percent			Number	Percent		Number	Percent	Urban	Rural
Current urban definition:												
1960 (Apr. 1)	1/3,943,116	498,538	14.5	124	2/2,180,236	620,789	39.8	1,762,880	-122,251	-6.5	55.3	44.7
1950 (Apr. 1).....	3,444,578	320,855	10.3	106	3/1,559,447	....	....	1,885,131	....	....	45.3	54.7
Previous urban definition:												
1960 (Apr. 1)	1/3,943,116	498,538	14.5	120	1,963,012	536,806	37.6	1,980,104	-38,268	-1.9	49.8	50.2
1950 (Apr. 1)	3,444,578	320,855	10.3	4/103	4/1,426,206	352,398	32.8	4/2,018,372	-31,543	-1.5	41.4	58.6
1940 (Apr. 1)	3,123,723	215,217	7.4	78	1,073,808	178,316	19.9	2,049,915	36,901	1.8	34.4	65.6
1930 (Apr. 1)	2,908,506	12,674	0.4	64	895,492	167,633	23.0	2,013,014	-154,959	-7.1	30.8	69.2
1920 (Jan. 1)	2,895,832	286,711	11.0	59	727,859	189,209	35.1	2,167,973	97,502	4.7	25.1	74.9
1910 (Apr. 15).....	2,609,121	392,790	17.7	45	538,650	192,268	55.5	2,070,471	200,522	10.7	20.6	79.4
1900 (June 1)	2,216,331	378,978	20.6	31	346,382	88,910	34.5	1,869,949	290,068	18.4	15.6	84.4
1890 (June 1)	1,837,353	295,173	19.1	22	257,472	112,382	77.5	1,579,881	182,791	13.1	14.0	86.0
1880 (June 1)	1,542,180	358,071	30.2	14	145,090	45,037	45.0	1,397,090	313,034	28.9	9.4	90.6
1870 (June 1)	1,184,109	126,823	12.0	10	100,053	24,587	32.6	1,084,056	102,236	10.4	8.4	91.6
1860 (June 1)	1,057,286	151,101	16.7	9	75,466	36,472	93.5	981,820	114,629	13.2	7.1	92.9
1850 (June 1)	906,185	214,793	31.1	5	38,994	14,336	58.1	867,191	200,457	30.1	4.3	95.7
1840 (June 1)	691,392	174,569	33.8	4	24,658	10,645	76.0	666,734	163,924	32.6	3.6	96.4
1830 (June 1)	516,823	175,834	51.6	2	14,013	6,490	86.3	502,810	169,344	50.8	2.7	97.3
1820 (Aug. 7)	340,989	88,556	35.1	1	7,523	2,308	44.3	333,466	86,248	34.9	2.2	97.8
1810 (Aug. 6)	252,433	89,747	55.2	1	5,215	69	1.3	247,218	89,678	56.9	2.1	97.9
1800 (Aug. 4)	5/162,686	80,138	97.1	1	5,146	5,146	....	157,540	74,992	90.8	3.2	96.8
1790 (Aug. 2)	6/ 82,548	....	....	....	....	....	....	82,548	....	....	....	100.0

1/Barnwell Island, Beaufort County, S.C., ceded to Chatham County, Ga., by Federal action in 1958.
2/Includes 279,723 persons in urban territory outside urban places.
3/Includes 167,338 persons in urban territory outside urban places.
4/Revised since publication of 1950 reports.
5/Includes population of areas now in Alabama and Mississippi.
6/No population returned for that part of Georgia now in Alabama and Mississippi.

Source: 1960 Census of Population, PC (1) 12-A

Table B-35. Georgia population, by color and sex, for the State, urban and rural: 1930-1960

[Minus sign (-) denotes decrease]

Year and area	White		Nonwhite		Total all classes	Increase over preceding census		Percent distribution		
	Male	Female	Male	Female		Number	Percent	White	Nonwhite	Total all classes
1930										
State total	920,819	916,202	513,708	557,777	2,908,506	12,674	0.4	100.0	100.0	100.0
Urban	277,732	300,830	140,784	176,146	895,492	167,633	23.0	31.5	29.6	30.8
Rural	643,087	615,372	372,924	381,631	2,013,014	-154,959	-7.1	68.5	70.4	69.2
Rural nonfarm	200,184	200,341	97,122	101,648	599,295	111,933	23.0	21.8	18.6	20.6
Rural farm	442,903	415,031	275,802	279,983	1,413,719	-266,892	-15.9	46.7	51.9	48.6
1940										
State total	1,016,688	1,021,590	518,070	567,375	3,123,723	215,217	7.4	100.0	100.0	100.0
Urban	330,062	363,591	168,863	211,292	1,073,808	178,316	19.9	34.0	35.0	34.4
Rural	686,626	657,999	349,207	356,083	2,049,915	36,901	1.8	66.0	65.0	65.6
Rural nonfarm	245,193	243,810	95,268	101,678	685,949	86,654	14.5	24.0	18.1	22.0
Rural farm	441,433	414,189	253,939	254,405	1,363,966	-49,753	-3.5	42.0	46.8	43.7
1950 [1]										
State total	1,182,717	1,197,860	505,950	558,051	3,444,578	320,855	10.3	100.0	100.0	100.0
Urban	509,002	558,909	223,382	268,154	1,559,447	485,639	45.2	44.9	46.2	45.3
Rural	673,715	638,951	282,568	289,897	1,885,131	-164,784	-8.0	55.1	53.8	54.7
Rural nonfarm	346,838	334,023	117,532	124,303	922,696	236,747	34.5	28.6	22.7	26.8
Rural farm	326,877	304,928	165,036	165,594	962,435	-401,531	-29.4	26.5	31.1	27.9
1960										
State total	1,391,735	1,425,488	534,178	591,715	3,943,116	498,538	14.5	100.0	100.0	100.0
Urban	736,983	796,435	297,959	348,859	2,180,236	620,789	39.8	54.4	57.4	55.3
Rural [2]	654,752	629,053	236,219	242,856	1,762,880	-122,251	-6.5	45.6	42.6	44.7

[1] Data for 1930 and 1940 based on old urban definition. Effective 1950 data based on new urban definition.
[2] Rural nonfarm and rural farm breakdown not available.

Source: 1940, 1950, and 1960 U.S. Census of Population.

Table B-36. Percent distribution of Georgia population by color and sex for the State, urban and rural: 1930-60

Area and sex	1930			1940			1950			1960		
	All classes	White	Non-white	All classes	White	Non-white	All classes	White	Non-white	All classes	White	Non-white
State	100.0	63.2	36.8	100.0	65.3	34.7	100.0	69.1	30.9	100.0	71.4	28.6
Male	100.0	64.2	35.8	100.0	66.2	33.7	100.0	70.1	29.9	100.0	72.2	27.8
Female	100.0	62.2	37.8	100.0	64.3	35.7	100.0	68.2	31.8	100.0	70.7	29.3
Urban	100.0	64.6	35.3	100.0	64.6	35.4	100.0	68.5	31.5	100.0	70.3	29.6
Male	100.0	66.3	33.6	100.0	66.2	33.8	100.0	69.5	30.4	100.0	71.2	28.8
Female	100.0	63.1	36.9	100.0	63.2	36.8	100.0	67.6	32.4	100.0	69.5	30.5
Rural	100.0	62.5	37.5	100.0	65.6	34.4	100.0	69.6	30.4	100.0	72.8	27.2
Male	100.0	63.3	36.7	100.0	66.3	33.7	100.0	70.5	29.5	100.0	73.5	26.5
Female	100.0	61.7	38.3	100.0	64.9	35.1	100.0	68.8	31.2	100.0	72.1	27.9
Rural nonfarm	100.0	66.8	33.2	100.0	71.2	28.8	100.0	73.7	26.2	100.0	(1)	(1)
Male	100.0	67.3	32.7	100.0	72.0	28.0	100.0	74.7	25.2	100.0	(1)	(1)
Female	100.0	66.3	33.7	100.0	70.6	29.4	100.0	72.8	27.1	100.0	(1)	(1)
Rural farm	100.0	60.7	39.3	100.0	62.7	37.3	100.0	65.6	34.3	100.0	(1)	(1)
Male	100.0	61.6	38.4	100.0	63.5	36.5	100.0	66.4	33.5	100.0	(1)	(1)
Female	100.0	59.7	40.3	100.0	61.9	38.1	100.0	64.8	35.2	100.0	(1)	(1)

[1] No data available.

Source: 1940, 1950, and 1960 Census of Population.

Table B-37. Age, by color, for Georgia: 1930-1960

[Percent not shown where less than 0.1]

Age (years)	1930			1940			1950			1960		
	All classes	White	Non-white	All classes	White	Non-white	All classes	White	Non-white	All classes	White	Non-white
Total, all ages	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Under 5	10.9	10.9	10.8	10.0	9.5	11.0	12.3	11.6	13.7	12.0	11.0	14.5
5 to 9	12.2	12.0	12.5	10.2	9.7	11.3	10.3	9.8	11.6	11.2	10.3	13.4
10 to 14	11.7	11.3	12.3	10.4	10.1	11.1	9.0	8.4	10.5	10.4	9.9	11.8
15 to 19	11.5	10.9	12.5	10.5	10.3	10.9	8.5	8.1	9.3	8.4	8.1	9.1
20 to 24	9.9	9.6	10.5	9.8	9.5	10.2	8.0	8.1	7.9	6.9	7.0	6.5
25 to 29	7.7	7.7	7.7	8.9	8.8	9.1	8.0	8.4	7.2	6.4	6.7	5.6
30 to 34	6.3	6.6	5.7	7.6	7.9	6.9	7.4	7.8	6.5	6.5	6.9	5.5
35 to 39	6.4	6.5	6.2	6.7	6.8	6.5	7.4	7.5	7.1	6.6	7.1	5.4
40 to 44	5.2	5.4	4.8	5.6	5.8	5.2	6.4	6.6	5.8	6.2	6.6	5.4
45 to 49	4.6	4.8	4.3	5.0	5.3	4.5	5.3	5.4	5.0	5.8	6.0	5.3
50 to 54	4.5	4.5	4.6	4.3	4.5	3.8	4.4	4.6	4.1	5.0	5.2	4.4
55 to 59	2.9	3.2	2.5	3.3	3.7	2.6	3.7	4.0	3.0	4.1	4.3	3.7
60 to 64	2.3	2.4	2.2	2.7	3.0	2.1	2.9	3.2	2.3	3.2	3.4	2.7
65 to 69	1.6	1.7	1.4	2.4	2.4	2.4	2.8	2.7	2.9	2.9	2.9	2.7
70 to 74	1.2	1.3	.9	1.4	1.4	1.3	1.8	1.9	1.5	2.1	2.2	1.9
75 and over	1.2	1.3	1.1	1.3	1.3	1.2	1.8	1.9	1.7	2.4	2.6	2.1
Not reported	.1	.1	.1	....	....	....	....	....	....	....	....	....
Median age	21.9	22.6	20.9	24.5	25.6	22.8	26.2	27.4	23.1	25.9	27.8	20.9

Source: 1950 and 1960 U.S. Census of Population.

Table B-38. Georgia: Years of school completed by persons 25 years old and over, by color and sex, 1940 and 1950

[Data for the year 1950 based on 20-percent sample]

Area, census year, color and sex	Total 25 years old and over	Years of school completed										Median school years completed
		None	Elementary school				High school		College		Not reported	
			1 to 4	5 and 6	7	8	1 to 3	4	1 to 3	4 or more		
1940												
State total	1,533,488	99,917	361,954	279,681	190,822	109,104	210,517	140,821	73,099	50,512	17,061	7.1
Male	744,820	55,483	195,233	129,161	91,143	52,310	96,263	58,330	30,119	27,037	9,741	6.8
Female	788,668	44,434	166,721	150,520	99,679	56,794	114,254	82,491	42,980	23,475	7,320	7.3
White	1,039,087	30,238	141,931	173,404	156,765	91,101	188,731	131,988	67,215	47,308	10,406	8.1
Nonwhite	494,401	69,679	220,023	106,277	34,057	18,003	21,786	8,833	5,884	3,204	6,655	4.2
1950												
State total	1,778,475	76,320	354,100	281,450	195,040	167,165	303,460	176,390	106,365	79,275	38,910	7.8
Male	848,170	43,540	191,670	130,575	89,785	78,705	131,065	72,485	45,920	41,825	22,600	7.5
Female	930,305	32,780	162,430	150,875	105,255	88,460	172,395	103,905	60,445	37,450	16,310	8.1
White	1,275,150	25,305	152,930	177,150	152,375	138,920	268,465	162,985	97,275	72,340	27,405	8.8
Nonwhite	503,325	51,015	201,170	104,300	42,665	28,245	34,995	13,405	9,090	6,935	11,505	4.9
PERCENT DISTRIBUTION												
1940												
State total	100.0	6.5	23.5	18.2	12.4	7.1	13.7	9.2	4.8	3.3	1.1	....
Male	100.0	7.4	26.2	17.3	12.2	7.0	12.9	7.8	4.0	3.6	1.3	....
Female	100.0	5.6	21.1	19.1	12.6	7.2	14.5	10.5	5.4	3.0	.9	....
White	100.0	2.9	13.7	16.7	15.1	8.8	18.2	12.7	6.5	4.6	1.0	....
Nonwhite	100.0	14.1	44.5	21.5	6.9	3.6	4.4	1.8	1.2	.6	1.3	....

Table B-38. Georgia: Years of school completed by persons 25 years old and over, by color and sex, 1940 and 1950—Con.

Area, census year, color and sex	Total 25 years old and over	Years of school completed									Not reported	Median school years completed
		None	Elementary school				High school		College			
			1 to 4	5 and 6	7	8	1 to 3	4	1 to 3	4 or more		
PERCENT DISTRIBUTION—Con-												
1950												
State total	100.0	4.3	19.9	15.8	11.0	9.4	17.1	9.9	6.0	4.5	2.2	....
Male	100.0	5.1	22.6	15.4	10.6	9.3	15.5	8.5	5.4	4.9	2.7	....
Female	100.0	3.5	17.5	16.2	11.3	9.5	18.5	11.2	6.5	4.0	1.8	....
White	100.0	2.0	12.0	13.9	11.9	10.9	21.1	12.8	7.6	5.7	2.1	....
Nonwhite	100.0	10.1	40.0	20.7	8.5	5.6	7.0	2.7	1.8	1.4	2.3	....

Source: 1950 U.S. Census of Population.

Table B-39. Births, deaths, and infant deaths, by color, for Georgia: 1930-1959

[Live birth and death rates are per 1,000 population; infant death rates per 1,000 live births]

Year and color	Number			Rate		
	Live births	Deaths	Infant deaths	Live births	Deaths	Infant deaths
1930						
Total	60,318	35,188	4,713	20.7	12.1	78.1
White	37,064	18,036	2,468	20.1	9.8	66.6
Nonwhite	23,254	17,152	2,245	21.7	16.0	96.5
1940						
Total	64,695	32,296	3,737	20.7	10.3	57.8
White	38,911	17,324	1,851	19.1	8.5	47.6
Nonwhite	25,784	14,972	1,886	23.8	13.8	73.1
1950						
Total	92,099	30,416	3,081	26.7	8.8	33.5
White	57,003	18,005	1,518	24.3	7.7	26.6
Nonwhite	35,096	12,411	1,563	31.6	11.2	44.5
1959						
Total	99,458	33,376	3,233	25.0	8.4	32.5
White	64,040	21,047	1,555	22.6	7.4	24.3
Nonwhite	35,418	12,329	1,678	30.7	10.7	47.4

Source: Georgia vital statistics, 1959.

Table B-40. Labor force, 1950 and 1940, and gainful workers, 1930 and 1920, by color and sex, for the State of Georgia.

[Figures for persons and gainful workers 14 years old and over for 1920 and 1930 include unknown age]

Census year and color	Population		Persons in the labor force or gainful workers, 14 years old and over		
	Total all ages	14 years old and over	Number	Percent of total population	Percent of population 14 years and over
TOTAL					
All classes:					
1920	2,895,832	1,856,936	1,084,160	37.4	58.4
1930	2,908,506	1,967,402	1,138,311	39.1	57.9
1940	3,123,723	2,232,132	1,225,705	39.2	54.9
1950	3,444,578	2,415,701	1,336,924	38.8	55.3
White					
1920	1,689,114	1,088,404	570,441	33.8	52.4
1930	1,837,021	1,250,161	656,834	35.8	52.5
1940	2,038,278	1,484,287	772,870	37.9	52.1
1950	2,380,577	1,710,813	927,211	38.9	54.2
Nonwhite					
1920	1,206,718	768,532	513,719	42.6	66.8
1930	1,071,485	717,241	481,477	44.9	67.1
1940	1,085,445	747,845	452,835	41.7	60.6
1950	1,064,001	704,888	409,713	38.5	58.1
MALE					
All classes:					
1920	1,444,823	921,301	810,954	56.1	88.0
1930	1,434,527	961,270	833,516	58.1	86.7
1940	1,534,758	1,084,971	889,789	58.0	82.0
1950	1,688,667	1,168,086	941,003	55.7	80.6
White:					
1920	854,109	548,849	474,857	55.6	86.5
1930	920,819	623,501	530,595	57.6	85.1
1940	1,016,688	735,026	597,987	58.8	81.4
1950	1,182,717	841,547	678,857	57.4	80.7
Nonwhite:					
1920	590,714	372,452	336,097	56.9	90.2
1930	513,708	337,769	302,921	59.0	89.7
1940	518,070	349,945	291,802	56.3	83.4
1950	505,950	326,539	262,146	51.8	80.3
FEMALE					
All classes:					
1920	1,451,009	935,635	273,206	18.8	29.2
1930	1,473,979	1,006,132	304,795	20.7	30.3
1940	1,588,965	1,147,161	335,916	21.1	29.3
1950	1,755,911	1,247,615	395,921	22.5	31.7
White:					
1920	835,005	539,555	95,584	11.4	17.7
1930	916,202	626,660	126,239	13.8	20.1
1940	1,021,590	749,261	174,883	17.1	23.3
1950	1,197,860	869,266	248,354	20.7	28.6
Nonwhite:					
1920	616,004	396,080	177,622	28.8	44.8
1930	557,777	379,472	178,556	32.0	47.1
1940	567,375	397,900	161,033	28.4	40.5
1950	558,051	378,349	147,567	26.4	39.0

Source: 1950 U.S. Census of Population.

Table B-41. Industry group of employed persons, by sex, for the State of Georgia, 1940 and 1950

[Original 1940 figures revised where necessary to conform to 1950 classification. Percent not shown where less than 0.1 or where base is less than 100]

Industry group	Total		Male		Female		Percent distribution					
							Total		Male		Female	
	1950	1940	1950	1940	1950	1940	1950	1940	1950	1940	1950	1940
Total employed	1,254,935	1,092,612	877,207	791,894	377,728	300,718	100.0	100.0	100.0	100.0	100.0	100.0
Agriculture, Forestry, and fisheries	277,204	390,853	244,652	349,824	32,552	41,029	22.1	35.8	27.9	44.2	8.6	13.6
Agriculture	265,865	377,263	233,560	336,447	32,305	40,816	21.2	34.5	26.6	42.5	8.6	13.6
Forestry and Fisheries	11,339	13,590	11,092	13,377	247	213	.9	1.2	1.3	1.7	.1	.1
Mining	5,047	4,078	4,848	4,031	199	47	.4	.4	.6	.5	.1	....
Construction	71,865	41,994	70,038	41,402	1,827	592	5.7	3.8	8.0	5.2	.5	.2
Manufacturing	288,198	204,269	204,615	147,867	83,583	56,402	23.0	18.7	23.3	18.7	22.1	18.8
Durable goods	99,206	57,434	92,463	54,879	6,743	2,555	7.9	5.3	10.5	6.9	1.8	.8
Furniture, lumber and wood products	64,462	36,384	61,473	35,420	2,989	964	5.1	3.3	7.0	4.5	.8	.3
Fabricated metal ind. (incl. spec. metal)	9,789	6,414	9,022	6,094	767	320	.8	.6	1.0	.8	.2	.1
Machinery, except electrical	5,678	3,358	5,135	3,122	543	236	.5	.3	.6	.4	.1	.1
Elec. machinery, equipment and supplies	1,820	923	1,496	829	324	94	.1	.1	.2	.1	.1	....
Motor vehicles and motor vehicle equipment	6,663	2,691	6,163	2,540	500	151	.5	.2	.7	.3	.1	.1
Transportation equip., exc. motor vehicle	538	342	500	328	38	14	....	....	.1	....	....	....
Other durable goods	10,256	7,322	8,674	6,546	1,582	776	.8	.7	1.0	.8	.4	.3
Nondurable goods	187,429	145,617	111,185	92,140	76,244	53,477	14.9	13.3	12.7	11.6	20.2	17.8
Food and kindred products	25,925	17,208	19,109	13,606	6,816	3,602	2.1	1.6	2.2	1.7	1.8	1.2
Textile mill products	102,283	84,899	58,423	51,935	43,860	32,964	8.2	7.8	6.7	6.6	11.6	11.0
Apparel and other fabricated textile prod	24,227	16,376	5,411	3,718	18,816	12,658	1.9	1.5	.6	.5	5.0	4.2
Printing, publishing and allied ind	9,375	6,508	7,419	5,313	1,956	1,195	.7	.6	.8	.7	.5	.4
Chemicals and allied products	10,697	11,838	9,375	10,630	1,322	1,208	.9	1.1	1.1	1.3	.3	.4
Other nondurable goods	14,922	8,788	11,448	6,938	3,474	1,850	1.2	.8	1.3	.9	.9	.6
Not specified manufacturing industries	1,563	1,218	967	848	596	370	.1	.1	.1	.1	.2	.1
Transportation, commun., and other pub. util	75,955	51,984	64,095	46,371	11,860	5,613	6.1	4.8	7.3	5.9	3.1	1.9
Transportation	51,700	37,757	47,940	36,254	3,760	1,503	4.1	3.5	5.5	4.6	1.0	.5
Railroads and railway express service	27,535	23,566	25,742	22,581	1,793	985	2.2	2.2	2.9	2.9	.5	.3
Trucking service and warehousing	11,163	6,901	10,449	6,604	714	297	.9	.6	1.2	.8	.2	.1
Other transportation	13,002	7,290	11,749	7,069	1,253	221	1.9	.7	1.3	.9	.3	.1
Telecommunications	10,971	6,467	4,442	3,049	6,529	3,418	.9	.6	.5	.4	1.7	1.1
Utilities and sanitary services	13,284	7,760	11,713	7,068	1,571	692	1.1	.7	1.3	.9	.4	.2
Wholesale and retail trade	201,754	129,844	136,699	98,300	65,055	31,544	16.1	11.9	15.6	12.4	17.2	10.5
Wholesale trade	35,770	19,215	29,018	17,001	6,752	2,214	2.9	1.8	3.3	2.1	1.8	.7
Retail trade	165,984	110,629	107,681	81,299	58,303	29,330	13.2	10.1	12.3	10.3	15.4	9.8
Food and dairy prod., stores and milk retailing	36,339	26,834	27,000	22,547	9,339	4,287	2.9	2.5	3.1	2.8	2.5	1.4
Eating and drinking places	24,893	14,443	9,386	7,030	15,507	7,413	2.0	1.3	1.1	.9	4.1	2.5
Other retail trade	104,752	69,352	71,295	51,722	33,457	17,630	8.3	6.3	8.1	6.5	8.9	5.9
Finance, insurance and real estate	30,192	19,369	18,593	13,811	11,599	5,558	2.4	1.8	2.1	1.7	3.1	1.8
Business and repair services	23,135	13,304	20,964	12,399	2,171	905	1.8	1.2	2.4	1.6	.6	.3
Business services	5,234	2,593	3,698	1,961	1,536	632	.4	.2	.4	.2	.4	.2
Repair services	17,901	10,711	17,266	10,438	635	273	1.4	1.0	2.0	1.3	.2	.1
Personal services	122,764	141,880	26,966	26,127	95,798	115,753	9.8	13.0	3.1	3.3	25.4	38.5
Private households	82,627	108,998	8,153	9,916	74,474	99,082	6.6	10.0	.9	1.3	19.7	32.9
Hotels and lodging places	8,621	9,760	4,080	4,575	4,541	5,185	.7	.9	.5	.6	1.2	1.7
Other personal services	31,516	23,122	14,733	11,636	16,783	11,486	2.5	2.1	1.7	1.5	4.4	3.8
Entertainment and recreation services	9,255	5,740	6,803	4,594	2,452	1,146	.7	.5	.8	.6	.6	.4
Professional and related services	82,125	54,236	31,444	21,391	50,681	32,845	6.5	5.0	3.6	2.7	13.4	10.9
Medical and other health services	25,992	13,605	9,866	5,703	16,126	7,902	2.1	1.2	1.1	.7	4.3	2.6

Table B-41. Industry group of employed persons, by sex, for the State: 1940 and 1950—Con.

Industry group	Total		Male		Female		Percent distribution					
							Total		Male		Female	
	1950	1940	1950	1940	1950	1940	1950	1940	1950	1940	1950	1940
Educational services	41,690	30,766	11,497	8,229	30,193	22,537	3.3	2.8	1.3	1.0	8.0	7.5
Educational services, government	34,856	26,834	9,146	6,647	25,710	20,187	2.8	2.5	1.0	.8	6.8	6.7
Educational services, private	6,834	3,932	2,351	1,582	4,483	2,350	.5	.4	.3	.2	1.2	.8
Other professional and related services	14,443	9,865	10,081	7,459	4,362	2,406	1.2	.9	1.1	.9	1.2	.8
Public administration	48,450	22,094	36,041	17,443	12,409	4,651	3.9	2.0	4.1	2.2	3.3	1.5
Industry not reported	18,991	12,967	11,449	8,334	7,542	4,633	1.5	1.2	1.3	1.1	2.0	1.5

Source: 1950 U.S. Census of Population.

Table B-42. Income in 1949 of families and unrelated individuals, for the State of Georgia, urban and rural, 1950
[Based on 20-percent sample. Percent not shown where less than 0.1; median and percent not shown where base is less than 500]

Income level	Families and unrelated individuals														
	Total					White					Nonwhite				
	The State	Total	Urban	Rural non-farm	Rural farm	The State	Total	Urban	Rural non-farm	Rural farm	The State	Total	Urban	Rural non-farm	Rural farm
Number reporting	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Less than $500	21.0	16.8	14.5	20.9	35.8	16.4	12.9	10.8	16.6	28.9	32.0	26.2	22.7	34.5	52.2
$500 to $999	13.7	11.9	10.2	15.1	19.9	10.3	8.2	6.0	11.9	17.8	22.0	21.1	19.5	24.9	25.0
$1,000 to $1,499	12.2	11.7	10.7	13.8	14.0	10.1	8.8	7.0	12.0	14.8	17.4	18.9	18.8	19.3	12.2
$1,500 to $1,999	10.8	11.3	11.3	11.4	8.9	9.7	9.5	8.5	11.4	10.5	13.3	15.7	17.5	11.5	5.1
$2,000 to $2,499	9.7	10.4	10.7	9.9	7.3	10.7	11.1	11.0	11.4	9.1	7.5	8.8	10.2	5.2	3.0
$2,500 to $2,999	6.9	7.8	8.1	7.2	3.9	8.5	9.4	9.7	8.8	5.2	3.2	3.8	4.5	2.2	1.0
$3,000 to $3,499	6.3	7.1	7.6	6.3	3.3	8.1	9.1	9.8	7.9	4.4	1.9	2.2	2.7	1.1	.8
$3,500 to $3,999	4.5	5.2	5.7	4.2	1.9	5.9	6.8	7.7	5.4	2.6	1.0	1.2	1.5	.5	.2
$4,000 to $4,499	3.6	4.2	4.7	3.2	1.5	4.8	5.6	6.4	4.2	2.0	.6	.8	.9	.4	.2
$4,500 to $4,999	2.4	2.9	3.4	1.9	.7	3.3	3.9	4.8	2.5	1.0	.3	.4	.5	.1	.....
$5,000 to $5,999	3.6	4.3	5.1	2.8	1.0	4.8	5.8	7.1	3.6	1.4	.4	.5	.6	.2	.2
$6,000 to $6,999	1.9	2.2	2.7	1.3	.6	2.6	3.0	3.9	1.6	.8	.2	.2	.2	.....	.1
$7,000 to $9,999	2.0	2.4	3.0	1.1	.6	2.7	3.2	4.3	1.5	.8	.1	.2	.2	.1	.1
$10,000 and over	1.5	1.7	2.2	.9	.5	2.0	2.4	3.1	1.2	.7	.1	.1	.1	.1	.....
Median income	$1,644	$1,924	$2,154	$1,509	$857	$2,159	$2,473	$2,849	$1,917	$1,113	$909	$1,073	$1,207	$812	$479

Source: 1950 U.S. Census of Population.

Table B-43. Income in 1949 of persons, by color and sex, for the State of Georgia, farm and nonfarm

[Based on 20-percent sample. Median not shown where base is less than 500]

Area, farm residence, color, and sex	Total 14 years old and over	Persons without income	Persons with income						
			Total	$1 to $499 or less	$500 to $999	$1,000 to $1,499	$1,500 to $1,999	$2,000 to $2,499	$2,500 to $2,999
State total	2,404,270	800,245	1,450,735	424,105	249,420	199,645	167,920	132,775	79,720
Male	1,157,390	162,955	912,415	183,030	145,880	135,280	112,860	95,230	63,505
Female	1,246,880	637,290	538,320	241,075	103,540	64,365	55,060	37,545	16,215
White	1,699,950	587,170	1,003,560	224,115	142,090	131,865	124,845	115,055	74,450
Nonwhite	704,320	213,075	447,175	199,990	107,330	67,780	43,075	17,720	5,270
Urban and rural nonfarm	1,780,310	535,315	1,126,565	274,140	183,890	158,250	141,740	115,080	71,765
Male	836,240	92,545	679,585	92,695	93,225	101,800	92,850	80,305	56,470
Female	944,070	442,770	446,980	181,445	90,665	56,450	48,890	34,775	15,295
White	1,270,115	399,695	783,875	142,610	98,390	99,055	101,775	98,795	66,825
Nonwhite	510,195	135,620	342,690	131,530	85,500	59,195	39,965	16,285	4,940
Rural farm	623,960	264,930	324,170	149,965	65,530	41,395	26,180	17,695	7,955
Male	321,150	70,410	232,830	90,335	52,655	33,480	20,010	14,925	7,035
Female	302,810	194,520	91,340	59,630	12,875	7,915	6,170	2,770	920
White	429,835	187,475	219,685	81,505	43,700	32,810	23,070	16,260	7,625
Nonwhite	194,125	77,455	104,485	68,460	21,830	8,585	3,110	1,435	330

Area, farm residence, color, and sex	Persons with income									Income not reported
	$3,000 to $3,499	$3,500 to $3,999	$4,000 to $4,499	$4,500 to $4,999	$5,000 to $5,999	$6,000 to $6,999	$7,000 to $9,999	$10,000 and over	Median income (dol.)	
State total	64,880	36,970	25,170	14,625	20,905	10,370	11,390	12,840	1,130	153,290
Male	55,795	33,380	23,070	13,520	19,335	9,540	10,390	11,600	1,470	82,020
Female	9,085	3,590	2,100	1,105	1,570	830	1,000	1,240	636	71,270
White	62,110	35,905	24,435	14,330	20,490	10,185	11,105	12,580	1,515	109,220
Nonwhite	2,770	1,065	735	295	415	185	285	260	610	44,070
Urban and rural nonfarm	58,720	34,330	23,055	13,870	19,530	9,690	10,640	11,865	1,333	118,430
Male	50,055	30,960	21,065	12,815	18,015	8,940	9,700	10,690	1,780	64,110
Female	8,665	3,370	1,990	1,055	1,515	750	940	1,175	732	54,320
White	56,335	33,340	22,395	13,615	19,175	9,535	10,390	11,640	1,755	86,545
Nonwhite	2,385	990	660	255	355	155	250	225	732	31,885
Rural farm	6,160	2,640	2,115	755	1,375	680	750	975	592	34,860
Male	5,740	2,420	2,005	705	1,320	600	690	910	748	17,910
Female	420	220	110	50	55	80	60	65	383	16,950
White	5,775	2,565	2,040	715	1,315	650	715	940	824	22,675
Nonwhite	385	75	75	40	60	30	35	35	382	12,185

Source: 1950 U.S. Census of Population.

Table B-44. Vehicular registration for Georgia and the Atlanta standard metropolitan statistical area, 1960

[For Atlanta SMSA definition see table B-46]

Area	Number			Percent distribution			Percent of total		
	Total	Passenger cars	Trucks and trailers	Total	Passenger cars	Trucks and trailers	Total	Passenger cars	Trucks and trailers
State total	1,512,976	1,199,584	313,392	100.0	79.3	20.7	100.0	100.0	100.0
Atlanta SMSA	432,268	363,865	68,403	100.0	84.2	15.8	28.6	30.3	21.8
Clayton County	21,236	17,590	3,646	100.0	82.8	17.2	1.4	1.5	1.2
Cobb County	50,911	42,562	8,349	100.0	83.6	16.4	3.4	3.5	2.7
DeKalb County	113,578	100,392	13,186	100.0	88.4	11.6	7.5	8.4	4.2
Fulton County	227,674	188,629	39,045	100.0	82.9	17.1	15.0	15.7	12.5
Gwinnett County	18,869	14,692	4,177	100.0	77.9	22.1	1.2	1.2	1.3

Source: State of Georgia Department of Revenue–Motor Vehicle License Unit.

Table B-45. Farm acreage for Georgia and Atlanta standard metropolitan statistical area: 1930-1954

[For Atlanta SMSA definition see table B-46]

Subject	1930		1940		1950		1954	
	The State	Atlanta SMSA	The State	Atlanta SMSA	The State	Atlanta SMSA	The State	Atlanta SMSA
Farms ... number	255,598	14,705	216,033	12,067	198,191	9,311	165,523	8,625
Approximate land area ... acres	37,584,000	(n.a.)	37,451,520	1,104,640	37,429,120	1,103,360	37,429,120	1,103,360
Proportion in farms ... percent	58.7	(n.a.)	63.2	66.7	68.8	55.4	64.2	52.1
Land in farms ... acres	22,078,830	789,144	23,683,631	736,475	25,751,055	610,885	24,018,773	575,065
Average size of farms ... acres	86.4	53.7	109.6	61.0	129.9	65.6	145.1	66.7
Wooded area both pasture and nonpasture:								
Farms reporting	(n.a.)	(n.a.)	149,159	8,753	132,205	6,873	112,791	6,339
Acreage reported	8,372,937	253,105	10,174,775	254,099	13,280,149	247,576	12,686,331	255,039
Wooded area as percent of total land area	22.3	(n.a.)	27.2	23.0	35.5	22.4	33.9	23.1
Wooded area as percent of land in farms	37.9	32.1	43.0	34.5	51.6	40.5	52.8	44.3

Source: 1940, 1950, and 1954 U.S. Census of Agriculture.

Table B-46. Population, by color, of Atlanta standard metropolitan statistical area, urban and rural, 1930-1960

[In 1950 the Atlanta SMSA included only Cobb, DeKalb, and Fulton Counties. Clayton County was added in 1956 and Gwinnett County in 1958. The figures below, from 1930 to 1960, include all five of these counties, and, in addition, figures for 1930 include old Milton and Campbell Counties which were annexed to Fulton in 1932. Minus sign (-) denotes decrease]

Year and area	White	Nonwhite	Total all classes	Increase over preceding census		Percent distribution			Percent of total		
				Number	Percent	White	Non-white	Total all classes	White	Non-white	Total all classes
1930											
Atlanta SMSA	348,815	130,204	479,019	....	....	100.0	100.0	100.0	72.8	27.2	100.0
Urban	216,066	98,911	314,977	....	....	61.9	76.0	65.8	68.6	31.4	100.0
Rural	132,749	31,293	164,042	....	....	38.1	24.0	34.2	80.9	19.1	100.0
Rural nonfarm	72,957	16,753	89,710	....	....	20.9	12.9	18.7	81.3	18.7	100.0
Rural farm	59,792	14,540	74,332	....	....	17.1	11.2	15.5	80.4	19.6	100.0
1940											
Atlanta SMSA	409,128	149,714	558,842	79,823	16.7	100.0	100.0	100.0	73.2	26.8	100.0
Urban	251,106	118,431	369,537	54,560	17.3	61.4	79.1	66.1	68.0	32.0	100.0
Rural	158,022	31,283	189,305	25,263	15.4	38.6	20.9	33.9	83.5	16.5	100.0
Rural nonfarm	100,480	20,962	121,442	31,732	35.4	24.6	14.0	21.7	82.7	17.3	100.0
Rural farm	57,542	10,321	67,863	-6,469	-8.7	14.0	6.9	12.1	84.8	15.2	100.0
1950 [1]											
Atlanta SMSA	554,328	172,661	726,989	168,147	30.1	100.0	100.0	100.0	76.2	23.8	100.0
Urban	393,837	147,265	541,102	171,565	46.4	71.0	85.3	74.4	72.9	27.1	100.0
Rural	160,491	25,396	185,887	-3,418	-1.8	29.0	14.7	25.6	86.3	13.7	100.0
Rural nonfarm	120,411	20,067	140,478	19,036	15.7	21.7	11.6	19.3	85.7	14.3	100.0
Rural farm	40,080	5,329	45,409	-22,454	-33.1	7.2	3.1	6.2	88.3	11.7	100.0
1960											
Atlanta SMSA	785,019	232,169	1,017,188	290,199	39.9	100.0	100.0	100.0	77.2	22.8	100.0
Urban	622,563	214,884	837,447	296,345	54.8	79.3	92.5	82.3	74.3	25.7	100.0
Rural [2]	162,456	17,285	179,741	-6,146	-3.3	20.7	7.5	17.7	90.4	9.6	100.0

[1] Data for 1930 and 1940 based on old urban definition; effective 1950 data based on new urban definition.
[2] Rural nonfarm and rural farm breakdown not available.

Source: 1930, 1940, 1950, and 1960 U.S. Census of Population.

Table B-47. Age, by color, of Atlanta standard metropolitan statistical area: 1930-1960

[For Atlanta SMSA definition see table B-46]

Age (years)	1930			1940			1950			1960		
	All classes	White	Non-white	All classes	White	Non-white	All classes	White	Non-white	All classes	White	Non-white
Total, all ages	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Under 5	8.9	9.0	8.6	7.9	7.8	8.1	11.3	11.2	11.6	12.1	11.4	14.1
5 to 9	10.1	10.1	10.0	8.0	7.8	8.7	8.4	8.4	8.7	10.8	10.4	12.3
10 to 14	9.5	9.3	10.3	8.6	8.4	9.0	7.0	6.7	8.0	9.3	9.3	9.6
15 to 19	10.0	9.5	11.2	9.3	9.2	9.7	7.2	6.8	8.1	7.1	7.0	7.5
20 to 24	10.6	10.3	11.6	9.6	9.3	10.6	8.8	8.8	8.7	7.2	7.1	7.4
25 to 29	9.6	9.3	10.4	9.9	9.4	11.2	9.4	9.6	8.8	7.3	7.4	7.1
30 to 34	8.2	8.3	7.9	9.2	9.2	9.0	8.4	8.5	8.2	7.5	7.7	6.8
35 to 44	14.1	14.1	14.0	15.3	15.2	15.7	15.5	15.2	16.2	14.1	14.5	12.5
45 to 54	9.8	10.1	9.2	10.7	11.2	9.4	11.1	11.1	10.9	10.9	11.0	10.5
55 to 64	5.3	5.8	4.0	6.6	7.2	4.6	6.9	7.4	5.6	7.2	7.4	6.7
65 to 74	2.6	2.9	1.8	3.6	3.9	3.0	4.3	4.5	3.8	4.4	4.5	3.9
75 and over	1.1	1.2	.8	1.3	1.4	1.0	1.7	1.8	1.4	2.1	2.3	1.7

Source: 1930, 1940, 1950, and 1960 U.S. Census of Population.

Table B-48. Births, deaths, and infant deaths, by color, for Atlanta standard metropolitan statistical area: 1930-1959

[For Atlanta SMSA definition see table B-46; the year 1930 does not include Milton and Campbell Counties]

	1930			1940			1950			1959		
	Total all classes	White	Non-white	Total all classes	White	Non-white	Total all classes	White	Non-white	Total all classes	White	Non-white
Live births	8,466	6,059	2,407	10,343	7,280	3,063	19,132	13,686	5,446	25,708	18,514	7,194
Deaths, all causes	6,152	3,438	2,714	5,966	3,422	2,544	6,203	3,924	2,279	7,789	5,339	2,450
Infant deaths	726	396	330	538	294	244	540	294	246	686	389	297
RATE												
Live births (per 1,000 population)	18.3	18.0	18.9	18.5	17.8	20.4	26.3	24.7	31.5	1/27.1	1/25.3	1/33.1
Deaths, all causes (per 1,000 population)	13.3	10.2	21.4	10.7	8.4	17.0	8.5	7.1	13.2	1/8.2	1/7.3	1/11.3
Infant deaths (per 1,000 live births)	85.7	65.3	137.1	52.0	40.4	79.7	28.2	21.5	45.2	26.6	21.0	41.3

1/Based on estimated population as of July 1.

Source: Biostatistics Service of Georgia Department of Public Health.

Table B-49. Percent distribution of major occupational groups, by color and sex, for Atlanta standard metropolitan statistical area, 1940 and 1950

[For Atlanta SMSA definition see table B-13. Percent not shown where less than 0.1]

Major occupation group	1940					1950				
	Total all classes	White		Nonwhite		Total all classes	White		Nonwhite	
		Male	Female	Male	Female		Male	Female	Male	Female
Persons 14 years old and over	431,566	153,110	164,656	50,604	63,196	542,243	199,420	216,344	56,863	69,616
In labor force	246,079	123,973	48,509	40,497	33,100	305,061	158,494	71,281	43,880	31,406
Employed	1/215,488	1/111,111	1/42,510	1/32,686	1/29,181	291,899	150,637	69,428	41,882	29,952
PERCENT DISTRIBUTION										
Employed	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Professional, technical and kindred workers	2/6.9	2/7.1	2/12.7	2/1.9	2/3.4	8.9	10.1	12.3	2.2	4.7
Farmers and farm managers	4.2	7.0	.4	3.6	.1	1.8	3.0	.2	1.4	.....
Managers, officials and props., except farm	8.6	14.4	4.4	1.6	.6	9.5	15.5	4.5	2.0	1.0
Clerical, sales and kindred workers	22.8	24.7	47.7	3.1	1.3	3/26.2	3/23.3	3/55.0	3/5.0	3/3.2
Craftsmen, foremen, and kindred workers	10.5	17.6	1.2	7.8	.2	13.3	22.1	1.9	9.8	.4
Operatives and kindred workers	16.7	16.5	20.1	20.1	8.4	17.2	16.5	16.7	23.4	13.6
Private household workers	4/11.3	4/.1	4/2.4	4/7.1	4/71.6	5.7	.....	1.0	1.5	51.3
Service workers exc. private household	9.5	5.1	8.4	23.4	12.6	8.9	3.9	5.8	22.1	23.0
Farm laborers, unpaid family workers	1.3	1.6	.9	1.3	.6	.3	.4	.2	.3	.2
Farm laborers, exc. unpaid, and farm foremen	1.5	1.6	.1	4.0	.2	.5	.5	.1	1.2	.2
Laborers, except farm	6.0	3.7	.7	25.6	.7	5/6.2	5/3.2	5/.4	5/29.9	5/1.4
Occupation not reported	.6	.6	.9	.5	.4	1.5	1.4	1.9	1.2	1.0

1/Except on public emergency work.
2/Includes "semiprofessional workers" listed as a separate item in 1940 census.
3/Includes "sales workers" listed as a separate item in 1950 census.
4/Listed as "domestic workers" in 1940 census.
5/Mine laborers not included.

Source: 1940 and 1950 U.S. Census of Population.

Table B-50. Atlanta nonagricultural employment, annual averages, 1949-1958

[All employees wage and salary, except domestics]

Industry	1949	1950	1951	1952	1953	1954	1955	1956 1/	1957	1958
Total	249,900	258,300	276,950	290,250	304,150	304,900	323,550	344,650	349,350	343,500
Contract construction	13,850	16,350	18,350	14,950	15,250	16,050	18,550	18,950	18,150	20,050
Manufacturing	58,100	60,500	66,750	73,400	79,700	79,500	87,800	91,550	89,800	82,100
Durable goods	22,400	24,750	30,450	36,350	41,200	41,600	49,350	51,050	48,700	41,550
Lumber and wood products, except furniture	2,850	2,900	3,200	3,000	2,900	2,850	2,900	3,100	2,450	2,050
Furniture and fixtures	3,500	4,250	3,950	3,950	4,450	4,250	4,600	4,650	4,050	3,700
Stone, clay, and glass products	850	950	1,000	950	800	1,050	1,350	1,500	1,700	2,400
Primary metal industries	2,150	2,400	2,700	2,900	3,150	2,700	2,900	2,750	2,750	2,150
Fabricated metal products	1,850	2,150	2,450	2,400	2,600	2,450	2,650	2,800	2,550	2,350
Machinery (except electrical)	2,350	2,600	2,950	2,800	2,800	2,550	2,650	3,100	3,250	3,150
Transportation equipment	5,800	6,400	10,500	16,600	20,800	22,050	28,100	28,650	27,200	21,150
Other durable goods 2/	3,050	3,100	3,700	3,750	3,700	3,700	4,200	4,500	4,750	4,600
Nondurable goods	35,700	35,750	36,300	37,050	38,500	37,900	38,450	40,500	41,100	40,550
Food and kindred products	10,400	10,050	9,950	10,700	10,750	10,900	11,350	11,850	12,000	12,300
Textile mill products	9,050	9,450	9,700	9,400	9,100	8,300	7,900	7,600	7,450	6,650
Apparel and other finished textile products	6,250	6,250	6,300	6,400	7,500	7,350	7,400	7,500	7,150	7,000
Paper and allied products	2,350	2,550	2,650	2,750	2,950	3,000	3,250	3,550	4,000	4,100
Printing, publishing and allied industries	4,500	4,400	4,600	4,650	4,650	4,800	4,900	5,150	5,500	5,700
Chemicals and allied products	2,500	2,500	2,650	2,550	2,950	2,900	2,950	2,800	2,750	2,750
Leather and leather products	500	400	350	400	350	450	500	1,800	1,850	1,800
Other nondurable goods 3/	150	150	100	200	250	200	200	250	400	250
Transportation, communication, electric, gas and sanitary services	28,750	29,300	31,600	32,300	32,700	32,050	33,400	34,750	35,400	34,000
Trade	71,550	72,050	75,300	78,000	80,750	81,050	83,300	89,100	91,300	90,500
Finance, insurance, and real estate	15,400	16,400	17,400	19,850	21,500	21,400	22,850	24,700	24,950	25,350
Service and miscellaneous	31,800	32,250	32,750	35,050	36,750	37,800	38,800	42,950	45,000	44,800
Government	30,450	31,450	34,800	36,700	37,500	37,050	38,850	42,650	44,750	46,700

1/ Data for 1949-55 include Cobb, DeKalb and Fulton Counties. Effective January 1956, Clayton and Gwinnett Counties were included.

2/ Includes electrical machinery, equipment and supplies; professional, scientific and controlling instruments; and miscellaneous manufacturing industries.

3/ Includes ordnance, petroleum refining and related industries, and rubber and miscellaneous plastic products.

Source: Georgia Department of Labor—Employment Security Agency.

Table B-51. Income in 1949 of families and unrelated individuals, by color, for Atlanta standard metropolitan statistical area, 1950

[For Atlanta SMSA definition see table B-46. Statistics based on 20-percent sample]

Income	Persons with income			Percent distribution		
	Total all classes	White	Nonwhite	Total all classes	White	Nonwhite
Families and unrelated individuals	239,500	184,325	55,175	100.0	100.0	100.0
Less than $500	28,880	19,225	9,655	12.0	10.4	17.5
$500 to $999	18,615	9,650	8,965	7.8	5.2	16.2
$1,000 to $1,499	19,860	10,360	9,500	8.3	5.6	17.2
$1,500 to $1,999	22,760	12,715	10,045	9.5	6.9	18.2
$2,000 to $2,499	23,265	16,980	6,285	9.7	9.2	11.4
$2,500 to $2,999	18,545	15,365	3,180	7.7	8.3	5.8
$3,000 to $3,499	18,470	16,590	1,880	7.7	9.0	3.4
$3,500 to $3,999	14,345	13,155	1,190	6.0	7.1	2.2
$4,000 to $4,499	11,370	10,645	725	4.7	5.8	1.3
$4,500 to $4,999	8,725	8,370	355	3.6	4.5	.6
$5,000 to $5,999	13,980	13,540	440	5.8	7.3	.8
$6,000 to $6,999	7,760	7,620	140	3.2	4.1	.3
$7,000 to $9,999	9,080	8,905	175	3.8	4.8	.3
$10,000 and over	6,425	6,345	80	2.7	3.4	.1
Income not reported	17,420	14,860	2,560	7.3	8.1	4.6

Source: 1950 U.S. Census of Population.

Table B-52. Age and sex, by color, of in-migrants and out-migrants for Georgia economic area of Cobb, DeKalb, and Fulton counties, 1950

Age and sex	In-migrants						Out-migrants					
	Total all classes	Percent	White	Percent	Non-white	Percent	Total all classes	Percent	White	Percent	Non-white	Percent
Male	18,345	....	16,500	....	1,845	....	16,645	....	14,780	....	1,865	....
Female	17,455	....	15,500	....	1,955	....	16,250	....	14,550	....	1,700	....
Total, 1 year old and over	35,800	100.0	32,000	100.0	3,800	100.0	32,895	100.0	29,330	100.0	3,565	100.0
1 to 5 years	4,510	12.6	4,175	13.0	335	8.8	4,405	13.4	4,030	13.7	375	10.5
6 to 13 years	3,630	10.1	3,295	10.3	335	8.8	3,045	9.3	2,765	9.4	280	7.9
14 to 17 years	1,700	4.7	1,470	4.6	230	6.1	1,365	4.1	1,190	4.1	175	4.9
18 and 19 years	2,335	6.5	1,955	6.1	380	10.0	1,710	5.2	1,485	5.1	225	6.3
20 to 24 years	5,745	16.0	5,035	15.7	710	18.7	5,150	15.7	4,400	15.0	750	21.0
25 to 29 years	5,260	14.7	4,700	14.7	560	14.7	4,940	15.0	4,445	15.2	495	13.9
30 to 34 years	3,445	9.6	3,120	9.7	325	8.6	3,495	10.6	3,140	10.7	355	9.9
35 to 39 years	2,685	7.5	2,445	7.6	240	6.3	2,550	7.7	2,275	7.8	275	7.7
40 to 44 years	1,925	5.4	1,750	5.5	175	4.6	1,695	5.2	1,535	5.2	160	4.5
45 to 54 years	2,135	6.0	1,880	5.9	255	6.7	2,260	6.9	2,005	6.8	255	7.2
55 to 64 years	1,215	3.4	1,120	3.5	95	2.5	1,245	3.8	1,120	3.8	125	3.5
65 years and over	1,215	3.4	1,055	3.3	160	4.2	1,035	3.1	940	3.2	95	2.7

Source: 1950 U.S. Census of Population, Special Report P-E No. 4B.

Table B-53. Years of school completed by in-migrants and out-migrants for Georgia economic area of Cobb, DeKalb, and Fulton Counties, 1950

Years of school completed	In-migrants						Out-migrants					
	Total all classes	Percent	White	Percent	Non-white	Percent	Total all classes	Percent	White	Percent	Non-white	Percent
Persons 25 years old and over	17,880	100.0	16,070	100.0	1,810	100.0	17,220	100.0	15,460	100.0	1,760	100.0
Elementary:												
Under 5 Years	1,505	8.4	920	5.7	585	32.3	1,600	9.3	985	6.4	615	34.9
5 to 7 years	2,850	16.0	2,315	14.4	535	29.5	2,560	14.9	2,090	13.5	470	26.7
8 years	1,610	9.0	1,480	9.2	130	7.2	1,500	8.7	1,380	8.9	120	6.8
High School:												
1 to 3 years	3,350	18.7	3,170	19.7	180	9.9	2,960	17.2	2,815	18.2	145	8.2
4 years	3,555	19.9	3,400	21.2	155	8.6	3,390	19.7	3,275	21.2	115	6.5
College:												
1 to 3 years	2,320	13.0	2,250	14.0	70	3.9	2,100	12.2	2,030	13.1	70	4.0
4 years or more	2,395	13.4	2,290	14.2	105	5.8	2,680	15.6	2,535	16.4	145	8.2
School years not reported	295	1.6	245	1.5	50	2.8	430	2.5	350	2.3	80	4.5

Source: 1950 U.S. Census of Population, Special Report P-E No. 4B.

Table B-54. Employment status, by color and sex, and major occupation group of employed males, by color, of in-migrants and out-migrants for Georgia economic area of Cobb, DeKalb, and Fulton Counties, 1950

Sex, employment status and major occupation group	In-migrants						Out-migrants					
	Total all classes	Per-cent	White	Per-cent	Non-white	Per-cent	Total all classes	Per-cent	White	Per-cent	Non-white	Per-cent
Male, 14 years old and over	14,090	100.0	12,575	100.0	1,515	100.0	12,900	100.0	11,335	100.0	1,565	100.0
Labor force	10,545	74.8	9,620	76.5	925	61.1	10,175	78.9	9,120	80.5	1,055	67.4
Armed Forces	620	5.8	620	6.4	....	....	1,030	10.1	975	10.7	55	5.2
Employed	9,350	88.7	8,490	88.3	860	93.0	8,595	84.5	7,710	84.5	885	83.9
Unemployed	575	5.5	510	5.3	65	7.0	550	5.4	435	4.8	115	10.9
Not in labor force	3,545	25.2	2,955	23.5	590	38.9	2,725	21.1	2,215	19.5	510	32.6
Female, 14 years old and over	13,570	100.0	11,955	100.0	1,615	100.0	12,545	100.0	11,200	100.0	1,345	100.0
Labor Force[1]	4,530	33.4	3,845	32.2	685	42.4	3,420	27.3	2,910	26.0	510	37.9
Employed	4,165	91.9	3,565	92.7	600	87.6	3,095	90.5	2,625	90.2	470	92.2
Unemployed	310	6.8	225	5.9	85	12.4	305	8.9	265	9.1	40	7.8
Not in labor force	9,040	66.6	8,110	67.8	930	57.6	9,125	72.7	8,290	74.0	835	62.1
MAJOR OCCUPATION GROUP												
Male, employed	9,350	100.0	8,490	100.0	860	100.0	8,595	100.0	7,710	100.0	885	100.0
Professional, technical, and kindred workers	1,280	13.7	1,240	14.6	40	4.6	1,420	16.5	1,340	17.4	80	9.0
Farmers and farm managers	195	2.1	175	2.1	20	2.3	350	4.1	290	3.8	60	6.8
Managers, officials, and proprietors, except farm	1,175	12.6	1,155	13.6	20	2.3	1,130	13.1	1,120	14.5	10	1.1
Clerical and kindred workers	905	9.7	885	10.4	20	2.3	580	6.7	550	7.1	30	3.4
Sales workers	1,215	13.0	1,200	14.1	15	1.7	1,095	12.7	1,090	14.1	5	.6
Craftsmen, foremen and kindred workers	1,560	16.7	1,485	17.5	75	8.7	1,445	16.8	1,375	17.8	70	7.9
Operatives and kindred workers	1,640	17.5	1,450	17.1	190	22.1	1,270	14.8	1,055	13.7	215	24.3
Service workers	425	4.5	275	3.2	150	17.4	350	4.1	240	3.1	110	12.4
Farm laborers, unpaid family workers	45	.5	45	.5	....	....	60	.7	45	.6	15	1.7
Farm laborers, excluding unpaid and foremen	45	.5	30	.4	15	1.7	265	3.1	175	2.3	90	10.2
Laborers, except farm and mine	730	7.8	445	5.2	285	33.1	520	6.0	335	4.3	185	20.9
Occupation not reported	135	1.4	105	1.2	30	3.5	110	1.3	95	1.2	15	1.7

[1] Includes members of the Armed Forces.

Source: 1950 U.S. Census of Population, Special Report P-E No. 4B.

Table B-55. Population, by counties and senatorial districts for Georgia, 1960

(*) symbol denotes the 8 largest counties
(†) symbol denotes the 30 next largest counties

Senatorial District Number	County	Population each County	Population each Senatorial District
1	Effingham	10,144	198,443
	*Chatham	188,299	
2	Bryan	6,226	27,077
	Liberty	14,487	
	McIntosh	6,364	
3	Long	3,874	27,686
	Wayne	17,921	
	Brantley	5,891	
4	†Glynn	41,954	57,242
	Camden	9,975	
	Charlton	5,313	
5	†Ware	34,219	46,952
	Clinch	6,545	
	Atkinson	6,188	
6	Echols	1,876	56,243
	†Lowndes	49,270	
	Lanier	5,097	
7	†Thomas	34,319	71,986
	Grady	18,015	
	Mitchell	19,652	
8	Miller	6,908	38,913
	Seminole	6,802	
	†Decatur	25,203	
9	Early	13,151	25,035
	Calhoun	7,341	
	Baker	4,543	
10	*Dougherty	75,680	98,566
	Worth	16,682	
	Lee	6,204	
11	Clay	4,551	28,371
	Randolph	11,078	
	Terrell	12,742	
12	Quitman	2,432	13,050
	Stewart	7,371	
	Webster	3,247	
13	†Sumter	24,652	41,078
	Schley	3,256	
	Macon	13,170	
14	Dooley	11,474	29,320
	Pulaski	8,204	
	Bleckley	9,642	
15	Toombs	16,837	28,463
	Montgomery	6,284	
	Wheeler	5,342	
16	Emanuel	17,815	56,002
	Treutlen	5,874	
	†Laurens	32,313	
17	Burke	20,596	44,663
	Jenkins	9,148	
	Screven	14,919	
18	Jefferson	17,468	155,741
	Glascock	2,672	
	*Richmond	135,601	
19	Warren	7,360	21,923
	Greene	11,193	
	Taliaferro	3,370	

Table B-55. Population, by counties and senatorial districts for Georgia, 1960—Con.

Senatorial District Number	County	Population each County	Population each Senatorial District
20	Hancock	9,979	62,946
	Washington	18,903	
	†Baldwin	34,064	
21	Wilkinson	9,250	25,766
	Johnson	8,048	
	Jones	8,468	
22	Lamar	10,240	29,711
	Monroe	10,495	
	Butts	8,976	
23	Crawford	5,816	27,973
	Peach	13,846	
	Taylor	8,311	
24	*Muscogee	158,623	177,111
	Chattahoochee	13,011	
	Marion	5,477	
25	Harris	11,167	42,094
	Talbot	7,127	
	†Upson	23,800	
26	Fayette	8,199	89,968
	†Clayton	46,365	
	†Spalding	35,404	
27	Jackson	18,499	39,288
	Barrow	14,485	
	Oconee	6,304	
28	Putnam	7,798	24,213
	Jasper	6,135	
	Morgan	10,280	
29	Lincoln	5,906	31,956
	McDuffie	12,627	
	Columbia	13,423	
30	Hart	15,229	44,310
	Madison	11,246	
	Elbert	17,835	
31	Franklin	13,274	49,781
	Stephens	18,391	
	Habersham	18,116	
32	Lumpkin	7,241	17,766
	White	6,935	
	Dawson	3,590	
33	†Hall	49,739	68,406
	Forsyth	12,170	
	Banks	6,497	
34	†Gwinnett	43,541	310,895
	*DeKalb	256,782	
	Rockdale	10,572	
35	Walton	20,481	59,099
	†Newton	20,999	
	Henry	17,619	
36	Meriwether	19,756	55,787
	†Coweta	28,893	
	Pike	7,138	
37	†Carroll	36,451	88,973
	Heard	5,333	
	†Troup	47,189	
38	†Polk	28,015	55,659
	Haralson	14,543	
	Paulding	13,101	

Table B-55. Population, by counties and senatorial districts for Georgia, 1960—Con.

Senatorial District Number	County	Population each County	Population each Senatorial District
39	Douglas	16,741	153,916
	*Cobb	114,174	
	†Cherokee	23,001	
40	Union	6,510	18,504
	Towns	4,538	
	Rabun	7,456	
41	Fannin	13,620	31,445
	Gilmer	8,922	
	Pickens	8,903	
42	Chattooga	19,954	117,351
	†Floyd	69,130	
	†Bartow	28,267	
43	†Whitfield	42,109	71,784
	Murray	10,447	
	Gordon	19,228	
44	†Walker	45,264	75,031
	†Catoosa	21,101	
	Dade	8,666	
45	Irwin	9,211	34,559
	Ben Hill	13,633	
	Telfair	11,715	
46	†Coffee	21,953	39,990
	Bacon	8,359	
	Pierce	9,678	

Table B-55. Population, by conties and senatorial districts for Georgia, 1960—Con.

Senatorial District Number	County	Population each County	Population each Senatorial District
47	†Colquitt	34,048	65,974
	†Tift	23,487	
	Turner	8,439	
48	Crisp	17,768	42,156
	Wilcox	7,905	
	Dodge	16,483	
49	†Bulloch	24,263	37,887
	Candler	6,672	
	Evans	6,952	
50	†Clarke	45,363	64,250
	Oglethorpe	7,926	
	Wilkes	10,961	
51	*Bibb	141,249	188,338
	†Houston	39,154	
	Twiggs	7,935	
52	*Fulton	556,326	556,326
53	Berrien	12,038	39,152
	Cook	11,822	
	Brooks	15,292	
54	Appling	13,246	37,997
	Jeff Davis	8,914	
	Tattnall	15,837	

Source: 1960 U.S. Census of Population and Georgia statistical abstract.

Table B-56. Budget allotments from treasury receipts for recreation purposes, State of Georgia, 1950-1961

	Year ended June 30, 1950	Year ended June 30, 1951	Year ended June 30, 1952	Year ended June 30, 1953	Year ended June 30, 1954	Year ended June 30, 1955
Parks division	$169,741.16	$293,000.00	$280,000.00	$280,000.00	$335,822.53	$370,049.15
Parks expansion and improvement[1]	261,500.00	302,080.50	850,084.35	1,285,671.73	.00	349,222.01
Game and Fish Commission	669,000.00	607,000.00	625,000.00	645,568.77	799,000.00	814,028.74
Historical Commission Ga.	.00	.00	13,226.76	82,160.94	94,000.00	119,000.00
Recreation, Georgia Committee	.00	.00	.00	.00	.00	.00
Stone Mountain Memorial Committee	.00	.00	.00	.00	.00	.00
Authority rents	.00	.00	.00	.00	.00	.00
Warm Springs (F.D.R.) Memorial	.00	.00	.00	.00	.00	.00

	Year ended June 30, 1956	Year ended June 30, 1957	Year ended June 30, 1958	Year ended June 30, 1959	Year ended June 30, 1960	Budget for year ended June 30, 1961—subject to change
Parks division	$522,016.69	$375,000.00	$468,000.00	$557,775.72	$682,000.00	$682,000.00
Parks expansion and improvement[1]	397,731.00	713,926.64	990,746.40	1,628,852.16	768,000.00	1,118,000.00
Game and Fish Commission	928,795.94	1,176,667.36	1,329,955.02	1,145,333.77	1,295,000.00	1,295,000.00
Historical Commission Ga.	94,000.00	238,000.00	200,000.00	154,225.50	90,770.74	100,000.00
Recreation, Georgia Committee	.00	.00	.00	23,622.46	.00	.00
Stone Mountain Memorial Committee	.00	.00	100,000.00	1,576,689.88	434,717.50	378,100.00
Authority rents	.00	.00	.00	.00	350,000.00	350,000.00
Warm Springs (F.D.R.) Memorial	2,000.00	.00	.00	.00	.00	50,000.00

[1] Including Jekyll Island.

Source: Statement of financial condition and receipts and allotments of the State auditor of Georgia, June 30, 1960.

APPENDIX B

CASE STUDIES OF SELECTED AREAS

JEKYLL ISLAND

The Recreation Area

Location

Jekyll Island is located in southeast Georgia along the Atlantic coast. It lies approximately 280 miles from Atlanta and may be reached by car, via U.S. 341, which traverses the State in a southeast-northwest direction. The island may be reached by rail via the Seaboard Railway; by air via Eastern, Delta, or Golden Isles Airlines, via the St. Simon's Airport. Jekyll Island has an airstrip, but its use is limited to light, privately owned planes.

The physical area and facilities

The Jekyll Island land mass is 11,000 acres, and has 11 miles of beach. The entire shoreline is accessible to the visitor if he wishes to drive around the Island. One attraction for visitors is the group of houses, now museums, which once belonged to the wealthy families of the United States who used Jekyll Island as a vacation hideaway. For a fee, visitors may walk through the summer homes of the Rockefellers, the DuPonts, the Cranes, and the Morgans, to name a few. This "historical" attraction is one activity which may be pursued during a visit to the island. There are other historical sights such as remnants of the old slave trade mart of the 17th and 18th centuries, a fort built during the Revolutionary days, and the remains of one of Jekyll Island's first homes built in the 18th century.

Jekyll Island is also a wildlife sanctuary, its forest containing wild deer, turkey, and quail. The hunting season extends from November through February, with bird hunting leading the way as the principal sport. The other land activities available to visitors are the two golf courses, one 18 holes and one 9, tennis courts, and paths for hiking.

Jekyll has two large picnic areas with a total of 600 picnic tables and benches. There are eight smaller picnic areas scattered along the shore, each containing six picnic tables. Pressure on picnic facilities is light to very light. Only on Sunday is there any appreciable number of picnickers, and these are primarily residents of nearby Brunswick.

A small shopping center is located at the entrance to the beach area of the island. Here the visitor may purchase drugs and supplies at the island drugstore; food is available at the supermarket; and laundry may be done at the laundramat. A cafeteria with relatively inexpensive meals is also located in the shopping center, as is a branch post office.

Other concessions to be found on the shoreline include two snack bars, an ice cream stand, and a playground with rides for children.

The latest facility to be opened on Jekyll is the Aquarama. This facility, obviously constructed to attract conventions, features a tremendous indoor, heated swimming pool, a large auditorium, and many small conference rooms. The swimming pool, while attractive, is extremely expensive ($1 for adults, $0.50 for children), yet it is the only fresh water pool on the island that is available to nonmotel visitors.

The main attraction on Jekyll is the beach located on the ocean side of the island. Consisting of closely packed white sand, the entire beach area is maintained in immaculate condition at all times. Using convict labor, the authority cleans the beach of all debris immediately after high tide daily. Life guards are on duty during daylight hours, the surf is medium, the bottom slopes gently toward the sea; all in all a most attractive beach area.

Accommodations

Motels

There are, at present, six motels in Jekyll—five reserved for whites, and one for colored visitors. These motels are privately owned, but are located on land leased from the Jekyll Island Authority. Each motel has its own dining room and its own lounge providing entertainment and dancing.

The motels, with one exception, are located on the beach. In addition to the usual bedroom accommodations, each motel has efficiency apartments for rent that include kitchen and dining space. All motels are new and are tastefully furnished. Rates run from $12 to $18 for bedrooms, and from $18 to $25 per day for efficiency apartments. These are summer rates; winter rates are 10-15 percent lower.

Hotels

Within the island, removed from the beach, there are several hotels. These hotels are converted summer homes of the wealthy families who used Jekyll as a vacation spot. The hotels are in relatively poor condition; the old frame homes are in need of paint; the grounds are ill-kept; and the overall appearance is one of dilapidation. Room rates, however, are much less expensive than are motel rooms.

Cottages

There are many cottages on the island; some on the beach, others some 75 to 100 yards inland. Many of the cottages are individually owned and are located on lots leased from the authority. There are, in addition, a substantial number of cottages available for rent, by the day or week, from local realtors. Rents for these cottages range from $65 to $200 a week during the summer, and from $50 to $175 during the off season. The typical cottage features three bedrooms, bath, living room, dining room, and kitchen, and rents for $100-$125 a week.

Campgrounds

There is presently only one campground on the island. Established on a 20-acre plot on the mainland side of the island, facilities include a small store, bathhouse, and laundramat. Campsites are rough and are spaced alternately along a dirt road leading into a forested area. While picnic facilities are located

nearby, campers must go to the other side of the island for swimming, since the mainland side has only a rocky and marshy shoreline. No fresh water pools are available to the camper except the expensive pool in the Aquarama. All in all, one would have to state that camping on Jekyll Island is unattractive, yet this is the only facility that is within the financial means of a large portion of Georgia's population.

The Visitors

During 1960, 253,410 people visited Jekyll Island. This was a 50 percent increase over 1959, and it has been estimated that the number of visitors will increase by 50 percent each successive year. It is difficult to assess how many visitors were local residents (within a 70-mile radius) who use the beach and its bathing facilities free of charge. Moreover, many of the visitors were from out-of-State, as Jekyll Island is a nationwide tourist attraction.

A check at the motel parking lots indicated that of the automobiles from the Atlanta area, Fulton and DeKalb Counties far outnumbered those from Cobb, Clayton, and Gwinnett Counties. Of a total of 115 automobiles with Atlanta license plates: 40 were from Fulton County; 50 were from Dekalb County; 12 were from Cobb County; two were from Clayton County; and there was only 1 from Gwinnett County. It is assumed there were more cars from the Atlanta area on Jekyll Island during the period of visitation, but these were the only ones found parked in large enough numbers to be significant.

A check with the motels showed that of the total number of visitors at each motel, approximately 30 percent were from Atlanta. The average length of a visit was estimated at 3 days. The 30 percent figure needs to be qualified with the statement from all motel owners, "that approximately 75 percent of their visitors were paying, or did pay, repeat visits." This makes it more difficult to assess how many people from the Atlanta area visited the island.

Of the total number of campers at the Cherokee campgrounds, 50 percent were from Atlanta. The manager of the campsite indicated that this was a very rough estimate.

Almost all visitors are families. Jekyll Island is definitely a family resort area with facilities for children, and such features as rooms with kitchenettes to service families.

Almost all visitors are from the middle and upper income groups. The price for motel rooms and cottages would preclude most people from the lower economic groups. The atmosphere is one of sophistication and style, and it may be assumed that most visitors were from large cities, either in Georgia or out-of-State.

Conclusions

This is an extremely attractive, very well managed, immaculate recreation area. To the local residents of the area, those within the 70-mile radius mentioned earlier, Jekyll Island is a fine day-use facility. For those residents of Atlanta and from out-of-State, Jekyll Island should be considered a resort area. The most attractive sights on the Island are the motels. The recreation facilities are scarce, and the ocean is the basic source of recreation activity, with swimming as the chief activity. There is little boating, no water skiing, and relatively little deep-sea fishing.

If comparisons are helpful in assessing the value and quality of the Island, the best comparison would be with the resort areas to be found in the Catskill Mountains of New York. For those who like to lie on the beach and swim during the day, enjoy an expensive meal in the evening, and dance and nightclub at night, Jekyll Island seems to be the perfect spot. For those who are seeking an atmosphere less sophisticated, less flashy, it does not seem that Jekyll Island is the place to go.

In assessing the future of Jekyll, one would conclude that it doubtless will become a favorite site for holding large conventions during the spring, summer, and fall, and will be a delightful vacation spot for those Georgians and non-Georgians who can afford its rather expensive accommodations. It is not now, and probably will not become, a vacation area for the great majority of the residents of Georgia.

IDA CASON CALLAWAY GARDENS

Location

The Ida Cason Callaway Gardens are located on the northwest slope of Pine Mountain in the southernmost foothills of the Appalachians, and 4 miles south of the west Georgia town of Pine Mountain in Troup County. Atlanta lies 85 miles to the northeast.

A network of highways connects the capital city to Callaway Gardens. The trip begins with a 10-mile drive on the south expressway to Georgia 54. Making this junction, the traveler rides to Fayetteville at which time he turns on Georgia 85. From Georgia 85, the route continues on Georgia 109 leading to a junction with Georgia 18. After traveling on this highway, the traveler turns on United States 27, the main U.S. artery from the midwest to Florida.

There are more direct routes from Atlanta to Callaway Gardens. The above-mentioned route, however, has been designed to allow the traveler to drive, in the main, on highways that are not cluttered with heavy traffic. The roads, some of them county roads, are well paved and well maintained.

The traveler is guided by 12 highway signs which indicate that he is on the correct route. The signs are large and the printing is easy to read while driving. The following figures represent the mileage between the location of the signs and the gardens: sign 1—65 miles; sign 2—58 miles; sign 3—50 miles; sign 4—35 miles; sign 5—34 7/10 miles; sign 6—34 miles; sign 7—31 miles; sign 8—19 miles; sign 9—14 miles; sign 10—9 miles; sign 11—4 miles; sign 12—1 mile. The traveler also finds billboards that advertise the Gardens Motel so that he is aided further in keeping to the route.

It should be pointed out that these billboards indicate the kind of place Callaway Gardens is. They are not "loud" in tone; they do not clash with the beauty of the countryside; on the contrary, they are subdued in color. The lettering is white and in a style of script used in all the signs and markers located in the recreation area itself. It is indicative of the

standards of excellence maintained at Callaway Gardens that even the highway posters suggest the atmosphere of the area and are designed in a manner befitting its dignity and beauty.

The area proper and facilities

Callaway Gardens is a spot unto itself. None of the areas visited during this project compare to its natural beauty. For the gardens is not only a recreation area—it was not designed to be—it is a sanctuary for native plants and wildflowers, to which 15-20,000 new shrubs are added annually. Within an amazing variety of forests, shrubbery, and flowers are 10 mountain, spring-fed lakes, the 2 largest of which, Mountain Creek Lake and Robin Lake, are the fishing and swimming areas, respectively. This whole magnificent area is encircled by a winding, hardtop road 5 miles in length, known as the Five-Mile Drive. In discussing Callaway Gardens, we will describe each of the recreation areas encountered on the Five-Mile Drive.

The admission to the Five-Mile Drive, $0.75 for adults and $0.35 for children, allows the visitor to enter into a naturally created and man-made "Garden of Eden," as it has been called. It is an area of breathtaking lovliness. There is not a spot in the area that has not been landscaped by man or nature. Every building is bordered by bright-colored flowers or flowering shrubs. Pathways to buildings are lined with flowers, shrubs, or trees. The road winds its way through a forest of pines, maples, beeches, and gums. Shrubbery and flowers border the road. One example of the lovliness to be found in the 5-mile area is the last part of the drive from the cottage area to the beach. This area is bordered by tall, stately pine trees. Several feet from the pine trees is a garden of magnolia trees growing in the same line as the pines. This pattern is repeated several feet from the magnolias by a line of tall and full-growing shrubbery. Away from the shrubs and close to the road, the semicircular pattern is repeated by rows of flowers. One large semicircle of pines, magnolias, shrubs, and flowers tells the visitor that this is a spot where he can find solace, serenity, and beauty. It is this natural beauty which makes Callaway Gardens a unique recreation area.

The clubhouse area

The clubhouse area is encountered early on the Five-Mile Drive. Within this first area are the clubhouse itself, the overlook picnic area, the boathouse, the golf course and "Cleopatra's Barge," a huge sightseeing boat that tours the 5-mile shoreline of Mountain Creek Lake, and which may be used for special parties and luncheons afloat.

The buildings in the area are of 17th century English Provincial design with hand-hewn oak beams and hand-rived shingles. The two dining rooms in the gardens are found in the clubhouse area. One which caters especially to the golfers serves sandwiches and snacks, while the main dining room has a capacity of 150 people with an adjoining terrace that can serve 60 additional people. During the summer, breakfast and dinner are served smorgasbord style. The food is excellent, and the prices are reasonable; $2.75 for dinner, and $1.75 for a full-course lunch including appetizer, main dish, vegetables, salad, and dessert.

The overlook picnic area is a pavilion which can hold 320 people, and is used for group parties and large group barbecues.

The boathouse accommodates 80 fishing boats, and is the center for fishing on Mountain Creek Lake. Sightseeing boats, such as "Cleopatra's Barge" and smaller vessels are available from the boathouse.

The nine-hole golf course (nine additional holes are under construction) has been designed for the "average" golfer. Rather than being filled with traps and encumbrances to test the skill of the golfer, it is a sweeping picturesque green lawn, bordered by the lake and the thick forests of the area.

Meadow lark flower area

The meadow lark flower area is the principal concentration of planned flower trails in the gardens. While flowers and flowering shrubs are found throughout the gardens, bordering every building and pathway, this area is designed especially for those who wish to walk through paths containing a multiplicity of familiar and exotic varieties of shrubs and flowers. The average walking time through each trail is 15 minutes. The five trails are the azalea falls trail, the holly trail, the rhododendron trail, the magnolia trail, and the bird study trail. While the walk through the trails does not serve as an activity for hikers, it presents the visitor with a retreat, a place to commune with nature, and allows him respite from the tempo of metropolitan living.

Robin Lake beach area

The beach is the main attraction of Callaway Gardens. The facilities are designed to accommodate 15,000 persons at one time. The parking area will accommodate 2,000 automobiles with extra space reserved for another 2,000 automobiles in overflow parking areas. The beach is open for swimming and water sports from April 15 through Labor Day. Water skiing, however, is a year-round activity. The beach hours are from 9 a.m. to 7 p.m. On Saturdays the beach is open until 10 p.m. for night swimming.

Robin Lake comprises 65 acres. It is used for water skiing, speedboat rides, canoeing, and pedal boating. The last three activities take place not on Robin Lake, but on two smaller lakes that adjoin it.

The pedal boats at Callaway Gardens are large enough to seat more than two people, and have an attached bicycle that older children may ride while the parents and younger children are in the pedal boat proper. Each of the above-mentioned boats contains life preservers. Children are not allowed in the canoes, with or without parents.

A feature of the water activities is the ski pavilion located on the west beach. The beach is of horseshoe shape and extends half a mile around the shoreline of the lake. The sand extends 50 feet above the shoreline and 120 feet beneath the surface of the water. The pavilion can seat 800 persons. It is used for the master's water ski tournament held annually at Robin

Lake, but it may also be used as an area for private parties and banquets.

Facilities of the beach

The west beach is the smaller of the two. There is one bathhouse on this side of Robin Lake with parking facilities for about 400 cars. The bathhouse is in the center of a pine grove, and bordered by flowering shrubs and flowers. Like the east bathhouse, there are indoor flower gardens in the center of the dressing room. The price for use of the bathhouse is $0.25 for adults and $0.10 for children. A public telephone and soft drink machine are found at the west bathhouse.

Adjoining the west bathhouse is the west picnic area. Automobiles may enter the area for unloading, but must be parked in the parking lot.

Aside from this picnic area and the east picnic area, there are smaller areas with picnic tables surrounding the lake.

The east beach has four bathhouses, each of which can accommodate 1,000 persons at a single time. An outstanding feature of the east beach is the pavilion, a mushroom-structured futuristicly designed area containing ultramodern tables and chairs, and decorated by abstract mobiles. The mushroom structuring is a result of juxtaposing 21 giant shells which tower 19 feet into the air. The pavilion is one-half the size of a football field.

The pavilion is used as a restaurant where lunch or dinner may be obtained. It also contains two ice cream stands, and is surrounded by two small picnic areas. Within the pavilion are public telephones, water fountains, and two restrooms. On Saturday nights the pavilion is used for dancing with music furnished by an orchestra that occupies the small band shell at the north side of the structure.

For the bathers and picnickers on the east beach, four concession stands have been erected from which hamburgers, frankfurters, soft drinks, and ice cream may be purchased. There is also a gift shop which sells beach toys and accessories, cameras and camera supplies, and drugs. Showers and drinking fountains are conveniently located through the east beach.

The east beach is the location of the children's playground. This supervised play area contains a sandbox, swings, climbing bars, and a slide. This is a play area, but is not a carnival-type area.

The safety and welfare of visitors are rigidly guarded at the beach. The water is periodically tested by the Department of Health. The beach has a smooth, gentle slope to prevent a swimmer from suddenly finding himself in water over his head, and there are several lifeguard stands ringing the enclosed swimming area.

When the visitor enters the east beach, he is greeted by the sounds of music from the public address system. The music is not from a jukebox, not from a radio station, but is similar to the music service where the music has been taped and plays continually throughout the day. The music played is semi-classical and pop "standards." The combination of pleasant musical sounds, the beauty of the lake, and the natural beauty of the grounds with the flowers and shrubs provide a relaxation not encountered at any of the other recreation areas surveyed for these reports.

Accommodations and services

On June 4 of this year, 50 cottages were constructed on the outskirts of Robin Lake. If they prove to be popular, as it is thought they will be, 200 additional cabins will be constructed for next year. This action by the gardens' officials was encouraged by a demand from visitors for a longer period of stay at the gardens; for vacations rather than 3-4 day periods, which is the average duration of a visit at this time.

Perhaps a strong indication that the gardens is a family recreation area is the criterion that no one can rent a cottage during the summer season unless there is at least one child present.

The cottages may be rented for 1 week at a time. The rental is $68 per week for two adults and up to six children. The rental includes admission into the gardens and the beach, participation in the adult recreation program, supervised play and study programs for children, and supervised babysitting. The adult recreation program referred to is a night activity; one activity for each night of the week.

The regulations covering the use of the cottages change during the fall, winter, and spring. During these seasons cottages are rented on a daily or weekly basis to convention groups, individuals, or families. The rates are based on a nightly schedule: $6 for one person; $8 for two; and $1 for additional persons.

It cannot be determined how the cottages will be maintained once their newness wears off. It can be said, however, that if they meet the criteria established for other facilities in the area, they will be well maintained. The cottages are of wood, redwood and pine stained. Each cottage consists of a combination living room-bedroom, a kitchenette, a bathroom, and a small room serving as an extra bedroom. One style of cottage, tepee shaped in design, contains an attic with several bunk beds for extra children or guests.

The Gardens Motel contains 50 units. With modern conveniences and facilities, it is used, in the main, for visits of 3 days. It has facilities for groups with an "executive suite" adjacent to a conference room for meetings. There are studio rooms and parlor suites for small groups. The motel does not have kitchen facilities. A guest of the motel may use the beach and other recreation activities without charge.

There are several small motels in the immediate vicinity of Callaway Gardens. One of these motels gives its guests free admission passes to the gardens and the beach. The motel, of course, must recompense the Gardens Corporation for this privilege. The privilege was offered the other motels in the area, but they refused to accept it. As a result, when the Gardens Motel is filled, it recommends the motel with which it has the free pass agreement to those who did not find vacancies in the Gardens Motel. These smaller motels are very modest (8-12 units), not very attractive, but are simple and clean. Their main source of income occurs during the summer months in supplying rooms to those who are unable to acquire space in the Gardens Motel.

One final service offered visitors is the Gardens Airport, a 3,000-foot turf airstrip with tiedown and refueling facilities, and several hangers. Visitors who fly to the gardens are supplied with free transportation to the area's facilities. Flying lessons are given for those visitors who are interested at a rate of $14 for solo lessons and $18 for dual lessons.

The visitors

In 1960, 350,892 people visited Callaway Gardens. This represented an increase of only 477 people over 1959. So far in 1961, 15,000 more people have visited the area than in the same period in 1960. The 1960 and 1959 figures are decreases over 1957 and 1958. One factor which might account for the higher attendance in 1957 and 1958 is that the gardens was written up in a September 1956 issue of the Saturday Evening Post. But whether this played a significant role in drawing visitors is only conjecture. In 1959, the gardens attempted an intensive advertising campaign, but there was no noticeable reaction to the campaign and it was terminated at the end of the year. The advertising was aimed not only at Atlanta, but also at residents of such cities as LaGrange and Columbus in west Georgia.

Of the 350,892 people who visited the gardens in 1960, approximately 65,992, or 20 percent, were from the Atlanta SMSA. This figure was arrived at by multiplying the number of automobiles from Atlanta by the average number of people in an automobile. A breakdown of automobiles by county indicates that most of the Atlanta visitors were from Fulton and DeKalb Counties. There were 9,960 automobiles from Fulton County; 4,753 from DeKalb County; 1,041 from Cobb County; 509 from Clayton County; and 235 from Gwinnett County.

During 1960, 2,536 room days were used by Atlantans in the Gardens Motel. There are 18,250 possible room days in the Gardens Motel for 1 year. Averaging three people to a room (which is the nationally accepted figure), the Gardens Motel serviced 7,608 Atlantans out of a possible 54,750 guests. Thus, Atlantans accounted for approximately one-seventh to one-eighth of the motel's visitors.

The motels operating in the vicinity of the gardens estimate that the number of Atlantans they accommodate total about 25 percent of their total business during the summer.

Business groups from Atlanta use the gardens for outings and meetings. One Atlanta bank, for instance, purchased 2,389 season memberships for their employees for 1960 and 1961.

Most of the visitors to Callaway Gardens could be classified as being in the upper income category. Based on an observation of automobiles, clothing, and the amount of money needed for a weekend or a week-long stay, it can be said that the area is not frequented by low income groups.

Future plans

The future plans have been discussed above. An additional nine holes will be added to the golf course; 200 more cottages will be constructed; and accommodations of the Gardens Motel will be doubled or tripled, if not during this next year, within the immediate future. In other words, most of the future plans are concerned not with recreation facilities, but with accommodations and services for the visitors.

Conclusion

The Callaway Gardens is operated by the Ida Cason Callaway Foundation, a nonprofit corporation, established by Callaway Textile Mills. Motel and food concessions are operated for profit by the Callaway Corporation, an entity separate from the foundation. While the facility is not yet on a self-sustaining basis, there is every expectation that it will reach such a basis some time in the near future.

"The Ida Cason Callaway Gardens have been established for the inspiration, education, and benefit of the people of the South and of the Nation." This statement of purpose has served and will continue to serve as a guide for the growth and development of Callaway Gardens. Opened in 1952, Callaway Gardens is that spot where a man and his family may find solace and respite from the hurly-burly environment of life in the metropolitan area. It is an area to which a man may retreat in order to find relaxation and recreation provided by nature herself. As compared to Lake Spivey and other areas surveyed by this reporter, this natural beauty is what makes Callaway Gardens unique: it is not manufactured; it is.

KENNESAW MOUNTAIN NATIONAL BATTLEFIELD PARK

Location

Kennesaw Mountain National Battlefield Park, administered by the National Park Service, U.S. Department of the Interior, lies 2 miles north of the city of Marietta in Cobb County, one of the five counties which constitutes the Atlanta SMSA. The park is 20 miles from downtown Atlanta in Fulton County; it is farthest removed from the three remaining counties: DeKalb, Clayton, and Gwinnett.

The park is most accessible to residents of Cobb and Fulton Counties, since it may be reached by U.S. Highway 41 which traverses the two counties. Moreover, residents of Cobb County have access to the park by two Georgia highways, 3 and 120. Residents of DeKalb, Clayton, and Gwinnett Counties, while having to travel further, have no difficulty in traveling to the park since U.S. 41 may be reached easily by the Atlanta expressway system which has an interchange with U.S. 41.

A visitor to this recreation area will be delighted by the ease with which the park may be found. Beginning 15 miles from the park, there are three large billboard signs, one every 5 miles, which clearly indicate the distance to the park. Within the last mile to the park entrance, there are two warning signs, one of which indicates the mileage in tenths of a mile, while the other indicates the highway turnoff. Within the park itself, there are numerous and well-distributed guideposts.

The fact that the park is accessible by a major U.S. highway and State highways insures good road

conditions to the park. Within the area, automobile travel is facilitated and made comfortable by well-maintained hardtop roads. The visitor need not travel on dirt roads, nor does his sightseeing need to be interrupted by scanning for ruts or holes in the road.

The natural beauty of the park is excellently maintained. There is a noticeable absence of large, gaudy signs advertising souvenir shops or hot dog stands; the highways and grass enclosures are free from refuse and litter. The park is well policed and extremely attractive and neat.

Recreation activities

Admittance to the park is quite inexpensive: $0.50 per car; $1.00 for a season pass. These fees allow the visitor to participate in the three recreational activities offered: viewing battlefield sites, hiking, and picnicking. These offerings are listed in accord with their popularity, although it should be noted that viewing battlefield sites and hiking are often combined into one activity. There are two small picnic areas, each containing six wooden tables. It has been estimated that the length of a visit ranges from 1 to 1/2 hour a day, the latter duration being a rarity. It is probably due to this fact, and also the fact that the visitor is continually on the move, either walking or driving, that there are very few and very small parking areas. There is one at the base of the mountain from which visitors may hike up the mountain; there is a parking area at the top of the mountain for those who wish to drive up the winding roads and do their hiking only at the top; there is a parking area at Cheatham Hill from which visitors may hike through the forests, viewing battle markers.

As indicated above, the visitor has two choices. He may ride to the top of the mountain, enjoying the view of the surrounding countryside which is afforded him. Once at the top of the mountain, he may follow a short path which contains historical markers describing the Battle of Kennesaw Mountain, remnants of Confederate artillery, gun turrets, trenches, and other appurtenances of this battle of 1864. If he is so inclined, the visitor may park at the base of the mountain and hike through the woods to the top. Once reaching the top of the mountain, the visitor has a panoramic view of the countryside. The trenches, artillery pieces, etc., may also be viewed at Cheatham Hill, a 5-minute drive from the mountain and another battle site in the park.

Either before or after his visit to the mountain, the visitor may stop at the museum at the visitor center. There he will find relics from the battle of Kennesaw Mountain including arms, flags, uniforms, papers, and maps.

According to park authorities and visitors interviewed, the main attraction of this recreation area is historical interest. For instance, a brochure states, "The panorama below makes this area a vivid map on which you may readily imagine the scenes of engagement that took place ...."

The visitors

During 1960, 203,480 people visited Kennesaw Mountain. This was an increase in visitors from the previous year. Of these 203,480, approximately 100,000 were from the Atlanta SMSA. Of this number, approximately 400 paid repeat visits to the park. The peak period of visitation is evenly distributed from June-August with no single month significantly outweighing another in number of visits.

Out-of State tourists predominate in the visitations during the week, while Atlantans comprise the largest number of visitors on the weekend. On the reporter's first visitation day, only three cars from Metropolitan Atlanta were noted, these being from Cobb County. The registration book showed that on the preceding weekend (June 3 and 4), 37 out of 80 visitors were from the Atlanta metropolitan area. The Atlantans were mainly from Cobb and Fulton Counties, with several visitors from the city of Decatur in DeKalb County. It should be pointed out that of the visitors from Cobb County, those from Marietta, the city in which the park is located, far outnumbered those from other cities in that county. The city of Smyrna in Cobb County, however, usually contributed a goodly number of visitors. Smyrna is only 10 miles from Kennesaw Mountain. Of the residents of Fulton County, those from Atlanta proper far outweighed those from other cities in the county.

It was difficult for park officials to distinguish the types of people who visited the park. However, certain observations were made by them and by the reporter who interviewed several visitors. The out-of-State tourists whose visitations are chiefly centered during the week were mostly white-collar workers. They were well-dressed in the latest styles; they were able to communicate well and were at ease while being interviewed. Families and young married couples predominated. The residents of metropolitan Atlanta were also mainly family groups and married couples.

Park officials reported that during the early summer months, school parties with adult supervisors constituted the largest number of local visitors, and that the individual family groupings were to be found in larger number during the middle and toward the end of the summer. The author also noted that many of the local residents who visited the park brought relatives and friends from out-of-State who were visiting in metropolitan Atlanta.

Conclusion

The pattern of visitation reported previously indicates that approximately one-half of the visitors to Kennesaw Mountain National Battlefield Park are from the Atlanta SMSA. The largest contingent of area visitors occurs on the weekends, and these visitors are mainly from the cities of Marietta in Cobb County, Atlanta in Fulton County, and Decatur in DeKalb County. The park is a family recreation area, an attraction because of its historical significance in the Civil War, and because it allows the individual to get away from his daily metropolitan environment for a pleasant drive in the mountains and forests which constitute this park.

LAKE SPIVEY

Location

Lake Spivey is located 3 miles east of Jonesboro, Ga., in Clayton County. It is 20 miles from downtown Atlanta, and may easily be reached by the south expressway. DeKalb County lies approximately 24 miles from the area. Residents of this county have access to Lake Spivey from two highway systems. They may (1) travel on the northeast expressway to downtown Atlanta, and make a connection with the south expressway, or (2) travel on Georgia 138 directly to Lake Spivey. Cobb County lies 38 miles from the area that may be reached by U.S. 41 which becomes the north expressway in downtown Atlanta. Of the five county SMSA, Gwinnett lies farthest from Lake Spivey. Residents, however, have an easy, traffic-free ride on the northeast expressway into downtown Atlanta where the south expressway begins. Downtown Atlanta is the hub into which the surrounding county's residents can come together, and from which the south expressway leads to Lake Spivey.

The park is easily found by drivers on the south expressway. The first highway sign is 10 miles out of downtown Atlanta and 10 miles from the park. The second sign is 6 miles from the Jonesboro exit of the expressway; the third sign, 3 miles from the exist. There is a fourth sign at the turnoff. During the 3-mile drive from the expressway on Georgia 138, there are four signs marking the route.

Lake Spivey, comprising 2,450 acres, provides an open, spacious area to the visitor. Facilities are well distributed, each facility located in a specific area of the park, and each area well separated from another. The area is neat, attractive, well policed. The grass is well maintained. The main buildings are enhanced by borders of shrubbery. In an attempt perhaps to imitate Callaway Gardens, the bathhouses contain shrubs and flowers.

The road to the ticket window at the entrance to the park is bordered by picnic areas. To the left is an area for pony rides and a softball diamond. Proceeding from the ticket window to the parking lot, the bright colors of the play-land rides are observed, and then the two beaches of white, glistening sand which yields to the clear waters of the lake. On the lake, the visitor may notice the starched sails of the several sailboats available for boating, or see groups of water skiers. Rising out of the water are several lifeguard stands, designed in futuristic style with bright pastel-colored roofs. The bright colors covering triangular shaped roofs are noticed throughout the park since the architectural styling is unified in the construction of most of the buildings. The moment he enters the park, the visitor finds himself shrouded by an atmosphere of freshness, cleanliness, and brightness which contributes to a feeling of relaxation and the anticipation of a good time.

The visitors

Lake Spivey is advertised as "Atlanta's Most Fabulous Playground." Each brochure distributed by the Public Relations Department of the park contains a map describing the trip to the beach from downtown Atlanta. There is a telephone listing in Atlanta for Atlantans to receive information and make reservations. It seems fairly obvious that Lake Spivey truly serves the Greater Atlanta area.

A pattern is exhibited here as it was at Jekyll Island, and Callaway Gardens. This pattern may be due to the population pattern in the five county area. At any rate, at Lake Spivey the term Atlanta refers to Fulton County. There were twice as many visitors from Fulton County as from DeKalb which had the next largest number of visitors. These two counties, Fulton and DeKalb, are the most populated of the five county area. Automobiles from these two counties predominated at all the recreation areas surveyed, with the exception of Kennesaw Mountain National Battlefield Park which is located in the heart of Cobb County. On one visitation day at Lake Spivey, there were five times as many automobiles from Fulton County as from Clayton County, the county in which the park is located. There were no automobiles from Cobb County and one automobile from Gwinnett County.

In 1960, approximately 300,000 visitors paid to enter Lake Spivey. This was a great increase over the number of visitors in 1959, and it has been estimated that 1961 will show at least an increase of 50 percent over 1960. Of the 300,000 visitors in 1960, approximately 85 percent were from Atlanta. It was further estimated that of the total number of visitors in 1960 and in 1961, 80 percent were and would be repeating visits.

The function of Lake Spivey is to provide recreation facilities for families. It was observed that on weekdays, teenagers and young adults, both married and single, predominated in the morning. There were families present in the morning, but more of them appeared in the afternoon. The proximity of the park to downtown Atlanta, the expressway system, and the number of daylight hours during the summer, combine to make a pleasant invitation to families to plan a picnic-style evening meal and a before-dinner swim. The weekend, of course, is the time when families predominate.

Lake Spivey has proved to be an attraction to large groups. It was estimated that 45-50 groups hold parties at the park every weekend. Business firms such as Fulton Federal Savings and Loan Association, Gulf Oil Corp. of Atlanta, and the Coca-Cola Co. bring in as many as 600 to 1,000 of their employees. Although school and church groups also have outings at Lake Spivey, the park officials emphasize their ability to accommodate large business groups. The fact that they are able to draw business firms to the park has resulted in special building plans for the future. These will be discussed in a later section of the report.

The statement was made that "our park is geared to the non-country club member and to the person or family who cannot afford to spend 1 or 2 weeks and $400 and up for a summer vacation." The park attracts families from the middle income groups, mostly white-collar employees. Those people interviewed seemed articulate; automobiles were mainly new and late models; clothing exhibited by the visitors indicated that they were sufficiently well-off

to invest in clothes of the latest style. In spite of seeming financially self-sufficient, the majority of the people interviewed said they would be unwilling to pay an increased admittance fee.

Recreation activities

The admittance fee to Lake Spivey is $0.75 for adults and $0.35 for children. The fee includes use of the bathhouse and picnic facilities.

The park lives up to its boast of having "something for every member of the family." The main attraction is the beach, and of all the activities afforded, water sports are the most popular, and water facilities the most utilized. One-third of the total acreage is water which allows for a diversity of water activities. Aside from swimming, the visitor may enjoy fishing, speedboat rides, water skiing, sailing, and a riverboat tour of the lake. The latter attraction is designed for family enjoyment. Water skiing attracts teenagers and young adults, as does sailing and speedboat riding. Fishing is enjoyed by young adults and older visitors. Other attractions for teenagers are the putt-putt golf course and the dance pavilion.

Especially designed for children is an area called Playland which contains such rides as merry-go-round, kiddie boats, a miniature roller coaster, a miniature ferris wheel, and helicopters. The park has an area set aside for pony rides.

There are three large picnic areas with a total of 800 concrete picnic tables. The fishing area, which is located 1 1/2 miles west of the recreation area proper, secluded from the crowded beach area, also contains several picnic tables and outdoor fireplaces.

For those who do not wish to picnic, there is a cafeteria capable of serving 700 people. The food is typical of restaurant catering services, and the average cost of a meal is $1.35. The cafeteria also supplies catering for groups who utilize the park's buffet terrace.

The number and diversity of recreational activities provide enjoyment for people of all ages. The water activities for teenagers provide a healthy counterpart to the less strenuous activities of dancing and miniature golf.

As a final point, it should be indicated that the health and welfare of the visitors is protected by the employment of a park policeman and the maintaining of a park first aid station under the supervision of a park health director.

Future plans

Lake Spivey is 3 years old. From 1958 to 1961, it has continually increased the number of paid visitors and the facilities to accommodate them. For many visitors, the chief attractions of the park were its cleanliness and the proximity to Atlanta. Those in charge at Lake Spivey consider the park in direct competition with Callaway Gardens, and plan to take business from this recreation area.

One of the plans by which they hope to attract visitors who would normally go to Callaway Gardens is the building of a motel, which, it is hoped, would extend the present 1-day duration of a visit to weekend length. Another plan is to build cabins which would allow families to use the park as a vacation area, extending the duration to 3 to 4 days or a week. In order to provide recreation facilities for those who would stay at the park several days, an 18-hole golf course is included in the plans. Moreover, it is intended to increase the 14 miles of shoreline by 3 or 4 miles, enlarging the present water facilities.

These plans are for the immediate future. The cabins and the motels are to be constructed by next year. It was thought that an increase in fees would be necessary for this expansion. Since many visitors to the park indicated they would be unwilling to pay an increase in fees, it will be interesting to note whether the number of weekend and vacationing visitors will compensate for any reduction in daily visitors.

Conclusion

Lake Spivey is a spacious and attractive recreation area for residents of Greater Atlanta, especially those from Fulton County. It provides recreation facilities for the entire family on a day-to-day basis. It hopes to extend its operation to attract visitors for weekends and vacations and thus compete with such established vacation areas as Callaway Gardens. Lake Spivey will be a significant recreation area in the future.

Part III

THE FUTURE OF OUTDOOR RECREATION IN THE GREATER ST. LOUIS METROPOLITAN REGION

A Report to the Outdoor Recreation Resources Review Commission

by
GREGORY P. STONE
ROBERT P. SCHUERELL
ETHAN Z. KAPLAN

Acknowledgments

It is impossible in a study of this sort which has required the pulling together of a vast number of materials from many widely divergent sources to express adequate appreciation for the assistance so generously given by so many persons and agencies. Particular persons and agencies, however, proved especially helpful and deserve to be singled out for our gratitude. Needless to say, they are in no way responsible for the interpretations that have been made in this report, nor for the misinterpretations that have undoubtedly occurred. Yet, whatever is of value here would not have been forthcoming without their assistance.

Laurence I. Hewes, Chief, Forecasts and Economics Group, Outdoor Recreation Resources Review Commission, has been responsible for the overall administration and coordination of the urban studies. In performing this very difficult task, he has responsibly and promptly provided the St. Louis project with a host of relevant materials gathered in other places. Without these materials, the prosecution of the study would literally have been impossible. Edward L. Ullman, former director of the Meramec Basin Project at Washington University (St. Louis), now of the Department of Geography at the University of Washington, made the results of onsite studies conducted at Missouri State Parks in 1960 available in their entirety to the staff of this project. Without those materials, estimates of the distribution of the outdoor recreation activities of St. Louisans could never have been made, trend analyses would have been impossible, and there would have been no basis for making projections to 1976 and 2000 of St. Louis outdoor recreation demand. Ullman's materials, supplemented by an invaluable early study of Missouri State Park attendance, provided by Joseph Jaeger, Jr., Director of State Parks, Missouri State Park Board, constitute the empirical heart of this study. Moreover, Director Jaeger made contributions considerably beyond the provision of the early study. He met with our staff on numerous occasions, placed his staff at our disposal, and otherwise gave assistance at every opportunity. Finally, Donald J. Volk, also of the Meramec Basin project at Washington University (St. Louis), worked closely with the staff of this project throughout the difficult stage of analysis and supervised the preparation of the maps which appear in the appendix of this report. His generous cooperation was essential to the completion of this project.

Other persons who provided invaluable assistance at various stages of this research include: James F. Keefe, Information Officer, Missouri Conservation Commission; Edward L. Kozicky, Director of Conservation, Olin Mathieson Chemical Corp.; and Dr. Richard O'Brien of the Missouri Resources and Development Commission. It is impossible to enumerate here the 130 county agents who provided estimates of St. Louis pressure on outdoor recreation resources in the counties within a 150-mile radius of the central city to our staff, but their correspondence with us considerably facilitated the difficult task of determining the spatial distribution of St. Louis outdoor recreation.

A number of agencies and officers of agencies also provided crucial information. Supervisors of the national forests in the area of study assembled significant trend data on attendance and recreational activities. The Corps of Engineers provided similarly important materials on outdoor recreation at the locks and dams, navigation pools, and water impoundments under their jurisdiction. The Department of Conservation and its Division of Parks and Memorials of the State of Illinois were extremely helpful, as were the Division of Highways, Department of Public Works and Buildings, of that State and the Missouri State Highway Department.

In any enumeration of assistance on a scale as vast as the scale of this project, some important sources will have been omitted. We hope that they will understand that the omissions are the fault of human memory and not the result of human intent.

CHAPTER ONE

INTRODUCTION

There is no doubt that the ever-increasing metropolitanization of the Nation will exert continuing changing influences on patterns of outdoor recreation in the United States. Such large-scale trends as suburbanization, the massification of leisure pursuits, the professionalization of labor, the accelerating rate of physical movement in the population, automation and the declining work week, and the continuing spread of metropolitan functions in disregard of politically established limits, exert pressures on the use of land and water recreation facilities which stand in dire need of social scientific analysis to insure adequate outdoor recreation for future generations of Americans. However, any nationwide policy which can be formulated to take these influences into account must be informed concerning regional variations in outdoor recreation demand, facilities to meet that demand, and the means of making such facilities available to distinct metropolitan regions. St. Louis is one of five metropolitan regions selected to highlight such regional variations.

As the ninth largest SMSA in the United States, St. Louis presents a number of broad similarities to other metropolitan areas. Its central city has declined from almost 857,000 in 1950 to about 750,000 in 1960. However, suburban growth has enabled it to hold its regional rank in the decade. Proportions of the population which are nonwhite have increased in the central city and decreased in the suburban counties over the last decade—a phenomenon that is familiar to any student of urban growth in the United States.1/ Indeed, some sociologists predict a white suburb and a nonwhite metropolis for the not too distant future of the St. Louis region. The functions of the metropolis long ago spilled over State and local boundaries. For example, in 1957, the central city provided about 507,000 jobs for 360,000 resident workers. In each of the two Illinois and three Missouri counties comprising the SMSA in 1960, resident workers exceeded available jobs. Thus, the central city provides work for both Illinois and Missouri residents outside the city limits. Undoubtedly some of the work provided by East St. Louis in Illinois is taken up by Missouri residents, although not nearly on as large a scale. At any rate, the old problem of the disparity between sources of revenue and necessary provision of services, including recreation, faced by so many American cities clearly confronts the city of St. Louis.

Yet, if there are similarities, there are also dramatic differences. Suppose we consider the differential rate of increase in the proportion of nonwhites for the population of the SMSA. In general, it is a familiar pattern as we have said, and, were we to examine merely the relative rank of St. Louis with reference to proportion of nonwhites in the population for 1950 and 1960, we would not discern the unique character of the situation. Specifically, among the 25 largest cities in the United States, the St. Louis SMSA population in 1960 was composed of 14.3 percent nonwhites compared to 12.6 percent in 1950. This seemingly represents only a modest increase in proportion which one would expect not to require any sharp readjustment in race relations. Moreover, in terms of the rank ordering of the 25 largest SMSA's, this change in proportion actually represented a downward trend for St. Louis which ranked 9th in the country in 1950 as far as proportion of nonwhites in the population is concerned, but tied for 10th in 1960. Of course, proportions of nonwhites for the central city considerably exceed those for the SMSA as a whole. Nonwhites comprised 28.6 percent of the central city in 1960 and 18.0 percent in 1950. Although this represents a much sharper increase in proportions than was the case for the SMSA, this increase resulted in only a slight upward shift in the rank order of St. Louis from ninth in 1950 to a tie for eighth in 1960.

This cursory kind of scrutiny does little to point up the uniqueness of the St. Louis region as far as shifting balances between white and nonwhite populations and, in particular, the implications for outdoor recreation are concerned. However, if we examine a crude index of the rate of increase in the proportion of the population that is nonwhite, quite a different picture emerges. By subtracting 1950 proportions from 1960 proportions and dividing by the 1950 proportion, we are provided with a rough estimate of the proportionate increase in nonwhite population over the decade. Among the 12 SMSA's ranking St. Louis in 1960 or 1950, the proportionate increase in the nonwhite population of the St. Louis SMSA was 13.5 percent of the 1950 proportion, placing St. Louis fifth among these SMSA's in rate of increase of nonwhites during that decade. Using the same technique to indicate the change for the central city, we find St. Louis ranked only by Detroit and Cleveland, with the St. Louis increase in proportions of nonwhite comprising 58.9 percent of the 1950 proportion. The comparable figure for Washington, D.C. with the highest proportion of nonwhites in the central city population in 1960 (53.9 percent) is 57.0 percent.

Now this rapid rate of change has at least two important implications for outdoor recreation. First, outdoor recreation areas such as public parks and

1/These data and the subsequent discussion of changes in nonwhite proportions in the St. Louis SMSA between 1950 and 1960 are taken from Henry S. Shryock, Sr., "Some Results of the 1960 Census of the United States," dittoed paper presented at the annual meetings of the National Population Association of America, New York City, May 5, 6, 1960.

swimming pools are often sites of racial disorders and focal points for minority group pressure to gain equality of access and participation for the members of such groups. Second, once such access is gained by minority groups, such as Negroes, the sites may by abandoned by white recreationists who shift their leisure pursuits elsewhere and change the spatial configuration of pressures on recreation facilities in the area. Such problems and processes would seem to be aggravated in St. Louis more than in many other metropolitan areas in the United States, particularly southern metropolises which show smaller rates of increase for or actual decreases in the proportions of nonwhites, e.g., Memphis and Atlanta.

There are other unique characteristics of St. Louis that set it apart from other metropolitan regions. Although located near the confluence of three great rivers, St. Louis has little desirable open water available for swimming, one of the forms of outdoor recreation most frequently engaged in by Americans. The central city is choked off by a fantastic proliferation of autonomous communities in St. Louis County, making the development of coordinated planning in the region a nightmare rather than a pleasant dream which might eventuate in coordinated regional activities. There are 98 politically autonomous communities in St. Louis County alone ranging in population size from 51,000 to 50. Even police coordination is difficult, not to speak of planning for outdoor recreation to serve the region. In the winter of 1960, for example, county police raided bookmaking establishments in a county community only to find themselves temporarily under arrest by community police, while the operators of the illegal establishment escaped arrest and disappeared. Political decisions in St. Louis seem often to be highly conservative reflecting perhaps the influence of an old established elite which tempers the progress of the city, further inhibiting its growth, while other cities of the Midwest change, if frenetically, at least rapidly. In contrast, the city supports one of the most liberal newspapers in the United States, while the press of most other thriving metropolises of the Midwest is usually conservative. These are merely examples of the kinds of considerations which sociologists take into account when they attempt to forecast changes in any kind of behavior occuring in a community context.

Sociologists are concerned with the ways in which the changing (including persisting) social relations, which give people their character as persons, bear upon and affect the behavior of those persons. The behavior we have been concerned with in this report is participation in recreation outside the sidewalk area of a metropolis by persons who ordinarily use the sidewalks. The relations we have looked at in detail are relations in space and physical mobility, race relations, community relations, institutions and associations, and relations among socioeconomic strata, as they affect recreation carried on in the outdoors. As sociologists, we will have slighted, but not ignored, other dimensions that indeed bear on the problem such as administrative, budgetary, other more purely economic, and physiographical influences. However, that is the fate of any science discipline. It can only single out aspects of a problem, offering only special explanations. The "whole" truth must always escape every science and scientist.

This report is presented in five interrelated sections: (1) a description of the area under investigation; (2) a description of the present state of outdoor recreation in that area; (3) a presentation of trends in outdoor recreation for the area; (4) forecasts for 1976 and 2000; and (5) recommendations for planning and implementation of planning.

CHAPTER TWO

ST. LOUIS AND ITS RECREATIONAL ENVIRONS

Great cities usually form at breaks in transportation, and St. Louis is no exception. Located near the confluence of the Illinois, Mississippi, and Missouri Rivers, St. Louis, Missouri, was established in 1764 as a trading post and a main point of embarkation northwest for French fur traders. Early French names persist today in the designations of streets, sections, and industries of the city, but the prime effect of this early history of St. Louis has been to establish the city at once as a commercial center. Consequently, from its inception, St. Louis has attracted urbanites and cosmopolitan merchants. There was no period of pioneer farm settlement to imbue the population at any phase of its history with rural values.

St. Louis has also been termed a "talking town." Laclede, the city's founder, was a graduate of the University of Toulouse and brought a library with him into the wilderness. The French Revolution also brought many intellectual migrants to the city. This intellectualism was reemphasized during the period of German and Bohemian settlement from 1833 to 1882 prompted by European unrest and revolution. In 1878, the St. Louis "Post-Dispatch" was founded by Joseph Pulitzer.

Cosmopolitanism, commercialism, Catholicism, and intellectualism have been woven together in a curious amalgam that makes the temper of St. Louis what it is today—outspoken advocacy of progressive planning in a part of the press and other communication media mixed with conservatism and a typically blase-urban attitude that inhibits the implementation of proposed designs. In this regard, one might guess or hope that the spur towards urban redevelopment has upset the balance in favor of implementing proposed plans and policies, although the present redevelopment operation has precipitated a vast new set of problems which may discourage St. Louisans and reawaken earlier tendencies toward conservatism and sophisticated indifference.

There are two obvious implications of this thread of St. Louis history for outdoor recreation. First, St. Louis recreation patterns have a typically urban flavor. Parks, gardens, and playgrounds abound in and around the city. The St. Louis Zoo is among the best in the world. Such facilities cater to day or half-day visitors, and the use of the State parks by St. Louisans reflects this, as we shall see. Casual and brief visits to State parks by St. Louisans provide an important source of attendance. Second, any reasonable proposal to plan outdoor recreation for future generations of St. Louisans is practically assured of vigorous support by the communication media. Whether this support can sway citizenry and decision-makers is another question.

The question is confounded when we consider how the very urban temper of St. Louis initiated a decision in 1875 that has throttled the growth of the city ever since. In that year, St. Louis seceded from St. Louis County to escape the influence of rural senators. This had the acutal effect of "liberating" the county and confining the growth of the city. For over the course of more than three-quarters of a century, autonomous communities developed in the county until they have now reached 98 in number, each jealous of its political autonomy and integrity. The result has been an impasse as far as achieving city-county coordination is concerned, and the situation seems to be worsening rather than improving. Thus, a merger plan voted on in 1926, although defeated at the polls, was more favorably received by the voters than a limited district plan proposed in 1959. Again both proposals were strongly supported by the press and other communication media.

Cognizance must also be taken of another thread in the historical and cultural fabric of the city. Although the first small band of settlers who settled the city were quite probably not slave owners, Negro slaves were brought into St. Louis the year after its founding by incoming families from New Orleans and Illinois. Negroes have been an important segment of the St. Louis population ever since.

Quite probably the influx of European intellectuals, especially following the 1848 revolutions in Germany, had a great initial impact on the character of the Negro population. For, after that time, the proportion of slaves to freemen began to decline dramatically. Located in a slave State, St. Louis developed an anti-slavery temper very early and was an important station of the "Underground Railway" expediting the flight of the southern Negro to freedom in the north. There is considerable evidence to indicate that this function of the city persists today as it continues to be a way station on the northward road of the southern Negro. For example, in 1957 a survey conducted by the Health and Welfare Council of St. Louis disclosed that about 82 percent of the Negro population was born outside the metropolitan area. Sixty-nine percent was born in southern States with Mississippi contributing the largest share. A large portion of these migrants are traveling to and not through the city and represent a significant part of the general farm to city movement of the national population. Fifty-eight percent of the St. Louis nonwhite population in 1957 has lived on farms, and 43 percent was born on farms.

There are mixed consequences of the rural origins of such a large segment of the Negro population in St Louis for outdoor recreation. On the one hand, rural patterns such as bank-fishing may persist. Negro families may be seen fishing for rough fish along river banks and at less desirable fishing spots in municipal and county parks. Fishing data are seldom assembled for such areas with the result that some undisclosed amount of Negro outdoor

recreation never appears in the relevant statistics. On the other hand, a move from farm to city is also often consolidated by an intense rejection of rural values. This may have some effect on outdoor recreation patterns, although it is difficult to assess with any precision. Thus, when one Negro migrant was questioned informally about his reluctance to visit Missouri State parks, he replied, "Why should I go out in those woods? If I never see a snake again, it'll be too soon." In their rejection of rural origins, some Negro in-migrants may remove themselves from the St. Louis "market" for outdoor recreation.

However, a small proportion of St. Louis Negroes are not migrants, and many families have as long a history of residence in the city as the older established white families. For most of the history of the city, Negro recreation has been segregated from white recreation. An account written in 1903 recognizes the early racial insulation of recreation patterns:

> The recreations and amusements vary in the four classes of Negro society. For the lowest classes there are only the saloons, gambling dens, houses of ill fame, low dancehalls, and the streets. The upper class has its social and literary clubs, church entertainments, and pleasant homes. For the mass of the people there are steamboat excursions, barbecues, cakewalks, picnics, balls, and church "sociables," all of them ranging from respectable, well-conducted functions down to orgies of vice and sensuality. I think that it is only in the very lowest sort of amusements that there is any contact with the whites. A Negro is rarely seen at a theatre, or even at any of the summer gardens, which are resorts unrivaled in popularity among all classes of white society. 1/

The public parks of St. Louis were among the first recreation facilities to break the longstanding pattern of segregation. By 1938, only a trace of discrimination remained in those facilities:

> The public parks of St. Louis are open to whites and Negroes with no racial discrimination or segregation except alleged discrimination on the lagoons on Sundays in some of the parks and in permitting Negro children to ride the elephant on days when there are a lot of white children waiting for rides. The best example of the uses and facilities of public parks is Forest Park where the art gallery, the lagoons, the baseball grounds, the picnic grounds, the golf links, the zoological garden, the tennis courts, the municipal theatre, etc., are all open to white and black, rich and poor. The public parks of St. Louis are the most noteworthy features of the recreational setup of the city. 2/

Desegregation of recreation facilities has continued until the present, and in 1961 a Public Accommodations Ordinance established machinery for persuading all owners of public accommodations to desegregate their facilities under the threat of ultimate punitive sanctions in the event that they fail to end racial discrimination. This ordinance has already precipitated a wave of test cases in the city, but these tests have been made without noticeable violence or disorder.

Unfortunately the effects of desegregation do have some negative consequences for outdoor recreation. The presence of Negroes in a facility typically reduces the desirability of the facility in the eyes of many white recreationists. Myths arise to support the stereotyped undesirability of the facility. There is no doubt that these myths discourage white attendance at such facilities so that a kind of segregation-desegregation-resegregation cycle emerges.

This pattern has not yet developed in most of the State parks which serve the St. Louis region, primarily because such parks are very rarely visited by Negroes. In 1960, an onsite study of visitors to 5 Missouri State parks located at or near water impoundments disclosed that, of 724 residents of the St. Louis SMSA interviewed in those parks, only 6 were Negroes. One State park, however, does clearly show this pattern. In 1946, a municipal park, located within the city limits of East St. Louis, was given to the State of Illinois and has been operated as Grand Marais State Park since that time. At the present, Negroes comprise the great majority of visitors to that park. Although there are other reasons, this fact is frequently used to explain the large decrease in attendance over the last decade, a loss of more than 1 million visits to the park. Difficulty has also been encountered in inducing concessionaires to lease commercial facilities in the park with the result that facilities have probably declined in quality as Negro attendance has increased. At the same time, white recreationists have moved to other outdoor recreation areas at a greater distance from the city increasing the heavy pressure that is already exerted upon those areas.

This general problem will undoubtedly be intensified in the future, as the population of the central city of the St. Louis metropolitan region becomes increasingly nonwhite in character. The effects will be to "push" white recreationists farther and farther from the central city, to increase the impetus toward the development of exclusive and private recreation sites, and possibly to precipitate occasional race incidents and disorders. These effects may be exacerbated as the economic lot of St. Louis Negroes continues to improve.

St. Louis is a metropolis with great diversification of industry. In 1950, for example, 63 percent of the 446 industry classifications used by the U.S. Census were represented in the St. Louis economy. Negroes were employed in all major industrial groupings at that time but were disproportionately employed in those groupings in comparison with white employment. Specifically, both Negro men and Negro women were greatly overrepresented in personal services, entertainment and recreation, and public administration. The largest imbalance was in personal services, where only 2 percent of the while male labor force was employed, compared to 32 percent of the Negro

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1/Lillian Brandt, "The Negroes of St. Louis," "Quarterly Publications Of The American Statistical Association," VIII (March 1903) 264 pp.

2/C. B. Broussard and Bostic Franklin, "Survey of Recreational Facilities and Needs For Negroes" (St. Louis, Interfraternal Council of St. Louis, Missouri, April 1938 Mimeograph) pp. 27-28.

male labor force. Personal services accounted for the employment of half the Negro female workers compared to 7 percent of white female workers. Negro workers were grossly underrepresented in the manufacturing industries of St. Louis and the wholesale and retail trades. These disproportions are, of course, reflected in the racial differentiation of occupational groups, where Negro men and women were overrepresented in service occupations and underrepresented in clerical and sales occupations. In addition, only 7 percent of the Negro male workers were engaged as craftsmen, compared with 22 percent of the white male workers, while 34 percent of the Negro workingmen were employed as unskilled laborers, compared to 7 percent of the white workingmen. Among the women, the greatest disparity was in private household workers which included 32 percent of the Negro working women, but only 3 percent of the white working women.

A survey conducted by the Urban League in 1954, however, showed considerable gains for the Negro in the St. Louis economy. His income had increased in that 4-year period, as had his occupational opportunity and industrial participation. These favorable changes were probably due in part to the Korean war, but the survey anticipated some permanency for such changes and a continuing improvement in the economic lot of the St. Louis Negro. Undoubtedly, this improvement will affect the status of the younger Negroes who are still mobile rather than older Negroes who have reached a position of relative economic stability in the economy. As a matter of fact, the survey demonstrated conclusively that Negroes in the 20-29-year bracket held higher status occupations in much greater proportions than older Negroes. Given the economic improvement of this younger age group which the Survey Research Center study has shown to be most active in outdoor recreation, 3/ we anticipate considerable pressure to be placed on outdoor recreation facilities near the city by St. Louis Negroes, adding to the present movement of white recreationists to more distant facilities. Thus, the study of the demand for outdoor recreation by St. Louisans must consider facilities available to these people at a considerable distance from the city center.

THE AREA OF STUDY

We have arbitrarily demarcated as our area of study all the space within a 150-mile radius of the St. Louis city center, in the assumption that such an area would include almost all the weekend recreation facilities used by St. Louisans. More extended recreation outings quite certainly carry the residents of St. Louis all over the nation, and the limitations of our study preclude any careful investigation of such widely dispersed patterns of outdoor recreation.

The region we conceive as supplying outdoor recreation facilities to the metropolitan residents of St. Louis includes 45 percent of the State of Missouri and 60 percent of the State of Illinois. This area consists of 59 Missouri counties and 71 Illinois counties. Immediately south of St. Louis the Ozark Highland begins, and its plateaus and rugged hills spread westward and to the southeast. This rugged terrain levels off into lowland plains and prairies to the north and east of St. Louis above the Missouri River. The territory west and northwest of the city consists of lowland hills formed by the dual process of erosion and glaciation. In the remote southern sector of our region of study, the Mississippi Alluvial Plain begins. This is only a small portion of the total area and is confined to the extreme southern part of Missouri—the "bootheel"—and the extreme southern corner of Illinois.

There are, then, three major physiographic areas in our region of study: (1) the Ozark Highland; (2) the Central Lowland; and (3) the Mississippi Alluvial Plain. The predominant rock in all three areas is sedimentary, but the underlying igneous rock is closer to the surface in the Ozark Highland and reaches the surface in the St. Francis Mountains of the highland about 100 miles due south of St. Louis. This feature of the region has important implications for outdoor recreation. Specifically, water impoundments must be constructed on nonporous rock that can resist the force of erosion. This means that the provision of adequate open water for outdoor recreation in the region is confined to the southern sectors, with the exception of the alluvial plain. Water impoundments are feasible for the central lowland, but the agricultural value of this sector offers an imposing obstacle to the use of such land for recreation. In contrast, the highland is much less amenable to cultivation because of its poor soil and rugged topography.

Ordinarily, geographers speak of two types of climate in this region of study, a humid continental climate north of St. Louis and a humid subtropical climate south of the city. This distinction seems more academic than useful, and the brute fact of high humidity is the relevant datum in this regard. The summers are long, hot, and humid throughout the region, undoubtedly creating an extensive and intensive demand for water recreation which would grant residents frequent, though temporary, relief from the oppressive climate. Relatively mild winters (with local deviations) extend the amount of time in which residents may enjoy the out-of-doors by participating in fair-weather recreation activities. At the same time, winter sports are obviously limited, although the winter of 1960 saw skiing introduced to the region, and, in the future, snow-making machines will be used to offset this climatic limitation to some extent.

In sum, the region of study is characterized by a relatively extended period of time in which fair-weather outdoor recreation activities are feasible. The highland area is most frequently used and has the greatest potential for outdoor recreation. Consequently, the pressure of outdoor recreation demand is exerted primarily on the highland southwest of St. Louis. This raises important problems for the future of outdoor recreation in the region which can only be treated with reference to a thorough investigation of the present state of outdoor recreation activity engaged in by St. Louisans.

3/ Eva Mueller and Gerald Gurin, "Participation in Outdoor Recreation: Factors Affecting Demand Among American Adults," ORRRC Study Report 20, ch. 2, table 17.

CHAPTER THREE

THE PRESENT STATE OF OUTDOOR RECREATION IN THE ST. LOUIS METROPOLITAN REGION

To facilitate the description of the present state of outdoor recreation in the St. Louis region, we have divided the area into three concentric zones. Zone I consists of the area within a 50-mile radius of the city center; zone II, 50-100-mile radius; and zone III, 100-150 miles from the city. The main rationale for this division rests upon the assumptions that outdoor recreationists will not ordinarily travel further than 50 miles for a 1-day or part-day visit to a facility and that travel exceeding 100 miles will frequently involve overnight visits to facilities. Thus, we expected the use of facilities to differ in the different zones. Moreover, a crude division of the area of study in this manner permits a more facile treatment of the recreation sites available to St. Louisans.

OUTDOOR RECREATION RESOURCES

Our area includes close to 46,970,000 acres of land and water. Of this acreage, at least 11 million acres of land and water may be used in one way or another for outdoor recreation. Somewhat more than a fourth of this acreage is directly available to outdoor recreationists; almost three-fourths consists of stocked farm ponds and wooded farmland, the use of which depends upon the consent of landowners. At least 300,000 acres of this recreation space is water, consisting, for the most part, of lakes and water impoundments.

These figures, it must be remembered, are underestimates, as far as recreation space is concerned. Although our inventory of space has been very carefully compiled, it is technically impossible to itemize recreation space in its entirety. For example, we have made a count of 81,521 stocked farm ponds in the area of study, but new ponds are always being added, and older ponds are continually falling into disuse. Similarly, new commercial recreation sites are continuously added to the recreation space available, while other commercial sites are being abandoned by their operators. Probably the addition of recreation space exceeds its loss, particularly because of the increasing commercialization of outdoor recreation and the growth of private organizations in this field.

Of the recreation space directly available for the use of all outdoor recreationists, the Federal Government owns or controls the greatest share. As of this date, there is only one national monument in our area of study, the Jefferson National Expansion Memorial, which, because it is located in the center of St. Louis, is not considered an outdoor recreation facility. National forests, national wildlife refuges, and navigational waters controlled by the U.S. Corps of Engineers exhaust the variety of federally owned or controlled land available for outdoor recreation. National forests provide 2,331,000 acres of recreation space; national wildlife refuges, approximately 110,900 acres; and the Corps of Engineers controls approximately 127,200 acres. This space is unequally distributed over the three zones. No national forests or wildlife refuges are located in zone I which includes 11 percent of the total area with which we are concerned; a third of the national forest land and 43 percent of the land given over to wildlife refuges is located in zone II which includes 33 percent of the total area; and two-thirds of the national forest land and 57 percent of the land employed as wildlife refuges are located in zone III which includes 56 percent of the total area. Although 68 percent of the space controlled by the Corps of Engineers is located in zone III, only 6 percent is located in zone II, and 25 percent in zone I. Thus, most Federal land available for outdoor recreation is located more than 100 miles from the city center, and only the Corps of Engineers controls land within 50 miles of the city.

Students of outdoor recreation have emphasized repeatedly the importance of gearing facilities to demand in planning the future of outdoor recreation in the nation. The pressure on the space controlled by the Corps of Engineers and located in zone I offers vivid corroboration for this suggestion. This space contains two pools operated by the Corps. One pool, formed about 35 miles north of the city by the Alton locks and dam on the Mississippi River, is known locally as Alton Lake and includes two-thirds of the federal acreage located in zone I. This facility is used by more recreationists during the year than any other single facility within 150 miles of St. Louis. In 1960, it was estimated that 2,700,000 visits were made to the area for the purpose of yachting, other boating, fishing, picnicking, camping, or hunting, to mention only the major outdoor recreation activities for which facilities are available. It has been estimated that the access points for boating, the picnic grounds, and camping facilities, including private lodges, handled 25 percent more visitors than they were equipped to handle on weekends in the spring, summer, and fall of 1960.

State-owned facilities in the region include parks, forests, conservation areas, firetowers, and roadside parks. These facilities account for about 418,400 acres or 3.8 percent of the total recreation space in the region. State forest makes up more than half of this acreage; conservation areas, almost a fourth; State parks, a fifth; and firetowers and roadside parks, slightly more than 1 percent. As was the case with Federal lands, these State facilities are concentrated in zone III, and decrease in acreage with proximity to the city. However, the imbalance is not

as extreme. Each type of facility is represented by some space within 50 miles of the city, and State parks, the facilities receiving the greatest pressure from outdoor recreationists, are somewhat overrepresented in zone I. A fifth of the acreage of all State parks in the region is located in zone I which includes only somewhat more than a tenth of the region's area. In spite of this, as we shall see, these close-in facilities are already overtaxed, especially on weekends during fair-weather season. For example, the most heavily attended State park in 1959 was Pere Marquette State Park located about 30 miles north of St. Louis on the Illinois River.

It is more difficult, of course, to develop an adequate enumeration of county and municipal areas used for outdoor recreation. However, available data illustrate, as might be expected, that the distribution of county and municipal facilities for outdoor recreation is much more tightly geared into the spatial distribution of the "market." In assembling data for such facilities, we have omitted any consideration of sites located within the central city of St. Louis. Acreage data are difficult to compile for such areas, and we have such data for only 29 of the 242 county and municipal sites located outside the St. Louis city boundaries. Of these, 23 sites are located in St. Louis County. Although the St. Louis County parks include only 1,510 acres in their totality, attendance figures for 1960 disclose that three parks attracted more than a million visitors, and only two State parks, Pere Marquette and Lake of the Ozarks, attracted more visitors than Creve Coeur Park operated by St. Louis County and located 15 miles west of the city limits. This comparison is not quite accurate, since it was made by contrasting 1959 State figures with 1960 county data. State statistics for 1960 are not yet available for Illinois, but 1960 Missouri figures show a decline in attendance for Lake of the Ozarks State Park such that attendance at Creve Coeur may well have been exceeded in 1960 only by attendance at Pere Marquette State Park. However, facilities at Creve Coeur include playground equipment which suggests some recreation activity there that falls outside the scope of ORRRC's concern.

Municipal parks are also characterized by mixed activities, in the sense that some fall within the purview of ORRRC, such as fishing in the lagoons of Forest Park at the extreme west end of St. Louis, and some do not, e.g., the municipal opera, art museum, and zoo also located in Forest Park. Such parks undoubtedly do divert some pressure away from other outdoor recreation facilities, and recognition should be made of the 143 municipal parks in the region outside the St. Louis city limits. This is a minimal figure and includes 28 parks in zone I, 34 in zone II, and 81 in zone III. Thirty-six municipal reservoirs stocked with fish and 26 public fishing lakes are located in the region. These facilities include 65,220 acres of water in Illinois and an indeterminate additional acreage in Missouri. Again, their spatial distribution in the region places most of them at some distance from the market. Only 6 of these fishing sites are located within 50 miles of St. Louis, an additional 30 within 100 miles, and the remaining 26 between 100 and 150 miles from the city.

Municipal and private swimming pools may also divert some pressure away from larger outdoor recreation sites, especially in a city where the demand for swimming is so highly aggravated by a shortage of desirable water sites coupled with hot humid summers. There are 19 municipal and 47 private commercial pools located within a 50-mile radius of St. Louis—a very small number, given the great demand for swimming facilities. Beyond this distance, there are at least 21 additional municipal pools. Recently the construction of backyard and private group pools seems to have increased noticeably in St. Louis and its suburbs, but there are no trend data to indicate the magnitude of this increase.

City and county parks do provide facilities for such outdoor recreational activities as day camping, defined by the American Camping Association as a "daytime experience in the out-of-doors which may include an occasional overnight." Seventy-four city parks in the region and three county parks offer their facilities to organized groups for day camping programs. Three state parks and one national forest also provide such facilities to organized groups. Recently, however, St. Louis organizations have begun to acquire their own day camps, although not yet in significant numbers. The Church of God, the Roman Catholic Church, the Jewish Community Center Association, and the YMCA each operate one day camp in the region. Future Farmers of America also operates a day camp, as does the Boy Scouts of America. The Girl Scouts operate five day camps. In addition, there are 10 commercial day camps, all within 50 miles of St. Louis.

Since 1936, the State of Missouri has built facilities for resident camping in State parks and leased those facilities to organizations. Of at least 109 resident camps in the region, 17 are located in State parks. The largest proportion, however, is owned and operated by religious organizations—a third of the total number. About a fourth is operated by scouting organizations, and about a sixth—18 of the 109—operated by such organizations as the YMCA, 4-H Clubs, FFA, and other boys' clubs. There are also eight commercial resident camps in the region. These camps are distributed evenly throughout the area of study with about a third located in each zone.

In response to the increasing pressure on outdoor recreation space in the St. Louis region, some segments of the population have formed organizations to acquire land for exclusive hunting, shooting and fishing. Shooting preserves and conservation clubs have also been developed privately for a multiplicity of purposes, ranging from research, through demonstration, to occasional public fee-use in controlled hunting and fishing programs. Although spatial distribution of this type of facility is more tightly linked to the population distribution of the region, disparities arise when the organization is fundamentally concerned with the provision of fish and game to its membership, rather than demonstrating conservation practices to a public clientele, or simply providing inanimate target shooting for its membership. Specifically, gun clubs organized for hunting require relatively large areas and are concentrated in zone III, where 32 of the 51 clubs we have tabulated are found. Yet, nine of those clubs (18 percent) are

found in zone I which includes only 11 percent of the total area of study. On the other hand, rifle and gun clubs which are organized to provide shooting at inanimate targets for their membership are much more frequently accessible to metropolitan residents. We have located 129 such clubs. Almost half, 43 percent, of these clubs, are found in zone I, a fourth in zone II, and three-tenths in zone III. Conservation clubs, many of which own private lakes and shooting preserves, stand in between the hunt clubs and shooting clubs as far as their spatial distribution is concerned. Somewhat more than a fourth of the 305 conservation clubs and 15 shooting preserves may be found in zone I, a similar proportion in zone II, and less than half in zone III.

Of course, entrepreneurs have sought to capitalize on the increasing demand for outdoor recreation space by developing commercial facilities. There are at least 128 fee-fishing lakes in the area of study. Almost half of these (44 percent) are located in zone I, a third in zone II, and less than a fourth in zone III. Resorts tend to be facility-based rather than "market-based," and this is demonstrated by a tabulation of 485 resorts in the region, only a tenth of which are located within 50 miles of St. Louis, with more than three-fourths located between 100 and 150 miles from the city. Motels perform a mixed service. Some accommodate transient travelers; others take care of resort overflow or provide less expensive quasi-resort facilities. The latter seem to be more typical of Missouri motels located outside the city. Of 518 for which we have information, almost half are located in zone III; and about a fourth each in zone I and II.

Privately owned lands on which outdoor recreation may take place, but which are not specifically set aside for that purpose, comprise the greatest potential acreage for outdoor recreation use of all the categories we have discussed. Moreover, most of these lands are physically accessible to metropolitan residents. Large tracts of land owned by mining and lumbering enterprises account for at least 378,000 acres. These are almost evenly distributed in the three zones surrounding the city. At least 110,250 acres of forested land, with little or no agricultural, mineral, or lumber potential, are held by individuals and private clubs. These lands are concentrated in zone III where about three-fourths of their acreage is found. None of this acreage is located on farms and much of it is held for such nonrecreational reasons as land speculation. In contrast, by far the largest amount of privately owned land in the region potentially available for outdoor recreation use is located on farms. Wooded farm land, reported as 7,249,239 acres in 1954, constituted a fifth of all reported farm acreage in the area of study. Of course, the more distant the land is from the city, the greater the proportion of farm land. Specifically, 16 percent of the reported farm acreage in the region is located in zone I, 31 percent in zone II, and 52 percent in zone III. Yet, the proportions of farm acreage in woodland reported in 1954 are not markedly different: 22 percent in zone I, 25 percent in zone II, and 17 percent in zone III. Stocked farm ponds are also significant outdoor recreation facilities in the region because of their sheer number. We have located 81,521 stocked farm ponds within 150 miles of St. Louis. Of these, 16 percent may be found less than 50 miles of the city, 48 percent between 50 and 100 miles and 36 percent between 100 and 150 miles. Two major obstacles make doubtful the possibility of widespread metropolitan use of these facilities in the future: (1) the legal liability of the owner for the welfare of those invited to use his land; (2) the worsening farmer-city-dweller relations in the region, but these are matters to which we shall return.

As far as outdoor recreation sites in the St. Louis region are concerned, then, there is no present crisis in the sheer quantity and extent of such sites. Instead, the critical aspect is found in the spatial distribution of these areas or their general accessibility to metropolitan residents. Federal, State, and local governments all contribute to the outdoor recreation resources in the region, but the "lower" the level of government the smaller the acreage that is set aside for outdoor recreation, even though that acreage is more closely aligned with the distribution of population in the region. Moreover, the "lower" the level of government, the greater the difficulty confronting government in the maintenance and acquisition of outdoor recreation sites because of competing demands for space and the consequent heightening of land value. These competing demands impinge upon recreation areas themselves so that, at the local level, mixed resources are provided to include many facilities, such as playground equipment, that are not of interest to ORRRC. The largest acreage for which there is a high outdoor recreation potential is privately owned land not specifically designated for outdoor recreation, but this land is not readily accessible to metropolitan residents, because owners either do not wish to assume the legal risks that such use entails or, correctly or not, believe that the outdoor recreation use of their land by city-dwellers results in damage to crops, livestock, and farm equipment.

Many city-dwellers have tried to cope with problems of access by forming organizations to acquire land for outdoor recreation. However, the acquisition of hunting and fishing lands is expensive near the city, and fish and game clubs are forced to concentrate most of their land purchases in zone III. This probably means that membership in such organizations is confined to the upper and upper-middle socioeconomic strata of the metropolitan population. Clubs formed for target and skeet shooting, are more accessible to city residents, probably because they do not require the space that is necessary for hunting. Private group camps are also more favorably distributed throughout the region. The most favorably distributed type of resource from the standpoint of population distribution in the region is the commercial recreation enterprise. Yet these facilities often slight the outdoor recreationist's welfare in the interest of profit. One commercial duck-hunting area for example, crowds its swamplands each year with duck hunters located about 10 yards from one another so that the possibility of any hunter securing a limit or even bagging a single duck is remote, indeed. This state of affairs is carefully concealed from the hunter until he has paid his fee.

Difficulty of access to available land, difficulty of acquisition and maintenance of close-in land, and difficulty of obtaining gratification through the use of commercial facilities is characteristic of the outdoor recreation scene in St. Louis. This is much more than a crisis in space. Moreover, these problems are aggravated by the uneven pressure exerted upon available facilities. To illustrate the point, we turn to a consideration of the use St. Louis residents make of the outdoor recreation resources we have discussed.

THE USE OF OUTDOOR RECREATION RESOURCES

Attendance figures for the resources we have discussed are both incomplete and suspect. Data for national areas are most complete, followed by State areas. For all other resources, however, the data are very spotty indeed. Moreover, available figures must be interpreted very cautiously, especially for National, State, county, and municipal areas. There are essentially two reasons for this: (1) government officials are often constrained to show heavy use of the facilities for which they are responsible, just as the corporate executive must "show a profit"; (2) many of these figures consist of car counts (multiplied by 3 or 3 1/2 to estimate visitors, and some areas are located along main routes of transportation so that transient vehicles may well be counted as visiting vehicles. Nevertheless, the incomplete nature of the data undoubtedly results in an underestimate of total use of these resources when all figures are pooled.

Our data show that at least 17 million visits were made in 1960 by individual persons to all the outdoor recreation facilities we have inventoried in the St. Louis region. Visits to national areas account for almost half of this (47.0 percent), to State areas, almost 40 percent (39.1 percent), and 6 of 23 St. Louis County parks, an additional 7 percent (6.7 percent). In short, national, State, and St. Louis County resources account for 93 percent of the visits we have enumerated.

All other resources report only 7 percent of the visits or use for which data are available. Of this percentage, swimming pools account for the greatest proportion. The pools for which we have information are all located close to St. Louis in zone I, and this information is incomplete. Three categories of pools—municipal, pools run by private organizations and restricted to membership use, and commercial pools—handle at least 660,500 visits annually during a 4-month season, 4 percent of the total number of visits to all outdoor recreation facilities for which we have data. However, only 15 of 40 municipal pools provided information on attendance, while organization pools and commercial pools provided more complete information (38 of 47 organization pools and 17 of 22 commercial pools). Probably the fact that attendance figures are most complete for pools run by private organizations accounts more than anything else for our finding that the largest number of swimming pool visits (297,000) is recorded by organization pools, followed by commercial and municipal pools in that order. The only other use figures of any size at all for the outdoor recreation facilities we have tabulated are provided by resident camps and one commercial scenic site. Sixty-eight of one-hundred and nine resident camps accommodated 260,836 campers in 1960, and they were distributed about equally throughout the zones. Meramec Springs, located in zone II about 80 miles southwest of St. Louis, reported 217,000 visitors in 1960. Other facilities, such as conservation clubs, shooting preserves, gardens, etc., either show very small attendance figures or provide such incomplete information that they are not reported here.

It is worth noting, however, how the use of the major outdoor recreation facilities is distributed in the region of study. If we examine only State and National data, we find 35 percent of the use in zone I, and 42 percent in zone III. The addition of St. Louis County park data balances the attendance figures in these zones, with 39 percent in each. This is significant, indeed, since it permits us to anticipate now what will be shown later, namely, that St. Louis residents exert a pressure on nearby outdoor recreation facilities as great (or greater, given the comparative size of such facilities) as the pressure exerted on more remote facilities which appeal to a much wider "market," e.g., the Ozark Highlands. Moreover, the great bulk of attendance in zone I for these resources is concentrated in two pools controlled by the Corps of Engineers north of St. Louis on the Mississippi and Illinois Rivers. The traffic has become so heavy, particularly on Alton Lake, which we have previously discussed, that a Missouri Water Patrol was established and commenced operation August 21, 1961. The demand for additional facilities for water sports in the region is dramatically established by these data.

With one exception, visits to these outdoor recreation resources are primarily dominated by Missouri residents and secondarily by Illinois residents. Several bits of evidence point to this conclusion. A count of license plates on automobiles visiting Missouri state parks in 1958, 1959, and 1960 showed that between 20 and 25 percent of all visiting vehicles originated out of the State in each of those years. Quite probably the largest proportion of these consisted of Illinois vehicles. Thus, a survey of out-of-State passenger cars visiting Missouri in 1950 checked about 5 million out-of-State cars. Of these, a third traveled in the Missouri section of our area of study, and Illinois cars made up 45 percent of all out-of-State cars in the area.1/ A study of requests for tourist literature made by the Missouri Resources and Development Commission in 1959 showed that Missouri residents generated 11 percent of those requests while Illinois originated 10 percent.2/ Finally, an on-site survey of five Missouri State parks conducted in 1960 by the Meramec Basic Research Project at Washington University revealed that Missouri attendance was highest in all parks studied. Illinois

1/Missouri State Highway Department, Department of Highway Planning, "Out-of-State Passenger Car Traffic Survey, Missouri 1950" (Missouri, 1950), passim.

2/Missouri Resources and Development Commission, "Tourist Survey for 1959" (Missouri, 1959), p. 7.

attendance was second in three of the five, each located in our area of study. In the remaining two parks, Illinois attendance ranked third and fourth, but these parks are located more than 150 miles west and southwest of St. Louis. We may assume that other facilities are even more closely dependent upon local visitors for their use. It follows that the outdoor recreation resources of the St. Louis metropolitan region cater overwhelmingly to local demand originating in Missouri and Illinois. The one exception might be Lake of the Ozarks State Park, where more than a third of the attendance in 1960 originated from States other than Illinois and Missouri. Even here, however, the majority of visitors (65 percent) originated from the two States that make up our area of study.

How much of this use is accounted for by residents of the St. Louis SMSA is difficult to determine with precision. However, four sets of data permit some estimate: (1) estimates made in 1961 by county agricultural agents of St. Louis pressure on outdoor recreational resources; (2) on-site studies of five Missouri State parks and one Illinois State park made in 1960; (3) reports of Missouri visitors to two Illinois State parks in 1960; and (4) a creel census conducted in 1960 at various fishing sites in Illinois. Taking all these data together, checking them against one another for logical compatibility, and directly applying the result to the various resources we have inventoried permits the conservative estimate that residents of the St. Louis SMSA in 1960 accounted for 46 percent of the use of all outdoor recreation facilities located within 150 miles from the central city. In other words, St. Louisans accounted for almost 8 million of the 17 million visits to the facilities we have inventoried.

This pressure is very unevenly distributed over the region we have studied. Over 70 percent of the outdoor recreation of St. Louisans which required the use of specific recreational resources occurred in zone I, less than 50 miles from the city center. About 18 percent occurred in zone II, and 11 percent in zone III. Yet, this pressure is not evenly exerted in all directions from the central city. Imagine our region of study as a large circle. Now demarcate a quadrant by drawing radii due west and south of the center. This quadrant, containing the Ozark Highlands with its forests, parks, float streams, and large water impoundments, is rightfully called the playground of St. Louis. Even in the remote edges of the quadrant, as figure C-1 shows, St. Louisans exert over 30 percent of the pressure on outdoor recreation facilities. A great deal of the outdoor recreation of St. Louisans, however, occurs immediately north and west of the city along the Mississippi River, particularly at Alton Lake, and along the major east-west interstate highway linking St. Louis to Kansas City, but the pressure exerted there does not extend as far from the city as does the pressure in the southwest quadrant. St. Louisans exert practically no pressure on the facilities located northwest of the city, and, with the exception of the National Wildlife Refuge, Crab Orchard Lake, they make little use of facilities in the southeast.

Park attendance data, shown in figure C-2, reflect the same spatial flow of outdoor recreation undertaken by St. Louisans, although in the more distant parks St. Louis attendance is somewhat less than the total pressure metropolitan residents exert on all facilities in the vicinity of those parks. This is undoubtedly due to the fact that the parks attract visitors from the nation at large, while other facilities are used more by knowledgable residents of the region. At any rate, these data point up the heavy demand for more close-in facilities and suggest the necessity for developing additional facilities in the eastern half of the region to achieve a better distribution of pressure.

OUTDOOR RECREATION ACTIVITIES

This discussion of the use St. Louisans make of the outdoor recreation resources in their region has not even touched upon the most prevalent activity, pleasure driving. There are essentially three reasons why it is very difficult to estimate the amount of pleasure driving done by St. Louisans. First, pleasure driving is often combined with visits to specific outdoor recreation facilities. The desire for a pleasant drive in the countryside may take people to such facilities as State parks as often as the desire to visit the park may bring about the drive. Indeed, outdoor recreation is seldom a highly focused activity. Thus, much pleasure driving is not recorded in the enumeration of attendance figures for outdoor recreation facilities. Second, although "sightseeing" is usually the most frequent activity mentioned, whenever and no matter how outdoor recreation is studied, that activity may never require the use of any specific facility and, consequently, may not be recorded. Third, traffic studies that do analyze trips into categories, permitting a count of recreation trips, usually subsume all types of recreation—from visiting friends to viewing the scenic countryside—under a single rubric. Yet some crude estimates of the amount of pleasure travel entered into by St. Louisans can be made.

A study made in 1951-52 by the Missouri Highway Department disclosed that 8 percent of Missouri's population took trips of 1,000 miles or more oneway, while a fifth of the State's population took trips lasting 8 days or more. Vacations represented more than 70 percent of these long duration trips. Moreover, of 242,265 long vacation and "social" trips, half were made by residents of places with more than 100,000 population, although only 30 percent of the Missouri population lives in such heavily populated places.3/ Therefore, pleasure trips of long duration seem to be an urban phenomenon. Sightseeing and pleasure travel in Missouri is also a frequent activity entered into by residents of the Midwest. A study of people requesting tourist information about Missouri in 1959, showed that a fourth of those requests registered by people living in Missouri and eight nearby States were made to facilitate visits with friends and relatives and almost half for the purpose of maximizing "general pleasure and relaxation." Thirty percent of these same people indicated that their principal activity in Missouri

3/Richard F. O'Brien, "Socioeconomic Forces and Family Pleasure Travel" (Missouri: Industrial Section, Missouri Division of Resources and Development, n.d.), p. 31.

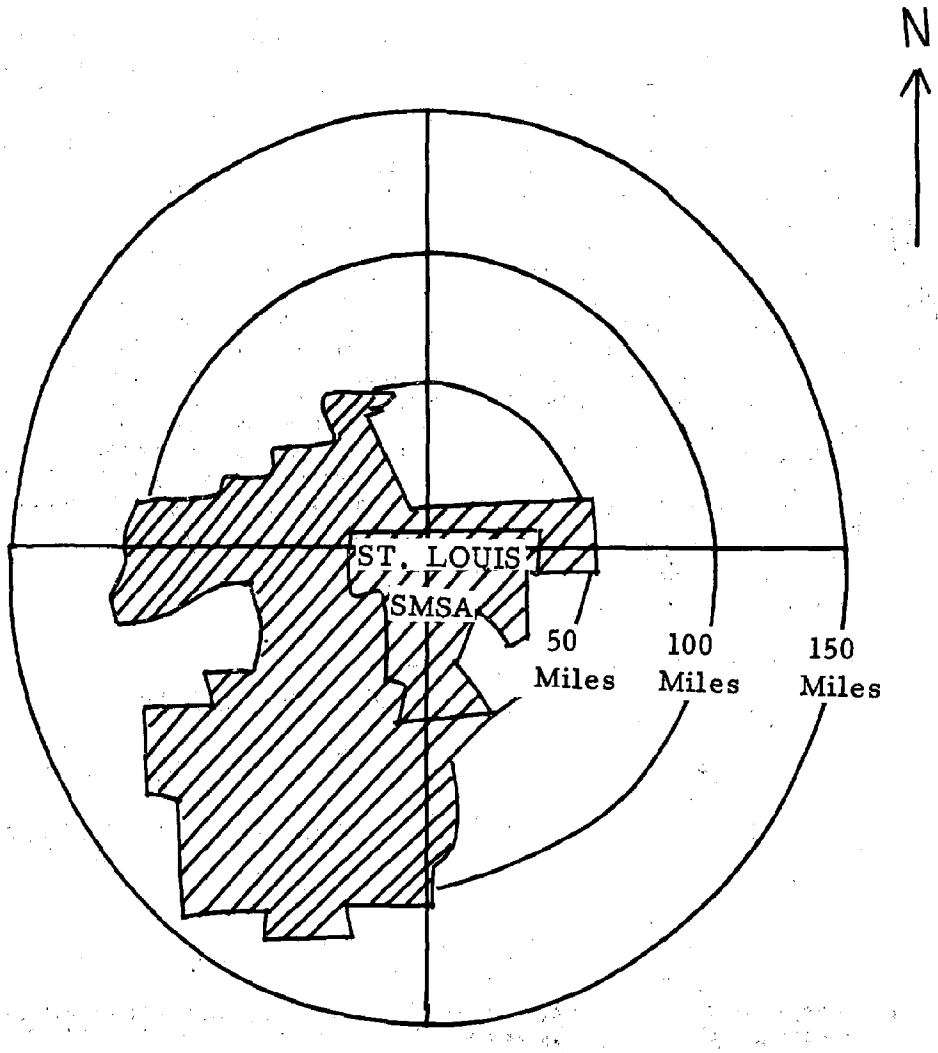


FIGURE C-1. AREA OF ST. LOUIS METROPOLITAN REGION WHERE OUTDOOR RECREATION RESOURCES RECEIVE AT LEAST 30 PERCENT OF THEIR USE BY RESIDENTS OF ST. LOUIS SMSA.

would be "general sightseeing," the activity most frequently mentioned. 4/ These data, however, do not take into account size or place of residence of those requesting tourist information.

To assess the frequency of pleasure travel by St. Louisans, two traffic studies have been used. A study in 1948 of 140,000 drivers in the St. Clair-Madison County urban area (the Illinois section of the St. Louis SMSA) showed that 30.8 percent of the trips were "pleasure trips," compared to 30.9 percent of the trips given over to "business" and 29.2 percent to "work." 5/ These interviews were taken in the summer months of that year and the category, "pleasure," undoubtedly included outdoor recreation, although such "pleasures" as theater attendance and sociability were also included. A much more complete survey was made at 18 stations surrounding St. Louis County and the city of St. Louis in 1957. Trips were broken down into local and through trips and classified by trip purpose. Through trips were "halved" to adjust for duplication (leaving and returning to the area). Adjusted in this manner, the Missouri State Highway Department classified 196,317 trips also made during the summer months. Of this total, 34 percent were "social or recreational" trips; 40 percent trips to or from work; and 17 percent, business trips. 6/ One important implication of these data, compared with the 1948 data, is that the percent of pleasure trips has not increased in any great degree over the last 9 years. As a matter of fact, sampling error could account for the difference. It may well be that the proportion of travel given over to pleasure driving by St. Louis metropolitan residents approaches some constant figure in the neighborhood of 30 percent.

4/ Missouri Resources and Development Commission, op. cit., pp. 15-18.

5/ Personal correspondence with R. R. Bartelsmeyer, Chief Highway Engineer for the State of Illinois, dated Feb. 27, 1961.

6/ From tabulations provided by the Missouri State Highway Department.

Of this "social and recreational" or "pleasure" driving, how much can we estimate is outdoor recreation? Any estimate is precarious. However, the National Recreation Survey data provided by ORRRC show that 52 percent of the persons over 12 years of age residing in urban SMA's of more than 1 million population drove for pleasure one or more times during the months of June, July, and August in 1960. The St. Louis traffic survey reveals that there was an average of 2.84 persons per car classified as engaged in a trip for social and recreation purposes during the summer months of 1957. If we assume that the first percentage is "outdoor recreation" and divide that percentage by the average number of persons per car disclosed in the St. Louis study, we arrive at a figure of 18.2 percent. Eighteeen percent of all vehicles carrying residents of large SMA's over 12 years of age were possibly used for outdoor recreation during the summer months of 1960, and this figure is an underestimate, since the "persons per car" category includes all ages while the National Recreation Survey data includes persons 12 years of age and over. Tentatively, then, we will use that figure to estimate the percentage of all St. Louis traffic devoted to outdoor recreation pleasure driving during the summer months. This seems a reasonable figure. Specifically, the great bulk of through traffic devoted to "social or recreational" trips in 1957 was quite probably engaged in outdoor recreation. This traffic comprised 3.2 percent of all passenger cars interviewed in 1957 and would constitute a bottom limit on travel given over to outdoor recreation. On the other hand, the upper limit would be 34 percent, assuming all "social or recreational" trips were devoted to outdoor recreation. Note that the figure, 18.2 percent lies midway between these extremes.

An alternative estimate of outdoor recreation pleasure driving by St. Louisans would rely completely

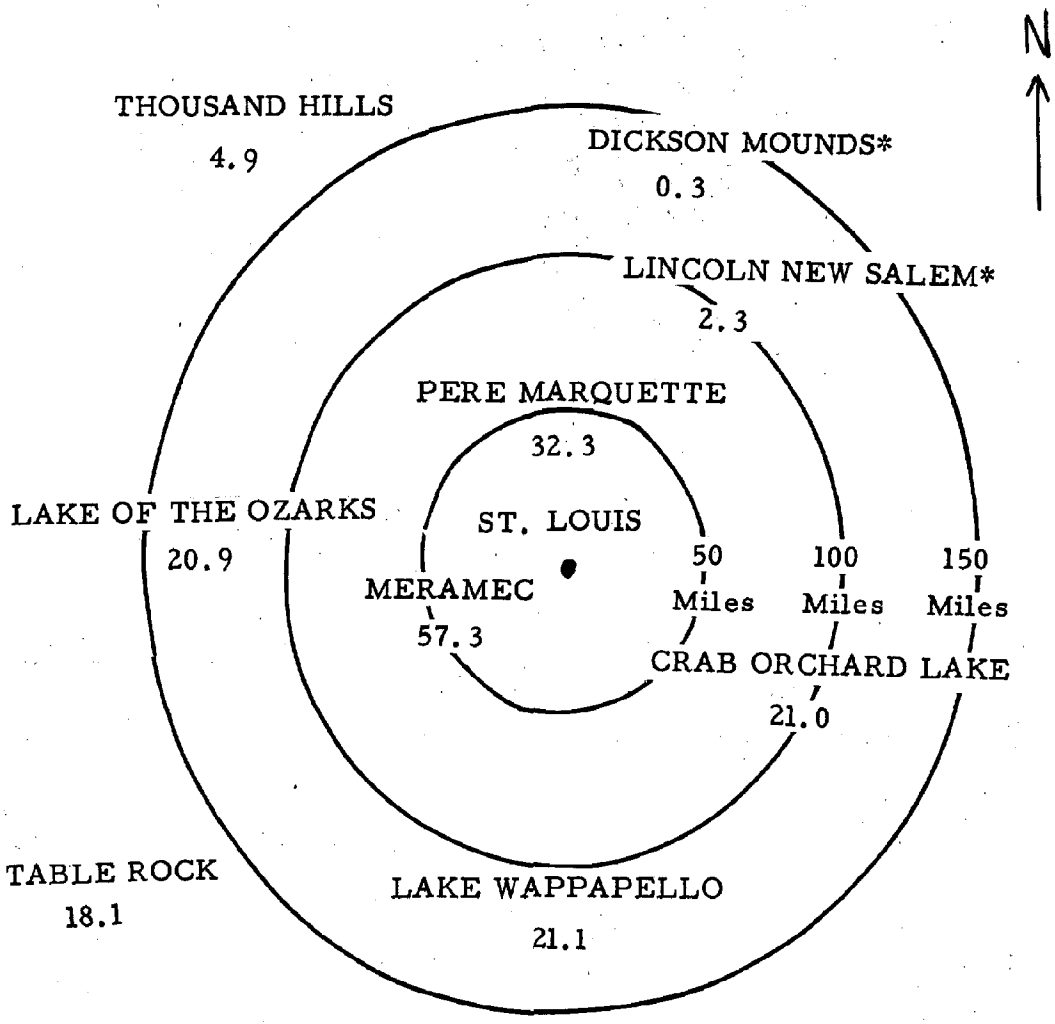


FIGURE C-2. PERCENT OF ATTENDANCE COMPRISED BY ST. LOUIS METROPOLITAN RESIDENTS[1/] AT EIGHT STATE PARKS AND ONE FEDERAL WILDLIFE AREA.

[1/] Shows percent of Missouri visits at two Illinois State parks.

on materials provided by the National Recreation Survey. 7/ In 1960, 72 percent of the St. Louis SMSA population was 12 years of age or more. This amounts to 1,483,274 of the 2,060,103 persons living in the metropolitan area. The National Recreation Survey reported that 60 percent of the persons 12 years of age or more, living in SMSA's larger than 1 million in the north-central region of the United States, engaged in pleasure driving in the summer of 1960. The average number of days per participant was reported as 15. Sixty percent of 1,483,274 is 889,964 which is the number of St. Louisans 12 years of age or over who probably participated in pleasure driving during the summer of 1960. Multiplying this figure by the average number of days per participant (15), yields an estimate of 13,349,460 days spent by St. Louisans pleasure driving in the summer of 1960, or about 9 days per person 12 years of age or older. This figure, however, is not based on any data specifically drawn from St. Louis observations.

It is also difficult to derive valid data on other outdoor recreation activities of St. Louisans, particularly those activities in the center of ORRRC's interests. While we do have data derived from onsite studies made of five Missouri State parks by the Meramec Basin project, and of one additional park, Pere Marquette State Park, by Michigan State University, 8/ these data can only tell us how those residents of St. Louis who engaged in outdoor recreation spend their recreation time. They cannot tell us the proportions of St. Louisans engaged in the various forms of outdoor recreation. Moreover, four of the five Missouri parks studied were selected because of their location at or near water impoundments, and, consequently, the full range of outdoor recreation facilities we have discussed is not represented by these data. Nevertheless, the data are worth considering, first, because there are little other data available and, second, because the findings disclosed are logically coherent with findings of the National Recreation Survey and local studies, giving an air of plausibility to the findings and at least some rationale for generalization.

In an unpublished paper dealing with the relationship between mental health and outdoor recreation, Herbert Gans frequently refers to the antiurban middle class bias of outdoor recreationists which is revealed by their tendency to construe outdoor recreation as leisure activities not typically entered into by urban dwellers—fishing, hunting, camping, etc. 9/ While the National Recreation Survey provides data which call for some qualification of his charge, e.g., by showing that relatively more metropolitan residents take nature walks than do farmers and small town dwellers and that relatively more metropolitan residents hike with packs during the summer months than do nonmetropolitan residents, the criticism is essentially correct. Fishing, hunting, and camping show a proportional preponderance of small town and rural participants. Metropolitan residents are sightseers, pleasure drivers (and walkers), outdoor gamesmen, and swimmers. So it is with the 800 St. Louisans interviewed in the six parks that were studied in 1960. The most popular activities were sightseeing (59.1 percent), followed closely by "relaxation" (58.9 percent), swimming (57.6 percent), and picnicking (46.6 percent). Still, 42.3 percent of the St. Louisans visiting the parks did camp and 41.3 percent fished. Other activities engaged a sixth or less of the St. Louisans interviewed. 10/ The picture changes slightly, when we consider responses to a question asking which activities were most important to the visiting St. Louisans (or most "enjoyable to the group," in the case of Pere Marquette visitors). "Relaxation" was ranked most important by a fourth of the St. Louisans; sightseeing, by somewhat less than a fifth (18.2 percent); and swimming, by about 15 percent (14.7 percent). Fishing and camping move up to fourth and fifth places, however, and picnicking runs a poor sixth, mentioned by about a tenth (9.2 percent) of those responding to the question. However, the fact remains that the activities of St. Louisans in the six parks studied, when those activities are considered grossly, are not the activities valued highly by most outdoor recreationists.

Now, if we group the parks according to distance from the city center, a sharper picture emerges. Although Meramec State Park is located in zone II of our region of study, it is barely in that zone, 55 miles from the city center. Consequently, we have treated the activities of St. Louisans in that park with their activities at Pere Marquette State Park, about 35 miles distant from the city. It should be noted that there are no water impoundments at either of these parks, both being located on rivers. With the exception of Meramec State Park, no other parks studied were located in zone II, and we have considered the recreation of metropolitans in zone III parks—Lake of the Ozarks State Park and Wappapello State Park—in a unitary fashion. Finally, two parks, Table Rock and Thousand Hills, have been grouped together. Both of these parks are located beyond the 150-mile limit we have used to define our region of study. 11/ We have, then, three pairs of parks, each pair located at an increasing distance from St. Louis.

In the most accessible pair, the "urban pattern" dominates whether we consider all activities undertaken by St. Louisans in the two nearest parks or the activities rated most important. "Relaxation" is referred to by most respondents, "sightseeing" ranks second, and swimming third. Note that swimming ranks relatively high, even though the Illinois River on which Pere Marquette State Park is located is a most undesirable swimming site, and the Meramec River is generally regarded as a treacherous stream. Picnicking, incidentally, ranks fourth of the activities engaged in by St. Louisans at these two parks and

7/Suggested by Laurence I. Hewes, Chief, Forecasts and Economics Group, ORRRC staff, in personal correspondence, dated April 2, 1962.

8/Part of ORRRC Study Report 5.

9/Prepared for ORRRC, 1961.

10/Compiled from data provided by Michigan State University. See ORRRC Study Report 5, "The Quality of Outdoor Recreation: As Evidenced by User Satisfaction," prepared by Department of Resource Development, Michigan State University, also from data provided by the Meramec Basin Project, Washington University, St. Louis, in 1961.

11/The reader is referred back to figure C-2 for a general picture of the location of these parks.

fourth among the activities considered most important or enjoyable to the urbanites.

In the zone III parks, "relaxation" moves from first to fourth place among the activities engaged in by the urban dwellers of our region and is a poor sixth among the activities rated most important, mentioned by only 6 percent of the respondents who rated their activities for importance. Sightseeing remains in second place for activities mentioned and assumes first rank as far as its importance is concerned. Although swimming is mentioned most frequently among all the activities of St. Louisans in the zone III parks, it ranks only fourth in importance. What is significant is that camping and fishing move up to third place in activities for those parks and stand in second and third place, respectively, among those activities rated most important.

In the most remote parks, swimming remains as the activity mentioned by most St. Louisans, fishing is second, sightseeing third, and camping fourth. However, fishing is most important to most St. Louisans visiting those distant parks. This is followed by swimming and camping.

Two conclusions may be drawn from these data. First, swimming is generally an important outdoor recreation activity to St. Louisans. Second, the greater the distance St. Louisans go to engage in outdoor recreation the less the frequency and importance of such "urban" activities as relaxation, sightseeing, and picnicking, and the greater the frequency and importance of those activities valued by outdoor recreationists, viz., fishing and camping. Yet, this trend must be viewed with caution and is subject to qualification. In the first place, as figure C-2 showed, the proportion of attendance by St. Louisans at State parks declines with distance from the city center. Thus, the number of St. Louisans interviewed at the more remote parks is small, so that sampling errors increase. In the second place, we have estimated earlier that 70 percent of the pressure exerted by St. Louisans on outdoor recreation facilities in our region of study is exerted on those facilities located within 50 miles of the city, 18 percent between 50 and 100 miles, and 11 percent beyond 100. Thus, even though the "urban pattern" of outdoor recreation may not characterize the recreation of St. Louisans who visit facilities at a relatively great distance from the city, this trend does not encompass the outdoor recreation of the great majority of metropolitan residents. We are forced, then, in the face of these conflicting possibilities, to conclude that the outdoor recreation of St. Louisans at the present time is largely taken up by such activities as swimming, "relaxation," sightseeing, and picnicking. This point is underscored when we consider our estimates of the pressures exerted on various resources in our region inventoried by ORRRC. None of these resources are used to their full capacity on week-days. However, the resources in zone I are on the average already taxed to or beyond their capacity for handling outdoor recreationists on weekends during the appropriate seasons. Specifically, all camping sites in zone I are used to full capacity on weekends. Picnic grounds are handling 3 percent more weekend picnickers than they are equipped to handle, and boating facilities and access points to water are taxed 10 percent beyond capacity. Yet none of the resources in the more distant zones are yet operating at full capacity. Nevertheless, it must be remembered that this is the present situation. Whether it will prevail is a matter we shall treat subsequently.

In still another way the urban pattern of outdoor recreation is revealed by the on-site materials. All St. Louisans interviewed were asked the length of the trip of which their park visit was a part.[12] One-day trips were made by 47.9 percent of the St. Louis visitors to the two close-in parks, but only by 16.7 percent of the visitors to the remote parks. Overnight and weekend trips were made by between a fifth and a fourth of the St. Louis visitors to all parks. Trips between 3 and 6 days in duration increased with distance from the city with 18.7 percent of the St. Louisans making such trips to close-in parks and 38.4 percent to distant parks. Finally, almost three times as many St. Louisans visiting distant parks were traveling for a week or more (21.8 percent) as those St. Louisans visiting nearby parks (7.4 percent). These data are what one would obviously expect—the greater the distance, the longer the trip—but, when they are interpreted in the light of the fact that "relaxing," sightseeing, and swimming are usually 1-day affairs while hunting or fishing are not and camping cannot be a 1-day affair, coupled with the fact that most St. Louisans are found in the nearby parks, the data offer further confirmation of the point we are attempting to make: the bulk of St. Louis outdoor recreation manifests what we have called the "urban pattern." Furthermore, we might note that St. Louis visitors to Pere Marquette State Park, when asked the kind of visit the park was best suited for, overwhelmingly responded in terms of day or weekend visits. Only 13.2 percent mentioned longer visits and half of these people also mentioned day or weekend visits.

A consideration of the sale of 1958 hunting and fishing licenses in the Missouri portion of the St. Louis SMSA and of 1956 fishing licenses in the Illinois portion further documents the prevalence of what we have called the urban pattern of outdoor recreation. Of the Missouri units in the SMSA, 15.3 percent of the eligible hunters and fishermen in 1958[13] purchased hunting or fishing licenses. This figure compares with 28.5 percent of the eligible State population. If we place these Missouri units along a gradient of urbanization, we find a continuing decrease in proportions as urbanization increases. Specifically, in St. Charles County, the least urbanized of the units, 37.3 percent of the eligible population purchased licenses in 1958; in Jefferson County, next most urbanized, 35.8 percent of the eligibles purchased licenses; in St. Louis County, the most highly

[12] Figures for Pere Marquette represent days actually stayed at the park. We estimate less than 10 percent of the visitors to close-in parks undertake such visits as part of longer trips.

[13] Computed for the population 16 years of age and over in 1960. Because we have used 1960 census data as a base for computing the proportion of eligibles who purchased hunting or fishing licenses in 1958, these percentages are slightly lower than the actual percentages.

urbanized of the Missouri counties in the SMSA, the proportion was 20.5 percent; and in St. Louis City, only 11.0 percent of the eligibles, less than half the proportion for the entire State, purchased hunting or fishing licenses. The Illinois portion of the SMSA is, of course, less urbanized than the Missouri portion, although Illinois is a more highly urbanized State, and this is undoubtedly reflected in the fact that eligible residents of the Illinois portion purchased more than their share of fishing licenses in 1956 when that share is contrasted with figures for the State as a whole. Specifically, between 11.7 percent and 12.4 percent (depending upon the use of 1950 or 1960 census as a base) of the residents of Illinois 16 years of age, or over, purchased fishing licenses in 1956, while between 18.1 percent and 20.4 percent of the eligible residents of the Illinois portion of the St. Louis SMSA purchased fishing licenses. Moreover, of the two counties comprising the Illinois portion, Madison County is least urbanized, and between 19.0 percent and 21.5 percent of its eligible residents purchased licenses, while the percentage for St. Clair County, containing the city of East St. Louis, lies between 17.3 percent and 19.4 percent. Trends in these data are most significant, but will be discussed in the next section of this report. In the meanwhile we shall turn to a consideration of the socioeconomic characteristics of St. Louis outdoor recreationists.

SOCIOECONOMIC CHARACTERISTICS OF ST. LOUIS OUTDOOR RECREATIONISTS

According to the National Recreation Survey, half the population of the United States 12 years of age and over did some pleasure driving in the fall of 1960, and an additional 2 percent took pleasure drives during the summer months. Pleasure driving for each period was rather evenly distributed over the population from the standpoint of place of residence, showing some concentration among residents of SMA's under 1 million. This would lead us to believe that pleasure driving is not particularly an urban form of outdoor recreation. Yet, when we examine the number of days each participant spent in pleasure driving, we find the smallest number characterizing rural residents for both periods, and, in the fall, participants residing in SMA's greater than 1 million in population spent more days pleasure driving than any other residential grouping. Similarly, as we have mentioned earlier, a study of pleasure trips by the Missouri Highway Commission, disclosed that residents of populated places greater than 100,000 were overrepresented among pleasure drivers in Missouri. Further analysis of these data for a 12-month period in 1951-52 established that skilled and semiskilled operatives, "representing only 13.5 percent of the Missouri population accounted for more than 30 percent of the long trip mileage" 14/ in the pleasure travel of Missourians. The analysis also suggested that much of this pleasure driving was taken by persons with annual incomes of less than $3,000, since a national survey conducted by Crowell-Collier showed that 65 percent of this income group took pleasure trips in 1954, the largest share for any income category.

These data are borne out in part by the 1960 National Recreation Survey. Skilled workers were overrepresented among pleasure drivers during both the fall and summer months, but semiskilled workers and laborers were underrepresented. There is no way to know from the National Recreation Survey whether the inclusion of laborers with semiskilled workers in a single category can account for the underrepresentation of that category of worker in the nation, but the possibility is raised. When the occupation of pleasure drivers residing in the SMA's of greater than 1 million population is examined, the same general distribution appears. Skilled workers in large metropolises were overrepresented among pleasure drivers; semiskilled workers and laborers were underrepresented during the fall months and did precisely their share of pleasure driving in the summer. Again, this lower rate of pleasure driving may well be due to the heterogeneity of workers in the latter category. Where the national survey differs from the earlier Missouri study is in the finding that clerical and sales workers living in metropolitan areas with more than 1 million population are also consistently overrepresented among pleasure drivers, and, with the skilled workers, constitute the model percentage for all occupational categories.

Income data gathered by the national survey are at greater variance with the Missouri study, since they show an underrepresentation of pleasure drivers at both extremes of the income distribution for residents of large SMA's rather than an inverse relationship with income as disclosed by the Missouri study. This is due in part to the finer low income categories of the national survey, but that survey shows an overrepresentation of fall pleasure drivers in all large metropolitan income groups between 3 and 15 thousand dollars, and of summer pleasure drivers in all income groups between 4 and 15 thousand dollars. It seems possible to infer from these studies that St. Louisans may drive for pleasure somewhat more frequently than other residents of the larger region of study and that these pleasure drivers are concentrated in the middle-income range of the city's white collar, skilled, and possibly semiskilled workers. In addition, the national survey suggests that there may be some overrepresentation of professionals and technical workers among St. Louis pleasure drivers. An examination of the onsite studies will give considerably more substance to these inferences.

Because the 1960 census data on the characteristics of the St. Louis SMSA population are not yet complete, no direct contrast of St. Louis park visitors with the larger metropolitan population is possible as far as occupation and income are concerned. Consequently, to derive some picture, no matter how inadequate, of the distinctive socioeconomic characteristics of the park visitors, we have been forced to use 1950 census data.

In 1950, eight-tenths of the families and unrelated individuals residing in the St. Louis SMSA received incomes of less than $5,000. Yet two-thirds of the St. Louisans interviewed at the six State parks selected for study in 1960 reported annual incomes ranging between 5 and 10 thousand dollars. Slightly less than

14/ Richard E. O'Brien, "Socio-Economic Forces and Pleasure Travel," op. cit., p. 34.

a fifth reported lower incomes; less than an eighth, higher incomes. The general rise in income over the intervening decade is not sufficient to explain this vast difference. At least two other factors must be taken into account. First, St. Louis Negroes undoubtedly account for a very large share of the low incomes reported for the region, and we have already seen that they account for an infinitesimally small share of St. Louis visitors to the parks studied in 1960. Second, probably adolescents and young unmarried adults also contribute a relatively large proportion of the low-income residents of St. Louis. These young people were undoubtedly underrepresented in the onsite studies. Only about 10 percent of the St Louisans interviewed consisted of unrelated individuals, and many of these were probably older men engaged in fishing expeditions. Park visiting, as revealed by these onsite studies, was overwhelmingly a family affair. Nevertheless, the differences between the income distribution of the St. Louis SMSA in 1950 and the St. Louis park visitors in 1960 are so great that they do permit the inference that most St. Louis outdoor recreationists are middle income residents with incomes ranging between 5 and 7 thousand dollars annually. In second place, are those with higher incomes, while the lowest frequency of park visiting is accomplished by St. Louisans with annual incomes of less than $5,000. This relationship seems to hold no matter how far the park visited is located from the city center. In this respect, there may be a difference between St. Louis pleasure drivers and park visitors. Both are concentrated in the middle income category, but pleasure drivers are more frequently representative of low income groups than are park visitors.

When the occupational characteristics of these St. Louis park visitors are compared to those of the SMSA labor force in 1950, the discrepancies are not nearly as great as was the case for income. As a matter of fact, noteworthy discrepancies are only found at the extremes of the occupational range. St. Louis park visitors contained twice the proportion of professional and semiprofessional workers (17.7 percent) as made up the SMSA labor force in 1950 (8.8 percent), while the proportion of laborers among park visitors (1.7 percent) was less than a fourth the proportion for the SMSA in 1950 (7.2 percent). These discrepancies cannot be explained in terms of shifts in the occupational characteristics of the labor force over the last decade. Although the bulk of park visitors is comprised by persons engaged in the same occupation as the bulk of the labor force—clerical and sales workers, craftsmen, and operatives—only professionals and technicians contribute more than their "share" to park attendance, and laborers are considerably underrepresented. Again, the latter difference may be explained in large part by the current lack of Negro attendance in the state parks studied.

Another tendency in this regard should be noted. Professionals and technicians concentrate their attendance at close-in and remote parks, showing the smallest frequency of attendance at the two medium distant parks—Lake of the Ozarks and Lake Wappapello. Laborers, however, decrease proportionately among St. Louis park visitors with increasing distance from the city center, so that no laborers were interviewed in the remote parks of Table Rock and Thousand Hills. Proportions of clerical and sales workers, as well as operatives, show this same tendency to decrease with the increasing distance of the parks that were studied. Aside from professionals and technicians, only skilled workers increased proportionately among these park visitors as distance of the park from the city center increased.

These tendencies may be partially reflected in data used to examine residential characteristics of the park visitors. In 1960, 40.1 percent of the residents of the St. Louis SMSA lived in the cities of St. Louis and East St. Louis; 41.1 percent in the urbanized suburbs; and 18.6 percent in the nonurban areas of the SMSA. Both urbanites and suburbanites were overrepresented among the St. Louisans interviewed at five of the State parks studied.15/ Residents of the nonurbanized areas contributed less than one-eighth of their "share" of visitors to these parks. Park attendance in St. Louis, therefore, seems to be an urban or suburban affair. Moreover, the distance these people traveled to parks is greatly differentiated by urban or suburban residence. The more distant the park, the greater the proportion of St. Louis urban dwellers in attendance; the closer the park, the greater the proportion of suburbanites. Forty percent of the St. Louis park visitors at Meramec State Park lived in the city limits of St. Louis or East St. Louis, and this figure increased to 67 percent at the distant parks. In contrast, almost 60 percent of the Meramec visitors were St. Louis suburbanites, and this figure decreased to less than 30 percent for the distant parks. These figures suggest that the clerical and sales workers among these St. Louis park visitors may, in fact, be chiefly suburban white collar workers, while the craftsmen and semiskilled workers at the parks are predominantly city dwellers.

These income, occupation, and residential differences do not discriminate sharply among the activities in which St. Louisans engage, once they arrive at State parks. There is some indication, however, that a "more and more principle" is operating here. Thus, the more income the St. Louisan reports, the more activities he engages in. Similarly, for reasons that escape us here, semiprofessionals (a very heterogeneous category), seem to be comprised by outdoor recreationists who undertake an extensive range of activities at State parks. There are indications that fishing is more often engaged in by park visitors in lower status occupations, while "relaxation" is more often a higher status activity, but these differences are not striking.

When the activities thought most important by these park visitors are examined, the picture is still not clarified. Yet, the data do suggest that the greatest involvement in outdoor recreation is found in high income high occupational status segments of the St. Louis population that visits State parks. This may be more a matter of this group's greater articulateness in the interview situation than any "real" difference in involvement.

Socioeconomic status, as measured by income and occupation group, may differentiate activities of park visitors, depending upon the distance traveled for the

15/These data were not available for Pere Marquette State Park.

park visit. Specifically, at the medium distant parks, Lake of the Ozarks and Lake Wappapello, the activities held important by higher status St. Louis visitors seem to be more focused than those of lower status visitors. The former most often mention fishing, swimming, and picnicking, while the latter more frequently mention sightseeing. The picture changes when the socioeconomic status of the St. Louis visitors to the most distant parks, Table Rock and Thousand Hills, is examined in relation to the activities deemed most important. As we have seen earlier, activities do become more focused (less "urban") in the distant parks, but fishing is the prime activity of lower status visitors to those parks while the important activities of higher status visitors are more diversified. This may mean that the outdoor recreation activities of higher status St. Louisans are generally more highly focused or specialized than those of lower status strata, but that the activities of the latter group become more highly focused the greater the distance they travel for their outdoor recreation. These differences, however, are not great.

In all this discussion, the relevant characteristics have possibly not been brought to bear in the interpretation of outdoor recreation activities. We have omitted age and sex from the analysis because of the peculiarities of the study designs. However, it should be recalled that, with sex held constant, socioeconomic variables—income, education, occupation, length of paid vacation, race, age, life cycle stage, region, and place of residence—accounted for less than 30 percent of the variance in the scores of the respondents on the "activity scale" constructed by the Survey Research Center.[16] Either relevant variables are missing, e.g., the early childhood and adolescent recreation patterns of the subject, or outdoor recreation in the parks of the St. Louis region is genuinely a mass activity, such that there is little social differentiation in the activities of park visitors, once they visit such facilities, although park visitors, themselves, do differ from the metropolitan population in general.

SUMMARY

We have examined the present state of outdoor recreation in the St. Louis metropolitan region with respect to five major categories: (1) sites and facilities; (2) attendance at those facilities; (3) pressures exerted by St. Louisans on those facilities; (4) outdoor recreation activities; and (5) social and economic characteristics of St. Louis outdoor recreationists. Before moving on to a consideration of trends in outdoor recreation, it is appropriate to provide a brief summary of the extensive foregoing discussion.

As far as the facilities and sites for outdoor recreation are concerned, there is certainly a severe shortage of water facilities, particularly for swimming and the more casual water recreation of urban dwellers. The necessity for the provision of additional water for the outdoor recreation of St. Louisans by both increasing the number of swimming pools available and developing a large water impoundment on the Meramec River is clear and present. However, the region within 150 miles of St. Louis undoubtedly possesses adequate land to meet the outdoor recreation needs of metropolitan residents. The problem here is twofold, centering on the distribution and accessibility of the land. By and large, land resources are not distributed in any close relationship to the distribution of the market. Close-in sites are overcrowded, with many already handling more weekend visitors than they are equipped to handle, while distant sites have not as yet received anywhere near the pressure on their facilities as have those near the city center. There are some exceptions to this general picture. Thus, clubs formed for inanimate shooting, private group camps, and commercial enterprises are more favorably distributed, but, in the latter case, there is some evidence to indicate that the operators' quest for profit may detract considerably from the recreationists' satisfactory use of the commercial facility. Privately owned land not specifically designated for outdoor recreation use constitutes the largest potential recreation space. In this case, however, most St. Louisans are denied access or have difficulty gaining access, either because of antiurban stereotypes held by landowners, particularly farmers, or by the very real legal risks the landowner assumes when he invites others on his land for recreation purposes.

Our data have accounted for at least 17 million visits to the sites and facilities we have inventoried, but there is no way to know how accurate this figure is. We have some evidence that National and State figures are somewhat inflated for particular facilities. On the other hand, no attendance data are available for many local, municipal, private, and commercial facilities. Our best guess is that the incompleteness of attendance data outweighs their exaggeration so that the 17 million figure is undoubtedly an underestimate. Over 90 percent of this attendance was at National, State, and 6 of 23 St. Louis County areas. An examination of the spatial distribution of this attendance shows that as much pressure is exerted on facilities within 50 miles of St. Louis, where St. Louisans account for the great bulk of the visitors, as on facilities located between 100-150 miles of the city, where visitors are attracted from the nation at large. Throughout the entire region, we estimate conservatively that in 1960 St. Louisans accounted for 46 percent of the visits we have tabulated. In other words, St. Louisans made at least 8 million visits in 1960 to outdoor recreation facilities located within 150 miles of the central city. On the average, each St. Louisan made about four visits to outdoor recreation sites in the larger region during the 1960 season.

This pressure is very unevenly distributed over the region. Over 70 percent of the outdoor recreation of St. Louisans occurred at sites less than 50 miles from the city center, 18 percent between 50 and 100 miles, and 11 percent between 100 and 150 miles. Nor was this pressure exerted evenly in all directions from the central city. Most pressure was exerted on the Ozark Highlands southwest of the city and extended in force to the most distant facilities in that area. Almost as much pressure was exerted at Alton Lake immediately north of the city and for a short distance

[16] Eva Mueller and Gerald Gurin, op. cit., ch. II; "Socioeconomic Factors Associated With Outdoor Recreation: A Multivariate Analysis."

westward along the east-west interstate highway linking St. Louis to Kansas City. St. Louisans make very little use of facilities in the northwest, northeast, or southeast areas of the larger region.

Several accounts of outdoor recreation suggest that such recreation, when undertaken by metropolitan residents, is largely an unfocused affair, consisting of such activities as pleasure driving, sightseeing, and relaxation, while activities like fishing, hunting, and camping attract small town and rural people in numbers exceeding their share of the total population. Undoubtedly, the number of outdoor recreationists living in metropolitan areas is absolutely greater for almost every activity, but proportionately their activities are typically of this unfocused kind. This is true of St. Louisans. Probably 18 percent of all their passenger car driving in the summer months is outdoor recreation pleasure driving. Moreover, the 800 St. Louisans interviewed in 1960 at six State parks, five in Missouri and one in Illinois, indicated that their most popular activities in those parks were sightseeing and relaxation. Of the relatively more focused activities, swimming and picnicking are popular with St. Louis park visitors. Yet, 40 percent of these St. Louisans did camp or fish at the parks studied. These activities, of course, are those most highly valued by people in the outdoor recreation movement in this country, but they are not the activities most frequently engaged in by St. Louisans when they visit outdoor recreation facilities.

As a matter of fact the "nonurban" character of such activities as fishing and hunting is nicely documented by an analysis of hunting and fishing licenses sold to Missouri residents of the St. Louis SMSA in 1958. The less urbanized their county of residence, the greater the proportion of eligibles purchased such licenses. Only 11 percent of the eligible residents of St. Louis City purchased hunting and fishing licenses in 1958, compared to 37.3 percent of the eligibles in the least urbanized county of St. Charles and 28.5 percent of the eligible State population. However, the extent to which the outdoor recreation activities of St. Louisans follow the "urban pattern" is, at least in part, a function of the distance they are willing to travel for their outdoor recreation. Although swimming is the most popular activity engaged in by St. Louis visitors at the two most distant parks studied, fishing takes second place, and camping moves up to fourth place. It should be remembered, however, that we have estimated only 11 percent of the total outdoor recreation of St. Louisans occurs at such distant sites. Seventy percent occurs near the central city where the popular activities follow the urban pattern of sightseeing, relaxation, swimming, and picnicking.

Finally, we have made some additional very tenuous estimates of the present day characteristics of St. Louis outdoor recreationists. Pleasure drivers are probably in the middle income range of the metropolitan white collar, skilled, and semiskilled workers. Park visitors are also mostly middle income residents, although they are somewhat overrepresented among professional and semiprofessional occupational groupings. St. Louis laborers, incidentally, contribute less than a fourth of their "share" to those metropolitan residents interviewed in the six parks studied. There is little social differentiation in the activities of St. Louis park visitors, once they arrive at parks, although the park visitors, themselves, are different from the metropolitan population taken as a whole.

CHAPTER FOUR

TRENDS IN OUTDOOR RECREATION

A consideration of changes in the opportunities for and patterns of outdoor recreation in the St. Louis region over the past several years is hindered by even greater obstacles to analysis than was the case in assessing the present state of outdoor recreation. Gaps in the data available are multiplied when the analysis of change is attempted. Even the treatment of changes in acreage of land and water available for outdoor recreation presents insoluble problems.

There are several reasons for this. First, the lower the level of government, the less complete the available information. Second, trend data for private facilities are practically unavailable. This is the case, not only because commercial facilities are reluctant to release such data, particularly when they are caught up in highly competitive situations, but also much recreational use of private facilities, such as wooded farmland or stocked farm ponds, is simply not recorded. Third, many facilities, like those administered by the Corps of Engineers, were not originally instituted as recreation facilities, and it has not been until very recently, as recreation pressures on such water impoundments as Alton Lake have been extensively publicized, that systematic attention has been given to their recreation use. Even now, recreation use is not a primary justification for the operation of those facilities, though that may be the major use made of the facility. Fourth, many changes in outdoor recreation lands and waters over the past several years have been administrative changes rather than increases or decreases in the facilities available to the people of St. Louis. Specifically, when Grand Marais municipal park was given to the State of Illinois in 1946, this would show up in trend analysis as an increase in State park acreage and a decrease in municipal park acreage, but would, of course, have resulted in no change as far as total acreage available for outdoor recreation in the area of study is concerned.

TRENDS IN OUTDOOR RECREATION RESOURCES

This latter difficulty is particularly evident when trends in acreage administered by the Federal Government are assessed. Relatively large tracts of recreation land have been made available in various ways to State park systems by the Federal Government over the past several years. The largest of the Missouri State Parks, Lake of the Ozarks, consisting of 16,335 acres, was granted to Missouri in 1934 by the Federal Government. The Corps of Engineers licensed 1,854 acres of an area known as the Allison Peninsula on Lake Wappapello to the Missouri State Park Board in the late fifties. As a matter of fact, in the early development of the Missouri State Park Board, the stimulus provided by the Federal Government was certainly the greatest single factor in the development of State park lands:

> An estimate of the State and Federal funds expended on the solution of conservation and recreational problems from the summer of 1933 to January 1, 1937 was placed at over $29 million of which perhaps 95 percent was supplied from Federal sources. 1/

This kind of stimulation to State park development tends to obscure changes in Federal lands, per se, over the past several years by masking real changes in outdoor recreation acreage in the interim.

Be these things as they may, most of the national forest acreage in our area of study had been established by the end of the 1930's, with little or no increase since that time. National Wildlife Refuges in the area were also established by the late thirties, although they have shown a more recent internal development. For example, the largest refuge, Crab Orchard, consisting of 44,000 acres about 100 miles southeast of St. Louis, was begun prior to World War II, but the 810-acre Devil's Kitchen Lake, the last of three lakes established in the refuge, was only recently opened to fishermen in January, 1962. This reflects a pattern in the Federal development of many water facilities in the region—the institution of impoundment projects in the late thirties or early forties, the wartime interruption of project developments, and the resumption of those projects after the close of World War II. Another example is provided by the Clearwater Dam and Reservoir Project, about 100 miles south of St. Louis. The project was begun in 1940, but the dam was not completed until 1948. Consequently, though acreage useable for outdoor recreation has been set aside by the Federal Government for 25 or 30 years, the full benefits of that acreage have only recently been enjoyed by residents of the St. Louis region.

Now, however, the recreational development of Federal lands seems to be in full swing. Not only are new facilities being made available by various agencies of the Federal Government, particularly by adding to the supply of water acreage, e.g., the recently established Table Rock Reservoir, just outside our region of study on the southwest, but smaller lands within the larger tracts are being made available to the States, considerably expediting the overall recreational development of the larger tracts.

When all Federal plans for the acquisition and development of future recreation areas in the region

1/Missouri State Planning Board, Cooperating with Missouri State Park Board, United States Department of Interior, National Park Service, Works Progress Administration, "A State Plan for Missouri: Missouri State Parks Attendance and Use Data" (typescript, 1938), p. 13.

are considered together, they show the greatest projected acreage and proportionate increase of any government or private agency. The various arms of the Federal Government plan to add about 419,000 acres of land and water to their present holdings of over 2-1/2 million acres, a projected increase of 16 percent. This planned increase is well distributed, when interpreted from the standpoint of existing recreation pressures or demand. Were Federal plans to materialize, there would be a 30 percent increase of federally controlled land and water in zone I of the region, the area receiving greatest recreation use by St. Louisans, a 27 percent increase in zone II, and a 10 percent increase in Federally controlled lands and waters in zone III, where the bulk of Federal holdings is presently located. The likelihood of such plans materializing, however, seems to increase with distance from the metropolitan center due to increasing competition for land near the metropolitan center. For example, Federal plans propose acreage increases about equally divided between national monuments (113,000 acres), the development of a watershed in Montgomery County, Ill., by the Soil Conservation Service (193,000 acres), and nine water impoundment proposals by the Corps of Engineers (112,625 acres). All the proposed increase in zone I acreage is contained in proposals for the development of the Meramec Basin by the Corps of Engineers. This proposal, authorized in the Flood Control Act of June 28, 1938, was developed when the Water Resources Committee of the National Resources Planning Board selected the Meramec Basin as a subject of cooperative study in December, 1942. Over the years the proposal has been subjected to much discussion and criticism, and, as a result of public hearings in December 1949, the Governor of Missouri concluded that the State could not approve the proposed reservoirs. Since then, no further funds have been expended by the Corps of Engineers on the project, although the authorized plan has been retained. It now seems likely that, although the Meramec Basin must be developed in the future, the plan of the Corps of Engineers will not be adopted.2/

Similar difficulties confront a plan of the Corps of Engineers for a Water Valley Dam on the Eleven Point River which would create an impoundment about 150 miles south of St. Louis in Missouri and northern Arkansas. That plan is seen as conflicting with the proposed Ozark Rivers National Monument and is subject to much dispute. However, the Water Valley proposal probably has a somewhat better chance of realization than the Meramec Basin proposal, since fewer competing interest groups are involved. At any rate, what at first seems to be competition for space often turns out, as in the case of the Meramec Basin and the Water Valley proposal, to be a competition for control of space rather than a competition among different possibilities of land use. If the Federal plans do not materialize, it does not necessarily mean that the proposed outdoor recreation facilities will be forever denied the residents of the St. Louis region.

2/"Digest of Preliminary Information Meramec Basin Reservoirs Missouri," (Mimeographed by the Corps of Engineers, Office of the District Engineer, U.S. Army Engineer District, St. Louis, 420 Locust St., St. Louis 2, Mo., September 1958), passim.

There are very few instances of recreation lands and waters reverting from State control in the St. Louis region, and this is particularly true of State parks. As a result the pattern of State park development in the region is less subject to qualification and ambiguity than the pattern of development for Federal holdings. We have been able to secure dates of establishment for more than 90 percent of the Illinois and Missouri State park acreage in the St. Louis region included in 42 of the 44 State parks. As tables C-1 and C-2 show, about 20 percent of the State parks in both the Illinois and Missouri sections of the metropolitan region were established by the end of the twenties, and these accounted for about the same proportion of the present acreage. By the end of the thirties, about 55 percent of the State parks and State park acreage had been established, the largest single addition during that decade being Lake of the Ozarks State Park in Missouri, accounting for almost 40 percent of the acreage added in that decade. After the decade of the thirties, the number of parksites in the region increased more rapidly than acreage, indicating a trend toward more, but smaller, State parks.

Spatially, the distribution of these trends is not well geared into the metropolitan demand for outdoor recreation space. Ninety percent of the State park acreage in zone I had been established by the end of the thirties, as had 6 of the 10 park sites in that zone. In the last 20 years, the addition of 4 of the 10 State parks in zone I has meant an addition of only 10 percent more area. Moreover, at least in the case of one added site, Grand Marais, the actual addition of recreational acreage was nil, amounting only to a change from municipal to State administration of an existing park site. Otherwise, the trends have been more favorable to the distribution of metropolitan demand. The greatest growth in parksites and park acreage since the thirties has taken place in zone II, between 50 and 100 miles from St. Louis, where more than a fourth of all State park acreage was added in the decade of the fifties. Increases in sites and acreage in zone III have occurred at a less rapid rate since the thirties, when almost 85 percent of the existing acreage and 13 of 22 sites had been established. Yet, in the last decade, more than 10 percent of the present acreage in zone III was added. This figure is more than three times the proportion of acreage added in the fifties to State park lands in zone I.

In all, 418,400 acres of recreation lands and waters controlled by the States of Illinois and Missouri are located in the St. Louis region. Present plans contemplate an addition of 46,812 acres in the future, a proposed increase of approximately 11 percent. With one exception, these plans consist of proposed State park sites. The exception is a projected 30,000-acre area in Calloway County, Mo., about 100 miles west of St. Louis. Here the issue is one of control and administration—whether by the State Park Board or the State Conservation Commission. If the decision goes to the State Park Board, then all the State plans for increased recreational space in the St. Louis region for which we have information are projected State park sites which, if the plans materialize, will represent a 57 percent increase in State park area, increasing the State park share in State-owned recreation space from one-fifth to one-fourth.

Table C-1. Establishment of 42 Illinois and Missouri State park sites in the St. Louis metropolitan region, by decades

Distance from St. Louis City center (in miles)	1920-29			1930-39			1940-49			1950-59			Totals	
	Number of sites established	Percent of all existing sites	Cumulative percent	Number of sites established	Percent of all existing sites	Cumulative percent	Number of sites established	Percent of all existing sites	Cumulative percent	Number of sites established	Percent of all existing sites	Cumulative percent	Total sites	Percent
Zone I (0-50)	.....	.....	.....	6	60	60	2	20	80	2	20	100	10	24
Zone II (50-100)	2	20	20	2	20	40	3	30	70	3	30	100	10	24
Zone III (100-150)	6	27	27	7	32	59	5	23	82	4	18	100	22	52
Totals	8	19	19	15	36	55	10	24	79	9	21	100	42	100

Table C-2. Establishment of acreage on 42 Illinois and Missouri State park sites in the St. Louis metropolitan region, by decades

Distance from St. Louis City center (in miles)	1920-29			1930-39			1940-49			1950-59			Totals	
	State park acreage established	Percent of all existing acreage	Cumulative percent	State park acreage established	Percent of all existing acreage	Cumulative percent	State park acreage established	Percent of all existing acreage	Cumulative percent	State park acreage established	Percent of all existing acreage	Cumulative percent	Total acreage	Percent
Zone I (0-50)	.....	.....	.....	14,668	89	89	1,326	8	97	473	3	100	16,467	21
Zone II (50-100)	8,345	30	30	8,752	32	62	2,969	11	73	7,449	27	100	27,515	37
Zone III (100-150)	7,950	25	25	18,487	59	84	1,707	5	90	3,184	10	100	31,328	42
Totals	16,295	22	22	41,907	56	77	6,002	8	85	11,106	15	100	75,310	100

These plans will alter present trends only slightly. State parks in zone II would record a 125 percent increase in acreage with the addition of 5 new sites to the present 10, while acreage in zones I and III would increase only 25 percent with the addition of 4 sites to the present 10 in zone I, and 10 sites to the present 24 sites in zone III.

Data are so incomplete for trends in county and municipal recreation sites that they cannot be presented in any meaningful manner here. However, a number of county and municipal proposals have been compiled, and these, although undoubtedly very incomplete, indicate a somewhat greater relative increase over present estimates of recreation acreage than is the case for State park plans. We have shown earlier that at least 66,730 acres usable for outdoor recreation are presently controlled by county and municipal governments in the St. Louis region. These lands are expected to be supplemented by at least 8,500 acres in the future, a proposed gain of about 13 percent. About six-tenths of this increase will be near the metropolis in zone I. The remainder will be in zone II, east of the central city. Nine county or municipal parks, park expansions, wildlife refuges, and stocked reservoirs are proposed for zone I. Acreage figures are available for only five of these proposals. There is acreage information for each of the three county and municipal proposals we were able to locate in zone II, but a proposed site in zone III, about 125 miles east of St. Louis, does not include acreage information. Consequently, any estimates about future county and municipal recreation space in the St. Louis region become underestimates as soon as they are expressed in terms of increased acreage.

There is a recent and perhaps significant tendency for private citizens in the St. Louis region to join together in corporations to develop outdoor recreation facilities, particularly water facilities. We have secured information on five such corporations, two in zone II and three in zone III. Acreage data for four of the five proposals have been secured. These four corporations propose to add at least 32,560 acres of land and water to the outdoor recreation facilities in the region. The largest of these is the Rend Lake Association, which expects to establish a 24,800-acre lake in addition to an unspecified amount of land open to public hunting about 75 miles southeast of St. Louis. Whether these plans will materialize is perhaps again dependent upon Federal action, for the Rend Lake Association has recently applied for Federal funds to expedite the project.

These Federal, State, county, municipal, and private corporation proposals will add somewhat more than half a million acres of land and waters to the present outdoor recreation facilities in the St. Louis region, if they materialize. While this figure seems impressive at first, it represents less than a 5 percent overall increase in such lands and waters. Moreover, from the standpoint of the spatial distribution of these proposed areas with reference to metropolitan pressures and demand, these proposed increases are

quite inadequate. Only 7 percent of the planned increases are located in zone I, which comprises somewhat more than 10 percent of the total region of study and is, of course, the focal point of outdoor recreation pressure. More than half the planned acreage, however, will be located in zone II, not too distant from the central city.

Most of the potential recreation acreage available to St. Louisans is, as we have shown, comprised by wooded farmland and stocked farm ponds, and it is very difficult to assess changes over time in the extent of these facilities. The agricultural census does provide data on farm acres in woodland for 1930, 1940, and 1954, but the percentage of farms in the St. Louis region reporting in those censuses is quite low, ranging between 48 percent in 1930 and 52 percent in 1954. Nevertheless, the data are presented in table C-3. That table shows surprisingly little change in wooded farm land over the 24-year period that is summarized. If the data are at all representative, we may expect very little change in this kind of facility in the future.

There are no overall trend data available for stocked farm ponds in the region of study. However, the Missouri Conservation Commission has provided information on the number of farm ponds stocked with game fish in 1950 and 1959 for all 59 counties in the Missouri sector of the study area. Though the commission warns that these figures may be misleading due to the influence of "droughts and other factors," they may provide some clues for discerning changing demand for this kind of outdoor recreation in the St. Louis region. Within 150 miles of St. Louis 1,350 ponds on Missouri farms were stocked with gamefish in 1950; 1,550, in 1959. This represents a gross increase of about 15 percent. The increase in farm pond stocking is concentrated in zone II, where 256 ponds were stocked in 1950 and 453 in 1959, a 75 percent increase. In contrast, pond stockings in zone I increased by about 8 percent during that decade and remained practically the same in zone III, where 963 farm ponds were stocked in 1950 and 955 in 1959.

For the period during which the most comparable data are available (1940-54), farm acreage for these Missouri counties decreased only slightly—by about 2 percent—but the number of farms in those counties decreased somewhat more than a fifth (21.8 percent). This contrast between decreasing numbers of farms and increasing numbers of farm pond stockings may reflect some increase, at least in intensive demand, for fishing facilities in the Missouri portion of the study area. The smallest decline in number of farms between 1940 and 1954 occurred in zone II (an 18.5 percent decline), while farm acreage remained about the same, decreasing less than 1 percent, and this can hardly account for the 77 percent increase in pond stocking over the decade, 1950 to 1959. Moreover, the greatest decline in numbers of farms and farm acreage took place, obviously, in zone I, where the number of farms decreased 27 percent, and farm acreage decreased 11 percent. Yet, farm pond stocking rose 8 percent in the face of these rather drastic declines in farm acreage and farm numbers. Again, in zone III, farm acreage decreased less than 1 percent between 1940 and 1954, and the number of farms decreased at the same rate as for the entire Missouri portion of the region. Here, however, there was no significant change in farm pond stocking between 1950 and 1959. It is not unlikely, then, that the data on farm pond stocking reflect, at least in part, an increasing metropolitan demand for close-in fishing facilities, where, in fact, such facilities are in short supply.

As far as trends in facilities are concerned, therefore, it seems that privately owned and operated facilities have been quite sensitive to the pressures of metropolitan demand. Yet, it is precisely on this level that coordination and planning are most difficult to achieve. Does this necessarily imply that future outdoor recreation planning on the part of Federal and State agencies must evolve into a joint enterprise with overriding responsiveness and sensitivity to metropolitan needs and pressures? Shall the higher echelons of government embark on some sort of crash program in the immediate future which would concentrate on supplying facilities near the metropolitan center at the expense of providing new more distant facilities? The analysis of trends in the use of Federal and State facilities does not seem to have this implication.

RECREATION GROWTH AREAS

In general, the greatest growth in the use of Federal and State outdoor recreation resources has not occurred near the city center, but at a distance greater than 50 miles from the central city. Where St. Louis attendance has been estimated, it seems (with the

Table C-3. Farm acreage in woodland in the St. Louis metropolitan region for the years 1930, 1940, and 1954[1]

Distance from St. Louis City center (in miles)	1930			1940			1954		
	Reported acreage in woodland	Percent of all reported farm acreage	Percent of farms reporting	Reported acreage in woodland	Percent of all reported farm acreage	Percent of farms reporting	Reported acreage in woodland	Percent of all reported farm acreage	Percent of farms reporting
Zone I (0-50)	1,256,191	21	44	1,128,136	18	53	1,303,999	22	60
Zone II (50-100)	2,424,300	21	48	2,158,026	18	53	2,763,525	25	60
Zone III (100-150)	3,255,843	17	49	2,920,884	15	48	3,181,715	17	47
Totals	6,936,334	19	48	6,207,046	17	51	7,249,239	20	52

[1]Source: U.S. Census of Agriculture for the years 1930, 1940, and 1954.

exception of one estimate) that St. Louisans are increasingly making use of more distant resources for their outdoor recreation. In the case of State park attendance, the greatest increase in visits by St. Louisans over the last decade occurs, as a matter of fact, in zone III, between 100 and 150 miles from the central city.

Attendance data for all national forests in the region are available only for the 6-year period from 1955 to 1960. During that time, overall visits increased 44 percent. There were 1,013,530 visits recorded in 1955; 1,462,846, in 1960. This rise occurred at an average annual rate of 10 percent, with the greatest increase taking place between 1955 and 1956 and the greatest decrease taking place between 1956 and 1957 when attendance fell off about 20 percent. There is no statistically defensible way to estimate how much of this increase was provided by St. Louisans. However, if onsite data available for Lake Wappapello State Park in zone III and the Crab Orchard Lake Wildlife Refuge in zone II (the sites most proximate to the national forests) pertain at all to forests visits, then St. Louisans account for about a fifth of the visits reported. If it is assumed that there was no change in the proportion of St. Louis visits over the 6-year period, 3/ this would represent an increase of about 90,000 St. Louis visits in the 6-year period, from 212,600 visits in 1955 to 307,200 visits in 1960.

There are, as we have shown, no national forests in zone I of the St. Louis region, and the distribution of increases in visits to these facilities between 1955 and 1960 is not notably differentiated by the forests' distance from the city center. Visits to national forests in zone II, assuming they are evenly distributed throughout the forest areas, 4/ are estimated as having increased 40 percent over the 6-year period, while visits to forests in zone III have increased about 48 percent. On the other hand, growth rates are clearly differentiated by distance from the metropolis. As shown in table C-4, the changes in visits from year to year in forests located in zone II are very erratic, but show an average annual growth rate of 15 percent, while changes in zone III fluctuate much less over the same period, showing an average annual rate of growth of only 8 percent. It is, of course, difficult to interpret such discrepant data. Even though the average annual rate of increase in visits to forests in zone III is lower than the rate for visits to forests in zone II, it is perhaps more realistic to suggest that future visits to forests in zone III can be more reliably predicted than future visits to forests in zone II, since the former trend is less erratic.

This may very well reflect the nature of use provided by St. Louis residents. Shawnee National Forest, located between 75 and 150 miles southeast of the central city, has recorded visits for a 9-year period from 1952 to 1960. These records are broken down for Illinois and Missouri segments. In commenting upon these records, the forests supervisor, Paul J. St. Amant, has written, "We believe a greater percentage of Illinois visitors are of local (same county) origins than the visitors in the Missouri portion of the forests." 5/ Over the 9-year period for which Mr. St. Amant has provided data, visits to the Illinois portion of the forest, located in zones II and III, increased about a fifth, from 273,830 in 1952 to 327,000 in 1960, while visits to the Missouri portion, located entirely in zone III, quadrupled, from 54,500 in 1952 to 220,600 in 1960. This may well indicate a growing metropolitan pressure on more distant forest facilities, since, if Mr. St. Amant's observations are correct, it is highly probable that St. Louisans comprise a larger percentage of visitors to the Missouri portion of the Shawnee Forest than of visitors to the Illinois portion.

Trend data for visits at national wildlife refuges are available for only one site, Crab Orchard Lake. Attendance at that refuge, located about 90 miles southeast of St. Louis, quadrupled between 1947 and 1959. Again on the assumption of no proportional change over the years, St. Louis visits are estimated at 21 percent of the total, yielding an estimated increase of 189,000 visits from 63,000 in 1947 to 252,000 in 1959. This increase has witnessed a slight decline in recent years. The data show a high of 1,360,000 in total attendance at the refuge in 1957. This figure fell off in 1958 to 1,160,000 and had not recovered its former high by 1959, when a total attendance of 1,200,000 was reported.

In the St. Louis region, the Corps of Engineers is responsible for the operation of five locks and dams, two reservoirs, and five navigation pools on principal waterways. The Corps has provided complete data on attendance at the reservoirs and locks and dams for the decade, 1951 to 1960, and on attendance at two navigation pools northwest of St. Louis for the 5-year period, 1955-59. All these facilities are located more than 100 miles from the central city in zone III. Trend data on attendance at the navigation pools immediately north and west of St. Louis in zones I and II are not available. This is unfortunate, since these pools include Alton Lake, used by more recreationists in 1960 than any other single facility in the region of study. The establishment of a water patrol by the State of Missouri at Alton Lake in 1961 indicates that pressure on the facility has increased so rapidly over the years that serious control problems have been posed. Certainly the bulk of this pressure is and has been exerted by St. Louisans.

Even the more remote pools on the Mississippi River above St. Louis have shown a marked increase in attendance in the last few years. Although annual data are available only for the period 1955-59, attendance has almost doubled in that brief period, rising from 103,900 in 1955 to 202,100 in 1959. The average annual rate of increase for the period is 19.5 percent. Comparisions have been made for 1952 and 1960 data, and these show that the 5-year trend is not merely a short-term fluctuation. 6/ Moreover, the increasing use of those pools for recreation is dramatically

3/ This assumption is defended in the discussion of State park attendance. See pp. 188-189.

4/ It is necessary to make this assumption, since the Illinois portion of the Shawnee National Forest overlaps zones II and III, and visiting data are recorded for the entire Illinois segment of the forest.

5/ Personal correspondence, dated March 3, 1961.

6/ U.S. Army Engineer District, Rock Island, Corps of Engineers, "Mississippi River Recreation—1960" (Mimeographed News Release, 1961).

Table C-4. Changes in attendance at national forests

Distance from St. Louis	1955		1956			1957		
	Attendance	Percent	Attendance	Percent	Percent increase over 1955	Attendance	Percent	Percent increase over 1956
Zone II, 50-100 miles	478,544	47.2	764,372	56.9	59.7	417,513	39.1	-45.4
Zone III, 100-150 miles	534,986	52.8	578,723	43.1	8.2	649,647	60.9	12.2
Totals	1,013,530	100.0	1,343,095	100.0	32.5	1,067,160	100.0	-20.5

documented. Specifically, the number of pleasure craft locked through the 12 locks in the Rock Island District, which includes the pools in our area of study, more than quadrupled over the 9-year period, rising from 10,954 in 1952 to 47,435 in 1960. In 1952, 38 percent of the lockage operations were made for pleasure craft; in 1960, 55 percent. In 1952, 30,861 fishermen were counted; in 1960, based on figures up to October, 57,000 fishermen were expected, an increase of about 85 percent. The Corps of Engineers has no information on the contribution St. Louisans have made to these increases. However, they undoubtedly account for at least half of this use, since the only city of any size on that stretch of the Mississippi within 150 miles of St. Louis is Quincy, Ill., located in Adams County, which reported a population of 68,467 in 1960.

Attendance at the five locks and dams southeast of St. Louis at the junction of Illinois, Kentucky, Missouri, and Tennessee does not show as dramatic an increase. From 1951 to 1960, attendance increased 34.6 percent, from 86,100 to 115,900, at an average annual rate of 6 percent. For a period comparable to that provided by the Corps of Engineers for the Rock Island District, 1955 to 1959, the increase at these five locks and dams was slightly less than 4 percent. St. Louisans may account for about a tenth of these attendance figures. A casual inspection of motel registrations at Kentucky lakes, not far from the locks and dams in question, was made in 1961 and disclosed a St. Louis representation of about 10 percent. 7/

In the decade, 1951-60, attendance at the Wappapello and Clearwater Reservoirs has more than doubled, increasing 117 percent from 409,959 in 1951 to 891,944 in 1960, at an average annual rate of 10.8 percent. The most rapid increase over the 10-year period has occurred at Wappapello, where, if State park attendance figures are at all relevant for the interpretation of the attendance data provided by the corps, St. Louisans accounted for at least a fifth of the visits tallied in 1960. Attendance at Wappapello increased more than 2 1/2 times in the 10-year period; at Clearwater, attendance did not quite double.

Visits at the State parks in the St. Louis region have increased from 4,756,507 in 1950 to 7,139,297 in 1959, an overall growth of almost exactly one-half. This increase has occurred at an average annual rate of 6.1 percent. The greatest fluctuations in this trend occurred in 1953 and 1958 with drops in attendance from the preceding years of 24.3 percent and 14.4 percent, respectively. These changes are significantly differentiated by State park location. Actually, all visits to State parks located in zone I have decreased 44.8 percent over the decade for which comparable data are available for Illinois and Missouri parks. In 1950, 2,606,614 visits to State parks located within 50 miles of the central city were counted; in 1959, 1,439,255.

This seems, at first glance, to suggest the total lack of urgency for any outdoor recreation plan that would gear future facilities to close-in metropolitan requirements. However, much of the decrease in visits to State parks located in zone I is accounted for by decreases in attendance at Illinois State parks, particularly Grand Marais State Park, referred to earlier in this report. 8/ That park showed a decrease in visits from 1,212,324 in 1950 to 101,689 in 1959, a loss of 1,110,635 visits, more than 10 times the total visits recorded in 1959. All Illinois State parks in zone I show decreasing attendance over the decade. Total visits to those parks, including Grand Marais, was 2,386,396 in 1950; 886,503, in 1959. Of this total loss in visits, Grand Marais contributed almost 75 percent. Illinois State park visits in zone I, then, decreased 63 percent over the decade at an average annual rate of loss of 8.7 percent. This may well reflect the segregation-desegregation-resegregation cycle commented upon earlier, although an informed source who does not wish to be identified maintains that more accurate recent estimates of State park attendance in Illinois are also reflected in these decreases. His observation, however, does not seem logically compatible with the fact that visits to Illinois State parks in zone II have more than doubled during the decade, and visits to Illinois State parks in zone III have increased almost 2 1/2 times.

In contrast to attendance trends for Illinois State parks, visits to all Missouri parks for the same period of time have tripled. In zone I parks, visits increased 2 1/2 times between 1950 and 1959; in zone II, almost five times; and in zone III, almost three times. At the present time, there is no evidence to suggest that Negroes visit Missouri State parks in the St. Louis region in any significant numbers.

It is possible to estimate with some precision the contribution St. Louisans have made to these trends in State park attendance. There is, first of all, some evidence to indicate that this contribution has shown

7/Verbal report by Edward L. Ullman, then director of the Meramec Basin Project at Washington University (St. Louis).

8/Cf. p. 168.

in the St. Louis region for the period 1955-1960

1958			1959			1960			Summary	
Attendance	Percent	Percent increase over 1957	Attendance	Percent	Percent increase over 1958	Attendance	Percent	Percent increase over 1959	Percent increase 1955-60	Average annual percent increase
663,858	48.2	59.0	783,571	49.9	18.0	672,424	46.0	-14.2	40.5	15.4
714,242	51.8	9.9	785,695	50.1	10.0	790,422	54.0	0.6	47.7	8.2
1,378,100	100.0	29.1	1,569,266	100.0	13.9	1,462,846	100.0	-6.8	44.3	9.6

no marked proportional shift over a considerable period of time. In 1938, an intensive study of Missouri State parks was undertaken by the Missouri State Planning Board in cooperation with the Missouri State Park Board, the National Park Service, and the Works Progress Administration. Among the parks studied at that time was Meramec State Park, also studied 22 years later as part of the onsite studies conducted by the Meramec Basin project at Washington University (St. Louis). Visitors in 1938 were tallied by Missouri county of residence, and residents of the Missouri segment of the St. Louis SMSA from St. Louis City, St. Louis County, St. Charles County, and Jefferson County comprised 51.6 percent of all Meramec Park visitors. Twenty-two years later, in 1960, visitors from the St. Louis SMSA, including the Illinois counties, Madison and St. Clair, comprised 57.3 percent of all Meramec Park visitors. The lack of information on Madison and St. Clair county residents in the 1938 study of Meramec Park attendance quite probably accounts for the 5.7 percent discrepancy between the two figures. This is remarkable consistency for data collected in periods separated by a 22-year interval and constitutes the basis for our general assumption in considering these trends that the proportion of outdoor recreationists at various facilities has remained relatively unchanged over the years for which attendance data are available.

Using the same materials employed earlier to estimate the St. Louis contribution to the total use of outdoor recreation facilities in the region of study in 1960, we have made conservative estimates of St. Louis proportions for visits to State parks by quadrants and zones. 9/ Where onsite studies are available, the proportions of St. Louisans reported have been directly applied to attendance data for those sites. Otherwise, we have divided the area of study into quadrants and zones. For each segment so demarcated, estimates provided by county agents, reports of Missouri visitors to two Illinois State parks in 1960, and a creel census conducted in 1960 at various fishing sites in Illinois were reconciled to arrive at an estimate for the proportion of use of outdoor recreation resources in each demarcated area provided by St. Louisans. Parks were then located in the areas demarcated by quadrants and zones, and the proportions of use estimated for St. Louisans in each area were recorded for each park located in that area. These proportions have been implemented as "multipliers" applied to gross attendance data at state parks for the decade, 1950-1959, providing an estimate of shifts in the attendance by St. Louisans at State parks over that decade. In this estimation procedure it is assumed that such proportions have remained constant over the decade for which data are available.

If Grand Marais State Park is included in this trend analysis, then St. Louis visits to State parks have decreased 27.1 percent between 1950 and 1959, the overall decrease being completely attributable to the loss of St. Louis visitors to State parks located in zone I. St. Louis visits to parks in zone II have increased almost 2 1/2 times in the 10-year period, and visits to State parks in zone III have almost tripled. If the Grand Marais figures are eliminated from the analysis, then St. Louis visits to State parks have more than doubled over the decade, although the increase in such visits to zone I parks is only 72 percent, less than half the proportional increases in zones II and III. Consequently, future estimates of St. Louis demand for such outdoor recreation facilities as State parks are very much contingent on future trends in race relations at such sites. Table C-5 shows the relevant data for these trends.

It has been possible to assemble trend data for St. Louis visits to Missouri State parks in the region for a longer period of time, 1938-1960, than was possible for St. Louis visits to all State parks in the region. In this case, only those State parks in existence since 1938 were selected for analysis. Both the 1938 and 1960 onsite studies made possible relatively accurate estimates of St. Louis attendance. Over this period, St. Louis visits increased ninefold, with the greatest growth in attendance occurring at Missouri parks in zone I, from 39,106 in 1938 to 478,632 in 1960, and the smallest growth in zone III, from 30,365 in 1938 to 187,111 in 1960. In 1938, St. Louis visits to Missouri State parks in zone I comprised 37 percent of all St. Louis visits to Missouri State parks in the area of study; in 1960, 49.3 percent. St. Louis visits to zone II Missouri State parks have shown relatively constant proportions over the 22-year interim, declining slightly from 34.3 percent of all St. Louis visits in 1938 to 31.4 percent in 1960. It obviously follows that St. Louis visits revealed a proportional decline at Missouri State parks in zone III—in this case, from 28.7 percent in 1938 to 19.3 percent in 1960.

Although trend data for such a 22-year period seem more desirable as a basis for trend analysis than the trend data presented above in detail, two shortcomings raise serious objections to such a contention. First, depression data are contrasted with

9/ See p. 174.

Table C-5. Changes in estimated annual attendance at State parks in the St. Louis region by residents of the St. Louis SMSA for the period 1950-1959 [1]

Distance from St. Louis	1950		1951			1952			1953		
	Attendance	Percent	Attendance	Percent	Percent increase over 1950	Attendance	Percent	Percent increase over 1951	Attendance	Percent	Percent increase over 1952
Zone I, 0-50 miles	1,539,143	86.6	1,738,825	87.1	13.0	1,688,313	78.3	-2.9	1,143,943	78.3	-32.2
Zone I, excluding Grand Marais	326,819	57.9	337,684	56.7	3.3	542,535	60.9	60.6	287,344	47.5	-47.0
Zone II, 50-100 miles [2]	117,382	6.6	141,291	7.1	20.4	171,428	8.4	20.8	132,998	9.1	-22.4
Zone III, 100-150 miles [2]	120,195	6.8	116,123	5.8	-3.4	176,311	8.6	51.8	184,180	12.6	4.5
Totals, including Grand Marais	1,776,720	100.0	1,996,239	100.0	12.4	2,036,052	99.9	2.0	1,461,121	100.0	-28.2
Totals, excluding Grand Marais	564,396	100.0	595,098	99.9	7.2	890,274	99.9	49.6	604,522	100.0	-32.1

Distance from St. Louis	1954			1955			1956		
	Attendance	Percent	Percent increase over 1953	Attendance	Percent	Percent increase over 1954	Attendance	Percent	Percent increase over 1955
Zone I, 0-50 miles	1,140,767	70.1	-0.3	870,247	65.4	-23.7	687,403	56.0	-21.0
Zone I, excluding Grand Marais	326,689	40.1	13.7	389,852	45.9	19.3	525,021	49.3	34.7
Zone II, 50-100 miles [2]	245,726	15.1	84.8	236,756	17.8	-3.6	305,927	24.9	29.2
Zone III, 100-150 miles [2]	241,582	14.8	31.2	223,210	16.8	-7.6	233,022	19.0	4.4
Totals, including Grand Marais	1,628,075	100.0	11.4	1,330,213	100.0	-18.3	1,226,352	99.9	-7.8
Totals, excluding Grand Marais	813,997	100.0	34.6	849,818	100.0	4.4	1,063,970	100.0	25.2

Distance from St. Louis	1957			1958			1959			Summary	
	Attendance	Percent	Percent increase over 1956	Attendance	Percent	Percent increase over 1957	Attendance	Percent	Percent increase over 1958	Percent increase 1950-59	Average annual percent increase
Zone I, 0-50 miles	775,026	58.7	12.7	702,911	60.6	-9.3	665,698	51.4	-5.3	-56.7	-7.7
Zone I, excluding Grand Marais	599,902	52.4	14.3	592,629	56.4	-1.2	564,009	47.3	-4.8	72.6	10.3
Zone II, 50-100 miles [2]	313,405	27.4	2.4	219,353	20.9	-30.0	290,626	24.4	32.5	147.6	14.9
Zone III, 100-150 miles [2]	231,025	20.2	-0.8	237,762	22.6	2.9	338,392	28.4	42.3	181.5	13.9
Totals, including Grand Marais	1,319,456	100.0	7.6	1,160,026	100.0	-12.1	1,294,716	99.9	11.6	-27.1	-2.4
Totals, excluding Grand Marais	1,144,332	100.0	7.6	1,049,744	99.9	-8.3	1,193,027	100.1	13.6	111.4	11.2

[1] Data provided by the Department of Conservation, Division of Parks and Memorials, State of Illinois, and the Missouri State Park Board.
[2] Percentages of attendance in any given year contributed by State parks in zones II and III are computed from a base which includes Grand Marais State Park attendance.

data on visits made in a period of relative prosperity. Consequently, growth rates between 1938 and 1960 are seriously inflated. This contention is clearly established by the observation that the greatest increases in St. Louis visits to Missouri State parks in existence since 1938 occurred in the decade 1938-48. Thereafter, the proportions of St. Louis visits made to parks in each of the three zones have remained relatively constant, in no case varying by as much as 2 percent. Moreover, the absolute St. Louis attendance estimates were only slightly more than doubled in the case of zone I parks since 1948, increasing from 238,890 in 1948 to 478,632 in 1960. In the other zones, attendance estimates increased less than twofold. In the second place, although a State park system had been established in Missouri as early as 1917, lands were not acquired until 1924, and in 1928 more than 90 percent of the acreage set aside for

Missouri State parks was devoted to game refuge work. Not until 1933, with the impetus of a Federal Government improvement program, were park facilities recognizeably improved, and an independent State Park Board was not established until 1937, only a year earlier than the year for which our earliest attendance data have been compiled. Consequently, contrasts between attendance at unimproved or only recently improved State parks and attendance at highly developed State parks also provide misleadingly high rates of growth. Our data on attendance at State parks by St. Louisans strongly suggest that trends were not stabilized until the end of the forties with the consequence that trend data for the decade 1950-60 are more revealing of "true" increases than trend data for a longer time interval.

Finally, The Missouri Conservation Commission has provided attendance figures for some areas in its control for the years 1950, 1955, and 1959. These data are of mixed reliability, as acknowledged by the information officer of the commission, James F. Keefe.10/ Yet, where so few data are available, some materials may be more preferable than none. Attendance trends were compiled by the commission for five wildlife areas in our region of study, two reservations, and five fire towers. Of these, one wildlife area, one reservation, and three towers are located within 50 miles of St. Louis; one reservation and two towers, between 50 and 100 miles from the city; and the remainder, between 100 and 150 miles away from St. Louis. Attendance at these sites has increased almost 3 1/2 times between 1950 and 1959, from 83,532 in 1950 to 280,441 in 1960. This rise in attendance is inflated in part by the fact that figures are not available for zone III conservation facilities in 1950, and one wildlife area in that zone shows no figures until 1959, since the area was only recently established. Yet, if we eliminate the attendance figures for the facilities located in zone III, the remaining attendance data do show an increase of almost three times over the 10-year period. This increase is almost evenly divided between zones I and II. Because of the lack of onsite studies, it is difficult, indeed, to estimate the St. Louis contribution to these figures, but at least 80 percent of the visits to the zone 1 facilities were made by St. Louisans. It is impossible to make estimates for the facilities located in zone II.

There are absolutely no trend data available for attendance at the other outdoor recreation facilities in the St. Louis region. What has occurred over the years as far as the use St. Louisans have made of such State-controlled facilities as forests, fire towers, wayside parks, etc., must remain a mystery at this time. The case is similar for county and municipal facilities, and this is particularly to be deplored given the very intensive use St. Louisans have made of such outdoor recreation sites as Creve Coeur Park, operated by St. Louis County. Finally, no annual trend data for the use made of the many commercial and private outdoor recreation resources in the region have been located at all.

The basic purpose of trend analyses is, of course, to lay a firm foundation for the "prediction" of future trends. When the attendance trends discussed above are reviewed, it seems, at first, as though the foundation they have provided is made up of shifting sand rather than hard rock. Attendance data, in many cases were suspect, as attested by those who provided them. In other cases data were incomplete, and, in still others, totally absent. Moreover, in some instances where seemingly reliable attendance trends were provided, it proved impossible to make any statistically defensible estimates of the contribution St. Louis residents made to such trends. Confronted with these shortcomings, the analyst can only do the best he can with what he has by immersing himself in the materials at hand and using such techniques as have been dignified by the terms, "inspection," "discernment," or, more frankly, "reasoned guessing."

It is not, however, as though the trend data that have been processed permitted no conclusions to temper future conjecture. Seven important findings in this respect have been disclosed:

1. Attendance at outdoor recreation facilities in the St. Louis region before 1950 was seriously deflated by the combined effects of: (a) the Great Depression; (b) World War II; (c) the generally undeveloped state of the facilities before 1940; and (d) the interruption of developments during World War II.

2. Consequently, attendance trends at the facilities studied were quite probably not stabilized until 1950.

3. One onsite study at Meramec State Park suggests that the proportion of attendance contributed by St. Louisans has remained remarkably constant over a 22-year interval.

4. Probably there is a tendency over the years for St. Louis outdoor recreationists to range farther and farther from the city center in their quest for facilities. However, close-in facilities—Missouri State parks, Missouri conservation areas, and navigation pools on the Mississippi— are already taxed beyond capacity. As a consequence, the mere maintenance in the future of present attendance at such facilities poses serious problems for St. Louis outdoor recreation.

5. The future state of race relations among outdoor recreationists in the St. Louis region is an important contingency affecting future predictions.

6. Only attendance figures for State parks, because of the availability of onsite studies, provide adequate materials for statistical treatment in prediction efforts.

7. In general, water facilities will receive the greatest increases in pressure exerted by St. Louis outdoor recreationists in the future.

On the basis of these findings, then, State park attendance by St. Louisans is most amenable to conventional extrapolation. This has been done, first, assuming no improvement in race relations in the region over the years; second, assuming the ultimate cancellation of the race contingency. For other attendance data, only the average annual growth rates lend themselves to use in extrapolation. A "reasoned guess" dictates that an average annual growth rate of 10 percent for attendance at other facilities is defensible. A "high" guess would put

10/Personal correspondence, dated June 15, 1961.

the rate at 20 percent, based on attendance increases at the more remote northwest navigation pools on the Mississippi between 1955 and 1959. A "low" guess would fix the rate at 6 percent, based on the increased use of locks and dams in the extreme southeast of the study region over the decade, 1951-60.

Sheer attendance extrapolations, however, may also convey incorrect impressions. Trends in the use of facilities are quite obviously affected by the kind of use that is made of them, by trends in outdoor recreation activities. In this case, of course, data are even more sparse. Yet, what data are available suggest highly interesting qualifications for the extrapolations that have been made of the attendance figures analyzed above.

VISITORS

Trends in outdoor recreation activities are available for visitors to Missouri State parks, but we have been fortunate, indeed, to locate any trend information at all on changes in the character of outdoor recreation over the years. The 1938 study of Missouri State park attendance recorded the activities of all park visitors at each park in existence at the time. These activities were differentiated only by park site. No data are available on the social and economic characteristics of the park visitors for whom the activities were recorded. Moreover, the early study reported only the proportion contributed by each activity to the total activities recorded, and we have used these proportions in our analysis.

To facilitate the trend analysis, the frequencies of activities were tabulated for all parks studied in 1938 by the three concentric zones radiating out from the central city of St. Louis. The results were contrasted with the activities reported by samples of visitors taken at five Missouri State parks and one Illinois State park in 1960. To enable comparison, the six parks studied in 1960 were arranged in three sets of two parks each at increasing distances from the central city. Thus, activities reported by visitors at Pere Marquette and Meramec State Parks in 1960 have been contrasted with activities recorded in 1938 at all Missouri State parks in zone I, within 50 miles of St. Louis. This contrast is not quite appropriate, since Meramec State Park is located just inside zone II, 55 miles from St. Louis. Similarly, activities at Lake of the Ozarks and Wappapello State Parks reported by visitors in 1960 have been contrasted with activities recorded in all zone II Missouri State parks in 1938, though the two parks studied in 1960 are actually located in zone III. Finally, activities at Table Rock and Thousand Hills State Parks in 1960, both parks located just beyond the 150-mile distance which has been arbitrarily employed to demarcate our region of study, have been compared with activities recorded in all zone III Missouri State parks in 1938. The nature of the available data dictated this kind of contrast. The decision may be defended, at least in part, by the fact that all parks were more readily and directly accessible in 1960 than in 1938 so that somewhat shorter trips in 1938 may easily have demanded as much time and effort from park visitors as somewhat longer trips undertaken in 1960. Another feature of the 1960 onsite studies which lessens the comparability of the data and necessarily tempers the analysis is the fact that four of the six sites—the more distant parks—are located on or near water impoundments. This was not true for any of the Missouri State parks we have analyzed in the 1938 study. Table C-6 brings together the 1938 and 1960 studies, contrasting the activities of all visitors to State parks in the St. Louis region in 1938 with the activities of all visitors contacted in the 1960 studies, as well as the St. Louis visitors contacted in those studies.

First of all, the fact that the activities of St. Louis visitors to the parks studied in 1960 do not vary greatly from the activities of all visitors to those parks should be noted. At the two close-in parks, Meramec and Pere Marquette, the proportions do not vary by as much as 2 percent for any activity. In the more distant parks, St. Louis visitors relax, sightsee, and picnic less than all visitors, while they fish and camp more frequently. In short, as we have mentioned earlier and as we would expect, the more distant the park visited by St. Louisans, the more focussed their outdoor recreation becomes. The differences in activities at the more distant parks are probably differences between the activities of visitors who live in the park vicinities and those, like the St. Louisans, who travel a greater distance to visit the parks in question. We will, consequently, focus this phase of the analysis on differences in the activities of all visitors over the 22-year period.

Interestingly, the so-called "urban patterns" of outdoor recreation have declined in frequency over the years. At the parks closest to the central city, more than half of the activities reported in 1938 was comprised by sightseeing or auto riding, and this compares with about 40 percent of the activities recorded as relaxation or sightseeing in 1960. The proportions are about the same in the two time periods for activities recorded at the parks in the middle range of distance from the central city, while at the most distant parks sightseeing and relaxation in 1960 comprised 35 percent of the activities reported compared to 52 percent for sightseeing in 1938. This finding is rather remarkable in view of the tendency for many contemporary moralists to construe the main shift in American recreation as a shift from dignified participation to irresponsible spectatorship, e.g., sightseeing and relaxation. These data certainly do not bear out such contentions.

Picnicking also shows a decline over the years in all but the most distant parks, perhaps reflecting something of the inroad the backyard barbecue has made on this form of outdoor recreation at park sites. At the close-in parks, picnicking made up a fourth of the activities reported in 1938 and only about a seventh of the activities reported in 1960. At the parks located in the middle range of distance from St. Louis, the decline is quite striking. There, picnicking made up 35 percent of the activities recorded in 1938, but only 14 percent in 1960. Picnicking at the most distant parks, however, has not changed drastically over the years, and, in fact, shows a slight relative increase in the interim.

As opposed to these generally decreasing frequencies for activities in the so-called "urban style,"

all water sports are reported in increasing frequencies over the 22-year period at all parks in each sector studied. The percentages for swimming have quintupled at the close-in parks, almost tripled at the parks in the middle distance, and doubled at the most remote parks. Percentages for fishing are doubled in each sector, while boating shows a very marked relative increase at the close-in and middle distant parks and has more than doubled at the most distant parks. Undoubtedly this relative growth in water sports is, in part, a function of the data which contrast activities in parks located at or near water impoundments in 1960 with parks not located at such impoundments in 1938. However, neither of the close-in parks studied in 1960 is located at an impoundment, although both are located on rivers. At those parks, relative increases in water sports were as great as or greater than increases in the more distant parks, where all parks studied in 1960 were located on impoundments. A more intensive analysis of these data reveals, as we shall see, that these increases in water recreation are not merely artifacts of the kind of parks for which comparisons have been made.

Trends in camping are more difficult to comprehend because of their inconsistencies. Camping has increased at the close-in parks over the years, but decreased at the more distant parks. This may signal a rise in the popularity of such accommodations as park cabins or motels at more distant sites. Perhaps, in the St. Louis region, when camping is embarked upon as a specific outdoor recreation, the activity takes the path of least resistance. People who camp, camp at the most accessible sites. When they depart for more distant sites with such activities in mind as fishing or boating, they may well make use of more comfortable accommodations for their overnight stays. Still, camping may facilitate those more distant trips at least in some degree. For example, at the most distant parks, the proportion of St. Louis campers in 1960 exceeded the proportion of all campers in 1938, and was only slightly less than the 1938 percentage for the parks located at a middle distance from the central city. Nevertheless, the use of cabins and motels for extended outdoor recreation travel has undoubtedly burgeoned. In 1938, almost 98 percent of the use made of State parks in the region was day use (98.6 percent). This ratio was practically unaffected by the distance between the park site for which such use was reported and St. Louis. In 1960, of all visitors contacted at the six parks observed, the proportion of those who remained for more than 1 day ranged between 40 and 20 percent. This increase in overnight use is certainly not reflected in the camping trends that have been reported here, suggesting a very great increase, indeed, in the use of cabins, motels, and other commercial accommodations by outdoor recreationists in the St. Louis region.

It has been explicitly recognized in this discussion that the time comparisons made are not the most desirable. Ideally, activities in 1938 would be compared with activities in 1960 only for the same outdoor recreation sites. This has been possible for one site, Meramec State Park. Table C-7 shows the frequencies of all activities recorded for all visitors at the park in 1938, all visitors sampled in the 1960 study, and St. Louis visitors contacted in that study. Facilities at the park have been considerably improved over the 22-year interim, but the opportunity for water sports at the site has not markedly changed. At Meramec, there is some evidence that the "urban pattern" of recreation has increased. Only 18 percent of the activities recorded in 1938 was given over to sightseeing, while sightseeing and relaxation made up almost 40 percent of the activities reported in 1960 by

Table C-6. Outdoor recreation activities undertaken by visitors to Missouri State parks in the St. Louis

Outdoor recreation activities	Frequency of activities recorded at State parks within 60 miles of St. Louis in 1938 and 1960					
	All visitors in 1938 at Missouri State parks within 50 miles of St. Louis		All visitors contacted in 1960 at 2 State parks within 60 miles of St. Louis		St. Louis visitors contacted in 1960 at 2 State parks within 60 miles of St. Louis	
	Number	Percent	Number	Percent	Number	Percent
Relaxing	....	....	499	19.0	339	18.9
Sightseeing[2]	21,971	51.6	533	20.3	337	18.8
Swimming[3]	1,324	3.1	443	16.9	291	16.2
Picnicking	10,941	25.7	380	14.5	261	14.6
Camping	748	1.8	284	10.8	200	11.2
Fishing	1,787	4.2	262	10.0	182	10.2
Boating[4]	206	0.5	111	4.2	72	4.0
Other[5]	5,563	13.1	113	4.3	108	6.0
Totals	42,540	100.0	2,625	100.0	1,790	99.9

[1] Missouri State Planning Board, "A State Plan for Missouri: Missouri State Parks Attendance and Use Data" (Missouri, Typescript, 1938), data provided by Michigan State University on Pere Marquette State park onsite study conducted for ORRRC in 1960, and data provided by Meramec Basin project at Washington University (St. Louis) on Meramec, Lake of the Ozarks, Wappapello, Thousand Hills, and Table Rock State Park onsite studies in 1960.

[2] Tallied as "auto-riding" in 1938 study, but interpreted as "sightseeing" in that study.

[3] Includes "wading" and "sunbathing" in 1938 study; "wading," "sunbathing," "water skiing," "skin diving," and "surfboarding" in 1960 studies.

region in 1938 and samples of visitors to 5 Missouri State parks and 1 Illinois State park in 1960[1/]

Frequency of activities recorded at State parks 50-150 miles from St. Louis in 1938 and 1960						Frequency of activities recorded at State parks over 100 miles from St. Louis in 1938 and 1960					
All visitors in 1938 at Missouri State parks 50-100 miles from St. Louis		All visitors contacted in 1960 at 2 State parks 100-150 miles from St. Louis		St. Louis visitors contacted in 1960 at 2 State parks 100-150 miles from St. Louis		All visitors in 1938 at Missouri State parks 100-150 miles from St. Louis		All visitors contacted in 1960 at 2 State parks over 150 miles from St. Louis		St. Louis visitors contacted in 1960 at 2 State parks over 150 miles from St. Louis	
Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
....	....	405	12.8	87	11.8	....	....	328	12.8	29	11.9
18,605	29.3	564	17.9	120	16.3	122,214	52.2	565	22.0	37	15.2
5,755	9.0	800	25.3	188	25.5	19,747	8.4	479	18.6	52	21.3
22,296	35.1	454	14.4	82	11.1	26,898	11.5	390	15.2	17	7.0
10,404	16.4	304	9.6	91	12.4	17,867	7.6	142	5.5	36	14.8
2,430	3.8	287	9.1	91	12.4	11,617	5.0	336	13.1	42	17.2
356	0.6	320	10.1	73	9.9	10,522	4.5	294	11.4	27	11.1
3,708	5.9	23	0.7	4	0.5	25,027	10.8	36	1.4	4	1.6
63,554	100.1	3,157	99.9	736	99.9	233,892	100.0	2,570	100.0	244	100.1

[4/]Includes "canoeing" and "rowing" in 1938 study; "motorboating" and "other boating" in 1960 studies.

[5/]Includes "hiking," "horseback riding," and "softball" in 1938 study; "nature study," "games," "hiking," "horseback riding," "mountain climbing," "listening to ranger talks," "visiting museums," "photography," and "other" in 1960 study at Pere Marquette State Park.

all visitors and 36 percent of the activities reported by St. Louisans. Picnicking, in contrast, still shows a marked decline over the years between 1938, when it comprised 41 percent of the activities recorded, and 1960, when it comprised only 15 percent.

More significant is the fact that all water sports show an increased play in 1960 as compared to 1938, for this contrast is focussed at the same site in the two time periods. Swimming, fishing, and boating each show relative increases over the years, and the increases for fishing and boating are marked. St. Louis water recreation is not different in these respects from the water recreation of all Meramec visitors contacted in 1960.

The one interesting decrease shown in table C-7 is the decreasing relative frequency of camping. Camping at Meramec State Park comprised a fifth of all activities recorded in 1938 and about an eighth in 1960. Apparently the increases in camping at parks near St. Louis between 1938 and 1960 discussed earlier are accounted for by the relatively little camping recorded at the zone I parks in 1938, indicating that the general trend may well be an artifact of the particular parks that were contrasted. We are inclined to conclude that the relative frequency of camping at park sites in the St. Louis region is on the decline. This, of course, may not be reflected in absolute figures for campers at these parks.

A final observation seems in order. One activity, hiking, has virtually disappeared over the 22-year period studied. No onsite study made in 1960 reported any noteworthy proportion or number of hikers. However, at Meramec State Park in 1938, the proportion of hikers (2.6 percent) exceeded the proportion of boaters and almost equalled the proportion of fishermen. Hiking may well be disappearing as a mode of outdoor recreation, and its disappearance is quite probably not confined to the St. Louis region.

Although State park camping trends show marked inconsistencies, trends on camping in the national forests of Missouri, inferred from data provided only for the forests in the Rolla District which begins about 60 miles southwest of the central city, show a probable continued increase in both the frequency of campers and the proportion of visitors who camp for the period, 1955-60. Table C-8 shows that the number of campers and picnickers in these forests has doubled over the 6-year period at an average annual rate of increase of 21.9 percent. The proportion of all visitors who camped and picnicked in these forests has risen over the interim from 9.7 percent in 1955 to 15.3 percent in 1960. Most of this increase has occurred at the forests closest to St. Louis, where the number of campers and picnickers has risen 143.5 percent over the 6-year period at an average annual rate of 33.4 percent. In contrast, the rate of increase in campers and picnickers at the distant forests is 16.3 percent per year, although the number of campers and picnickers at those forests has also doubled over the time interval for which data are available.

There is no way to determine how much of this increase in camping and picnicking has been contributed by St. Louisans. Moreover, the lumping together of the two activities makes it very difficult, indeed, to estimate whether the increases shown are genuine increases in camping at the forests. However, if the decline in picnicking shown by the State park analysis is a general decline, then, the rise in the popularity of camping at the national forests may be partially obscured by the data provided. At any rate these trends are much more consistent than the trends revealed in the State park analysis. There are, of course, fluctuations in the growth rate of campers

Table C-7. Outdoor recreation activities undertaken by visitors to Meramec State Park in 1938 compared with a sample of visitors in 1960[1]

Outdoor recreation activities	All visitors in 1938 at Meramec State Park		All visitors contacted in 1960 at Meramec State Park		St. Louis visitors contacted in 1960 at Meramec State Park	
	Number	Percent	Number	Percent	Number	Percent
Relaxing	.....	.....	452	19.7	292	20.0
Sightseeing[2]	7,698	17.8	436	19.0	240	16.4
Swimming[3]	5,039	11.6	426	18.6	274	18.8
Picnicking	17,751	41.0	332	14.5	213	14.6
Camping	8,967	20.7	277	12.1	193	13.2
Fishing	1,466	3.4	247	10.8	167	11.4
Boating[4]	356	0.8	98	4.3	59	4.0
Other[5]	1,992	4.7	26	1.1	21	1.4
Totals	43,269	100.0	2,294	100.1	1,459	99.8

[1]Missouri State Planning Board, op. cit. and data provided by Meramec Basin project at Washington University (St. Louis) in 1960.
[2]Tallied as "auto riding" in 1938, but interpreted as "sightseeing" in that study.
[3]Includes "wading" (144 or 0.3 percent) and "sun-bathing" (35 or 0.1 percent) in the 1938 study; "water skiing" (24 or 1.0 percent for all visitors and 16 or 1.1 percent for St. Louis visitors) in the 1960 study.
[4]Includes "canoeing" (234 or 0.5 percent) and "rowing" (122 or 0.3 percent) in the 1938 study; "motorboating" (48 or 2.1 percent for all visitors and 26 or 1.1 percent for St. Louis visitors) and "other boating" (50 or 2.2 percent for all visitors and 33 or 2.0 percent for St. Louis visitors) in the 1960 study.
[5]Includes "hiking" (1,109 or 2.6 percent), "horseback riding" (682 or 1.6 percent), and "softball" (201 or 0.5 percent) in the 1938 study.

and picnickers at the forests. For example, in 1957 camping and picnicking fell off 26 percent at the forests in question. Yet, the reasons for such fluctuations are difficult to discern. They may be found in forest management practices as well as in trends in the larger economy. As the forest supervisor, C.L. Harrison, has put it:

> Some statistics tend to vary from what might be expected. For example, the drop in camp and picnic use on the Gasconade unit (zone III) in 1957 resulted in our abandonment of facilities on Highway 66. Some rather steep increases on other units were the result of our opening new areas or expanding facilities.[11]

Even so, the drop in camp and picnic use in the zone II forests was greater in 1957 than the drop in zone III forests, suggesting that forest management decisions certainly do not constitute any total explanation of the fluctuations. Nevertheless, Supervisor Harrison has put his finger on one of the overriding difficulties in the assessment of outdoor recreation demand: the problem of determining the extent to which the institution of a facility creates a demand for its use.

These divergent trends in camping activities need to be brought together in one place so that the feasibility of speculations about the future of camping in the St. Louis region can be assessed. We found that camping has increased at the close-in Missouri State parks since 1938, but has decreased at the more distant parks. This same trend was found for camping (and picnicking) at national forests between 1955 and 1960. Yet, when trends were examined at one close-in State park, Meramec State Park, it was found that camping had decreased proportionately between 1938 and 1960, while sightseeing and relaxation had increased. These incongruous data may mean at least three things. First, the character of Meramec State Park has changed in the 22-year interim, as it has become less of an "outdoor" recreation area and more of a milieu for the realization of urban recreation patterns. Second, St. Louis campers seek to escape such "urban milieux" and visit less developed sites, such as national forests or the less developed State parks. Third, St. Louis campers do camp relatively close to home, when relatively undeveloped sites are available. On the whole, however, camping at parks and forests seems to have experienced a relative decline over the past several years as an outdoor recreation activity engaged in by St. Louisans.

Trends in group camping for the St. Louis region, in contrast, indicate an overall consistent growth. There are 109 resident group camps in the area of study. Sixty-seven of these were described to us in some detail by their operating agents or agencies, and, of these, 45 provided information on date of establishment. Seven were established in the decade of the twenties; 11, in the thirties; 7, in the forties; and 20, in the fifties. In other words, slightly less than half of the group resident camps for which information is available have been established in the St. Louis region within the last 10 years, although the date of earliest establishment for such camps goes back at least 40 years with the construction in 1920 of Camp Irondale, a Boy Scout camp, about 60 miles southwest of St. Louis.

Group camps for which information is available on date of establishment have been classified in five

[11]Personal correspondence, dated Mar. 30, 1961.

categories: (1) State camps; (2) sectarian religious camps; (3) Scout camps; (4) private camps; and (5) a miscellaneous category including YMCA camps, a union health camp, and other assorted public health and municipal and county camps. Sectarian religious camps comprised the greatest number (17) in these categories in 1960, followed by State camps (13). Seven camps were included in the miscellaneous category, and dates of establishment were available for five Scout camps and three private camps in 1960. Table C-9 shows the distribution of group camps in these categories by decade of establishment.

Only State camps are marked by decreasing numbers of camps added over the 40-year period. They had their greatest frequency of establishment in the thirties, quite probably as a result of the impetus provided by the Federal Government to State projects which could offset the adverse effects of the Great Depression. As a matter of fact, the State camps established in the thirties obscure the characteristic rise of group camping over the years. Nine of the 11 camps established in the thirties were State camps. The other two were introduced by sectarian religions. No camps in the remaining categories were established during the depression decade. If State camps are eliminated from these considerations, the effects of the depression and World War II, together with the rapid rise in the establishment of group camps during the fifties, are clarified. For those remaining camps, 7 were established in the twenties; only 2 in the thirties; 4 in the forties; and 19 in the fifties—well over twice the number developed in the comparable decade of the twenties and more than were initiated in the entire preceding 30-year period. In an assessment of these trends, particular attention must be given to the development of group camps by sectarian religions, for the church is still one of the principal "secondary" agencies of socialization for American children.

Sociologists are in almost unanimous agreement that the functions of the family are increasingly being preempted by other institutions as the society becomes urbanized. 12/ One of the main preempting institutions in this regard is the school. Of no small import, then, is the emerging program of the schools in the St. Louis SMSA which builds camping into the regular school curricula. In 1948, school camping in the St. Louis Public Schools was instituted as a pilot project by two eighth grade classes in the Wyman School. Each class spent 1 week in the spring of the regular school year at Sherwood Forest Camp in Troy, Miss., about 45 miles west of St. Louis. 13/ In 1957, five school systems in the SMSA participated in the camping program, indicating a "slow but steady growth." 14/ These systems included Clayton, University City, and Webster Groves, the largest autonomous communities in St. Louis County, west of the central city. Also included were the St. Louis Public School system and, significantly, a Lutheran Parochial School. Only two schools in the St. Louis city system were participating in 1957, however, and these did not include the pioneering Wyman School.

Students who participate in the camping programs are ordinarily expected to finance their own participation, although, in some cases, local PTA's may assist needy students. Apparently this assistance is provided only in suburban communities and not in the central city. 15/ Consequently, the growth in school camping seems to be focussed in the suburban communities of the SMSA, where increasing population growth contrasts with the decreasing population of the central city. A further factor which may inhibit the growth of school camping in the central city is the relatively high fee. In 1957, the fee at Jackson School in St. Louis was $23 for the week, equalled only by the fee in the relatively well-to-do suburban community of Webster Groves. Nevertheless, four of the five school systems with school camping programs in 1957 envisaged future expansion, and, in 1958, eight school systems in the SMSA had established camping programs. 16/

At this time there is no empirically founded knowledge about the ways in which recreation patterns are established in personal life, although there has been speculation that they are established early, at least among American men, perhaps in late childhood or early adolescence. 17/ If this is the case, then the possible relative decline in family and personal camping which can be inferred from the analysis of trends in State park activities could mean that larger and larger proportions of St. Louis children will be deprived of the opportunity to learn outdoor recreation patterns such as camping. The growth of group camping in the "secondary" socialization agencies of the church and the school could temper this possible eventuality, but this will be the case only if the camping sponsored by those agencies is interpreted as a genuine outdoor experience by the children who participate rather than as a mere shift in the context of religious and educational routine.

If the data on camping in the St. Louis region are fraught with inconsistency and contradictory tendencies, trends in water sports, as we have shown, stand in sharp contrast. Materials provided by the Corps of Engineers support the conclusion drawn from the State park analysis. The fact that the number of pleasure craft locked through the 12 locks in the Rock Island District of the corps more than quadrupled between 1952 and 1960 has already been noted. Data are available to pinpoint this general trend in the St. Louis region. The locks include two navigation pools on the Mississippi River in the area of study more than 100 miles north and west of St. Louis. Between 1952 and 1960, the number of pleasure boats passing through the locks and dams at both of those

12/ One of the earliest statements of this tendency is found in William F. Ogburn, "The Family and its Functions," ch. 13 in "Recent Social Trends in the United States" (New York: McGraw-Hill Book Co., Inc., 1933).

13/ Sherwood Forest Camping Association, "Material for School Camp Manual," (Typescript, no date), p. 1.

14/ Social Planning Council of St. Louis and St. Louis County, "Camping Needs in the St. Louis Area," (St. Louis: Mimeographed, April 1958), p. 19.

15/ Sherwood Forest Camping Association, op. cit., passim.

16/ Social Planning Council of St. Louis and St. Louis County, op. cit., p. 20.

17/ See, for example, Gregory P. Stone, "American Sports: Play and Display," "Chicago Review," IX (fall, 1955), p. 90.

Table C-8. Frequencies of campers and picnickers at national forests

Distance from St. Louis	1955		1956			1957		
	Attendance	Percent of all visitors	Attendance	Percent of all visitors	Percent increase over 1955	Attendance	Percent of all visitors	Percent increase over 1956
Zone II, 50-100 miles	28,550	7.8	29,300	4.6	2.6	17,600	6.6	-39.9
Zone III, 100-150 miles	33,900	12.1	31,850	9.9	-6.0	27,340	9.0	-14.2
Total campers and picnickers	62,450	9.7	61,150	6.4	-2.1	44,940	7.9	-26.5

1/Data provided by forest supervisor, Missouri National Forests, Rolla, Missouri.

pools more than doubled, increasing 108 percent over the 9-year period at an average annual rate of increase of 12.2 percent. The peak year in this period was 1957, when 8,454 pleasure boats passed through the pools, representing more than three times the number of pleasure boats passing through the pools in 1952.

Also included in the growth of water sports in the St. Louis region is fishing. It has been shown that the increasing frequency of fishing at the Missouri State parks in the area of study not only holds for park visitors generally, but is somewhat greater when St. Louis visitors in 1960 are contrasted with all visitors in 1938 at those parks. The trend was clearly established in the analysis of the activities of visitors at Meramec State Park in the two time periods. Data provided by the Corps of Engineers on the two navigation pools north and west of St. Louis within the area of study do not show a startling increase in the number of fishermen at those points between 1950 and 1960. As a matter of fact the number of fishermen noted at the two pools in 1960 was 13.6 percent less than the number noted in 1950. However, this decrease is misleading, since there was a sharp dropoff of fishermen at the two pools in 1960. Actually, the number of fishermen at the two pools has grown steadily, but slowly, over the 11-year period at an average annual rate of increase of 3.6 percent. Moreover, if the data on fishermen are examined for a comparable period to that for which the data on pleasure boating have been compiled (1952-60), an increase of 38.7 percent is shown for the interim. Between 1952 and the peak year of recreation activity at the two pools, 1957, the number of fishermen increased more than 2 1/2 times. Thus, there is further confirmation for the general growth of the popularity of this water sport in the St. Louis region.

A prime obstacle to the interpretation of this growth in the popularity of water sports is provided by the fact that the data tell us very little about the contribution St. Louisans have made to the change. At best, as in the analysis of the State park materials, they tell us that St. Louis visitors to selected Missouri State parks in 1960 devoted more of their activities to water sports than did all the visitors to somewhat comparable State parks existing in 1938. Moreover, the data provide no indication at all of the proportion of St. Louisans engaged in such sports. Fortunately, the Missouri Conservation Commission, exerting considerable effort, has turned up some time series data on fishing licenses and (their "land counterpart") hunting licenses in the St. Louis SMSA. These data can shed light on the perplexing question of the proportion of residents in the St. Louis SMSA who participate in at least the outdoor recreation activities of hunting and fishing. Data were also provided by the Illinois Department of Conservation, but time series were not available for the two Illinois counties in the St. Louis SMSA.

We are quite sure, then, that the number of fishermen in the St. Louis region has shown an increase over the last decade. Fewer data are available on hunters. Specifically, only one count is available, but that does suggest an increase in hunters for the region. At the Duck Creek Wildlife Area, located about 115 miles south of St. Louis, 5,740 hunters were counted in 1955; 13,369 in 1959. At least at that area, hunters more than doubled in a 5-year period. Perhaps this also reflects a general trend, and moreover, a trend in the outdoor recreation of St. Louisans.

Table C-10 shows that the sale of hunting and fishing licenses in the Missouri portion of the St. Louis SMSA increased almost 2 1/2 times between 1938 and 1958. A more realistic contrast, avoiding the effects of the depression, shows a 17 percent increase in the sale of hunting and fishing licenses in the Missouri portion of the St. Louis SMSA between 1948 and 1958. However, this increase is almost completely a function of population growth over the interim. When the proportions of eligibles—persons 16 years of age or older—who purchased hunting and fishing licenses in 1948 and 1958 are contrasted, we find that the relative increase is very slight, indeed. Fifteen percent of those eligible to purchase hunting and fishing licenses in the Missouri portion of the St. Louis SMSA did so in 1948; 17 percent did so in 1958. Of course, the depression year, 1938, shows a lower proportion of eligibles (8.2 percent) purchasing hunting and fishing licenses in the Missouri portion of the SMSA than the proportions for 1948 and 1958.

Of more interest to the sociologist than the fact that population growth may well account for increases in hunting and fishing by St. Louisans between 1948 and 1958 is the effect of urbanization that can be discerned in table C-10. The Missouri units of the St. Louis SMSA are arranged in terms of increasing urbanization, with St. Charles County as the least urbanized unit, and, of course, St. Louis City, the most urbanized. At each time period for which data are available, the more urbanized the unit, the

(Rolla District) in the St. Louis region for the period 1955-1960[1/]

1958			1959			1960			Summary	
Attendance	Percent of all visitors	Percent increase over 1957	Attendance	Percent of all visitors	Percent increase over 1958	Attendance	Percent of all visitors	Percent increase over 1959	Percent increase 1955-60	Average annual percent increase
43,300	8.4	146.0	66,610	10.4	53.8	69,515	13.0	4.4	143.5	33.4
34,900	9.5	27.6	50,040	13.2	43.4	70,362	18.4	40.6	107.6	16.3
78,200	8.8	74.0	116,650	11.5	49.2	139,877	15.3	19.9	108.0	21.9

less the proportion of eligibles purchasing hunting and fishing licenses, the only exception being the proportions for St. Charles and Jefferson County in 1938, where the latter proportion only slightly exceeded the former by less than 1 percent. Thus, urbanization seems definitely to have the consequence of producing a relative decrease in the proportion of people who engage in such forms of outdoor recreation as hunting and fishing. This effect is underscored when the proportions of eligibles in the Missouri portion of the SMSA are contrasted with the proportions for the State as a whole. Again, in each time period, the former proportions are less than the latter, and the contrast would be even sharper, had the computations for the State as a whole omitted the license sales for the St. Louis SMSA. Thus, the proportion of eligibles in the Missouri portion of the St. Louis SMSA who purchase hunting and fishing licenses is markedly lower than the proportion of eligibles purchasing licenses in the remaining less urbanized segment of the State.

Ignoring the depression year, 1938, we are even more interested in the trends taken in the proportions of eligible St. Louisans who have purchased licenses for the different units of the Missouri segment of the St. Louis SMSA. Between 1948 and 1958, the proportion of eligibles purchasing hunting and fishing licenses in the State as a whole rose 4.8 percent. In St. Louis City, the proportion decreased from 13.1 percent in 1948 to 11.0 percent in 1958. In St. Louis County, the proportion increased only 3.8 percent, less than the increase for the entire state; in Jefferson County, the increase was, again, slightly less than that for the entire State, an increase of 4.2 percent; and, in St. Charles County, the proportion actually decreased 5.8 percent. Significantly, for the latter two counties, increases between 1938 and 1948 were greater than the increase in proportion of eligibles for the state as a whole. This is of fundamental theoretical significance, for it may mean that outdoor recreation patterns in the future will be affected more by the urbanization of suburbia rather than the suburbanization of the metropolis. In short, as the suburb becomes large, dense, and socially heterogeneous, 18/ its population will engage less and less in such outdoor recreation activities as hunting and fishing and move more in the direction of what we have called the "urban style" of outdoor recreation.

Table C-9. Establishment of 45 group camps in the St. Louis region between 1920 and 1959

Type of group camp	Decades				Totals
	1920-29	1930-39	1940-49	1950-59	
State	...	9	3	1	13
Sectarian religious.	3	2	1	11	17
Scout	2	...	...	3	5
Private	1	...	1	1	3
Miscellaneous	1	...	2	4	7
Totals	7	11	7	20	45

In this regard, the results of the State park trend analysis may be misleading. Consider the rise of boating as a popular sport in the last two decades. What does it mean? For one thing, boating has become at many sites merely a simulation of the American "highway culture." The boat is symbolically an automobile. We need not even defend this assertion: many motor boats have tailfins! Moreover, drive-ins have arisen at many lakes in the St. Louis region. We have observed that motorboating for many of its adherents in the area of study consists merely of burning up gasoline (one is reminded of drag-racing), stopping momentarily at a lakeside dock, where hamburgers and malteds can be purchased from "boat-hops," stuffing the snacks into receptive salivating mouths, and resuming the "dragrace" until the gasoline supply has been exhausted. The reader is invited to compare canoeing. Note also that "auto-riding" was interpreted as "sightseeing" in the 1938 study. An extreme view might well interpret the motorboating of the sixties as merely a new variety of sightseeing or spectatorship rather than "active" outdoor recreation.

The reports of hunting and fishing license sales in Illinois, including the Illinois portion of the St. Louis SMSA shed some additional light on our previous interpretations. Table C-11 shows, as we have stated before, 19/ that the proportion of eligibles purchasing fishing licenses was less in the more urbanized St. Clair County than in the less urbanized Madison County in the year 1956. The greater

18/ Louis Wirth's classic definition of the city singles out size, density, and social heterogeneity as the crucial definitive characteristics. See his "Urbanism as a Way of Life," American Journal of Sociology, XLIV (July, 1938), pp. 1-24.

19/ See pp. 178-179.

Table C-10. Hunting and fishing license sales for the State of Missouri and Missouri units of the St. Louis SMSA in various years between 1938 and 1960 1/

Population unit	1938		1948		1950		1958		1960	
	Number	Percent of eligibles (1940 base)	Number	Percent of eligibles (1950 base)	Number	Percent of eligibles (1950 base)	Number	Percent of eligibles (1960 base)	Number	Percent of eligibles (1960 base)
State as a whole (Missouri)	283,742	10.0	691,401	23.7	.....	.....	853,454	28.5	.....	.....
Missouri units of St. Louis SMSA:										
St. Charles County	2,967	15.8	9,282	43.1	.....	.....	12,335	37.3	.....	.....
Jefferson County	3,776	16.3	8,366	31.6	.....	.....	14,854	35.8	.....	.....
St. Louis County	23,208	11.3	48,714	16.7	61,947	21.2	93,853	20.5	99,480	21.7
St. Louis City	43,229	6.7	87,415	13.1	90,366	13.6	59,398	11.0	57,211	10.6
Total Missouri portion of St. Louis SMSA	73,180	8.2	153,777	15.3	.....	.....	180,440	16.8	.....	.....

1/Data, reported as combined hunting and fishing license sales, were provided by the Missouri Conservation Commission.

Table C-11. Hunting and fishing license sales for the State of Illinois and Illinois units of the St. Louis SMSA in various years between 1940 and 1959 1/

Population unit and type of license	1940 2/		1950		1956			1958		1959 2/	
	Number	Percent of eligibles (1940 base)	Number	Percent of eligibles (1950 base)	Number	Percent of eligibles (1950 base)	Percent of eligibles (1960 base)	Number	Percent of eligibles (1960 base)	Number	Percent of eligibles (1960 base)
State as a whole (Illinois):											
Hunting	326,182	5.4	493,641	7.6	553,039	8.5	7.9	501,619	7.2	497,142	7.2
Fishing	411,143	6.8	735,305	11.3	811,583	12.4	11.7	729,096	10.5	678,455	9.8
Hunting and fishing combined	737,325	12.2	1,228,946	18.9	1,364,622	21.0	19.6	1,230,715	17.7	1,175,597	16.9
Illinois units of St. Louis SMSA:											
Madison County fishing	.....	....	.....	....	28,442	21.5	19.0	.....	....	.....	....
St. Clair County fishing	.....	....	.....	....	29,560	19.4	17.3	.....	....	.....	....
Total Illinois portion of St. Louis SMSA: Fishing	.....	....	.....	....	58,002	20.4	18.1	.....	....	.....	....

1/ Data provided by Department of Conservation, Division of Parks and Memorials, State of Illinois.
2/ Nonresidence license sales included in 1940 and 1959 figures.

urbanization of the State of Illinois, compared to Missouri, is probably reflected in the lower proportion of eligibles purchasing hunting and fishing licenses in the State as a whole. Moreover, between 1950 and 1958, the proportion in the State as a whole has declined in contrast to the increasing proportion in Missouri between 1948 and 1958. This again may be a consequence of the more rapid rate of urbanization in Illinois.

These materials on hunting and fishing license sales complete our analysis of trends in outdoor recreation. Beyond them, there are no additional adequate data. A rounded picture of trends in outdoor recreation would, of course, include additional information. In particular, time comparisons of the social and economic characteristics of outdoor recreationists in the St. Louis region are desirable to detect shifts, if any, in the racial and occupational composition of the outdoor recreation "market." What information does exist on these matters, however, is highly suspect. For example, the 1938 study of Missouri State park attendance did inquire into the race and occupation of Missouri residents, along with their outdoor recreation practices, by means of a mailed questionnaire. The result was a self-selected sample, showing the usual bias of overrepresentation in the higher reaches of occupational status and an infinitesimally low Negro return. No parametric estimates can be made from this kind of sample, nor do the results permit any quantitative comparison with the 1960 onsite materials. It probably is the case that the proportion of Negro visitors to Missouri State parks in 1938 was very low, as it was in 1960, but confidence limits for this kind of estimate cannot be established. It makes patent sociological sense, however, and the fact that this small proportion of Negro visitors to Missouri State parks has persisted from the inception of the park system is an added barrier to extrapolation and future forecasts, since the use Negroes make of outdoor recreation facilities has had a serious effect on their overall use.

SUMMARY

Because this discussion of trends in outdoor recreation has been so extensive, it is advisable to provide a condensed review as a context for our forecasts to 1976 and 2000. Trends have been treated with respect to: (1) outdoor recreation facilities; (2) attendance at Federal and State sites; (3) St. Louis attendance at State Parks in the area of study; (4) activities at Missouri State parks; (5) camping and picnicking at national forests in Missouri; (6) group camping; (7) water sports; and (8) hunting and fishing license sales.

It was shown that most Federal lands available to outdoor recreationists in the St. Louis region were established in the thirties, and many water sites were under development by the Corps of Engineers at the end of that decade or just prior to World War II. Subsequently, the development of those facilities was interrupted by the war and did not move into full swing until the fifties. Since World War II, therefore, the trend in Federal facilities takes the form of intensive development in areas existing since the thirties rather than the addition of recreation acreage. Even so, when future plans were considered, it was found that Federal plans, taken together, project the largest proportionate acreage increase of any government or private agency. In an unspecified future, the various arms of the Federal Government contemplate increasing their present holdings by 16 percent. Should these plans materialize, Federal lands and waters available for outdoor recreation would be increased by about 30 percent within 50 miles of the central city; by 27 percent between 50 and 100 miles of the city; and by about 10 percent at a greater distance up to 150 miles from St. Louis. However, competition within the Federal Government and outside for control of some proposed facilities will certainly affect the chances that these plans have for materializing. This need not work to the detriment of St. Louis recreationists. For example, an area will almost certainly be established on the Current and Eleven Point Rivers in the Ozarks. Whether that area is administered by the Park Service or the U.S. Forest Service will not affect its availability.

More than three-fourths of the State park acreage in the St. Louis region was established by the end of the thirties, but only somewhat more than half of the park sites. The trend, consequently, has been in the direction of more smaller parks since the thirties. An increase of about 11 percent in State park acreage is contemplated for the future, with the greatest increases between fifty and one-hundred miles from the central city.

Other trends in facilities were more difficult to discern, revealed in many instances only by inference from future proposals. These showed that county and municipal governments will augment their present outdoor recreation acreage in the future by at least 13 percent. Private citizens in the region are beginning to form coroporations for the development of outdoor recreation areas, and this may be a significant phenomenon, for these corporations are focussing their efforts, for the most part, on the development of water facilities. Water facilities, as we have shown time and time again, are in great undersupply in the region. Farm acreage in woodland was relatively unchanged between 1930 and 1954 in the St. Louis region, and there is no reason to expect any drastic change in the future. Figures on Missouri farm ponds stocked with game fish in 1950 and 1959 recorded their greatest increases in the counties located less than 50 miles from St. Louis, probably reflecting an increasing metropolitan demand for close-in fishing sites. In general, privately owned facilities have increased close to the central city, while Federal and State controlled facilities have experienced their greatest growth beyond 50 miles from St. Louis.

This pattern does not necessarily require future alteration or reshaping, in view of the fact that estimates of St. Louis attendance trends at National and State sites show their greatest growth at the more distant areas. A single exception is provided by the greatly increasing pressure on water facilities on the Mississippi River close to St. Louis. In fact, the entire analysis underscores the great need for additional water facilities close to the city. As far

as land sites are concerned, the need for close-in facilities is not at all as urgent.

Attendance trend data were available only for Federal and State sites, and, in some cases, the data were incomplete. However, for those sites at which attendance had been recorded, increases have occurred across the board. Between 1955 and 1960, attendance at the national forests in the region rose 44 percent. At the Crab Orchard National Wildlife Refuge, attendance quadrupled between 1947 and 1959. Between 1951 and 1960, attendance at five locks and dams and two reservoirs operated by the Corps of Engineers increased 35 percent and 117 percent, respectively, while attendance at two navigation pools doubled between 1955 and 1959. State park attendance in the region rose 50 percent between 1950 and 1959 and more than tripled in the same period at selected Missouri Conservation Commission sites.

St. Louis residents, of course, accounted for varying proportions of these increases, and their contribution has been estimated. In all, 4,529,000 visits were added to the attendance at various sites in the different periods studied up to 1960. If we omit St. Louis attendance trends at Grand Marais State Park, because they show a dramatic and rapid decline, then St. Louisans probably accounted for at least a fourth of the gross increase—1,135,000 visits.

A more intensive analysis of these attendance trends established the obviously negative influence of war and depression on outdoor recreation in the region, suggesting that such trends were probably not stabilized until 1950. The intensive analysis also provided some reason for suspecting that the proportion of St. Louisans to total park visitors at any given facility has not changed markedly over a 22-year period. Although St. Louis residents have tended over the years to range further and further from the central city in their pursuit of outdoor recreation, close-in facilities are already severely taxed, and the mere maintenance of pressure on facilities near the city—particularly on water facilities—poses serious problems for the future. Finally, the intensive analysis showed that the state of race relations is an important factor in the assessment of changes in outdoor recreation demand in the St. Louis region.

Outdoor recreation activities among urbanites are relatively more frequently devoted to "relaxation," "sightseeing," and "swimming" than is the case for residents of small towns and rural areas. With the exception of swimming, this "urban pattern" has diminished somewhat between 1938 and 1960 at the State parks of Missouri. Swimming, along with the other water sports of fishing and boating, has increased at these State parks. Trends in camping at the parks are more irregular, but indicate that more luxurious accommodations, such as cabins and motels, may be experiencing a more rapidly increasing use by outdoor recreationists in the St. Louis region than camping accommodations, since increases in State park camping have not kept pace with increases in overnight stays at State parks between 1938 and 1960. Of course, small changes in proportions over a 22-year interim may easily signify sizeable absolute changes, and contemporary concern about absolute increases in park campers, as a consequence, may mislead observers in their interpretations of changes in the relative popularity of park camping. Furthermore, small changes in the relative popularity of camping at State parks probably indicate that some activities, like camping, are more completely geared into population trends than is the case for other activities, like water sports.

A more focussed analysis of trends in recreational activities, comparing the activities of all visitors to Meramec State Park in 1938 with the activities of St. Louis visitors in 1960 confirmed the results of the more extensive survey with one exception: only 17.8 percent of the activities recorded in 1938 was comprised by "sightseeing," while 16.4 percent of the activities reported by St. Louisans at the park in 1960 was "sightseeing" and 20.0 percent, "relaxation." Otherwise, swimming, fishing, and boating increased proportionately over the period, while picnicking and camping declined.

The overall trend in camping is rendered even more difficult to grasp when other data are considered. For example, information on activities in national forests of Missouri, permit the inference that camping doubled in popularity between 1955 and 1960. However, this possibility cannot be nailed down, since camping was combined with picnicking in the tabulations provided by the forest supervisor. The national forest materials on activities also precluded estimates of the contribution made by St. Louis residents to the upswing in camping and picnicking.

Trends in group camping in the St. Louis region showed a consistent growth with a marked increase in the fifties. The rise was most apparent in the case of group camps established by sectarian religions. That growth, coupled with the emergence of a camping program in the school systems of the St. Louis SMSA is very important, since the "secondary" socialization agencies of the church and school fill the gap left by the possible decline of family and personal camping shown by the State park materials. Although the "primary" socialization agency, the family, may less and less frequently provide a milieu for the training of young outdoor recreations in the skills and pleasures of camping, churches and schools show increasing attention directed precisely to the provision of this learning context.

As far as trends in outdoor recreation activities are concerned, then, shifts in camping popularity and styles are difficult to comprehend as a whole and their interpretation is fraught with qualification and contingencies. In contrast, trends in water sports show a clear, consistent, and impressive growth. This is true not only at State parks in the region, but at other sites. Pleasure boating doubled at two navigation pools above St. Louis on the Mississippi between 1952 and 1960. Over the same period, the number of fishermen counted at the pools increased more than a third.

None of these trend data permitted any consideration of the proportion of St. Louis residents in attendance at a site or engaging in any particular outdoor recreation activity. Materials on hunting and fishing license sales in various political units of the Missouri portion of the St. Louis SMSA, on the other hand,

helped considerably to overcome these shortcomings. The Missouri Conservation Commission provided figures on hunting and fishing license sales for St. Charles County, Jefferson County, St. Louis County, and St. Louis City in 1938, 1948, and 1958, enabling the discernment of trends in the proportions of eligible St. Louis hunters and fishermen over a 20-year period. Since 1938 was a depression year, an overall increase was expected between that year and 1958. This was the case, but the rate of increase in the SMSA—from 8.2 percent of the eligibles in 1938 to 16.8 percent in 1958—was less than that for the State as a whole. Between 1948 and 1958, the proportions increased very slightly in the SMSA—from 15.3 percent to 16.8 percent—while State proportions rose from 23.7 percent to 28.5 percent.

These materials also established that urbanization has a depressing effect on hunting and fishing. Arranging the units in order of increasing urbanization, with St. Charles County least urbanized and St. Louis City most highly urbanized, it was found that the proportion of eligibles purchasing hunting and fishing licenses decreased with increasing urbanization in each of the 3 years examined. Trends over time are of more theoretical significance. They permit the inference that outdoor recreation patterns in the future may be more affected by the urbanization of suburbia than by the suburbanization of the metropolis. Changes in the proportion of eligibles purchasing hunting and fishing licenses over the time period studied were clearly decelerated as the suburban unit became more dense, large, and socially heterogenous. Less complete data for the Illinois portion of the SMSA substantiated the inference.

In sum, the demand for outdoor recreation in the St. Louis region has been increasing steadily since 1950, as measured by attendance trends at various facilities. This rising demand is manifestly focussed on water sports. The demand for the more "woodsy" type of outdoor recreation, in contrast, may be severely constricted by urbanization, although this may be obscured by absolute increases in attendance as well as in numbers of hunters and campers due to increases in population.

CHAPTER FIVE

FORECASTS FOR 1976 AND 2000

Hindsight is notably more accurate than foresight in the social sciences, and spectacular failures in prediction efforts—the failure of the Literary Digest poll to predict the 1936 landslide election, the failure of demographers to predict the post-World War II baby boom, the failure of many economists to predict a postwar economy devoid of a large-scale and devastating depression, all these—continue to haunt the social scientist's envisionment of the future. When he attempts to forecast the future from an empirical base that is, itself, suspect, his task is no longer merely unnerving. It is frankly impossible, even inconceivable. Consequently, our forecasts for 1976 and 2000 of the demand for outdoor recreation in the St. Louis region are perhaps best described as inconceivable estimates firmly anchored in indefensible data. We have done more than we can with what little we have.

Many and varied assumptions condition the predictions of social scientists. Seldom are they totally explicated, and often they cannot be. When predictions of the type undertaken here are made, the assumptions cannot be fully explicated for many are not even known. The social science study of leisure and, in particular, of outdoor recreation is in its infancy, and, like all infants, will learn from mistakes. However, three assumptions are paramount and seem obvious. First, we must assume that the United States will not become embroiled in a nuclear war. Second, we assume that the major depression of the thirties was, in fact, the last depression. Finally, we assume that the work ethic in the United States will be increasingly displaced by consumption concerns.

We have shown in our discussion of attendance trends that only attendance figures for State parks in the St. Louis region provide adequate materials for statistical treatment in prediction efforts. Even here, as we have said, there are limitations. Some estimates were suspect because of inappropriate techniques. For example, traffic counts as a basis for attendance estimation may be very unrealistic. They will be inflated by the tendency for some visitors to go back and forth between the park and other locations and by those who merely pass through the park on their way to other destinations. Some estimates were suspect because they were made out of political or budgetary considerations. Finally, the severe drop-off in attendance at Grand Marais State Park between 1950 and 1959 affects the entire pattern of change in the figures.

The reader should also be reminded that visits to State parks constitute our measure of demand. Visits will always exceed outdoor recreationists. Our estimate of 8 million visits made by St. Louisans to various outdoor recreation sites and facilities within 150 miles of the central city in 1960, for example, means that each St. Louisan might have made as many as three or four visits in that year. We turn now to the extrapolation of visits by St. Louisans to State parks in 1976 and 2000.

Estimates of such visits from 1950 to 1959 were presented earlier in table C-5. Inspection of the table reveals that the inclusion of visits at Grand Marais State Park results in an exponentially decreasing curve for visits to parks within 50 miles of St. Louis which would approach zero by 1976. The top trend line in figure C-3 presents these materials graphically. Although the curve is obviously exponential, a straight line extrapolation would show that attendance at all State parks within 50 miles of the central city would reach zero in 1972. This seems obviously unrealistic. As a consequence, the attendance figures for zone I State parks were recomputed, omitting Grand Marais State Park. The bottom trend line in figure C-3 presents those results graphically. Although there are considerable fluctuations around the regression line, the interpretation of the trend as a straight line trend seems reasonable. If this is the case, and, if the trend continues in the future (i.e., assuming, in fact, that attendance trends were stabilized in the decade of the fifties), then we can predict that attendance by St. Louisans at zone I parks will rise to 1,099,000 in 1976 and to 1,824,000 in 2000, compared to an observed attendance of 564,000 at those parks in 1959, or a predicted attendance of 595,000 in 1959. In other words, attendance at zone I parks by St. Louisans will almost double (increase 1.9 times) by 1976 and more than triple (increase 3.2 times) by 2000.

Use of the standard error of estimate (S_y, in figure C-3) can lend more confidence to the forecast. We can be pretty sure, if our earlier assumptions hold, and, if observed values are normally distributed around the regression line, that St. Louis attendance at these parks in 1976 will fall between the predicted value plus or minus 2 times the standard error of estimate, or between 1,267,000 and 931,000. In 2000, the upper limit of estimate is set, in this way, at 1,992,000, and the lower limit at 1,656,000. These limits, however, do not substantially alter the rates of increase anticipated: attendance at zone I parks will about double by 1976 and about triple by 2000.

What could totally negate these predictions is the possibility that the situation at Grand Marais State Park is, in fact, prototypical for all zone I parks. This is unlikely for at least three reasons. First, the decline is not totally due to the desegregation of the park. A reliable source, preferring to remain anonymous, has indicated that the decline in attendance at the park is in some part a result of a changing political administration and consequent changes in park personnel (stemming from the political integumentation of much of the park administration in the State of Illinois) which made for "more realistic" reporting of attendance figures at the park. Second,

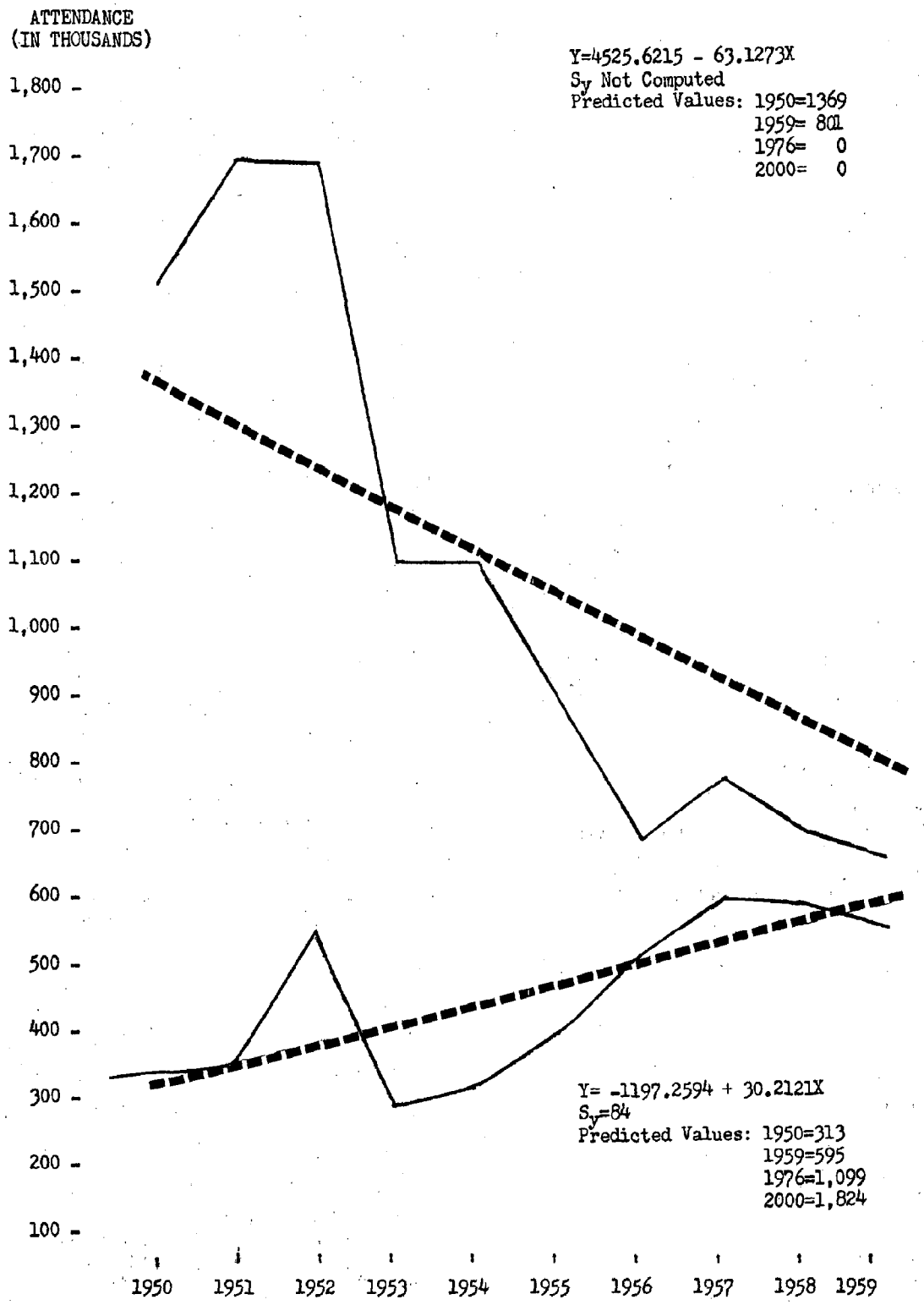


FIGURE C-3. REGRESSION LINES FITTED TO ESTABLISHED ATTENDANCE BY ST. LOUISANS AT STATE PARKS WITHIN 50 MILES OF THE CENTRAL CITY IN THE PERIOD 1950-1959. DECREASING ATTENDANCE CURVE INCLUDES GRAND MARAIS; INCREASING CURVE DOES NOT.

the park is symbolically an "urban park." Parks in cities or very close to cities seem to receive more Negro pressure, for a variety of reasons, than parks at greater distances. Moreover, as has been stated earlier, 1/ the rural origins of a sizeable percentage of St. Louis Negroes may conduce to a rejection of leisure patterns that require participation in many outdoor recreation activities. Third, the history of race relation in East St. Louis, the site of the park in question, has been characterized by much more conflict than the history of race relations in St. Louis, Mo. 2/

Nevertheless, given the economic advances of younger Negroes in St. Louis, 3/ they will make increasing use of State parks in the future, and, if race relations are unimproved, this may depress the use of State parks in the vicinage of the metropolitan center. Moreover, there is the tendency for St. Louisans to range further afield, at least as far as their patronage of State parks is concerned, to the more distant sites in pursuit of outdoor recreation opportunities. These contingencies incline us to regard the more conservative forecasts as more realistic than the upper limits of forecasting for 1976 and 2000 with reference to State parks within 50 miles of the city. Even so, these conservative estimates do not differ dramatically from the higher estimates, and, it must be remembered that they are estimates for attendance at sites whose facilities are already severely taxed, particularly on weekends.

Forecasts for visits by St. Louisans to zone II State parks and zone III parks seem to require fewer qualifications. Deviations from the regression line are less extreme for these parks than for zone I parks, omitting Grand Marais State Park. Consequently, we may have more confidence in the assumption of a linear increase in visits. Figure C-4 is a graphic representation of trends in estimated St. Louis visits to State parks located between 50 and 100 miles of the central city between 1950 and 1959. Fitting a regression line to these data permits estimates of attendance in 1976 of 651,000; in 2000, of 1,136,000. These figures compare with an observed attendance of 291,000 in 1959 and a predicted attendance in that year of 308,000. In short, we expect St. Louis visits to zone II parks to somewhat more than double in 1976 (increase by 2.2 times the 1959 figure) and to increase almost four times (3.9 times the 1959 figure) by 2000. Use of the standard error of estimate, once again, does not alter the expected rates of increase in any large way. We may be quite confident that St. Louis visits to zone II parks in 1976 will range between 573,000 and 729,000; in 2000, the limits will be 1,058,000 and 1,214,000. Given the contingencies already set forth in the discussion of forecasts for St. Louis attendance at zone I parks, it would seem advisable to recommend forecasts in the direction of the upper limits of these intervals.

Trends in St. Louis visits to zone III parks, parks between 100 and 150 miles from the central city, most nearly approximate the conditions desirable for this kind of linear extrapolation. The linear character of growth may be seen clearly in figure C-5. Deviations around the fitted regression line are not at all extreme, and the standard error of estimate is the lowest for all the trends we have assessed in this manner. Again, if all the relevant assumptions obtain, an attendance by St. Louisans at parks in zone III in 1976 would number 630,000; in 2000, 1,098,000. These figures compare with an observed attendance in 1959 of 338,000 or a predicted attendance of 298,000. This represents the same rate of increase as was discerned for zone I parks. Attendance will increase 1.9 times over the 1959 observed attendance in 1976 and 3.2 times in 2000. The interval within which we can have confidence about our forecasts is, of course, smaller for these estimates. In 1976 the range is between 578,000 and 682,000; in 2000, between 1,046,000 and 1,150,000. Nevertheless, we are inclined to favor the upper limits of these interval estimates for the same reasons that they are favored in the forecasts of St. Louis visits at zone II parks. Furthermore, note has been made of the lesser decline in St. Louis visits at zone III parks during the 1958 recession, compared to the zone II parks, as well as the greater relative increase from 1958 to 1959. It may well be that our forecasts in this case are underestimates, and that the increase in St. Louis visits in 1959 over 1958 represents a departure from the linear growth in St. Louis attendance at these parks. The reasons for this possibility would obviously point to increases in travel, plus the tendency of St. Louisans to carry on their outdoor recreation at greater distances from the city center over the passage of the years since 1950, when such trends became stabilized.

If all these materials are combined, the picture of St. Louis State Park attendance in the future emerges. Figure C-6 depicts the totals graphically. Again, the upper trend line in Figure C-6 includes the figures for Grand Marais State Park and takes on the character of an exponentially decreasing curve for St. Louis visits to all State parks within 150 miles from the central city. Visits would approach zero by 1976, given the exponential decrease, and, were the trend interpreted in a linear manner, would reach zero by 1972. This is wholly unrealistic. St. Louisans are not likely to abandon all State parks within 150 miles from their city within a single decade! Instead, the lower trend line, omitting the Grand Marais figures, is obviously better suited to forecasting requirements. The derivation of a regression equation from that trend suggests that St. Louis attendance at State parks in the area of study will double by 1976 and more than triple by 2000. In 1959, the observed attendance was 1,193,027, compared to a predicted attendance of 1,191,000 from the regression equation. Assuming a continuation of the 1950-59 trend, St. Louis attendance will reach 2,379,000 by 1976 and 4,057,000 by 2000. Seeking more confidence in the overall gross estimate, we would place the 1976

1/ See page 168.

2/ Between June 30 and July 2, 1919 in East St. Louis, a race riot, stemming from the importation of 8,000 southern Negro workers by industry to combat indigenous labor organization, took over 100 lives. St. Louis, Mo. newspapers expressed shock and dismay, and the riot did not spread across the river.

3/ See page 169.

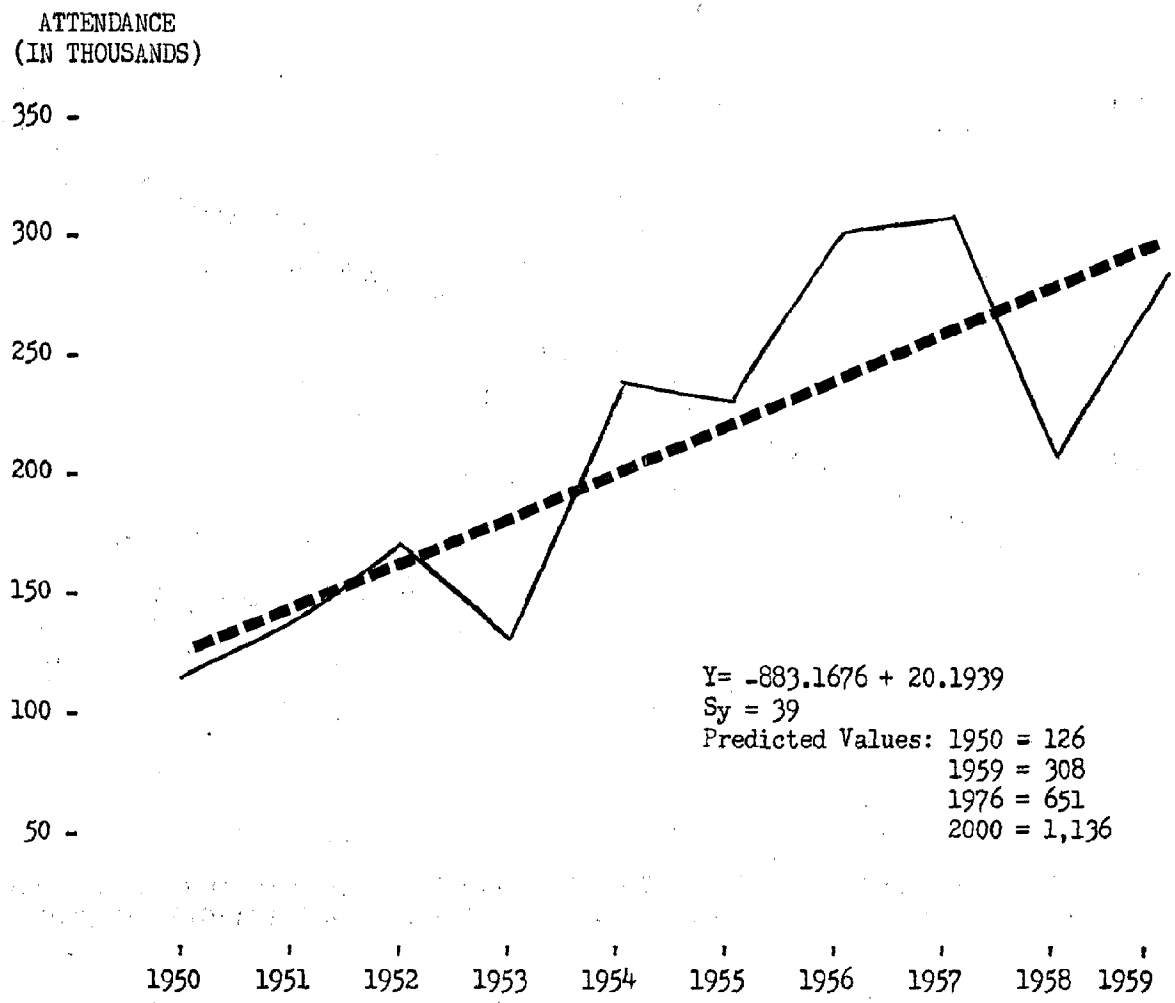


FIGURE C-4. REGRESSION LINE FITTED TO ESTIMATED ATTENDANCE BY ST. LOUISANS AT STATE PARKS BETWEEN 50 AND 100 MILES FROM CENTRAL CITY FOR THE PERIOD 1950-1959.

Source: Table C-5.

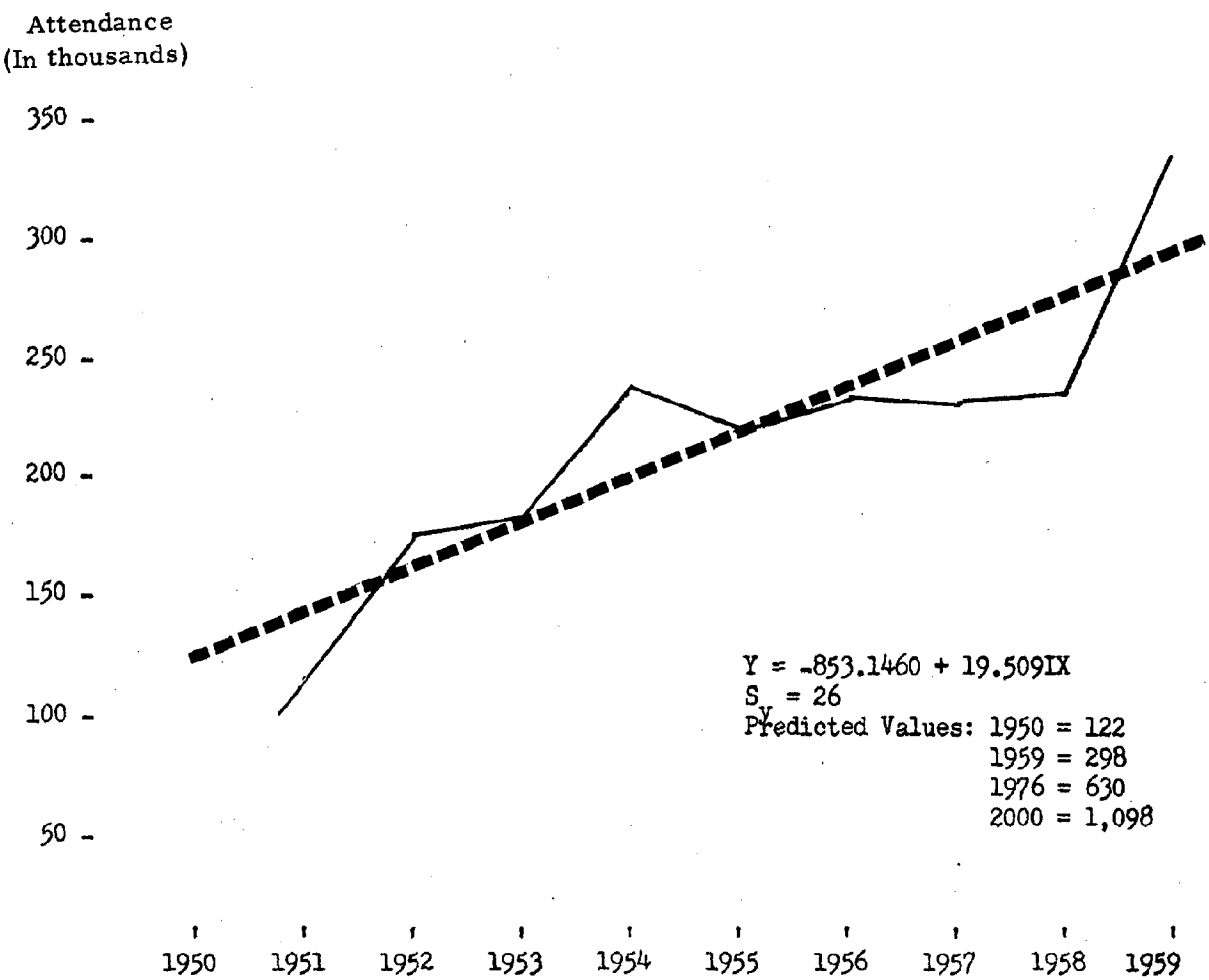


FIGURE C-5. REGRESSION LINES FITTED TO ESTIMATED ATTENDANCE BY ST. LOUISANS AT STATE PARKS BETWEEN 100 AND 150 MILES FROM THE CENTRAL CITY FOR THE PERIOD 1950-1959.

Source: Table C-5

figure at between 2,189,000 and 2,569,000; the 2000 figure at between 3,867,000 and 4,247,000.

These figures are very close to the figures that would result from a pooling of individual estimates for St. Louis attendance in 1976 and 2000 at the parks located in the three zones. Were we to pool the three estimates at the parks in the three zones, we would arrive at a figure of 2,380,000 for 1976 and 4,058,000 for 2000. If the "reasoned estimates" were combined, using the lower confidence limit for St. Louis visits to zone I parks and the upper limits for zone II and III parks, the result is a forecast of 2,342,000 for 1976 and 4,020,000 for 2000. Both of these figures lie within the confidence limits established by a joint consideration of all estimated St. Louis visits to State parks within the area of study. In sum, then, we expect St. Louis visits to State parks to double by 1976 and triple by 2000, using 1959 figures as a base. Given the unreliability of the particular statistics, it is preferable to focus on rates of increase rather than absolute estimates.

These forecasts, however, account for only about a seventh of all St. Louis attendance at outdoor recreation sites in 1960. How can forecasts be made for the remainder? Earlier it was proposed that attendance at various outdoor recreation sites, excluding State parks, had grown at an annual average rate of increase of between 20 and 6 percent, with the probable rate set at 10 percent.[4] If these average rates are mechanically employed to estimate attendance at all other facilities, except State parks, in 1976 and 2000, it becomes readily apparent that the upper limit of a

[4] See page 191.

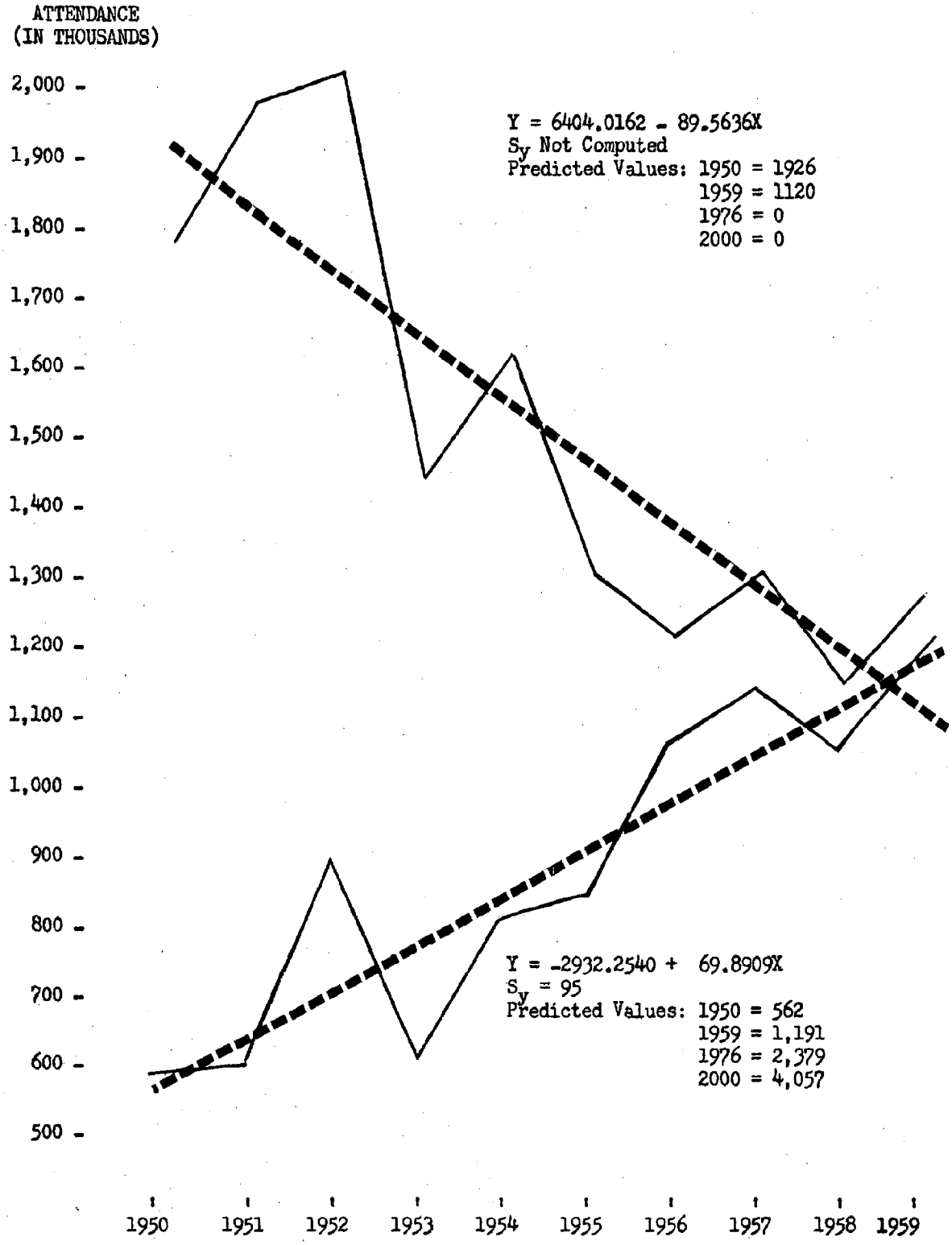


FIGURE C-6. REGRESSION LINES FITTED TO ESTIMATED ATTENDANCE BY ST. LOUISANS AT ALL STATE PARKS WITHIN 150 MILES OF CENTRAL CITY FOR THE PERIOD 1950-1959. DECREASING ATTENDANCE INCLUDES GRAND MARAIS STATE PARK; INCREASING ATTENDANCE DOES NOT.

Source: Table C-5

20 percent average annual increase is unrealistic. Even the assumption of a 10 percent average annual rate of increase confounds sensibility, showing visits at other facilities than State parks at 34 million by 1976 and 334,300,000 by 2000. The low estimate is more readily contemplated. That estimate predicts St. Louis visits at other sites at 16,600,000 by 1976 and 66,600,000 by 2000. Nevertheless, it should be recalled that these other facilities include such resources as swimming pools and other heavily attended sites. It may not be unreasonable at all to consider 34 million visits by St. Louisans made to such outdoor recreation sites in 1976, almost a sixfold increase over estimates and 334 million visits in 2000, an increase of more than 50 times the 1960 estimate. The conservative estimate shows such visits not quite tripling by 1976, but increasing tenfold by 2000. This is certainly feasible, given Marion Clawson's estimates of growth in national park attendance. 5/

Projections of the St. Louis SMSA population by the Bureau of Labor Statistics for 1976 and 2000 show that the population will increase by about a third in 1976 over 1960 and that the population in 2000 will be about 2.1 times the 1960 figure. 6/ Consequently, our forecasts for increases in State park attendance by residents of the St. Louis SMSA are not too far out of line with projected population increases. Our forecasts for uses of other facilities, however, seem grossly inflated. The Bureau of Labor Statistics foresees little change in the composition of the labor force in the St. Louis SMSA in the future, at least up until 1976, with the largest proportionate increases anticipated among professional, semiprofessional, and technical workers who composed 8.8 percent of the labor force in 1950, but are expected to compose 12.9 percent in 1976. Operatives, as might be anticipated, are expected to decrease from 22.2 percent of the 1950 labor force to 18.4 percent in 1976. These are the most extreme changes envisioned by the Bureau of Labor Statistics. They seem to provide little justification, indeed, for the increases we have anticipated in St. Louis use of facilities other than State parks in 1976 and 2000.

Of more significance, and more surprising, are the BLS estimates of gains in leisure time for the average person employed in the St. Louis SMSA labor force in 1976 and 2000 compared with estimates for 1960. From 1960 to 1976 an average gain of 4.4 weeks of leisure is envisaged for the average St. Louis employee, but his average gain from 1960 to 2000 is estimated at 13.2 weeks or about 3 months. It is not inconceivable at all, then, that, with 3 months additional leisure in 2000, the St. Louis employee would make on the average, 50 times his visits in 1960 to outdoor recreation sites such as swimming pools, fishing sites, boating areas, and various other commercial sites.

In interpreting these forecasts, the reader should not let the figures overwhelm his imagination. The contemplation of such large increases focusses on outdoor recreation activities that can be carried on in a day or a fraction of a day. For example, a visit to a swimming pool can be undertaken in a matter of a couple of hours. It is for this kind of outdoor recreation that the BLS projections of increased leisure time are relevant. For other kinds of outdoor recreation, such as visits to State parks and national forests, other projections must be adduced. For the most part these kinds of outdoor recreation require extended periods of time on the part of the recreationist, and we have been much more conservative in our forecasts of increasing demand for this kind of outdoor recreation, suggesting that State park visits will double by 1976 and triple by 2000. Even here, the BLS projections bear out our own forecasts. These projections contemplate an added 1 week of paid vacation time for St. Louis workers in 1976 and an additional week by 2000. Such projections seem quite commensurate with our own forecasts of increasing demand for outdoor recreation at facilities that ordinarily require extended visits.

In sum, we have estimated about 8 million visits made to all kinds of outdoor recreation facilities in the St. Louis region by residents of the St. Louis SMSA in 1960. By 1976, this could rise to 36 million visits, an increase of 4 1/2 times; by 2000, the figure could reach 338 million, almost 50 times the 1960 figure. A low estimate would forecast a threefold increase in demand by 1976 and about a tenfold increase by 2000. Again, the rates are in the center of our attention, not the absolute numbers. Finally, these rates seem not to be differentiated greatly by distance from the central city within the 150-mile radius demarcated as the area of study.

A further question needs to be raised: what kinds of facilities will receive the greatest impact in this burgeoning pressure? There seems to be little doubt that the main brunt of the rising demand will be exerted upon water facilities, since water sports show consistent increases in every trend analysis. These are, of course, the facilities that are already in shortest supply in the St. Louis region.

Nor do future plans for adding outdoor recreation facilities seem realistically to take into account this rising demand. Increasing outdoor recreation acreage by less than 20 percent will hardly compensate for an outdoor recreation demand that threatens to increase ten times in the next four decades and could increase many times that figure. Moreover, a further dilemma is posed whenever facilities are increased or new facilities added: the addition of the facility may give a further impetus to demand. Thus, just outside our own region of study, Table Rock State Park, about 200 miles southwest of St. Louis, was recently instituted to drain some of the pressure off neighboring Roaring River State Park. What has eventuated is the maintenance

5/Warren C. Robinson, memorandum to Laurence I. Hewes, Jr. on "Techniques for Projecting Recreation Visits" (dittoed, Aug. 30, 1961), pp. 2-3. Although the projections for national parks may be unrealistic, I am inclined to think that they are quite realistic for more commercialized sites catering to urban recreation preferences.

6/References here are to U.S. Department of Labor, Bureau of Labor Statistics, "Estimates of the Decrease in Hours Worked, 1960-2000," (Mimeographed for the Outdoor Recreation Resources Review Commission, June, 1961), passim. These data are more detailed than similar projections prepared by the National Planning Association, but an examination of both projections discloses very little significant difference between comparable projections.

of high attendance at Roaring River and a rapid increase in attendance at the newly instituted park. There are many examples of this tendency. Jim Keefe, editor of the "Missouri Conservationist," put the matter this way:

> On top of the entire problem are yet more questions that someone sometime has to face. New recreation areas appear to create new users, rather than take the pressure off old areas. Where is the levelling off point for this sort of thing? For example: in 1957 the Conservation Commission opened two new intensive trout management areas, at Shepherd of the Hills and Meramec Spring. Instead of relieving angler pressure on the three State trout parks it was found that the new areas rapidly gained in popularity while the old areas continued to boom. The only conclusion was that we had created new trout anglers by creating new areas. 7/

It may well be that the addition of new facilities will not reduce existing outdoor recreation demand, but will provide additional spurs.

However, a dampening effect may be provided by the very processes of urbanization. As suburbs become cities, and small towns are more and more enmeshed in the metropolitan web by the physical growth of the metropolis, the increasing physical mobility of the population, and the dissemination of metropolitan culture via the mass media of communication, outdoor recreation may take on a pattern that requires less open space. Urban fishermen, observed by members of this project, seem quite content to stand shoulder to shoulder for short periods of time in a small stream, lifting hatchery trout out of unresisting puddles of trampled water. Urban motor boatmen have few complaints as they cue up at lake- and river-side drive-ins, waiting for the boat hop to fetch the hamburger and malted. Few urban swimmers engage in the sport to avoid crowds. So the density of the city may be carried irresistibly beyond the city sidewalks to the outdoors, where recreational activities that were at one time individualized and required large open spaces will be enjoyed by compacted masses in constricted spaces. Open spaces which permit a romanticized kind of outdoor recreation will perhaps become a kind of "third channel" of the outdoor recreation network, necessarily held available to the few esthetes who are so important in maintaining the myth and image of the great American outdoors.

7/ Jim Keefe, "A New Look at the Meramec River," "Missouri Conservationist," XXI (August 1960), p. 4.

SUMMARY

The demand for outdoor recreation among St. Louisans will increase considerably in the future. Resources such as State parks will experience a doubling of 1959 use by 1976 and a tripling of that use by 2000 on the part of St. Louis metropolitan residents. Other facilities will probably experience a greater increase in metropolitan demand. 1959 demand will probably triple by 1976 and increase tenfold by 2000. It is conceivable that the 1959 pressures on these other more commercialized facilities will quadruple by 1976 and increase 50 times by 2000. This would seem to suggest the necessity for adding considerably more outdoor recreation acreage to what is presently available in the St. Louis region. However, with the exception of sorely needed increments in water acreage, the forces of urbanization temper the implication.

In the future, metropolitan residents will probably carry on their outdoor recreation in the company of more and more people in relatively small spaces. Activities which are individualized and require large open spaces—hunting, hiking, wilderness canoeing, etc.—will attract smaller and smaller proportions of urban persons. In the St. Louis region, water sports will be most attractive to metropolitan residents who seem to enjoy swimming, boating, and fishing in large numbers, but in relatively constricted areas. Yet, new demands will undoubtedly emerge with technological innovations and the addition of new facilities. No one could have predicted the development of skiing in the St. Louis vicinity prior to recent technical developments in snow-making machinery. Nor could the popularity of sailing in the Kansas City area have been foreseen prior to its actual initiation following the construction of a large artificial lake by the metropolitan county.

CHAPTER SIX

RECOMMENDATIONS FOR PLANNING AND IMPLEMENTATIONS OF PLANNING

Implications for future planning may be clearly drawn from this report, and they have been explicated in the form of seven guiding criteria for the development of future outdoor recreation resources and the shaping of future outdoor recreation demand. In addition, concrete suggestions are offered for the implementation of the guidelines.

GUIDELINES FOR PLANNING FUTURE ST. LOUIS OUTDOOR RECREATION

No future consideration of outdoor recreation can begin without being couched in a regional perspective. This is true, not only for the St. Louis metropolitan area, but for many other metropolitan areas throughout the Nation. Cities tend to develop along lines of transportation such as rivers, but such lines of transportation frequently are employed as political boundaries with the result that urbanites suffer the consequences: The provision of all kinds of services to metropolitan residents is forestalled by the conflicting loyalties of governmental agencies, administrations, and representatives. In another city of the Midwest, it happens that the most accessible site for outdoor recreation is a lake located across the river in a different State. The area around that lake is very poorly maintained. It is dusty. Recreation equipment is in disrepair or unattractively presented. Yet, crowds frequent the site in the summer. Apparently, the relevant State agency is unconcerned about the general upkeep of the site, and we would guess that no small source of the lack of concern rests in the frank recognition that the lake primarily serves residents of a different State. Thus, the State agency tends to concentrate on the development of recreation areas in more distant areas. The case is similar for another midwestern metropolis. However, in that instance, the rural temper of the State legislature impedes cooperation with a more willing legislature in the next State, and the residents of the metropolis suffer the consequences. St. Louis suffers as far as the provision of services is concerned, not so much from the antiurban temper of the Missouri legislature as it does from political decisions in Illinois politics which play a considerable role in the programing of outdoor recreation policy in that State and unduly affect the design and execution of long-range planning, not to speak of bistate cooperation in regional plans.

A regional approach to the solution of the outdoor recreation problems faced by the St. Louis region in the future ought to be initiated at a very concrete level, simply to establish the fact that bistate cooperation is a feasible action and not merely a planner's dream or an exchange of momentary speculations among citizens of high local status honorifically appointed to a committee accorded public respect and deference. Game laws, for example, ought to be coordinated in the region. Much unnecessary hard feeling has been generated across State lines about the lack of coordination in the past of duck hunting on the Mississippi, and well intentioned people have had their attentions and energies diverted from important duties by the hostilities engendered. Regional licensing would seem also to be a simple, concrete way in which bistate cooperation could be initiated. The excessive exploitation of St. Louis outdoor recreationists by some commercial facilities which sell hunting space but provide no hunting opportunity might well be policed by personnel drawn from both the Illinois and Missouri portions of the St. Louis metropolitan area. Water pollution, another serious problem in a region where recreational waters are in short supply, obviously can be attacked only on a regional basis. With the initiation of these concrete joint activities, the region would be preparing itself to meet larger problems with reference to which such planning usually begins but very seldom materializes. These are problems having to do with the location, development, and choice of outdoor recreation resources. As we have mentioned, some development, particularly in the northeastern quadrant of the larger St. Louis region, might drain off some of the pressure exerted by St. Louisans on the Ozarks, and, interestingly, facilitate the further development of that area by reducing local hostility toward outsiders who have preempted (in the view of the local residents) too much of the Ozark lands already.

Perhaps even more important, or at least more pressing, than the initiation of regional planning for outdoor recreation is the provision of large water spaces for the outdoor recreation of St. Louisans. If present pressures for water facilities continue to mount at the rates we have anticipated, the failure to act and act quickly in this matter could be crucial. This is not merely a proposal to make life happier for St. Louis water recreationists. It may well be a matter of the life or symbolic death of the city. As amenities become more and more important in the American's choice of a place to live, work, and play, and, as American life becomes more fluid and mobile, St. Louis may well find itself defined as an undesirable area of settlement for many of the people in the land. 1/ Since cities must recruit their populations from the outside, St. Louis may find itself suffering severe economic losses without amenities to attract and maintain a growing population. Obviously, the Meramec Basin is the site that must be developed for these purposes. Failure to dam the Meramec might very well mean successfully daming the city.

1/Edward L. Ullman, "Amenities as a Factor in Regional Growth" The Geographical Review, XLIV (January 1954), pp. 119-132.

Personnel engaged in outdoor recreation activities, particularly administration, must undergo extensive professionalization. This is both a guideline and a technique of implementation, for a sense of colleagueship rapidly develop among professionals and would foster and expedite cooperation across State lines. Outdoor recreation must be conceived as providing careers for its personnel rather than, as in certain unspecified instances, rewards for political effort.

Although the pressure exerted by St. Louisans on wilderness areas will not increase at the same rate that other pressures will increas in the future, such areas ought to be set aside in the St. Louis region, if the kind of outdoor recreation that can only be accomplished at such sites is valued at all. These isolated spaces, as we have mentioned, could serve as a kind of "third channel" in the outdoor recreation network, maintaining the viability of certain values in a situation where such values are exposed to possible destruction. The setting aside of wilderness areas is clearly a value decision and ought to be conceived frankly as such.

Finally, considerable improvement is needed in the area of social relations. Specifically, race relations at outdoor recreation sites can only continue as they are at Grand Marais State Park at considerable cost to the operating agency. It is uneconomic to experience such fantastic declines in the utilization of any kind of facility. The cost in urban areas is compounded by the value of land. But, the social and moral cost of this kind of race attitude outweighs the economic. Particularly in the world as it is, today, no part of the United States can afford the social and moral reputation that racial discrimination provides. City-farm relations also stand in need of improvement and a lessening of tension. Comments from county agricultural agents in the larger St. Louis region clearly show a direct relationship between St. Louis use of county lands for outdoor recreation and farm hostility toward the city dweller. This hostility has the effect of removing a very large amount of outdoor recreation space from the space potentially available now and in the future to the urban dweller.

IMPLEMENTATION OF THE GUIDELINES

As it has historically, the Federal Government must play an active role in the implementation of these guidelines. For one thing, this could take the form of financial encouragement for the regional planning of outdoor recreation. Encouragement could be withheld if some of the desiderata set forth above were not met, e.g., the presence of professional personnel in the cooperative planning projects, the termination of racial discrimination at outdoor recreation sites in fact as well as in principle, or the inclusion of wilderness or isolated sites in regional plans. This will undoubtedly mean the eventual establishment of a Federal agency for this purpose, an agency that can disengage itself from direct involvement in the power struggles that such planning always inspires. In this respect, the President's proposed Department of Urban Affairs would be an ideal location for the agency.

Education is, of course, always one technique for the improvement of social relations, and both government and lay agencies must contribute to the changing of current race attitudes and farm-city hostility. St. Louis is fortunate in that it has a newspaper that would willingly cooperate in such an educational campaign. However, the farmer also requires this kind of reorientation. Many of his attitudes toward city recreationists are built on totally unsubstantiated myth. The St. Louis region would be in a bad way, indeed, if the number of cattle claimed to have been shot by city hunters was the number actually shot. Here, the county agent would be an invaluable change agent, and many already are aware of the exaggerated character of farmer attitudes toward city dwellers. Urban gun clubs are engaged in a wide-scale education effort in this respect.

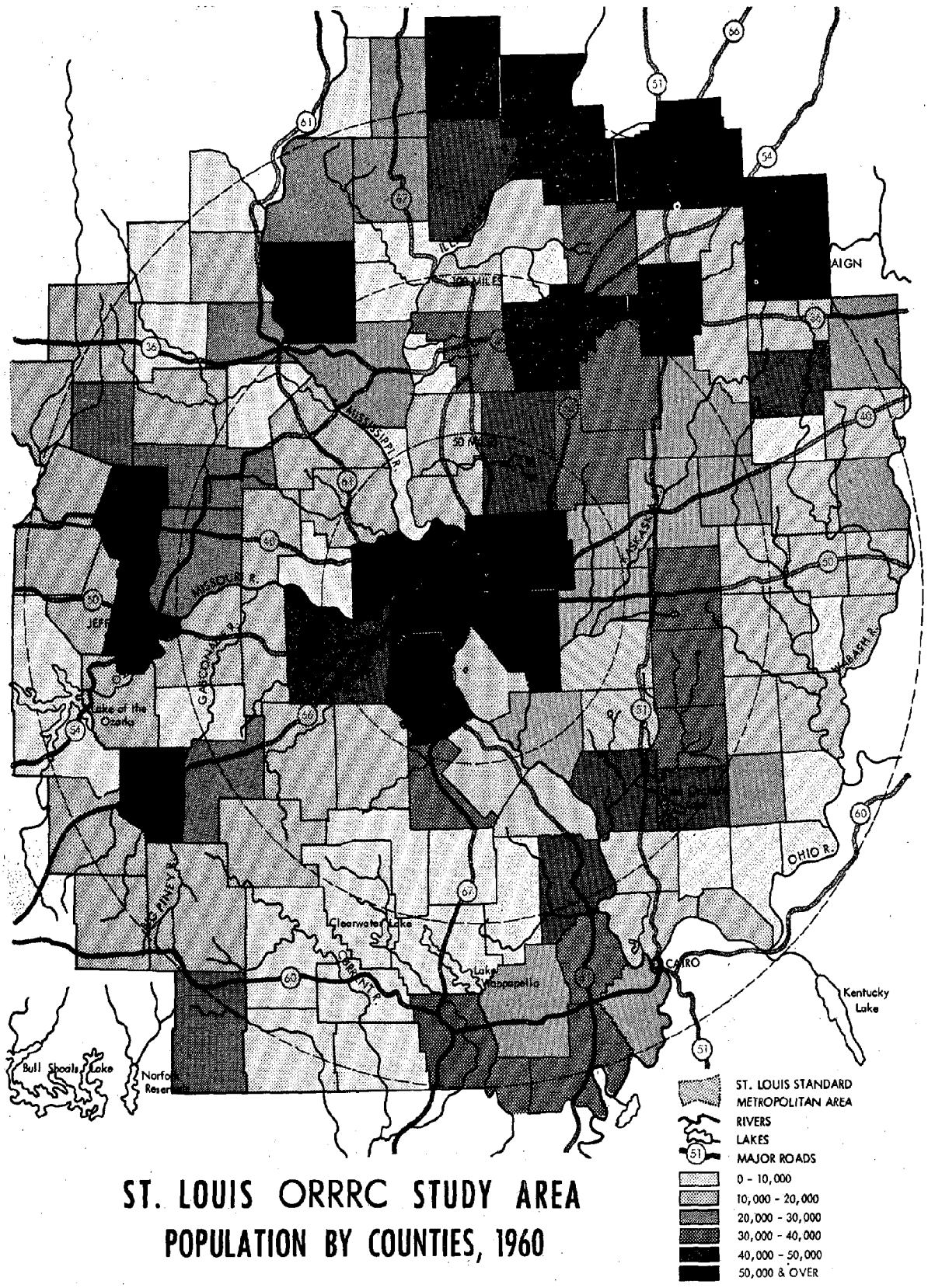
A more specific recommendation to ease racial strains in the region would require that the desegregation (de facto!) of an outdoor recreation facility be followed immediately by a program of improvement in that facility. Desegregated areas can be made so attractive that visitors would not want to abandon them.

Finally, there is some information from the Division of Parks and Memorials of the Department of Conservation of Illinois that the charging of modest fees at State parks has no perceptible effect on attendance. Those concerned with the administration of outdoor recreation sites in the St. Louis region might well consider the institution of fees as a way of underwriting, in part, the increased expenditure that these proposals imply.

APPENDIX

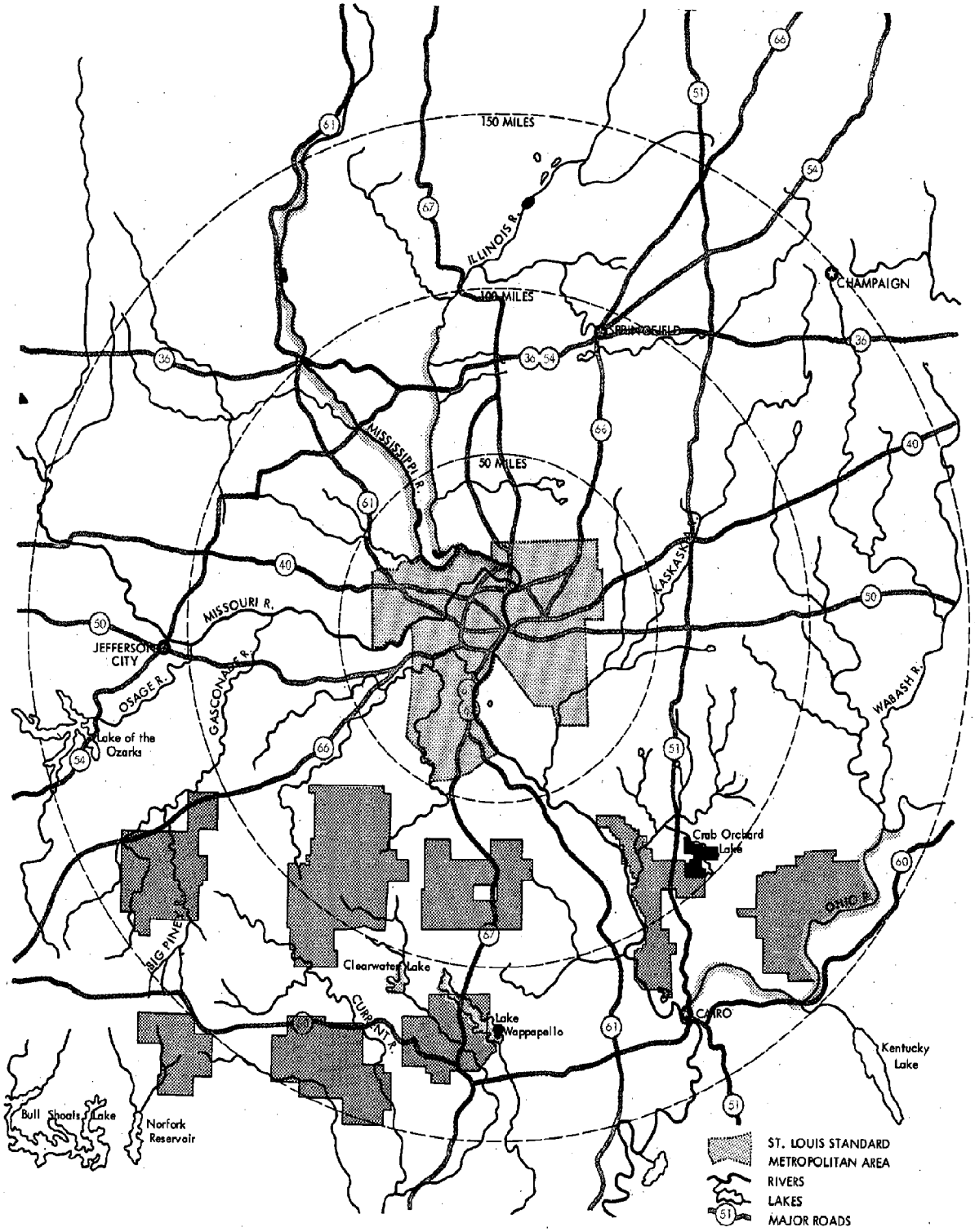
MAPS SHOWING THE SPATIAL DISTRIBUTION OF POPULATION, OUTDOOR RECREATION RESOURCES, ST. LOUIS PRESSURE ON THOSE RESOURCES, AND POTENTIAL RECREATION AREAS FOR THE LARGER ST. LOUIS REGION IN 1960

Technical difficulties and unforeseen delays have precluded the inclusion of the following 10 figs. in the main body of this report. For the reader's guidance, references are made here to the sections of the report for which the maps are appropriate. Fig. C-7, showing population by counties for the St. Louis region should be referred to the second section of the report, "St. Louis and its Recreational Environs." Figs. C-8 through C-14 present the spatial distribution of various outdoor recreation resources in the St. Louis region in 1960. They supplement the third section of the report, "The Present State of Outdoor Recreation in the St. Louis Metropolitan Region." Fig. C-15, showing St. Louis pressure on outdoor recreation resources in the larger region of study, also supplements the third section of the report. Finally, Fig. C-16, showing potential outdoor recreation areas in the area of study, is relevant for the discussion of acreage trends in the fourth section of the report, "Trends in Outdoor Recreation."



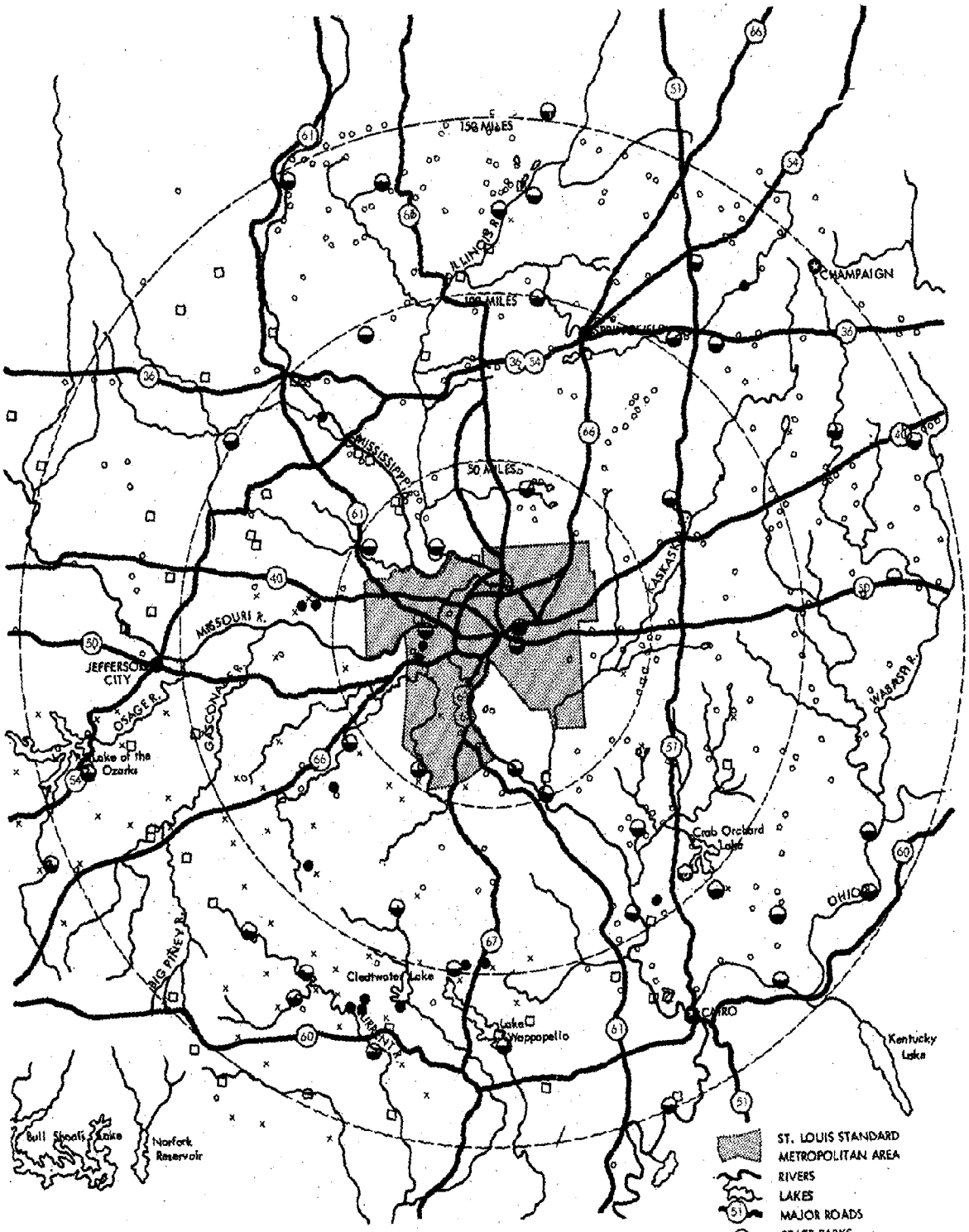
ST. LOUIS ORRRC STUDY AREA
POPULATION BY COUNTIES, 1960

Figure C-7



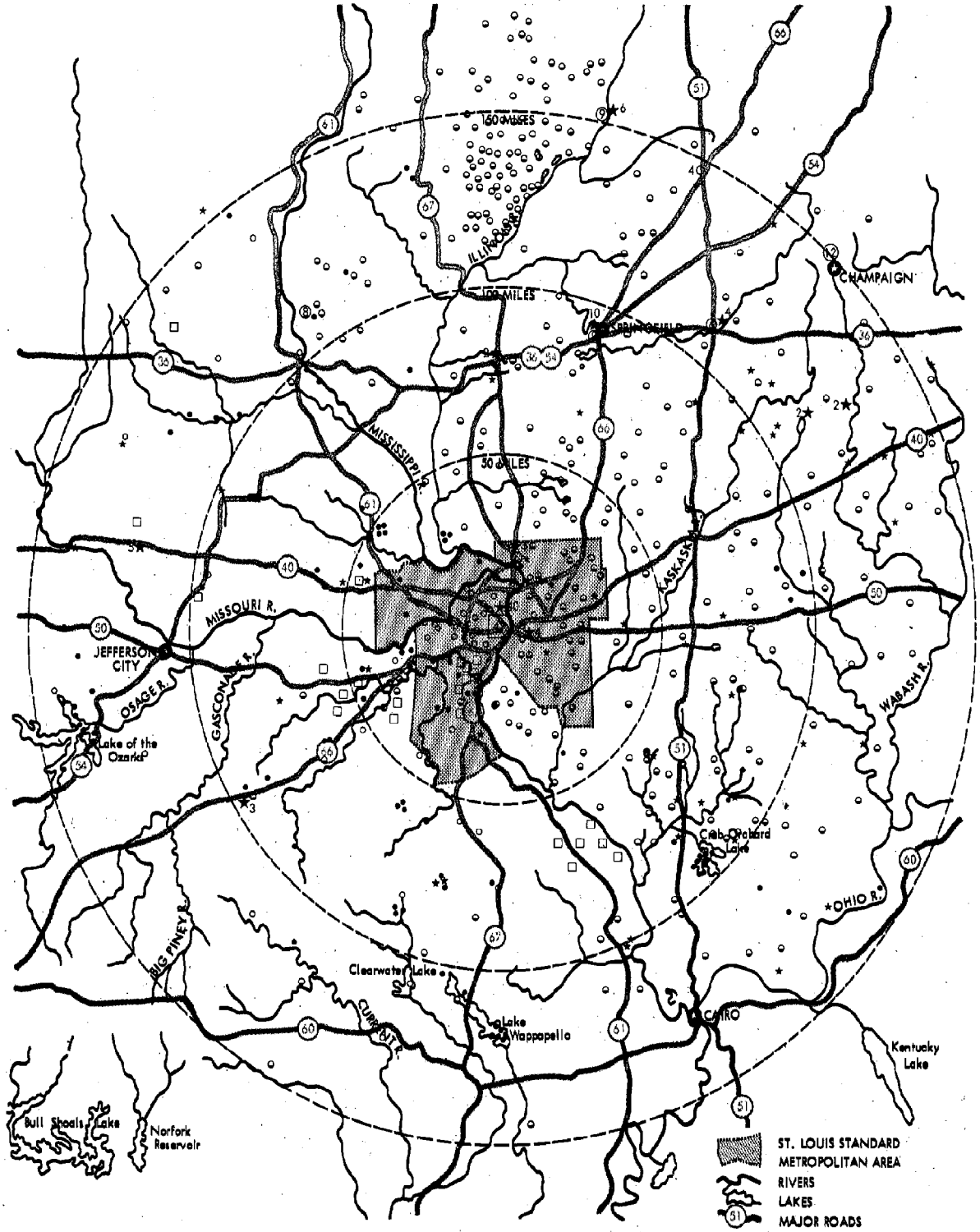
ST. LOUIS ORRRC STUDY AREA
FEDERAL RECREATION AREAS

Figure C-8



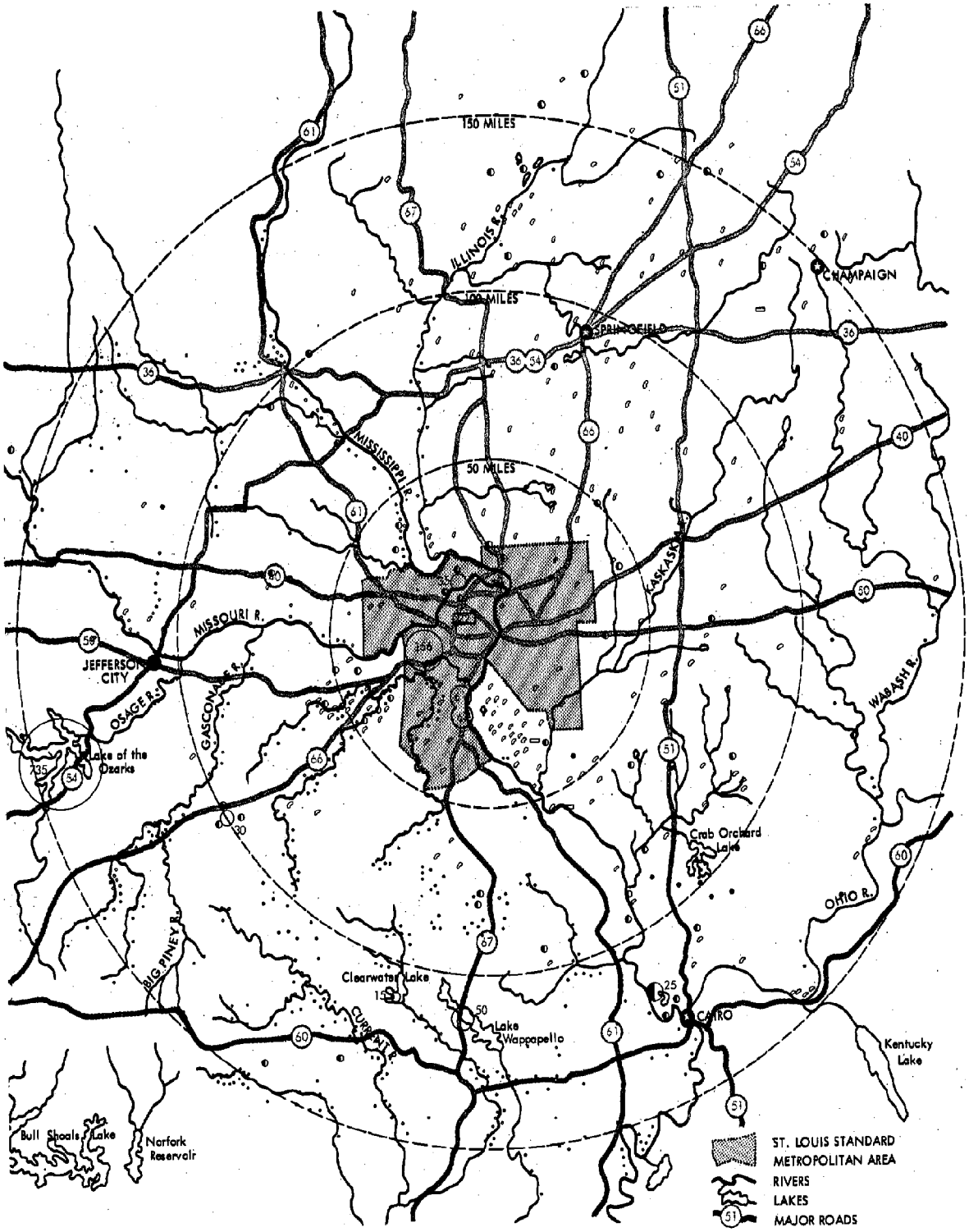
ST. LOUIS ORRRC STUDY AREA
STATE RECREATIONAL AREAS

Figure C-9



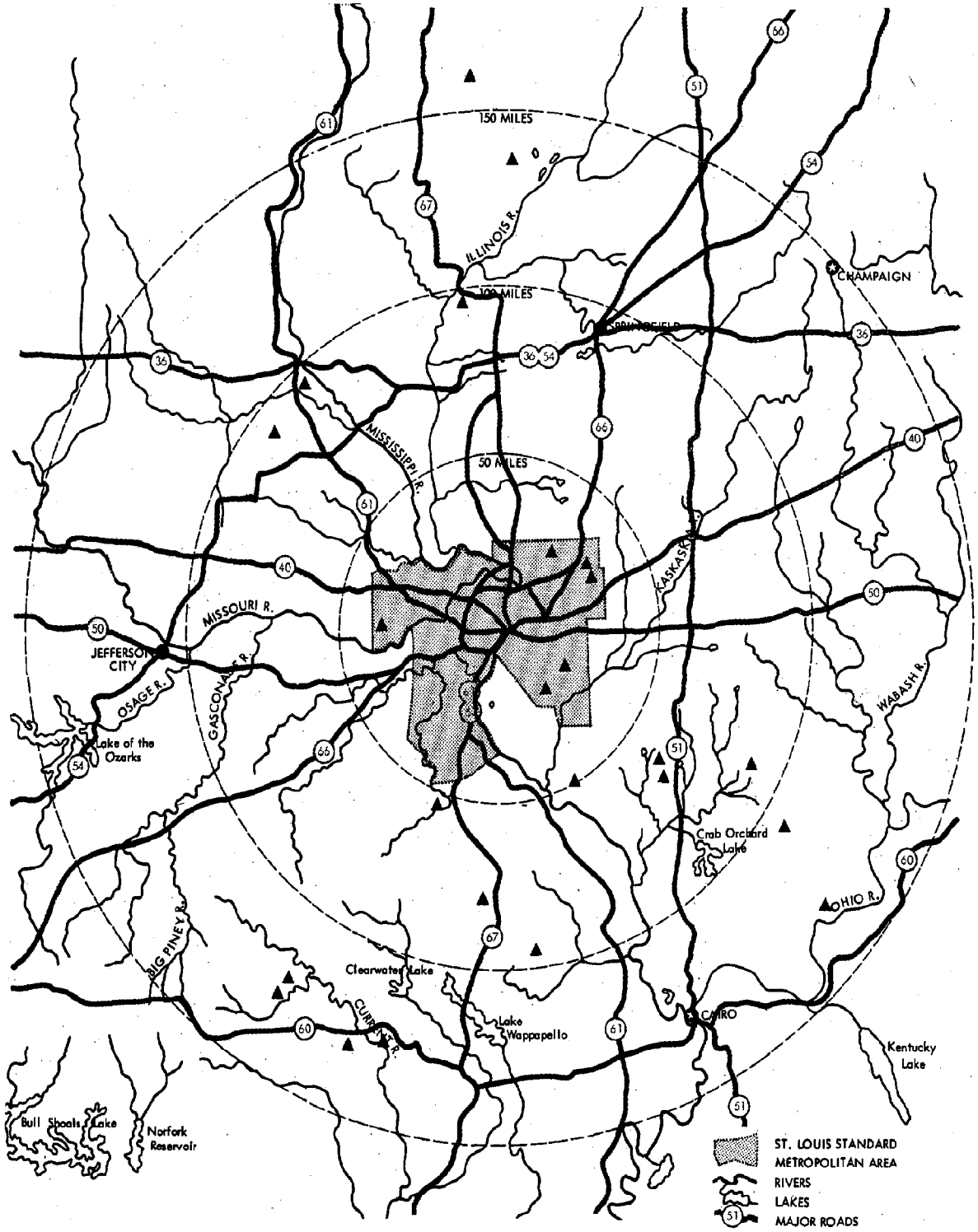
ST. LOUIS ORRRC STUDY AREA
PRIVATE NON-COMMERCIAL RECREATION AREAS

Figure C-10



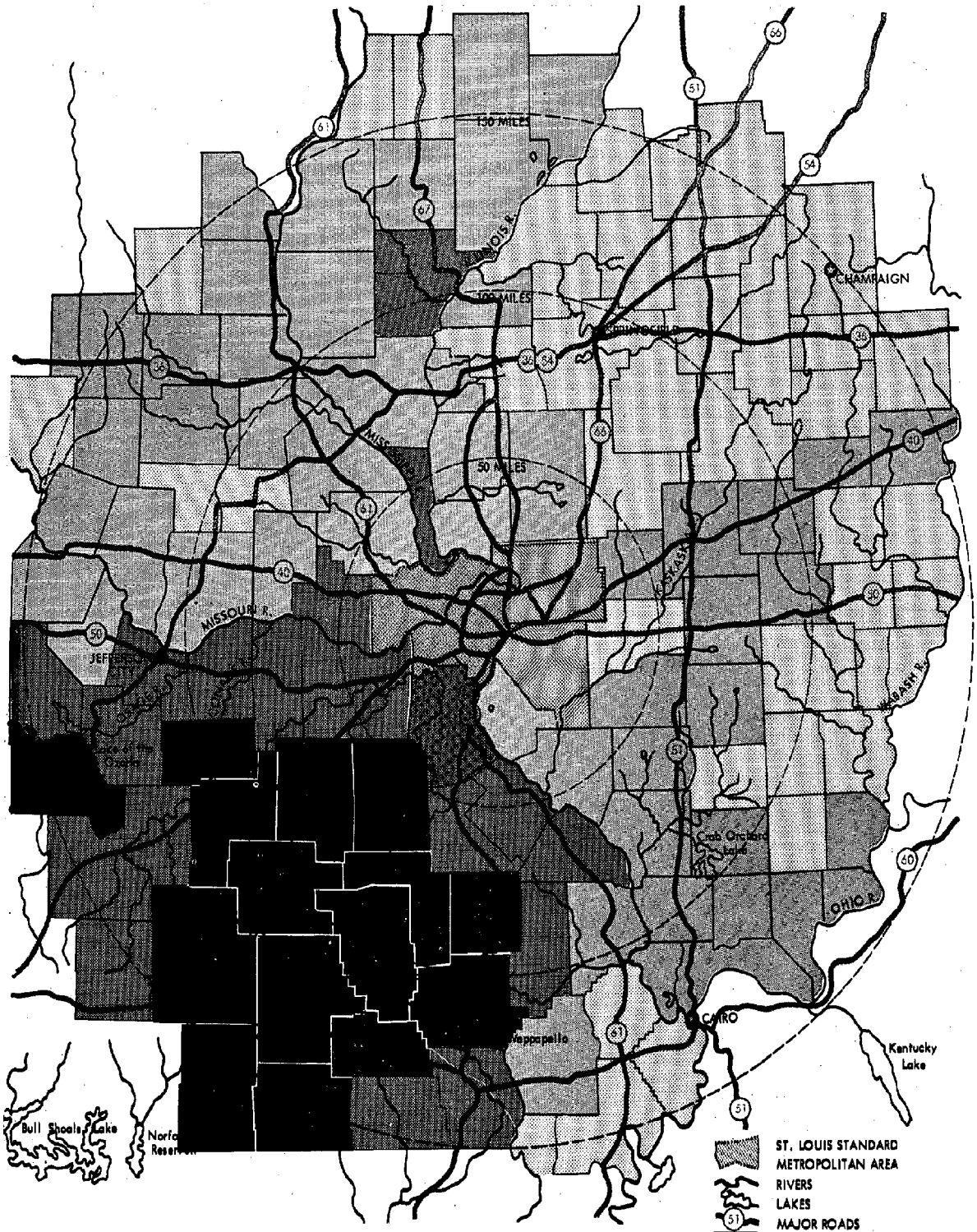
ST. LOUIS ORRRC STUDY AREA
COMMERCIAL RECREATION AREAS

Figure C-11



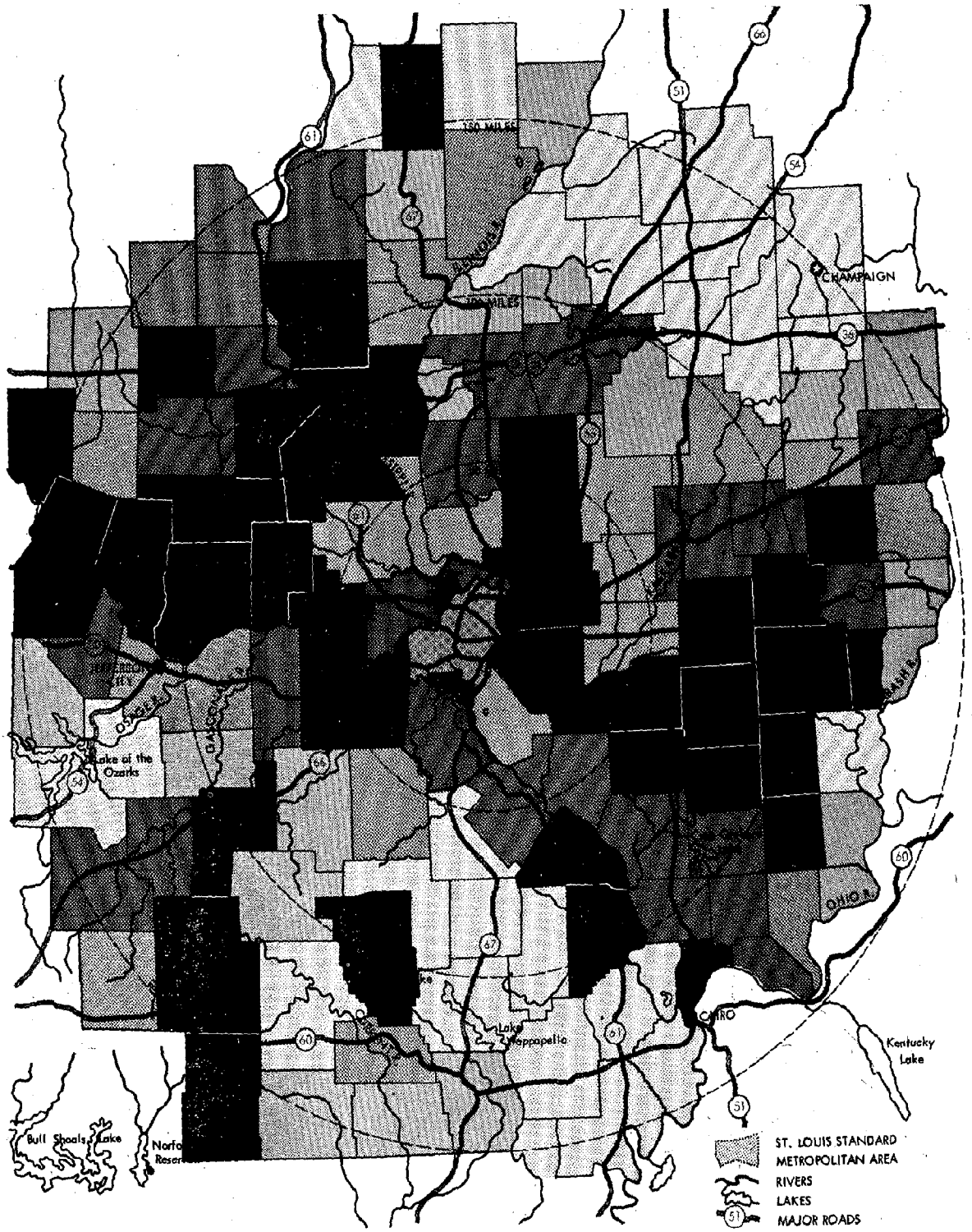
ST. LOUIS ORRRC STUDY AREA
INDUSTRIAL RECREATION AREAS

Figure C-12



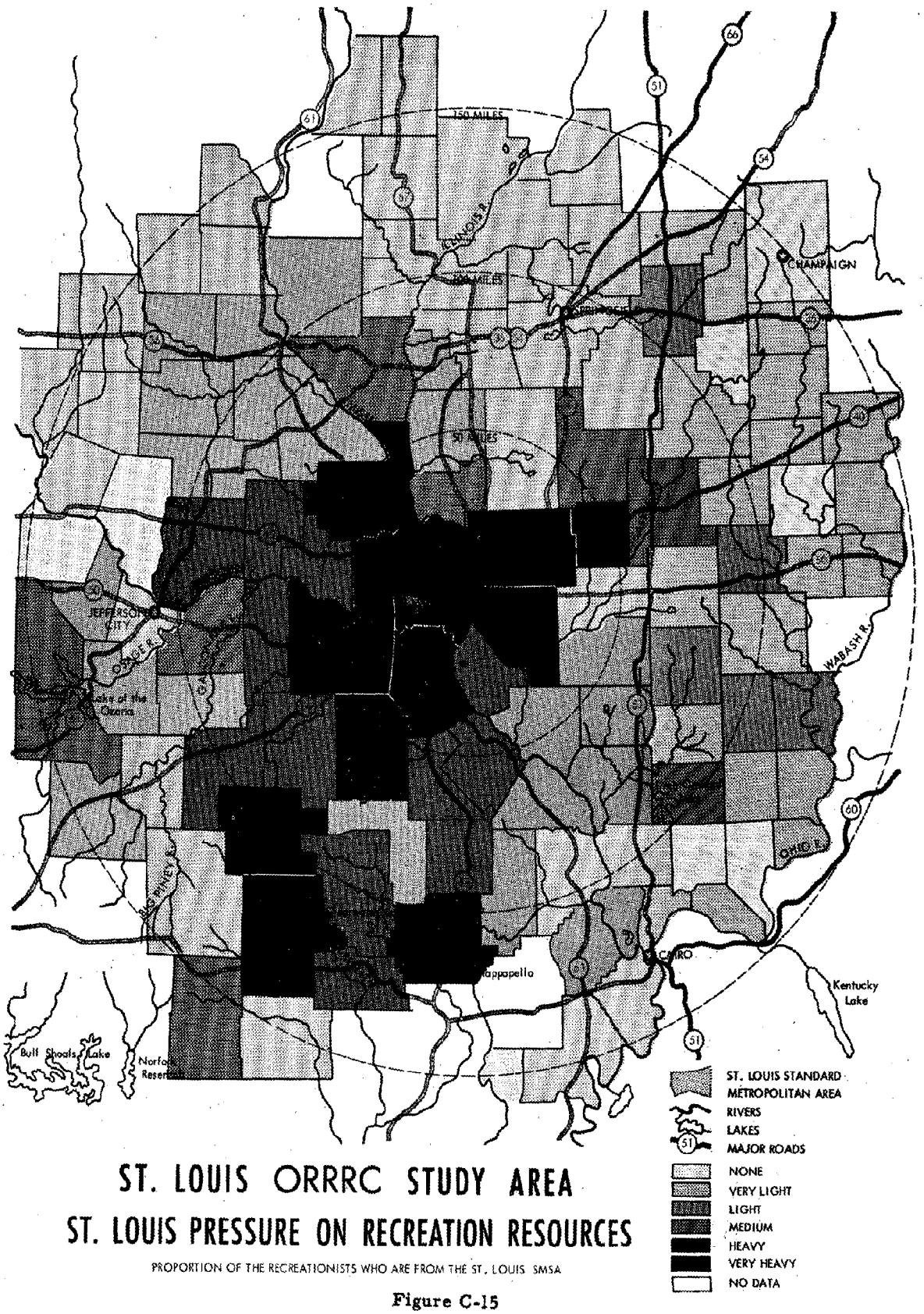
ST. LOUIS ORRRC STUDY AREA
PERCENT OF FARMLAND IN WOODS

Figure C-13



ST. LOUIS ORRRC STUDY AREA
NUMBER OF STOCKED FARM PONDS

Figure C-14

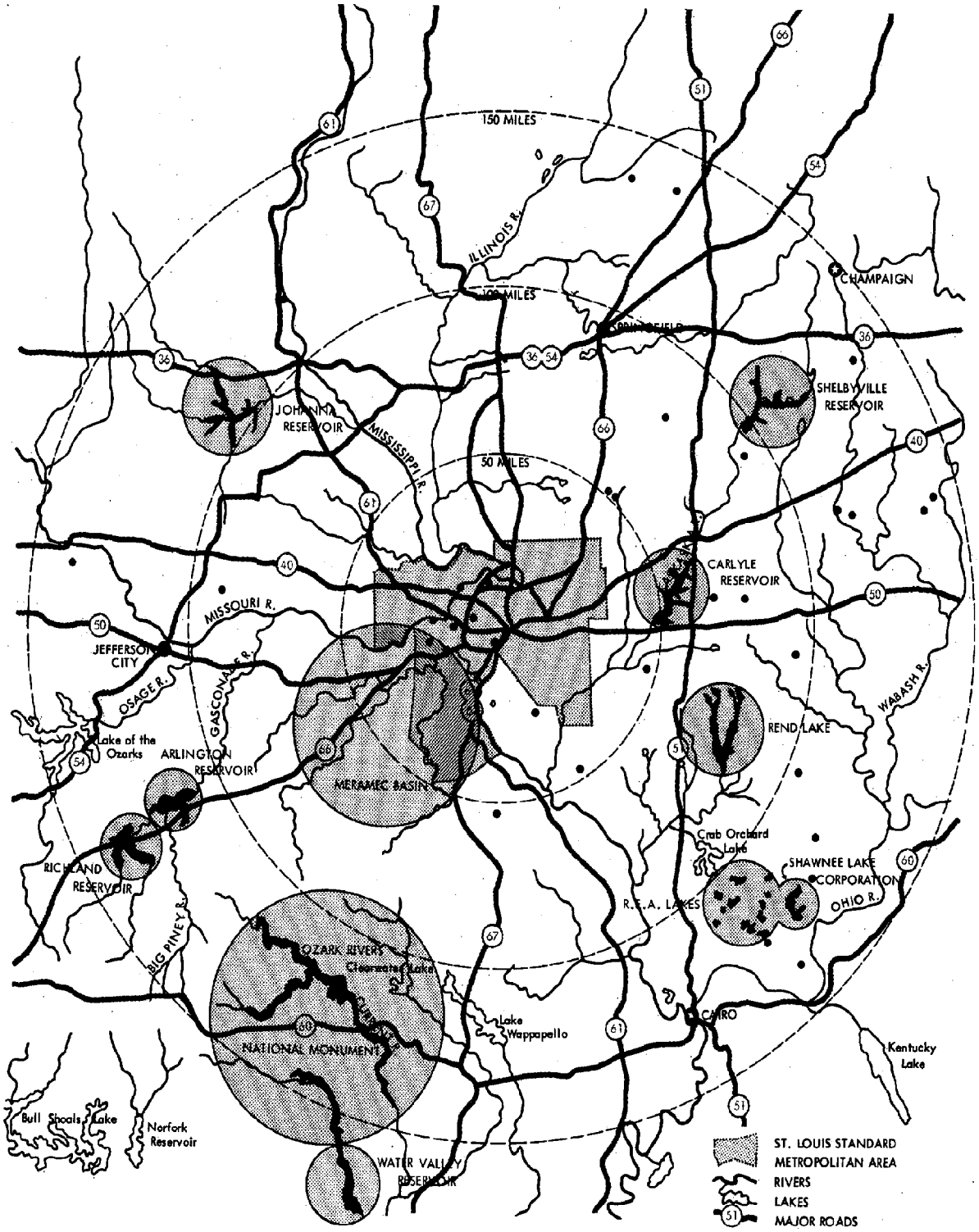


ST. LOUIS ORRRC STUDY AREA

ST. LOUIS PRESSURE ON RECREATION RESOURCES

PROPORTION OF THE RECREATIONISTS WHO ARE FROM THE ST. LOUIS SMSA

Figure C-15



ST. LOUIS ORRRC STUDY AREA
POTENTIAL RECREATION AREAS

Figure C-16

Part IV

OUTDOOR RECREATION: NEEDS AND PREFERENCES OF THE PEOPLE OF THE CHICAGO AREA

A Report to the Outdoor Recreation Resources Review Commission

by

NORTHEASTERN ILLINOIS METROPOLITAN AREA PLANNING COMMISSION

Chapter One

INTRODUCTION

It is often said that man has yet to learn to live with his environment. American historians have documented in considerable detail the rapacious attitude of earlier generations toward the use of natural resources. While man is now belatedly recognizing the need for strong conservation programs to safeguard soil, water, trees, and other natural resources, while he is making progress in preserving some of the remaining unique and dramatic natural features for the enjoyment of all people and for future generations, little attention has been given to the need for preserving some of the open space in and around the larger centers of population.

There is increasing evidence that the opportunities for outdoor recreation in and near the large centers of population are limited and inadequate, overly used and misused. The shelf of studies on problems surrounding outdoor recreation in large metropolitan areas is beginning to grow, as more and more authorities point to the insufficiency of existing programs in meeting existing demands. Even though the backlog of accumulated needs is growing, the lack of integrated, comprehensive action often has encouraged other interests to raid the larder of existing recreation space. The search for cheap, accessible land to convert to a "higher and best" urban use has failed to take into account the persistent needs of urbanized people for space to move around in and to enjoy at leisure.

As in other large metropolitan areas, there is growing awareness in the Chicago area that open space is a necessary part of the environment of daily existence. The desire to enjoy nature, to partake of pleasurable activity in an area relatively untouched by culture is still a vital part of the aspirations of people who live and work in the area. The movement of people from Chicago to the suburbs is seen in part as reaction against congested living conditions and as a desire to maintain contact with nature and its elements.

There is growing acceptance that open space and outdoor recreation are important also to the overall welfare of the Chicago area itself. The movement of people and business firms to other parts of the Nation raises questions as to whether the competitive position of the economy is being imperiled by the failure to provide sufficient amenities for the "good life." There is increased recognition that unless existing natural features are safeguarded and stronger efforts are made to provide for a much greater magnitude and variety of outdoor recreation opportunities, the upward progress of the metropolitan area will lose momentum. The Chicago area must be a good place in which to live as well as to work.

THE PURPOSES OF OUTDOOR RECREATION

The purpose of outdoor recreation in a highly urbanized society is as varied and complex as the types of individuals who participate in it. Each individual tends to place a personal value on recreation needs, and each engages in one or more types of outdoor activity according to recreation preference. Where common identity of purpose occurs (e.g., family, adult or youth group interests), outdoor activity tends to become institutionalized as group action, but even here activities of various groups reflect multiplicity of individual interests.

A twofold classification is useful in this analysis of purpose: Recreation is either (a) participated in in order to attain a specific end or goal, or (b) undertaken as the result of circumstances in which people find themselves. Both, of course, have a number of subcategories.

Desired ends or goals include such things as physical well-being, mental well-being, social acceptance, group relationship, and solitary reflection. A participant engages in individual or collective outdoor activity in a suitable environment in order to gain rewards of the body, i.e., physical well-being. Similarly, another person participates in outdoor activities in order to attain rewards of the mind, i.e., mental well-being. Still another individual may participate in the recreational experience in order to attain social well-being, e.g., to meet new people, share in group activities, seek a mate. Of increasing importance today is participation in outdoor recreation on a group basis, to achieve successful family relationships, to bind together adults or youths with related interests in a common experience. Conversely, other individuals appear to participate singly in outdoor recreation in order to attain solitude, to achieve self-identity.

The second classification of the purpose of outdoor recreation is also of importance to people residing in a large metropolitan complex such as is found in the Chicago area. Various environmental conditions peculiar to urbanized areas tend to serve as primary stimulants to recreation activity; in this context, recreation is evaluated more as a resultant of surrounding conditions. The individual's participation may be based primarily upon his belief that recreation activity provides an antidote for certain elements of daily existence. It may represent to him a momentary escape from customary urbanized surroundings, or a brief reacquaintance with something that is denied him in his daily routine. He evaluates recreation, therefore, more in terms of benefits to

be derived from short-term substitutions in environmental conditions rather than the achievment of specific ends.

Various urbanized conditions which appear to stimulate recreational activity include monotony of sedentary existence, specialization of occupations, population concentration, pressures of work and excessive noise, institutionalization of activity, all of which are characteristic of the urbanized enrivonment. To the extent that people feel the need for change in environmental surroundings, outdoor recreation in a natural setting becomes one of the means by which life is made more pleasant and enjoyable.

In actuality, of course, each individual or group of individuals ascribes to both purposes in varying degrees, according to the times and conditions that exist.

THE NATURE OF THE STUDY

Outdoor recreation as considered in this study includes those activities which are carried out in areas maximizing natural conditions, and in which man-made facilities are provided only where necessary to increase the enjoyment and use of the natural environment. Attention is focused on the outdoor recreation needs and preferences of the residents of the six-county area of northeastern Illinois which for sake of brevity is called the Chicago area. Both needs and preferences of the present and what may be expected in the short-range and long-range future are considered. The opportunities and facilities are those which are found within reasonable distances of the homes of the residents, available and suitable for 1- and 2-day outings. For purposes of this study, the facilities considered under present conditions are those that are available within a 150-mile radius of the center of Chicago, in an area called the Chicago region (fig. D-1).

This study of outdoor recreation is not concerned per se with the recreation facilities, programs, and opportunities usually associated with urbanized development such as playgrounds, stadia, golf courses, city parks, amusement parks, zoos, and the like. The relationship and impact of local and community facilities to the need for outdoor recreation opportunities must be given consideration, however, for it is obvious that the character of that need is influenced by the nature and availability of urbanized recreation facilities. Again, while attention is not focused on the need for recreation facilities to be used on long weekends and vacation periods, the extent to which such facilities are located within reasonable distances must be considered.

Outdoor recreation activities of primary concern in this study, therefore, are those carried out essentially in nonurban facilities and opportunities. We are mostly concerned with the individual activities of driving for pleasure, sightseeing and relaxation, picnicking, outdoor swimming, fishing, boating, hunting, walking and hiking for pleasure, camping, nature study, horseback riding, and winter sports. Emphasis is given to outdoor recreation activities performed in areas dominated by nature and readily accessible to the metropolitan resident. For in an environment dominated by urban pursuits, it is these kinds of activities that provide variety in experience.

THE PHYSICAL SETTING

The Chicago region, when judged by national standards for recreation opportunity does not possess a wealth of awe-inspiring scenic wonders (fig. D-2). There are no rugged mountains; there are no vast tracts of cool, green forests, and there are no striking climatic advantages. The region characteristically is a continental lowland bordering Lake Michigan. It is crossed by an almost imperceptible midcontinental divide separating drainage flows through the Great Lakes-St. Lawrence and the Illinois River-Mississippi River systems.

The southern margin of Lake Michigan constitutes drained portions of a larger lake of recent glacial time. Beyond this stretches a gently undulating prairie upland surface consisting of low morainic knolls and ridges separated by saucerlike depressions and elongated valleys. The upland area broadens in southwestern Michigan and in the west and northern portions of the region. To the south and southwest, the surface falls into a broad lowland traversed by the westward-flowing Kankakee River.

The local relief (the difference in height between hill or ridge crests and adjacent lowland) is slight to moderate. The lowland area bordering Lake Michigan is notably flat, with major exceptions being the dunes area and localized bluffs. In the interior upland area the landscape is typically gently rolling with major exceptions found in the bluffs along the Illinois and Mississippi Rivers, in the "driftless area" of southwestern Wisconsin and northwestern Illinois, in the Baraboo Range and Wisconsin River section northwest of Madison, and in parts of the morainic hill area of southwestern Wisconsin. Rivers typically flow sluggishly in their banks, and those with broad valleys have a history of flooding surrounding areas.

The natural features upon which the outdoor recreation complex has been placed are those associated with lakes and water courses. Lake Michigan provides an open space view, and the shoreline of sand dunes, beaches and harbors is most notable. The bluffs along the Illinois River have provided a number of overlooking views upon which a series of State parks have been created. Public hunting and fishing areas have been established where the river broadens and marshland exists. A number of drift dams across preglacial valleys have provided a chain of lakes, among which of the more noteworthy for recreation use is the Chain O' Lakes in Lake County Ill. Numerous lakes and swamps are found in the morainic areas of northeastern Illinois, southeastern Wisconsin, and southwestern Michigan, with the large and more attractive ones serving as major centers for private resorts. Commercial picnic-beach developments and public hunting and fishing opportunities are also concentrated in the areas of lakes and wetlands. Devils Lake in the Baraboo Range and the Wisconsin Dells also must be counted as being two of the most notable water-oriented natural attractions providing public and private recreation opportunities.

The climatic features of the Chicago region are typically interior continental. Midwesterners make

THE CHICAGO REGION

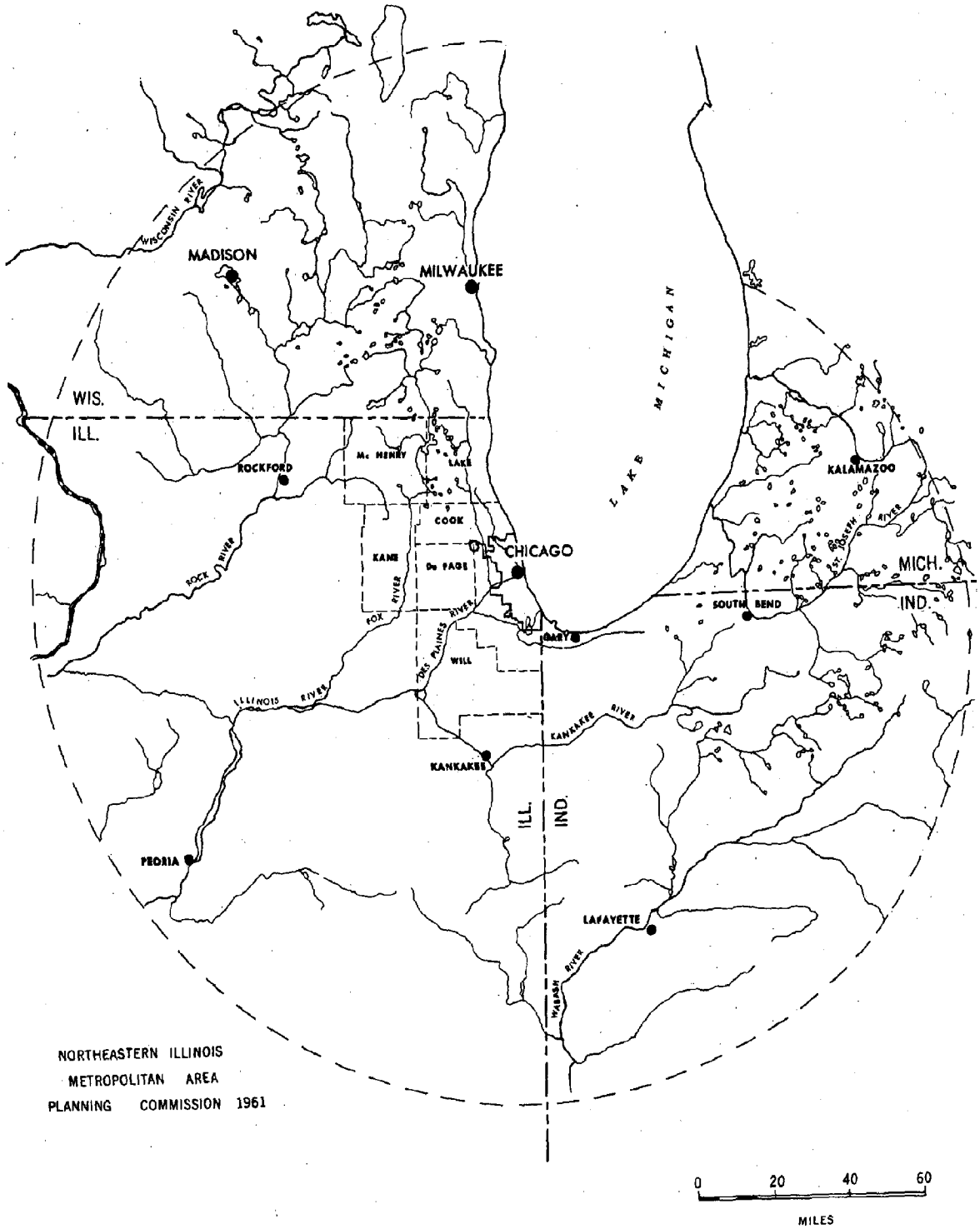
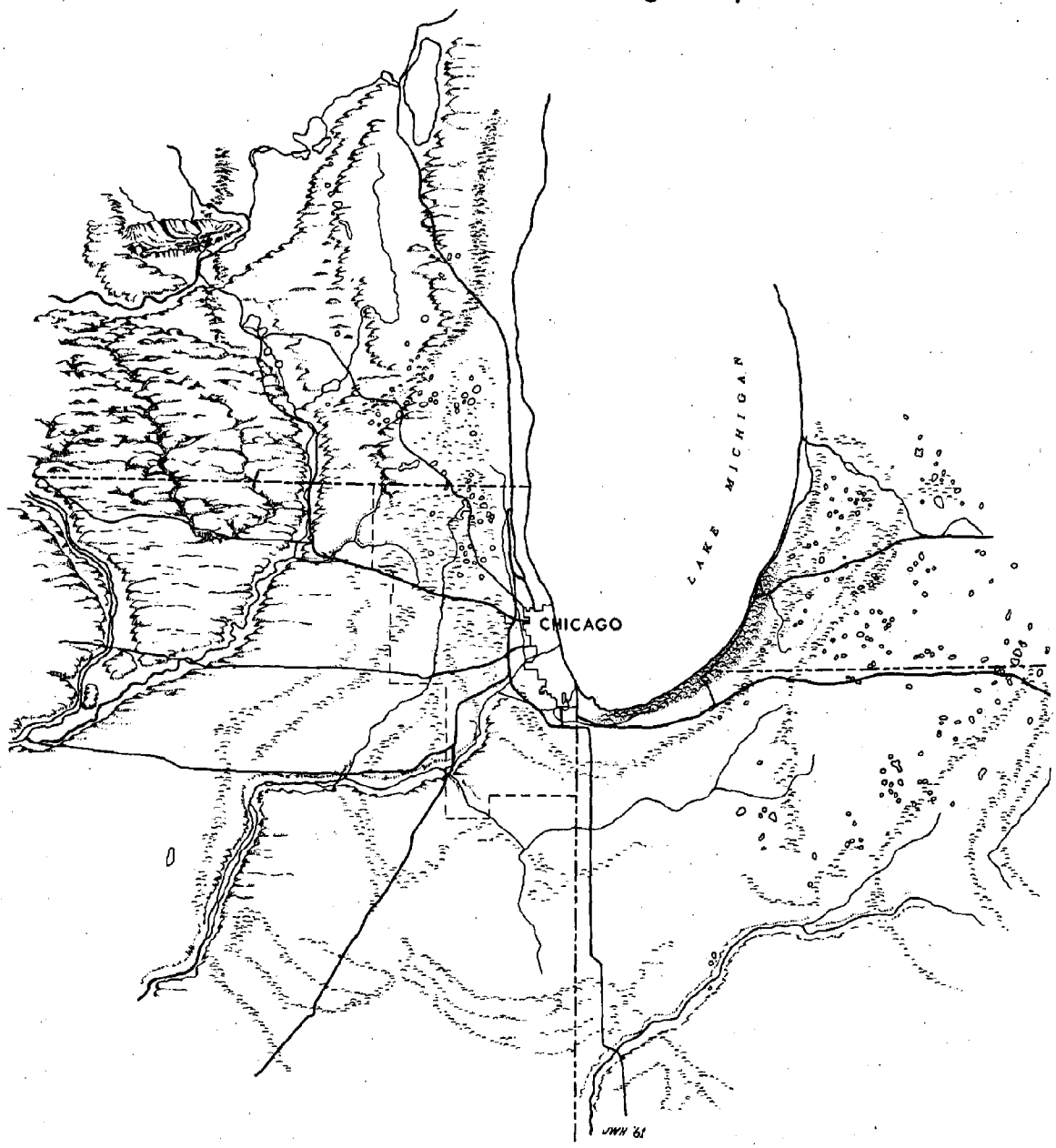


FIGURE D-1

THE CHICAGO REGION

Generalized Physiography and Access Highways



NORTHEASTERN ILLINOIS
METROPOLITAN AREA
PLANNING COMMISSION 1961

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FIGURE D-2

frequent reference to the cold spell, heat wave, thunderstorm, frontal action, midwinter thaw, fickleness of spring, Indian summer. The midwest is a battleground between dry, cool or cold polar air, and moist, warm or hot subtropical air. Monthly averages for Chicago serve to emphasize the monthly range of winter cold and summer heat, the summer rain and relatively dry winter.

In spite of the publicized extremes of seasonable weather, climatic conditions are favorable to outdoor activity, particularly in summer and fall. Local thunderstorms with cloud cover usually of short duration in summer make possible many days of maximum sunshine (75 percent of the possible sunshine, for example, is experienced in an average July). Gentle to fresh breezes prevail. Sultry, oppressive days are broken by cool spells and uncomfortably hot days and nights are the exception rather than the rule. Summer days are long (over 15 hours on June 21) and by advancing the clock, time is available for afterwork daylight pleasures.

Chicago

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year
Temperature 1/	26	27	37	47	58	68	74	73	66	55	42	30	50
Precipitation 2/	2.1	2.1	2.6	2.9	3.6	3.3	3.4	3.0	3.1	2.6	2.4	2.1	33.2

1/Degrees Fahrenheit.
2/Fall in inches of water.

Fall weather is particularly enjoyable, extending through November and at times early December. Winter days are short; ice skating, sledding, and skiing conditions vary from one winter to the next. Spring weather especially is changeable and participation in specific types of outdoor activity fluctuates accordingly.

Local variations in climatic conditions are slight but they have a noted influence on outdoor recreation practices. A sea breeze effect is generated along the shores of Lake Michigan, helping to draw thousands of people to the beaches and waters daily in late July and August. The lake waters of the resort areas to the north and east, as well as small wooded sections, draw off some of the atmospheric heat on a hot summer day, attracting visitors to these areas in search of relief from the oppressive conditions of the congested urbanized area. Fall is particularly delightful along the eastern side of Lake Michigan as the summer-warmed waters retard the cooling of the lower atmosphere until winter finally sets in.

The rural sections of the Chicago region provide a panorama of open-field cultivated crops and pastureland, with small woodlots tucked away almost unnoticed in the background or as narrow strips along the streams. Some of the native forest landscapes are being preserved in State forests and parks, and in county preserves. The dunes area of Lake Michigan is notable for its variety of northern, southern, and semiarid species of trees and grasses. While the region contains no large expanse of forested areas, an attempt is being made by State and county officials to enhance the recreation opportunities of lakes and streams by maintaining a wooded landscape.

THE URBAN SETTING

The Chicago area today is the home of over 6.2 million people engaged in centralized commercial and industrial pursuits. It has an urbanized neighbor immediately to the south and another to the north. Like other large centers of population, the Chicago area has been characterized by rapid growth and outward movement (fig. D-3). Man has superimposed on the shores of Lake Michigan an infinite variety of urban features—of tall buildings in the central core, adjacent blighted residential and industrial areas, well-planned and spacious neighborhoods for residence, commerce and industry, suburban subdivisions, sparsely settled areas. The environment in which most of the people live and work is one of office and factory, apartment and single family home, of store and shop, of street and highway, of concrete, metal, asphalt, brick, and wood. The wage earner typically rides to and from work, spends his day before a machine or behind a desk or counter in a building with artificial light. A large portion of the population engages in sedentary pursuits; modern technology has put the worker indoors and has given him, as well as his family, labor-saving devices to spare physical effort.

Various transportation systems serve the area, transporting people from home to work and shopping center. Rail and bus lines, an elevated and subway mass-transit system, and expressways superimposed on a street and highway network radiate from the central business district toward the suburbs, with bus, rail, highway, and plane penetrating the region and beyond. The Chicago area long has been a midwest center of interconnection for all means of national and international transportation—rail, water, highway, and air. It supports practically every form of trade, commerce, and industry. In short, it contains all the diverse elements that are necessary for the satisfaction of the many demands of an integrated metropolitan society.

The relationship of the city to the suburban section is of fundamental importance in understanding the function of the Chicago area. The city of Chicago is the center of population concentration and the hub of economic activity. The many suburbs are either dormitory, industrial, or balanced. Dormitory suburbs are commonly located within easy commuting distance from the centers of employment in the city or in the outlying area, hence they supply the labor force which employment centers require. Industrial suburbs historically have developed along a series of inner, intermediate, and outer belt rail lines which

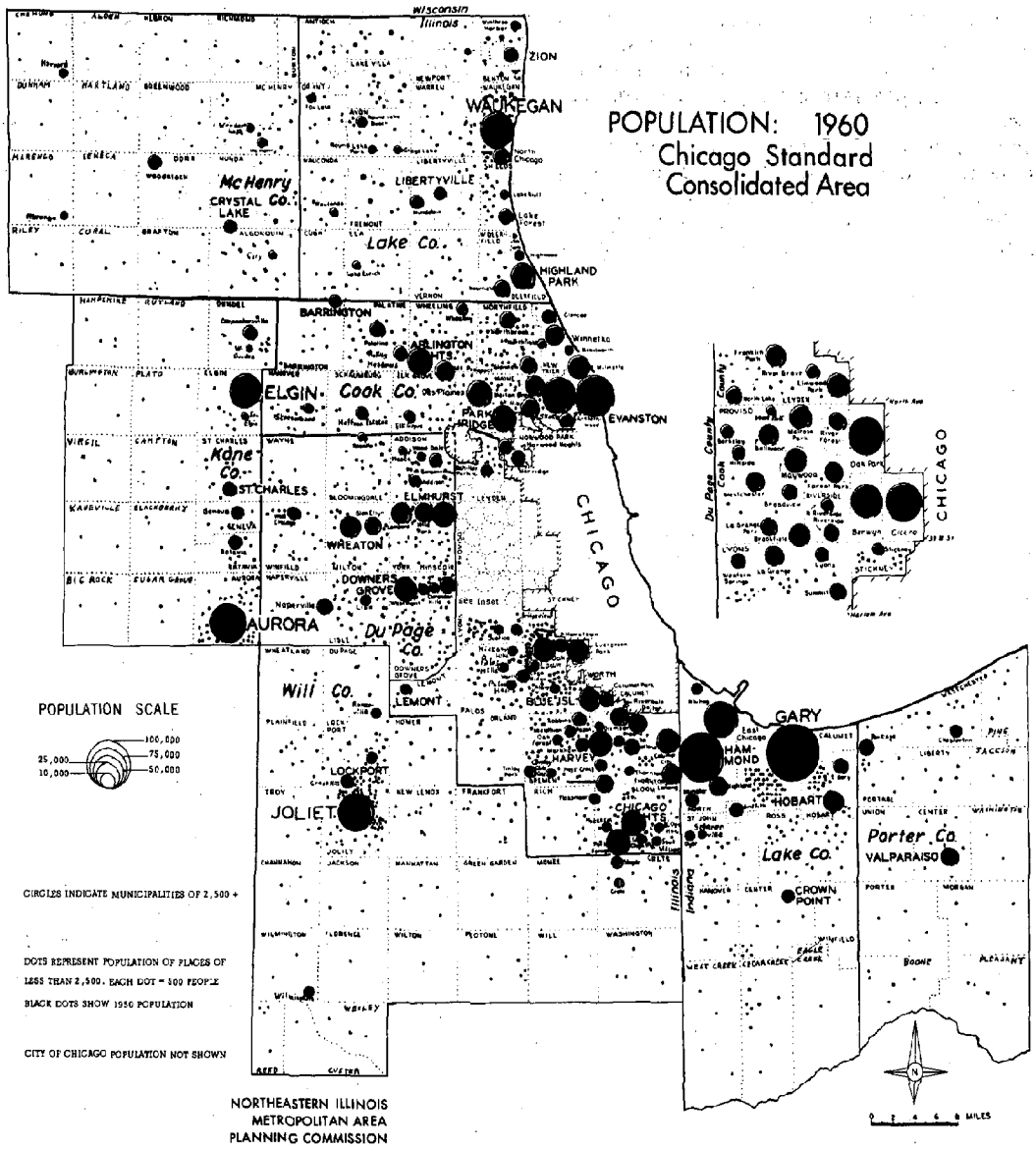

FIGURE D-3

intersect those converging on Chicago, while new ones are being created where access to modern expressways is also possible. Balanced suburban areas exist as centers of mixed industrial, commercial, residential development.

Irrespective of physical location, size, and functional importance of component parts, however, the activities in common are urban, tied together in one metropolitan complex. The individual parts are functionally interdependent, and people and goods move freely across the multitude of political boundaries. It makes little difference whether one lives in the city or in one of the many suburban communities; regardless of loyalty or choice, the forces that determine prosperity, progress, or failure affect all who live and work in the area.

A land use map of the Chicago area, when superimposed on the map of population distribution indicates both central and radial arrangements. The Loop or central business district of Chicago represents the central core around which urbanization has grown to the north, west and south. The major urbanized areas in the suburbs still reflect the influence of the steallarlike pattern of the mass transportation system, but the automobile, bus, and truck increasingly blur former distributions. Interstitial areas close to Chicago and the older ring of inner suburbs are succumbing to continuous urban developments, and outer subdivisions are no longer restricted to locations adjoining the rail lines. Since 1920, the spatial arrangement of residences, industrial and commercial locations have been affected increasingly by the

motor vehicle. At present, the intra- and inter-city bus lines, elevated trains and suburban railroads handle only a small portion of the total internal trips as more and more people turn to highway and expressway travel.

The movement to the suburbs is one of the notable changes taking place in the Chicago area. Today, over 4 out of every 10 people live beyond the incorporated limits of Chicago, and manufacturing and nonmanufacturing jobs have increased steadily in the suburbs. The outward spread of population and urbanized economic activity, however, has not resulted in uniform growth of the entire area. The major share of manufacturing employment and suburban population growth since World War II has taken place in the close-in suburban areas; in fact 70 percent of the suburban population is contained in the inner townships. As yet, the continuous urbanized area is semicircular from which extend sectors of urban development.

CHAPTER TWO

HOW THE RECREATION NEEDS AND PREFERENCES ARE DETERMINED

Recreation activities can be assumed, for purposes of convenience, to be generated by the interaction of two components—demand and supply. This chapter considers the needs and preferences of people in the Chicago area as they relate to the effective demand for outdoor recreation facilities and services; the chapter that follows deals with the supply factor.

Of concern here are the overall needs and preferences for outdoor recreation and for the various types of activities that are generally carried out in areas maximizing natural conditions. The needs and preferences are those that are capable of being translated into recreation activity. For example, a low-income family may have latent recreation desires comparable to families of higher income; however, little use is served in considering such needs since fulfillment is rarely possible. Attention will be directed to participation in outdoor recreation within the limits of probability and the preferences for various forms of outdoor activity that appear capable of being realized.

A study of the present level of demand for outdoor recreation based on needs and preferences of residents of the Chicago area is at the outset confronted with a number of problems. There have been no comprehensive local surveys that consider overall recreation aspirations or habits. There are no historical data that record changes in interests over a period of years. There is lack of definitive data even on the actual use of facilities that exist or on what kinds of people use what types of services. Much of the data available constitute mere estimates of attendance, recorded in piecemeal form for purposes of public utterances and annual reports.

The decisionmakers of recreation programs thus are without benefit of an adequate base of information on which to judge what types of facilities should be provided, where they are needed, and by whom. The success or failure of individual programs depends primarily upon the adequacy of the judgment of those who make the ultimate decisions, and frequently in the case of publicly-provided opportunities upon the relative strength of special-interest groups to get what they want.

In order to judge local needs and preferences for outdoor recreation it is necessary to examine first a number of factors that appear to have a strong bearing on recreation behavior. It is generally assumed by those who write on the subject that variations in outdoor recreation and in preferences for certain types of activity are associated in some way with variations in certain demographic, socioeconomic characteristics of people.

ELEMENTS OF DEMAND

Two national studies of the recreation behavior of the American people have been completed for the Outdoor Recreation Resources Review Commission. A National Recreation Survey by the Bureau of Census, U.S. Department of Commerce, provides valuable data on the incidence and frequency of participation in 20 different types of outdoor activity according to the age, sex, degree of urbanization, region, income, education, and white-nonwhite characteristics of people 12 years and over during the June-August 1960 period. 1/ The Survey Research Center, Institute of Social Research, University of Michigan, in a similar study of outdoor recreation behavior and interests provides statistical information on a past year's performance according to certain subgroup characteristics of the population 18 years of age and older—age, sex, income, education, occupation, length of paid vacation, place of residence and region, stage in life cycle, and white-nonwhite status. 2/

One of the difficulties in ascertaining the elements of demand is well illustrated by the latter study. Even though each of the characteristics tested by the Survey Research Center was found to be significantly associated with variations in activity, when intercorrelated through multivariate analysis it was found that combined they "explain" less than 30 percent of the total variance in outdoor recreation. Admittedly, the measurements of demand are unrefined and crude, and they do not include other factors of importance such as leisure time and mobility differences, but the results serve to emphasize the problem of isolating the major determinants of outdoor activity for predicting future demand on the basis of present knowledge.

A number of other studies have attempted to assess the major elements of demand, some by qualitative inference and some by quantitative methods. Dr. Marion Clawson, probably the most widely quoted writer today in the field of outdoor recreation problems, points to four factors which in his opinion constitute the main components of total demand. 3/ The factors are those involving population, income, leisure and mobility. It is his thesis that a serious imbalance is being created between the demand for and supply of recreation opportunities because the supply is not keeping abreast of the demand which arises from population increase, added buying power,

1/ "National Recreation Survey," September 1960 (ORRRC Study Report 19). Advance statistical tables only available for use from ORRRC.

2/ Mueller, Eva, and Gerald Gurin, "Prospective Demand for Outdoor Recreation," (ORRRC Study Report 26). Ann Arbor: Institute of Social Research, the University of Michigan, April, 1961.

3/ Clawson, Marion, "The Crisis in Outdoor Recreation." Washington: Resources for the Future, Inc., 1960. Reprint No. 13, pp. 9-10.

increasing leisure time and ease of travel. In assessing the magnitude of the future potential demand, Dr. Clawson gives approximate equal weight to each of the four elements.

Of particular interest to the study at hand are the conclusions reached in separate surveys of recreation activities in two of the large metropolitan areas of the midwest. The Detroit Metropolitan Area Regional Planning Commission in summarizing the results of a recent survey of daylong recreation activity, selected four variables which appeared to be most closely related to variations in the use made of regional parks by residents of the Detroit area. The factors chosen were income, occupation, age, and ownership of private facilities. 4/ In a similar study, the Cleveland Regional Planning Commission concluded that age and place of residence were the two most important factors in assessing present and future use of the metropolitan parks in the Cleveland area. 5/

A complementary approach to the problem has been made by probing for reasons why people are not as active in outdoor recreation as they would like to be. To those adults who did not participate or who stated a desire to be more active in outdoor recreation, the Survey Research Center in its survey posed the question, "What was it, mainly, that prevented you from doing them last year?" The most common answer given was lack of time, with other major reasons being the expense involved, old age or ill-health, lack of accessible facilities, and family ties. The Detroit Regional Planning Commission also asked nonusers of Detroit regional parks essentially the same question, and after analyzing the results concluded that overcrowded facilities, heavy traffic, and lack of time were the major hindrances.

While it is obvious that a concise definition of the elements which influence recreation behavior cannot be given as yet, certain guidelines are available for qualitative judgment. Outdoor recreation is one form of leisure-time use; hence the amount and character of leisure time has an important bearing on the time, place, and amount of outdoor activity. Again, since outdoor recreation requires expenditure of money for reaching and using recreation facilities, and preferences among types of activities are shaped according to relative cost, the level of demand is shaped by income characteristics. In addition, age and sex, as measures of differences in physical energy and interests, must also be given consideration. (The Survey Research Center found, for example, that of all the individual factors examined for both male and female groups, age had by far the largest and most significant relationship to differences in recreation activity.)

As the exploratory stages of this study of the Chicago area progressed, the various elements of demand for outdoor recreation as outlined above were considered on the basis of local evidence. Expressions of judgment also were solicited from leaders in recreation programs. There was consensus, for example, that age and income status were significant variables. It was also noted that differences in recreation activity and attitudes appeared to exist among people according to place of residence. The matter of racial or ethnic character, while difficult to assess, appeared of lesser importance than other characteristics of the population, but with relevancy in certain ways. And as qualitative assessment of the characteristics of local recreation behavior progressed, it became obvious that the distribution and quality of existing opportunities for outdoor recreation must be considered.

OUTDOOR RECREATION AS LEISURE TIME ACTIVITY

The Survey Research Center Survey provides an insight into the present-day role of outdoor recreation as a leisure time activity. As might be anticipated, adults as well as children tend to spend most of their leisure time on activities which require less advance preparation or unusual expense—watching television, listening to the radio, visiting with friends or relatives, reading, working in the yard or gardening, and participating in social affairs of the community. The survey also provides some measure of the importance of outdoor recreation as a leisure-time use. It was found, for example, that 9 out of 10 persons nationally engage in at least some outdoor activity during a period of a year, although only a little over 2 out of 5 adults engage in 4 or more different types. Most of the people surveyed also expressed a desire to do more than they did previously.

The two national surveys provide a statistical measure of the extent of national and metropolitan participation and aspirations in outdoor recreation. A tabulation of summary data is presented in tables D-1, D-2, and D-3. Caution must be expressed in drawing comparisons between survey findings, however—the National Recreation Survey is based on a sample of

Table D-1. National participation and desire for greater participation in 11 selected outdoor activities

Activity	Percent participating			Percent wishing more
	Total	Often	A few times	
Driving for pleasure	71	47	24	13
Picnicking	66	31	35	10
Outdoor swimming	45	26	19	14
Fishing	38	20	18	21
Boating and canoeing	28	12	16	11
Hiking	19	8	11	5
Hunting	17	9	8	10
Camping	15	6	9	13
Nature walks	14	6	8	4
Horseback riding	7	3	4	12
Skiing, other winter sports	6	2	4	5

Source: "Prospective Demand for Outdoor Recreation," pp. 6 and 11 (ORRRC Study Report 26). Percentages based on a sample of 2,759 persons of age 18 and over with interviews conducted in November 1959 and May 1960.

4/ Staff, "Home Survey of Regional Recreational Activities." Detroit: Detroit Metropolitan Area Regional Planning Commission, January 1960, pp. 7-10.

5/ Staff, "Preliminary Report to the Cleveland Metropolitan Park Board." Cleveland: Regional Planning Commission, August 3, 1960, p. 9.

activity during the 3 summer months of 1960 for persons 12 years of age and over; the Survey Research Center study provides data on persons 18 years and over for a past year of outdoor activity.

Survey results indicate that the overall recreation behavior of urban residents of large metropolitan areas is not markedly different from that of all residents of the Nation. The most important in both cases are pleasure driving and sightseeing, picnicking, and swimming. Intermediate in position are such activities as walking, outdoor games, fishing, and boating. The types of activity least participated in are hunting, camping, horseback rding, and winter skiing. Residents of large metropolitan areas, however, do evidence differences in participation rates among specific types of outdoor recreation (table D-2). Residents of highly urbanized areas, for example, tend to participate more in the less strenuous forms of recreation such as sightseeing, picnicking, swimming (ability to swim was not a criteria), pleasure walking, and nature study, and somewhat less in fishing, camping, horseback riding, and hunting. The latter activities, it might be pointed out, however, are more difficult to carry out in an urbanized environment because of practical problems in providing suitable facilities in easily accessible locations.

Table D-2 also provides information on the recreational behavior of residents in the large standard metropolitan areas of the midwest (Chicago, 6/ Minneapolis, St. Paul, St. Louis, Cleveland and Detroit). The residents of the latter combined areas reflect the characteristics noted above of participating more in activities that are less strenuous and somewhat less in activities requiring nonurban, open-space type facilities. In fact, the tendency to pursue passive types of outdoor activity is even more apparent among residents of the large midwest metropolitan areas. However, participation in certain of the other types of outdoor recreation is also somewhat greater in the midwest.

The National Recreation Survey also provides data on preferences for certain types of outdoor recreation. Table D-3 data summarizes the preferences stated generally and for short-term, day and weekend trips. Some of the differences according to time of recreation are quite marked. While pleasure driving, pleasure walking, and playing games are preferred most where 2-3 hours are available, sightseeing is a weekend (and vacation) activity. Picnicking is most preferred on day outings while swimming, fishing, and boating are preferred on day and weekend outings alike. Consistent with recreation participation results, residents of highly urbanized areas in the midwest tend to prefer less strenuous activities such as pleasure driving and picnicking during outings.

In summary, while the residents of the large metropolitan areas of the midwest, including the Chicago area, are not markedly unlike people throughout the Nation in outdoor activity, certain differences do exist. A tendency to select activities that are somewhat more passive is exhibited not only in terms of participation but also in preferences, and this tendency is particularly notable in the case of short-term, day and overnight outings. Explanation of these differences may be

6/The Chicago standard metropolitan area in this case is based on the 1950 census definition of five northeastern Illinois counties plus Lake County, Ind.

Table D-2. Participation in selected outdoor activities, summer period 1960: United States, all large metropolitan areas; large metropolitan areas in north-central region

Activity	Percent participating			Days per participant			Days per person		
	United States		N.C.R.	United States		N.C.R.	United States		N.C.R.
	Total	Large SMA's 1/	large SMA's 1/	Total	Large SMA's 1/	large SMA's 1/	Total	Large SMA's 1/	large SMA's 1/
Driving for pleasure	52	52	60	12.7	12.0	15.0	6.68	6.23	9.01
Sightseeing	42	42	49	5.2	6.2	7.9	2.20	2.59	3.87
Picnicking	53	52	54	4.0	4.6	4.6	2.14	2.41	2.47
Swimming	45	52	46	11.5	11.4	10.9	5.15	5.95	5.00
Walking for pleasure	33	45	38	13.1	15.8	15.5	4.34	7.13	5.88
Playing outdoor games	30	33	36	12.3	12.5	13.5	3.63	4.11	4.85
Attending outdoor sports	24	23	26	5.5	5.3	7.4	1.32	1.23	1.93
Fishing	29	20	22	6.9	4.9	5.8	1.99	.97	1.28
Boating	22	18	19	5.5	6.4	6.4	1.22	1.16	1.21
Nature walks	14	15	17	5.2	6.1	5.2	.75	.92	.88
Camping	8	5	6	5.7	6.0	(2/)	.46	.30	.38
Hiking on Trails	6	7	6	4.4	4.4	(2/)	.26	.31	.26
Horseback riding	6	5	5	7.5	3.6	(2/)	.42	.18	.17
Water skiing	6	4	5	5.1	6.0	(2/)	.30	.24	.15
Hunting	3	1	2	5.6	(2/)	(2/)	.19	.03	.08

1/Data are for the urban portion of the population residing in metropolitan areas of over 1 million.
2/Insufficient sample size.

Source: "National Recreation Survey" advance sheets. Data based on an adjusted sample of 4,409 persons of 12 years of age and above with fieldwork in September 1960. The "Days per participant" represent the accumulated number of reported days of participation divided by the number who reported any participation. The "Days per person" are the accumulated number of days of participation divided by the number of persons interviewed.

Table D-3. Preferences for selected outdoor activities, summer period 1960: United States, all large metropolitan areas; large metropolitan areas in north-central region (percent indicating some preference)

Activity	General			2-3 hours			Day outings			Weekend trips		
	United States		N.C.R. large SMA's	United States		N.C.R. large SMA's	United States		N.C.R. large SMA's	United States		N.C.R. large SMA's
	Total	Large SMA's		Total	Large SMA's		Total	Large SMA's		Total	Large SMA's	
Driving for pleasure	25	25	29	15	11	16	4	4	5	7	7	7
Sightseeing	18	17	17	2	3	4	7	7	6	18	17	22
Picnicking	33	33	33	3	2	3	31	29	30	4	4	5
Swimming	42	52	44	10	10	12	14	20	14	14	19	9
Walking for pleasure	11	17	11	10	15	12	2	3	2	1	2	1
Fishing	33	20	29	5	1	1	11	4	7	13	7	12
Boating	11	9	10	1	1	1	3	2	1	3	2	2
Camping	10	7	7	(1/)	(1/)	(1/)	(1/)	(1/)	(1/)	4	3	3
Hunting	10	4	7	1	(1/)	(1/)	1	(1/)	(1/)	1	(1/)	(1/)
Playing outdoor games	8	9	11	11	10	10	5	7	8	3	3	4
Attending outdoor sports	11	11	12	2	2	4	1	1	1	2	1	2
No preferences	...	...	...	22	21	20	15	15	19	25	28	28

1/Less than 0.5 percent.

Source: "National Recreation Survey" advance sheets.

found to be associated with certain of the characteristics of urbanized people, and in the comparative availability of facilities in and around large centers of population for outdoor recreation.

OUTDOOR RECREATION AND AGE AND SEX

Both national surveys demonstrate clearly that age differences have strong association with differences in the amount of outdoor activity, and that age as a life-cycle change in interests and physical ability gives rise to changing preferences for types of outdoor recreation. Overall activity, for example, declines with advancing age, and preferences for the less active forms of outdoor recreation become stronger.

The overall decline in participation by age is somewhat gradual through the 45-54 age group; a noticeable drop occurs in the 55-64 class and is markedly less for those 65 years of age and over. Not all of the activities, however, follow the general pattern of decline because preferences for certain activities remain stronger than others. For example, a sharp decline in participation after age 24 takes place in skiing and in horseback riding. And after age 44 somewhat greater decline is noted in swimming. It is noted, on the other hand, that among adults, pleasure walking activity shows little decline with age, and that up to age 45 there is very little if any decline in camping, picnics, pleasure driving, and hiking.

The rates of participation in outdoor activity among those between the ages of 12 and 18 reflect the excess energy of early age. Adolescents of these ages and younger children not only share in joint family endeavors but also are active individually or in programs carried out by youth-group organizations. Since young children lack experience and maturity, their interests and activities are more organized and protected.

A comparison of the age composition of the Chicago area population to that of the Nation as a whole and to that of the combined population of four other large midwest metropolitan areas is provided in table D-4. As these data indicate, the Chicago area has a somewhat smaller portion of its population in the youth age groups and a slightly higher share of advanced middle-age adults. The differences suggest that the demand for outdoor recreation in the Chicago area is weighted somewhat more toward the interests of adults 35 to 65 years of age. This overrepresentation of an older age group, therefore, would imply that Chicago area residents overall perhaps have even greater preferences for the more passive forms of outdoor activity that require less specialized effort and physical energy than data indicate in tables D-2 and D-3.

Table D-4. Percent of 1960 population by age groups: United States, the Chicago area, and four large Midwest metropolitan areas combined

Age group	United States	Four Midwest 1/ metropolitan areas	Chicago area
Under 5	11.3	12.2	11.4
5 to 9	10.4	10.8	9.9
10 to 14	9.4	8.9	8.3
15 to 19	7.4	6.5	6.5
20 to 24	6.0	5.6	5.8
25 to 34	12.7	13.3	13.3
35 to 44	13.4	14.1	14.4
45 to 54	11.4	11.5	12.4
55 to 64	8.7	8.8	9.4
65 and over	9.2	8.3	8.6

1/The standard metropolitan statistical areas of Detroit, Cleveland, St. Louis, and Minneapolis-St. Paul.

Source: "1960 Census of Population, Advance Reports," Series PC (A2), Bureau of Census, U.S. Department of Commerce, 1961.

Survey data also show that men tend to engage in outdoor recreation more than women. The overall variance is not characteristic of all types of outdoor activity, however, because striking differences are found only in the case of hunting and fishing which are still predominately "masculine activities." Further study of variations in outdoor recreation among residents of the Chicago area does not appear to be warranted in this case. In 1960, 48.3 percent of the Chicago area population 18 years of age and over were men; for the Nation it was 48.4, and for the other large midwest metropolitan area it was 47.7. The variations, therefore, are probably too slight to be significant in outdoor recreation attitudes.

OUTDOOR RECREATION AND INCOME

Income differences, like those of age, exhibit certain associations with the amount and kinds of outdoor activity, although except for marked differences between the low-income and middle-income group, the relationship does not appear to be as strong as in the case of age.

The incidence of participation nationally is lowest among the low-income segment of population and rises with increasing income up to the upper income group where participation tends to drop. Increased participation in outdoor recreation appears to be more a result of increased financial ability rather than a change in interest in specific types of outdoor recreation, since the participation rates for all types of recreation are progressively upward. Notable exceptions to this, however, are found in fishing and hunting where the percent participating changes relatively little except between the two lowest income groups, and in horseback riding where participation continues to rise through the upper income group.

Some of the differences between income groups, of course, reflect characteristics of other factors. Education and occupation differences appear to be related to recreation behavior, although both tend to be reflected in income differences. Again, low activity by the lowest income group and perhaps the dropoff in activity in the highest income class probably is attributable in part to the disproportionate number of older people in these groups. However, income is an important element of demand in itself as well as reflecting class-style interests and preferences.

Chicago area residents overall enjoy a higher per capita and per household effective buying income than do the residents throughout the Nation as well as the residents in the other large midwest metropolitan areas (table D-5). More important to outdoor recreation activity, compared to these metropolitan areas, the Chicago area has a consistent overrepresentation of households with incomes $7,000 and above with lesser representation of households of lower income (table D-6).

The figures presented are disposable incomes and not real income or purchasing power. The U.S. Department of Labor provides a meaningful comparison of the relative cost of living in a number of cities over the Nation. 7/ The comparison is based on the annual cost of a city worker's family budget providing a "modest but adequate" level of living for a four-person family. Based on autumn 1959 costs, annual budget costs among the midwest metropolitan areas range from a high of $6,567 (Chicago) to a low of $6,072 (Detroit). Hence the relative purchasing power of the Chicago dollar is something less than household or per capita income comparisons would indicate.

7/ U.S. Bureau of Labor Statistics, "The Interim City Worker's Family Budget," Washington: "Monthly Labor Review," August 1960, pp. 785-808.

Table D-5. Effective buying income estimates, 1960

Metropolitan area	Per capita income	Per household income
Chicago	$2,568	$8,190
Cleveland	2,475	8,012
Detroit	2,327	8,101
St. Louis	2,217	7,214
Minneapolis-St. Paul	2,117	7,125
United States	1,974	6,723

Source: "Sales Management," May 1961. The Chicago metropolitan area is the six-county northeastern Illinois area. Effective buying income is disposable income.

Table D-6. Distribution of household income by income classes, 1960: large midwest metropolitan areas and United States (percent)

Metropolitan area	Under $2,500	$2,500-$3,999	$4,000-$6,999	$7,000-$9,999	$10,000 and over
Chicago	7.8	13.8	39.9	20.1	18.4
Four Midwest SMAs	8.6	14.6	41.6	19.8	15.4
United States	14.9	20.6	37.3	15.5	11.7

Source: "Sales Management," May 1961. The four metropolitan areas are Cleveland, Detroit, St. Louis, and Minneapolis-St. Paul, combined.

OUTDOOR RECREATION AND RECREATION OPPORTUNITIES

It was previously suggested that differences in the relative availability of opportunities for outdoor recreation on day and overnight outings may explain in part the tendency of the residents of the midwest metropolitan areas to participate to a somewhat greater degree in outdoor activities of a more passive nature. The question is raised, therefore, as to the relative position of the Chicago area in the provision of space for outdoor activity.

A comparison of acreage of public recreation areas in or near the Chicago area with that of five of the largest metropolitan areas of the United States provides a clue to the comparative availability of opportunities. The public recreation land included in table D-7 for this comparison is that which is located within a 60-mile radius of the center of each central city or cities. Public hunting and shooting grounds and game or fish preserves are excluded in the data presented. On a per capita basis, the Chicago area stands last on the list with less than 12 acres per

Table D-7. Public recreation acreage per 1,000 persons: seven largest U.S. metropolitan areas

Metropolitan area	Acres	Acres per 1,000 persons
Chicago:		
Federal	....	....
State	16,170	2.2
County and Municipal	70,800	9.4
Total	86,970	11.6
San Francisco-Oakland:		
Federal	493	0.1
State	39,125	10.2
County and Municipal	35,940	9.3
Total	75,558	19.6
Detroit:		
Federal	14	....
State	60,912	11.9
Metropolitan, county and municipal	33,509	6.5
Total	94,435	18.4
Boston:		
Federal	14	....
State	81,710	14.7
County and municipal	16,323	2.9
Total	98,047	17.6
New York-Philadelphia:		
Federal	1,806	0.1
State	273,593	12.1
County and municipal	112,522	5.0
Total	387,921	17.2
Los Angeles:		
Federal	1,249,657	163.4
State	5,493	0.7
County and municipal	28,652	3.7
Total	1,283,802	167.8

Source: Summary data for metropolitan areas other than Chicago obtained from Marshall, James, "Interim Report: Proposed State Parks in Fox River Valley," Hansen, Schneeman & Associates, 1961. Study prepared under contract with Department of Conservation, State of Illinois.

1,000 people. The second lowest, the New York-Philadelphia complex, has over 17 acres per 1,000 people. The Chicago area ranks well below other large metropolitan areas in existing public facilities for outdoor recreation, including the Detroit area, the second largest midwest metropolitan area. While the quality of opportunities for outdoor activity cannot be assessed on the basis of physical quantity of land alone, a comparison such as this does suggest strongly that the Chicago area by comparison is lacking in outdoor recreation opportunities. And as the data indicate, the deficiency is found in facilities provided above the county level of ownership and control.

Another evaluation of existing recreation opportunities for daylong use in 66 primary sampling units in the United States, is provided through a study by the Outdoor Recreation Resources Review Commission. 8/ The units are those from which the Survey Research Center drew a sample of respondents for the national study of outdoor recreational activities; hence it provides a measure of comparison of the Chicago area to other representative areas of the Nation. Five selected raters as leaders in the field of recreation 9/ were asked to independently evaluate each of the sampling units on the basis of quantity and quality of physical resources (regardless of ownership type), accessibility and development of these resources, and the relative degree of use made of such resources.

While the ORRRC staff express reservations on the results, suggesting that much of the observable difference in rates given for different places could be due to errors arising out of the subjectiveness of rating categories and from differences in rater knowledge of each area, the overall findings are quite consistent with the previous comparison. In physical resources, Los Angeles, Detroit, and Boston are in the highest rank, followed by New York, San Francisco, and Philadelphia. Chicago is in the lowest rank group. In access and development, again the Chicago area, by being in the lowest group with Detroit and Los Angeles in the highest group, suffers by the comparison. In use of resources, however, San Francisco and Chicago are included in the second highest rank, just below Detroit and other large metropolitan areas which are in the highest rank.

A comparison of Chicago with the other large centers of the midwest provide similar results. While Chicago alone ranks last in physical factors, access, and development, all but St. Louis are ranked in the highest or next to highest group. In use made of the resources, however, Chicago ranks even with St. Louis in the second highest group with the other three being in the highest categories. Hence differences in use made of resources are much less notable than differences in recreation opportunities.

Despite the experimental nature of the study and its inherent shortcomings, the results are consistent with the comparative measure of acreage to population that the Chicago area is deficient in the supply of existing opportunities for day outings compared to other large metropolitan areas. It is also apparent that the rating group believes that recreation facilities in and around the Chicago area are intensively used despite deficiencies in overall quality.

OUTDOOR RECREATION AND MOBILITY

In modern society, individual or family mobility commonly is expressed in terms of car ownership. Such a measure is particularly significant to a study of outdoor recreation carried out on day and overnight outings, because use of a car provides greater flexibility and personal convenience than does mass transit.

8/ Staff, "Evaluation of Recreational Opportunity at 66 Primary Sampling Units." Washington: Outdoor Recreation Resources Review Commission, October 1960. Staff Working Paper No. 15.

9/ The U.S. Forest Service, The Soil Conservation Service, The National Park Service, The Bureau of Sport Fisheries and Wildlife, and The National Recreation Association.

Examination of compiled statistics of passenger cars on the road for selected counties throughout the Nation indicates that Cook County (by far the most populated county in the Chicago area) has a lower ratio of cars per person and household than for the Nation as a whole, and for any of the central counties of the four other large metropolitan areas of the midwest. While the data available do not measure car ownership per household or family (taxis are included), there is strong suggestion that personal mobility is less in the Chicago area.

A comparison between Detroit and Chicago is helpful in this regard. As table 8 data show, the incidence of car ownership is higher in the Detroit area (0.94 cars per dwelling place) than for the Chicago area (0.81). Hence it appears that participation in pleasure driving and sightseeing is less in the Chicago area than figures for the large metropolitan areas in the north-central region would suggest. Further, day and overnight outings away from home where use is made of the automobile would tend to be less per unit of population—boating and camping, for example, involve the use of the automobile to transport the personal equipment needed.

OUTDOOR RECREATION AND PLACE OF RESIDENCE

Even more significant to our study is the comparison between the incidence of car ownership according to place of residence in the Detroit and Chicago areas. The overall difference in car ownership previously noted is almost entirely the result of differences between the two central cities themselves. The number of cars per dwelling unit for the city of Chicago is 20 percent below that for the city of Detroit, yet only a slight difference exists between the two suburban areas—in fact, that which is indicated in table D-8 probably is accounted for by the inclusion of a larger outlying section in the Chicago area study, a section which has the highest rate of car ownership, and by the difference in the year in which data were collected.

Mobility as a factor in outdoor recreation, therefore, has a high relationship to place of residence. City of Chicago residents have less overall personal mobility than suburban residents, and in part because of mobility limitations have tended to develop recreation behavioral patterns and interests which differ somewhat from those who live in the suburban sections.

Certain other differences by place of residence appear to have significance to recreation behavior. Table D-8, for example, provides a significant comparison between car ownership and density of living. While car ownership per dwelling unit is 20 percent less in the city of Chicago, the net residential density is 2 1/2 times greater than that in Detroit. In the suburban areas, again, there is little difference in density of living and in the rate of car ownership. Mobility has an inverse relationship to density of living in both study areas, but it is the people who live in highly congested areas of the city of Chicago that are least mobile of all. In this sense, then, the residents of Chicago have less ability in reaching outdoor recreation facilities outside the city. And since high density areas by their character have few facilities for outdoor recreation, substitute forms of recreation facilities and alternative types of activity tend to become more important.

Table D-8. Car ownership and density, Chicago and Detroit study areas

	Chicago (1956 data)			Detroit (1953 data)		
	City	Suburbs	Total	City	Suburbs	Total
Car ownership per dwelling place	0.68	1.14	0.81	0.85	1.11	0.94
Net residential density (dwelling places per net residential acre)	53.3	4.9	14.4	21.4	4.6	9.4

Source: Hamburg, John R., "A Comparison of Car Ownership and Density—Chicago and Detroit." "C.A.T.S. Research News," vol. 2, No. 15, October 3, 1958, table 1, p. 3.

Notable income differences by place of residence within the Chicago area are also found to exist. According to a consumer survey of households in 2 1/2 counties of the Chicago area, the median income reported for households in Chicago was $5,880 as against $7,860 for those in the suburban area (table D-9). In fact, about one-third of the Chicago households have incomes of less than $5,000 as compared to one-ninth of the suburban households. It was pointed out previously that survey data indicate that the low-income segment of the national population participates less in outdoor recreation than all other income classes; for the Chicago area partial explanation of lower participation by the low-income group may be that a high proportion of the population with lower incomes live in areas of high density which provide fewer amenities for outdoor recreation. As table D-10 data indicate further, however, Chicago dwellers overall and regardless of income status tend to have less personal mobility than their suburban counterparts.

The relationships evidenced among the factors given above suggest that a combination of characteristics is associated with place of residence within the Chicago area, with these associations having an effect on outdoor recreation behavior and interests. People in the

Table D-9. Annual household income distribution by income groups, 1960 (Chicago and suburban study area)

Household income	Chicago (percent)	Suburban[1/] (percent)	Total area (percent)
Under $3,000	12.0	3.2	9.2
$3,000 to $4,999	21.6	8.2	17.4
$5,000 to $6,999	31.0	27.2	29.8
$7,000 to $9,999	22.4	33.3	25.8
$10,000 to $14,999	9.6	19.0	12.6
$15,000 and over	3.4	9.1	5.2
Median Income	$5,880	$7,860	$6,500

[1/]Suburban section includes Cook County (outside Chicago), all of Du Page and the southern one-half of Lake Counties.

Source: "Consumer Analysis," 1960. Chicago: Field Enterprises, Inc., 1960, p. 212.

Table D-10. Average number of cars owned per household, 1957 and later (Chicago and suburban study area)

Household income	Chicago				Suburban				Total area			
	1957	1958	1959	1960	1957	1958	1959	1960	1957	1958	1959	1960
Under $5,000	.53	.52	.48	.45	.88	.84	.83	.86	.58	.56	.52	.50
$5,000 to $9,999	.93	.93	.89	.89	1.15	1.15	1.13	1.15	1.00	1.01	.97	.98
$10,000 and over	1.27	1.18	1.22	1.21	1.53	1.45	1.48	1.46	1.39	1.31	1.35	1.33
Average	.80	.79	.78	.78	1.18	1.18	1.19	1.20	.91	.91	.91	.92

Source: "Consumer Analysis." Chicago: Chicago Daily News, Inc., 1959 and earlier years; Field Enterprises, Inc., 1960. See notation at bottom of table D-9 for definition of suburban area.

city, living in high density residential areas, find it more difficult to take advantage of outdoor recreation opportunities. Interests tend to become directed not only to the types of facilities provided in an urban setting, but also to those that are within easy reach for day outings (in the case of Chicago, the water and beach facilities of Lake Michigan and the close-in sections of the county forest preserves). At the same time, alternative forms of recreation are practiced—e.g., walking around the block instead of through the woods, going to ball games, engaging in recreation indoors. By contrast, residents in the suburban sections of the Chicago area with larger lots and more homeownership tend to engage in outdoor activity "within the sidewalk" but at the same time have greater flexibility in movement and in exercise of outdoor recreation choices.

RACIAL CONSIDERATIONS

National surveys indicate that nonwhites have a relatively low scale of participation in outdoor recreation. This difference in large part is believed to be a reflection of other characteristics, such as income, relative availability of recreation facilities, and place of residence. Since the Chicago area has a higher proportion of Negroes in its population than the four other large midwest metropolitan areas combined (14.8 percent compared to 12.7 percent), further attention to the racial factor is warranted.

In the Chicago area, a disproportionate number of Negroes are of low or low-middle income, living primarily within the city of Chicago in relatively high density areas. Barriers to use of outdoor opportunities at some distance from residential neighborhood are indicated by the close correlation among high density, low income, and low personal mobility. And segregation by residential neighborhoods has tended to encourage separation in use of local public recreation facilities.

Negroes and Caucasians together utilize certain sections of the Cook County forest preserves (e.g., the Wolf Road area of the Palos Division), picnicking, fishing, and relaxing in peace. In other parts of the preserve, they may engage in recreation as separate groups. Parts of the beach area along Lake Michigan are occupied by both races, although for the most part segregation of lakefront activity occurs. Conflicts arise from time to time, particularly where teenagers of different groups meet. Generally, conflicts develop when Negroes begin to use certain facilities that traditionally have been used only by whites. The more serious difficulties in use of local facilities seem to occur when residential neighborhoods change in occupancy status.

The Negro in Chicago in general is recently removed from, or one generation away from the South. His participation in outdoor recreation obviously is influenced by his southern rural experiences, modified by the urban environment which now surrounds him. The National Recreation Survey findings indicate that the most popular outdoor activities among southern Negroes in terms of participation rates are fishing, hunting, pleasure walking, and attending or participating in outdoor sports events. They are low participators in such activities as boating, camping, sightseeing, pleasure driving, and horseback riding. In the Chicago area, few Negroes are observed participating in boating, camping, and horseback riding. Car ownership per Negro family probably is much higher in Chicago than in the South, and pleasure driving is proportionately greater. But because of the expense and general lack of facilities, hunting activity appears to be unimportant in the Chicago environment.

Fishing and picnicking, and particularly swimming among the young, are important recreation activities among the Negro segment of the Chicago population. Uses of parks and playgrounds include organized sports, and attendance is heavy at sporting events (particularly baseball). While the Negro does participate to a lesser extent in outdoor recreation, his activities and interests also tend to reflect the interests of the low-income, inner city population. The younger generation is more aggressive than his peers in asserting his rights to the use of existing recreation facilities, and through red-feather agencies and other semipublic and private organizations, the youths are acquiring new interests and skills in swimming, camping, nature study, and the like. Limited groups of adults and families are observed during weekends and vacation periods at camps or resorts within the Chicago region; some boating by Negro groups is being done on Lake Michigan and at certain inland lakes.

CHARACTERISTICS OF WEEKDAY RECREATION

Further comparison with the Detroit study area provides a basis for bringing into sharper focus the characteristics of weekday recreation activities in the Chicago area. Table D-11 data provide an insight into characteristic habits of a recent period, for an

Table D-11. Average weekday internal person trips generated per acre of public open space by distance rings, Chicago and Detroit study areas

Chicago area (1956 data)			Detroit area (1953 data)		
Ring	Average distance	Internal trips per acre of p.o.s.	Ring	Average distance	Internal trips per acre of p.o.s.
0	0.0	98	0	0.0	....
1	1.5	29	1	0.2	29
2	3.5	26	2	2.0	10
3	5.5	28	3	4.5	3
4	8.5	14	4	7.5	8
5	12.5	6	5	10.5	3
6	16.0	2	6	16.5	2
7	24.0	2			

Source: "Detroit Metropolitan Area Traffic Study," part 1, July 1955, table 14, p. 41; "Chicago Area Transportation Study," vol. I., Survey Findings, table 10, p. 64, December 1959. J. D. Carroll, Jr., director of both studies.

average Monday through Friday weekday, by comparing daily internal trips (regardless of mode of travel other than walking) per acre of public and quasi-public open space by distance rings from the center of Chicago and Detroit. Public open space as defined in the studies on which the data are derived include the land acreage of parks and playgrounds, forest preserves or regional parks, golf courses, swimming pools, botanical or zoological gardens, race tracks, ball parks, other outdoor amusement centers, cemeteries, etc. Except for cemeteries, the open space categories represent all types of public outdoor activity facilities, including outdoor recreation as defined in this study.

As the data indicate, the number of weekday internal person trips per acre of public open space in the inner rings of the Chicago area is considerably higher than in Detroit but not much different in suburban rings of comparable distance. This is consistent with evidence previously presented that overall more intensive use is made of recreation facilities in and around the Chicago area than for other large metropolitan areas.

The more intensive use of public open space in the high density areas of Chicago, of course, could be the result of a lower ratio of open space acreage to population numbers. That is, the factor of high density by itself is the explanation of the greater number of person trips. That this is not the case, however, is evidenced by data presented in table D-12. The high density areas of the city of Chicago have about the same amount of open space acreage per 1,000 population as the city of Detroit (in fact, the innermost ring of Chicago has a much higher ratio), yet the number of trips per acre of open space is much higher. Thus people in the high density areas of Chicago make more intensive use of local open space, by far the largest part of which is devoted to recreation, for short-term weekday use.

A survey of the characteristics of trip purposes by destinations in the Chicago area by the C.A.T.S. organization provides a clue as to the importance of outdoor recreation during the average workweek day during the warm season of 1956. Of the 9.9 million daily internal person trips, 1.8 percent were destined to indoor amusement and recreation places and 3.1 percent to public, quasi-public open space.10/ As expected, open space facilities of all types are more important trip generators on the average warm-season workweek day than indoor recreation centers.

The origin and destination of recreation trips to all open space areas are graphically illustrated in figure D-4, with those going only to parks, forest preserves,

10/Staff, "Chicago Area Transportation Study," vol. 1, Survey Findings, December 1959. Data for computations obtained from table 24, p. 114, and table 36, p. 119.

Table D-12. Comparison of public open space and population distribution by distance rings, Chicago and Detroit study areas

Chicago area (1956 data)			Detroit area (1953 data)		
Ring	Average distance	P.o.s. (acres) per 1,000 persons	Ring	Average distance	P.o.s. (acres) per 1,000 persons
0	0.0	17.4	0 and 1	0.5	0.5
1	1.5	1.3	2	2.0	2.5
2	3.5	1.2	3	4.5	1.1
3	5.5	1.8	4	7.5	2.1
4	8.5	3.0	5	10.5	5.2
5	12.5	13.0	6	16.5	9.7
6	16.0	36.8			
7	24.0	73.7			

Source: "Detroit Metropolitan Area Traffic Study," op. cit., part 1, table 8, p. 30 and table 36, p. 123; "Chicago Area Transportation Study, op. cit.," vol. I., table 19, p. 108, and table 21, p. 110.

beaches and pools indicated in figure D-5.[11] Because of the unusual nature of the photographic displays, a word of explanation of what is shown is needed. Trips to public open space are shown by connecting origin and destination points by straight lines. Each display, then, is a "desire line" map of the sum of all trips taken, not by actual routes traveled but by shortest distance lines.

[11] Presented through the courtesy of the C.A.T.S. organization.

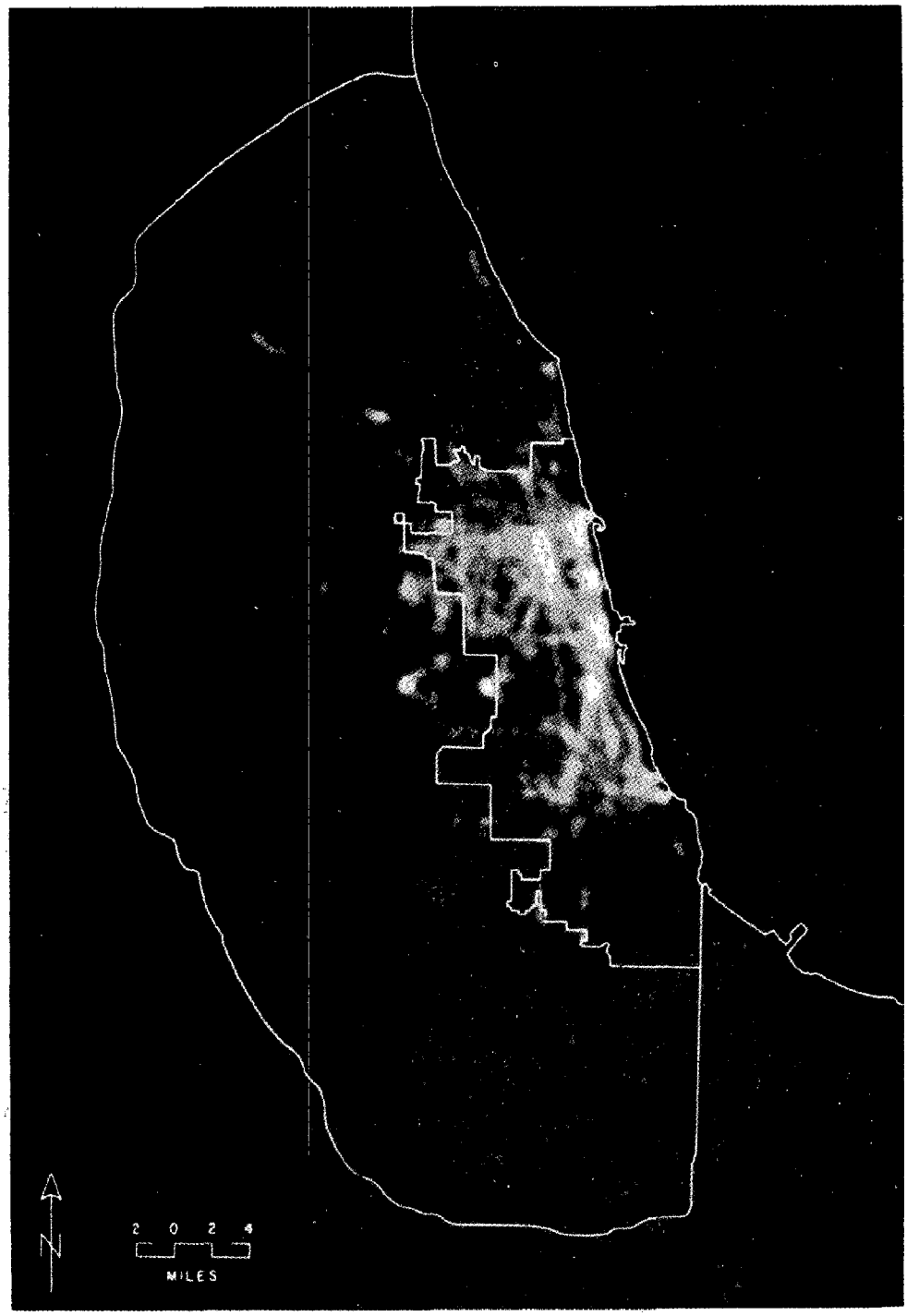

FIGURE D-4. RECREATION TRIPS TO PUBLIC OPEN SPACE, AVERAGE WORKDAY, 1956[1]

[1] Chicago Area Transportation Study–1956 Home Review Data.

The dominant destinations of workweek recreation trips appear on the two displays as points of convergence of desire lines. A number of parks, beaches and other water-oriented centers along Lake Michigan, and sections of the forest preserves, can be identified when the displays are matched with a map of land use of the Chicago area. It becomes obvious after careful scrutiny of the site locations of the various points of attraction, however, that supervised and organized forms of group recreation play an important role in

FIGURE D-5. RECREATION TRIPS TO PARKS, FOREST RESERVES, AND POOLS, AVERAGE WEEKDAY, 1956 [1]

[1] *Chicago Area Transportation Study—1956 Home Review Data.*

the recreation activities of people, because in addition to park and playground activities, ball parks, amusement parks, race tracks, golf courses, and other urban-type centers are prominently displayed.

To be more specific, of the 252,000 internal trips to public open space areas on an average workweek day, 35 percent were made to parks and beaches, forest preserves, and swimming pools. An additional 6 percent were joy or pleasure rides. The remaining 59 percent of the trips, however, were destined to commercial recreation centers which are typically associated with a highly urbanized environment.

Most of the desire lines as displayed in the two figures are short, confirming previous conclusions that the facilities for recreation most often visited are those that can be easily reached in a few minutes. If walk trips were included with trips by motorized form of conveyance, the dominance of local neighborhood or community centers of recreation would be even more apparent. The daily demands of job and home permit only occasional visits during the workweek to places that are more distant or difficult to reach. This is particularly true for people who live in more congested surroundings and who have rather low individual mobility. Even the most popular areas along Lake Michigan and in the forest preserves, places that provide the best opportunities within the built-up sections of the Chicago area for outdoor recreation of the types considered in this study, tend to become local rather than regional recreation facilities during the workweek. To the extent that residents of the Chicago area engage in outdoor recreation, then, participation takes place primarily when longer periods of leisure time are available.

DAY OUTINGS ON WEEKENDS

Unfortunately no systematic studies of weekend trip origins and destinations have been made for comparison with workweek travel. General observations, informed judgments, and fragmentary data concerning use of existing opportunities in the Chicago area and the Chicago region, however, indicate that day and overnight outings for outdoor recreation are concentrated on weekends, principally on Sundays and holidays during the warm season.

Park district officials, in estimating use of lakefront beaches in Chicago and along the north shore have found that except for a few really hot and humid days during the week, the beaches receive by far their heaviest use on Sundays in July and August. Officials of the Cook County Forest Preserve District refer to the fact that the preserves are overcrowded on about 18 Sundays and holidays during the June-September period, with only light use (except for special activities such as day camping and related youth group activities) during the rest of the summer weeks and throughout the year. A tabulation of group picnic permits issued by the district in 1959 during the June-August period, for example, reveals that Sundays accounted for about 45 percent of the picnics and 53 percent of the estimated attendance. And State officials report that day and overnight outings in State parks, forest and similar recreation facilities are concentrated on weekends, with Sunday and holidays by far being the most important days.

Some comparisons of day outing activities within the Chicago area between the workweek and weekends can be drawn from a survey recently made of users and use activities in a part of the Palos division of the Cook County Forest Preserve District. The survey was conducted during a 7-day period in August 1960, under the direction of the Department of Resource Development, Michigan State University, as a part of a nationwide survey of Federal, State, and county recreation areas for the Outdoor Recreation Resources Review Commission. Questionnaires were distributed to each group entering the Wolf Road area, located about 19 miles southwest of the Loop, 8 miles west of the nearest point of the city limits of Chicago, between the Calumet Sag Channel and the Chicago Sanitary and Ship Canal.

The Wolf Road area includes low hills that are wooded with lakes and open groves, and provides facilities for picnicking, relaxing, boating, fishing, trail hiking, and walking in a natural setting. The area is reached primarily by automobile, and is used by Chicago and suburban residents alike. Hence, this survey provides important information on a number of characteristics of day or partial-day outdoor recreation outings within the Chicago area.

The results of the survey, as they relate to the various elements of demand for daylong activities, can be summarized under six major headings.

1. The Wolf Road area receives its heaviest use on Sundays. On this particular week, 32 percent of the visiting groups came on Sunday, 24 percent on Saturday, with the remaining 43 percent during the combined workweek days. Because of the method used in coding characteristics of group members, it is not possible to ascertain the exact number of people using the area each day. Inspection of coded size of groups, however, indicates that at least 45 percent, more probably 50 percent or better, of all visitors came on Sunday.

By way of comparison, the regional park survey of the Cleveland metropolitan area previously mentioned indicated that the Sunday load of the regional parks was about 26 percent of the total recorded for a period of a week. The survey findings for the Wolf Road area plus the results of the study of group picnicking in the forest preserves when compared to the Cleveland survey, suggests that excessive "peaking" of day outings on Sunday exists in the Chicago area.

2. Users of the Wolf Road area were predominantly of the family group type. About half of all groups were single families with an additional 30 percent composed of groups of two or more families, family plus others. Single-family groups predominated throughout the week, although they constituted a larger share of all groups during the workweek than on Sunday. Two-or-more family groups had three times greater representation on Sunday than during the workweek. While this indicates that outdoor recreation tends to be a family-sharing experience, it also suggests that the comparatively low incidence of car ownership among households in Chicago provides an incentive for holding combined outings on Sunday when an automobile is available for leisure-time use.

3. In a comparison of the age composition of the users of the Wolf Road area to that for the Chicago area (table D-13), it was found that children and

Table D-13. Age composition of users of Wolf Road area compared to that of Chicago area population

Age class	Chicago area (percent)	Wolf Road area (percent)			
		Weeklong	Workweek	Saturday	Sunday
12 or less	26	31	40	28	26
13 to 19	10	17	15	19	17
20 to 44	33	36	36	33	39
45 to 64	22	13	8	17	14
65 and over	9	3	1	3	4

Source of Wolf Road area data: Punch cards from August 1960 survey conducted by Department of Resource Development, Michigan State University, for ORRRC. Estimates of age composition of users were required—where individual groups included 8 or more persons of a particular age and sex, each was counted as 8.

adults below the age of 45 were overrepresented. This finding is consistent with national survey data that show that these two groups are the most active of all groups in outdoor recreation.

4. By a comparison of family incomes of users of the Wolf Road area to that of Chicago and a major section of the suburban area (table D-14), it was found that there was overrepresentation of families with incomes of $5,000 to $10,000. This is also consistent with national survey findings that it is the middle-income group that participates most in outdoor recreation.

Table D-14. Household income of Wolf Road area users compared to that of Chicago area residents

Household Income	Chicago area[1] (percent)			Wolf Road users (percent)		
	Combined	Chicago	Suburban	Workweek	Saturday	Sunday
Under $3,000	9	12	3	7	8	8
$3,000 to $4,999	17	22	8	16	14	18
$5,000 to $6,999	30	31	27	38	33	40
$7,000 to $9,999	26	22	33	26	37	24
$10,000 to $14,999[2]	13	10	19	10	7	3
$15,000 and over[2]	5	3	9	3	1	7

[1] Chicago area as defined here includes Chicago and remainder of Cook County, all of Du Page County and the southern one-half of Lake County.

[2] The income class coded for the Wolf Road users was $10,000 to $13,999, and $14,000 and over.

5. As to place of residence, 58 percent of all visiting groups lived in Chicago, coming 11 to 30 miles by direct route. A higher proportion of Sunday than workweek groups were composed of Chicago residents—65 and 53 percent, respectively, and of the relative size of groups are compared, the share to total visitors from Chicago on Sunday would be even greater. Thus the Wolf Road area is used more by suburban residents during the workweek, and more by Chicago people on Sunday. This is consistent both with the tendency of the forest preserves to be used more as local facilities during the workweek, and the comparatively low mobility of Chicago households.

6. Major activities of users according to time of visit are indicated in table D-15; the activities listed as being most enjoyed are presented in table D-16.

Table D-15. Major activities engaged in by Wolf Road area users: *percent of groups participating in each activity*

Activity	Weeklong	Workweek	Saturday	Sunday
Picnicking	70	66	69	77
Relaxing	50	43	53	56
Bank fishing	39	44	42	30
Boat fishing	25	29	25	21
Walking to scenic points	32	37	30	27
Trail hiking	28	31	26	27
Rowboating	28	24	33	29
Sightseeing from car only	24	25	19	24

Note: Group members participated in more than 1 activity during a single visit, hence participation rates add up to more than 100 percent.

Picnics lead the list in both instances. This is consistent with national survey data which indicate that picnicking is one of the two most popular forms of outdoor recreation today, and with the fact that picnic facilities are well developed in the Wolf Road area.

While picnicking leads the list of activities throughout the week, it was proportionately more important on Sunday. Fishing was preferred to a greater extent by those coming during the workweek. Presumably those who visit the area primarily for fishing come on workweek days to escape the overcrowded conditions on Sunday.

Table D-16. Most enjoyable group activity of Wolf Road area users—major activities only (percent)

Activity	Weeklong	Workweek	Saturday	Sunday
Picnicking	30	25	32	35
Bank fishing	13	17	10	10
Relaxing	12	8	19	12
Boat fishing	12	18	8	6
Walking and Trail Hiking	11	11	12	10
Rowboating	6	3	10	6

Note: The major activities plus those of lesser importance mentioned add to 100 since each group was asked to select the activity most enjoyed.

OVERNIGHT VACATION RECREATION ACTIVITIES

The national survey findings of the Survey Research Center indicate that a little over 40 percent of adults throughout the Nation took at least 1 weekend-vacation trip away from home during a period of a year, with one out of eight taking two or more vacation trips. The proportion of those taking vacation trips and those taking weekend trips was 32 and 19 percent, respectively. National Recreation Survey data also show almost identical ratios for vacation and weekend trips taken during the June-August period of 1960. As expected, the proportion of people taking both types of trips increases from the low-income through the upper income groups.

Two independent surveys taken recently of pleasure trips away from home by Chicago area residents provide conflicting results. By means of a telephone interview sample of households listed in the Chicago and "Greater Chicago" telephone books, the Bureau of Business Research and Service, University of Wisconsin, concluded that 42 percent of the households in the urbanized area took at least one overnight or vacation pleasure trip in 1959.12/ Using a mailed questionnaire sample of households in a 2 1/2 county area of northeastern Illinois, a survey by two Chicago daily newspapers, however, found that about 61 percent of households took pleasure trips away from the Chicago area.13/ The difference between the results may signify a significant response bias in one or both surveys, or it may be that differences in results reflect in part differences in the area covered. At any rate, the latter survey indicates that a higher percentage of Chicago area households take overnight vacation trips than the Nation as a whole; the former suggests that the relative proportions are not much different. While it is not possible to judge the variability of sampling errors of each survey, it is believed that the consumer survey is probably more representative of the Chicago area than the telephone survey, since it excluded from its sample the residents of the Calumet region of northwestern Indiana, and because controls were imposed to obtain representation of different subgroups in the population.

For trips away from home, Chicago area residents make greater use of common carriers than do people throughout the Nation. As table D-17 data show, greater use is made of rail and plane transportation with less dependency on the automobile. Within the Chicago area, Chicago residents when compared to those in the suburbs place greater reliance on railroads and buses, with less use being made of the automobile. This finding, of course, is consistent with the fact that Chicago households own fewer automobiles. And according to the consumer analysis survey, a higher proportion of suburban householders take overnight-vacation pleasure trips away from home (69 against 58 percent, respectively).

The two surveys made locally indicate that about half of the overnight weekend-vacation trips have destinations outside the midwest (tables D-18 and D-19). Compared to the Survey Research Center finding that 27 percent of the national vacation trips are destined to places within the state of residence, the local survey by the Wisconsin group indicates that only about 8 percent of the telephoned householders stayed in Illinois with about 3 percent remaining in Indiana. The State of Wisconsin, as the strongest drawer, alone attracts three times the overnight-vacation Chicago area recreationists as does Illinois.

A recent Cook County Highway Department roadside traffic survey provides supplementary evidence of the strong attraction of Wisconsin as a recreation area. On a nonholiday weekend in August 1960, sample

Table D-17. Vacation means of transportation away from Chicago area, 1960

	Chicago (percent)	Suburbs (percent)	United States (percent)
Automobile	68.2	80.6	83
Train	17.8	9.9	4
Plane	14.4	14.4	7
Bus	5.0	2.2	5
Boat or other	0.6	1.5	1
No Answer	0.3	0.1	(1/)
Less Duplicates	6.3	8.7	....

1/Less than 0.05 percent.

Source: For the Chicago area—"1960 Consumer Analysis," op. cit., p. 228 (the suburban area includes Cook, DuPage, and the southern one-half of Lake Counties); For the Nation—"The Demand for Outdoor Recreation," Survey Research Center, op. cit., p. 106.

Table D-18. State visited on last trip for vacation-recreation purposes, by Chicago metropolitan area residents

State	Percent of vacationing households
Wisconsin	24.4
Michigan	8.4
Illinois	8.2
Minnesota	4.9
Indiana	3.4
Iowa	2.5
Others	48.2

Source: "Wisconsin's Share of the Chicago Vacation-Recreation Market," op. cit., p. 5.

12/Fine, I.V., and E. P. Werner, "Wisconsin's Share of the Chicago Vacation Market." Madison: Bureau of Business Research and Service, School of Commerce, University of Wisconsin. Wisconsin Vacation-Recreation Paper, vol. 1, No. 1, February 1960. Area telephone books cover households in 5 counties in northeastern Illinois, excluding McHenry County and all of Kane County beyond the Fox River Valley, and the Calumet region of Lake County, Ind.

13/"1960 Consumer Analysis." Chicago: Chicago Sun-Times and Chicago Daily News, 1960. The survey covers Chicago and the suburban market in Cook, DuPage and southern one-half of Lake Counties, Ill. Mailings were controlled to meet representative proportions of homeowners-renters, various income groups, city-suburban dwellers.

Table D-19. Regional place of vacation by Chicago study area residents

Region	Percent of household vacations		
	City	Suburbs	Total
East north-central	42.1	41.2	41.8
South Atlantic	12.1	14.3	12.9
West north-central	9.0	10.3	9.5
Pacific	8.6	8.8	8.7
Middle Atlantic	6.5	7.1	6.7
East south-central	7.3	3.0	5.7
Mountain	4.0	4.8	4.3
West south-central	4.4	3.3	4.0
Canada	3.3	4.9	3.9
New England	2.0	2.8	2.3
Mexico	1.1	1.7	1.3
Europe	1.2	1.0	1.1
All others	1.6	1.4	1.5
No Answer	.1	.1	.1
Less duplicates	-3.3	-4.7	-3.8

Source: "Consumer Analysis," op. cit., p. 230. East north-central region includes the States of Wisconsin, Michigan, Illinois, Indiana and Ohio.

interviews of northbound traffic on the Edens Expressway near the Cook-Lake County line were taken on Friday and Saturday. Of the trips for recreation purposes, 52 percent were destined to Wisconsin resort areas and 30 percent to northern Illinois on Friday afternoon; on Saturday morning the relative shares were 43 and 35 percent, respectively. Since 58 percent of the Saturday trips were 1-day-only trips as against 18 percent on Saturday, it is apparent that Wisconsin attracted a higher portion of the overnight weekend-vacation trips than these figures might indicate. (If a similar survey of recreation trips on the heavily-traveled Northwest Tollway and U.S. 14 were conducted, the importance of Wisconsin probably would undoubtedly appear even greater because neither is considered a good access route for the northern Illinois lake resort area.)

The dominance of the northeastern Illinois market for Wisconsin recreation opportunities is so strong that a Wisconsin Conservation Department Vacation Center is maintained and staffed in Chicago for disseminating material and information on places and events to visit. It is the only such vacation center office of its kind in Chicago under State sponsorship and control.

SUMMARY AND CONCLUSION

National surveys of use of leisure time indicate that Americans tend to engage more commonly in those activities that can be done casually and with minimum preparation. With respect to outdoor recreation, driving for pleasure, sightseeing, picnicking, and swimming are the most popular. Conversely, those activities which require special-purpose equipment or facilities, or physical effort, attract the fewest (although highly enthusiastic) participants—e.g., hunting, skiing, horseback riding, hiking or mountain climbing, and camping. Intermediate in participation are fishing, boating, pleasure walking, and nature walks or study. Of the latter, boating represents a mixture of interests, since, like horseback riding, it requires special equipment and facilities, yet at the same time it is associated also with other activities such as sightseeing and fishing that have intermediate or higher popularity.

While the recreation behavior of residents of large midwest metropolitan areas is similar to overall interests of highly urbanized America, certain differences have been noted. According to national surveys, somewhat greater participation takes place among those living in the large midwest metropolitan areas in those forms of outdoor recreation that require less strenuous effort. One of the differences also noted is that proportionately more people in these metropolitan areas engage in outdoor sports or watch such events, suggesting perhaps that more outdoor activity takes place in areas that provide more supervised and group participation types of facilities. This is consistent with the fact that people who live in a highly urbanized area, where land is developed to the "highest and best" urban use, tend to have less day-to-day access to large open spaces for outdoor recreation of the types considered in this study.

While it may be assumed that overall recreation demand in the Chicago area is represented by the combined recreation behavior and preferences found in the large metropolitan areas of the Midwest (the Chicago area being the most dominant because of size), important differences must be considered. The slightly older population and a higher ratio of nonwhites suggest somewhat less per capita day and overnight outings, although higher incomes offset this tendency to a certain extent. Even more important probably is the finding that personal mobility is less in the Chicago area, mainly due to the lower per household car ownership in the city of Chicago. Since pleasure driving and sightseeing are dependent mainly on the automobile, these forms of outdoor recreation on day and overnight outings are considered to be less important activities of residents of the Chicago area. It is also suggested that because of a deficiency in a variety of outstanding vistas or natural features for relaxed sightseeing, a greater amount of pleasure driving takes place for the purpose of viewing urban-type attractions.

Low personal mobility also is a contributing factor to the determination of place of outdoor activity. Heavy reliance is placed on local amusement parks, playgrounds, zoos, ball parks, race tracks, and other intensively developed types of facilities. More intensive use is made of nearby opportunities for outdoor recreation, particularly the beach and water facilities of Lake Michigan and sections of the forest preserves. While both have accessible locations, they represent different types of recreation opportunities. For the latter, they are picnics, walking or relaxing in a wooded environment, fishing or boating in small inland water bodies, and nature walks or study. For the former, they are walking along the waterfront, sunbathing, relaxing and cookouts, swimming in cool lake waters, and for some, boating. As we shall see in the next chapter, it is these facilities that are most used for short-term and daylong outings.

In addition, the activities and interests of the Chicago area resident are influenced strongly by a deficiency in recreation acreage available within reasonable distance for day outings. More intensive use of existing opportunities for outdoor recreation tends to take place, and interests are channeled more toward the organized, directed types of outdoor activity. Certain substitutions in environmental places of outdoor recreation also can be observed in the city—e.g., walking around the block or through the neighborhood in lieu of walks in areas permitting direct contact with nature, window shopping, driving for pleasure through attractive residential areas rather than open countryside, swimming in artificial pools (indoor as well as outdoor during the summer), watching birds from apartment windows, visiting the natural history museum or zoo to see wildlife.

Differential characteristics by place of residence within the Chicago area have important associations with recreation behavior. The difference in the socioeconomic character of people in the city of Chicago as against that of those in the suburbs, in the relative accessibility and availability of outdoor recreation opportunities and facilities, are two of the most striking factors. A higher portion of the people in the city have less mobility and below median incomes; the city has much higher net residential density with less per capita public or quasi-public open space; a greater variety of urban-type recreational opportunities exists in the city. Place of residence thus has a most important influence on outdoor recreation practices and interests.

In short, the needs and preferences as they relate to the level of demand for outdoor recreation are shaped according to the environment in which people live. For people in the city of Chicago, somewhat more overall effort is directed by man-made facilities in which outdoor activity is more organized and directed on a group basis. The opportunities locally available for outdoor recreation are also more intensively used. The resident of the suburban area, while he makes use of the facilities provided in the city and those provided nearby, has greater ability to make use of outdoor recreation opportunities away from home. It is believed that because of his characteristics and location, his participation in, and preferences for, such activities as fishing, camping, horseback riding, hunting, and boating, activities which are best carried out in a nonurban environment, are greater.

Chapter Three

HOW THE RECREATION NEEDS AND PREFERENCES ARE SERVED

Emphasis in this chapter is focused on outdoor recreation opportunities and their uses which serve to satisfy the needs and preferences of the residents of the Chicago area. Discussion is centered on facilities that are accessible for day or 2-day outings. Consideration is given primarily to facilities that exist within the six-county Chicago area, and within a larger Chicago region having a radius of about 150 miles from the center of Chicago. Because of the physical barrier of Lake Michigan in reaching recreation facilities in Michigan and eastern Indiana, however, distance zones are modified to the extent of bending a radius line around the southern and southeastern end of the lake, shown in figure D-1.

The use of radius lines of a certain length to delimit the area within which day or 2-day outings are taken by Chicago area residents is arbitary, of course. People in suburban locations both by distance and travel time are closer than Chicago residents to the outer limits of the region and hence can reach distant facilities more easily. Certain of the more distant facilities are readily reached by use of the new expressways or tollways and modern highways that permit fast travel, while others can be reached only by traveling slower, more localized routes. In addition, a segment of the population having strong preferences for specific sites will travel beyond the area surveyed for occasional day outings, while others rarely travel beyond the Chicago area even during vacation time.

One of the strongest suggestions of the area covered by Chicago area residents during day and 2-day outings is found in the travel maps issued through local sources. The Chicago Tribune each year distributes a detailed map of highways and points of interest in "Chicagoland." One side of the map covers in considerable detail all but the outer sections of the six-county area. The other side shows the locations of certain notable features, including recreation opportunities, of a surrounding area within a radius of about 110 miles (with an extension, southward however, to include Springfield, the capitol city of Illinois). Another popular map for many people in northeastern Illinois is that issued by the Chicago Motor Club. This map provides information on highways, parks, forest preserves, State parks, golf and country clubs, cities, towns, and other landmark features within a radius of about 100 miles. Discussions with representatives of certain travel agencies who answer thousands of inquiries each month, confirm the belief that the outer range of day outings for most at present is about 100-110 miles with most 2-day recreation outings staying within about 150 miles of the center of the Chicago area.

Within the six-county area, park districts, county forest preserves, State controlled and operated properties, private resort and lake areas provide the major share of facilities for outdoor recreation. Outside the Chicago area but within the 150-mile Chicago region, the primary outdoor recreation opportunities which serve the needs of Chicago area residents are those provided by State conservation departments and private enterprise. Figure D-6 shows the location of individual State owned or controlled facilities in the Chicago region that serve in an important manner the needs of Chicago area residents for outdoor recreation. Principal access highways are also shown. Both are superimposed on a generalized depiction of the physiographic character of the region, generalized so as to illustrate the public and private recreation potential of the area in and around the Chicago area within range of most day and 2-day outings.

FACILITIES IN THE CHICAGO AREA

Park Districts

Because of technical problems in illustrating many small park districts on a small scale map, park district properties in the Chicago area (except for beaches along Lake Michigan) are not shown in figure D-6. Although park districts along with municipalities and school districts provide most of the public urban-type facilities for recreation, they do serve also as opportunities for certain types of outdoor recreation.

The first three park districts in the Chicago area were organized in 1869, 36 years after the founding of Chicago as a village. Prior to this, nine small parks had been created, but as scenic greens rather than as places for recreation. By 1890, each of the districts controlled between 400 and 500 acres of improved park land. Under these districts the larger parks of Chicago came into existence and their names are known to millions of people today—Washington, Jackson, Lincoln, Humboldt, and Garfield.

Until the emergence of internal public transportation systems made them more accessible to the general public, however, the large parks were actually landscaped beauty spots to be enjoyed only by the "genteel and bourgeois" elements of local society. It was not until the playground movement of the early 1900's that serious attempts were made to provide places and facilities for active forms of recreation. By this time Chicago had reached the 1 million population level and urban growth extended beyond the outer boundaries of the park districts. The recommendations of a special park commission in a report of 1899 called for the creation of more parks as well as neighborhood facilities for play, and for the establishment of an outer belt of parks in which forest and meadow lands would be left in their natural state.

The formation of new park districts in and around Chicago increased rapidly after 1900. The number

THE CHICAGO REGION

Selected Public Recreation Areas

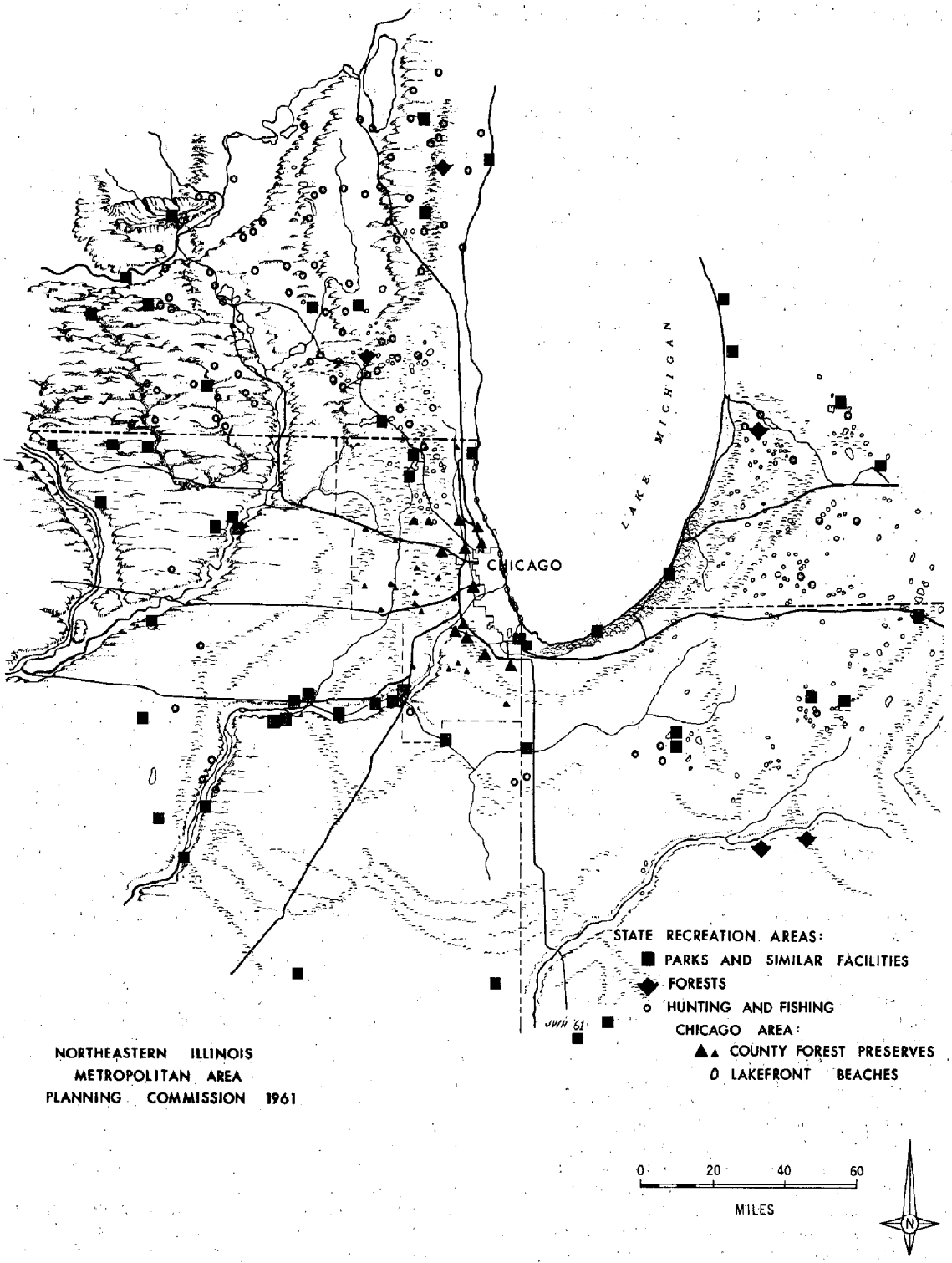

FIGURE D-6

rose to 22 in Chicago by 1933 when the Park Consolidation Act and a referendum the following year consolidated all districts into one Chicago Park District. Further consolidation occurred in 1959 by transferring the recreation facilities of the Bureau of Parks and Recreation of Chicago to the district. The latter in turn gave up its systems of boulevards and driveways. Outside the city, the number of suburban park districts have increased steadily; today the suburban districts total 80 although the acreage of all the holdings combined total less than half that of the Chicago Park District.

Powers are conferred on park districts to "plan, establish and maintain recreational programs, provide musical concerts, to construct, equip and maintain airports, landing fields for aircraft, armories, fieldhouses, gymnasiums, assembly rooms, comfort stations, indoor and outdoor swimming pools, wading pools, bathing beaches, bathhouses, locker rooms, boating basins, boathouses, lagoons, skating rinks, piers, conservatories for the propagation of flowers, shrubs, and other plants, animal and bird houses and enclosures, athletic fields with seating stands, golf, tennis, and other courses, courts, and grounds ...." 1/ The express enumeration of such facilities does not prohibit districts from providing additional facilities appropriate for park purposes. Each district has the authority to levy a general property tax on residents within the district and to issue bonds.

Table D-20 indicates the acreage of park district land in each of the six counties of northeastern

Table D-20. Park districts in the Chicago area—Acreage characteristics

County	Park district acreage	Acres per 1,000 persons	Number of districts reporting	Average acreage per district reporting
Cook	9,675	1.89	42	230.4
Lake	1,052	3.58	6	175.3
McHenry	140	1.66	2	70.0
Du Page	540	1.72	7	77.1
Kane	592	2.84	4	148.0
Will	1,798	9.38	3	599.3
Total	13,797	2.22	64	215.6
Chicago Park District	7,752	2.18	....	....

Illinois. The acreage given is understated because the nature of the holdings of 17 of 81 organized park districts is not available (5 of which were organized within the last 3 years and hence may not as yet own land). On the basis of 64 districts reporting, the average district holding is about 215 acres; if the Chicago (7,752 acres) and Joliet (1,335 acres) park districts are excluded, however, the more representative average holding is only 76 acres even though the total holdings include twenty-seven 9-hole and 18-hole golf courses. Size of holdings alone suggests that park districts provide park-type facilities, making rather intensive use of the land base.

Table D-21 gives summary data on district facilities for certain outdoor opportunities but excluding recreation center and outdoor organized sport activities which constitute the main activities within the parks. Park districts other than the Chicago Park District provide an average of one picnic table for every 2 acres of land (compared to one table per 5 acres in the Cook County forest preserves). The strong orientation to picnicking in the park districts attests to the popularity of picnicking in the Chicago area, but the ratio of tables per acre of land again suggests intensive use of the land in park districts for short-term rather than daylong outings. This is again borne out by the fact that none of the districts provide facilities for family or group camping and hiking, only one offers day camping facilities (Chicago), only two have bridle paths (Chicago and Joliet), and one has nature trails (Joliet). Except for the Chicago Park District, such districts do not constitute important resources for fishing and boating.

Outdoor swimming in pools and along beaches, however, is an important aspect of park district activity—the Chicago Park District has 42 outdoor pools and 32 beach areas alone. In fact, the 59 outdoor pools provided by various Cook and Du Page County park districts constitute 42 percent of the total private and public outdoor pools currently listed by the American Red Cross. Public swimming along the Lake Michigan beaches also is largely under control of park districts.

Because of the relatively flat physical configuration of the Chicago area, particularly in Chicago and in the adjacent, heavily settled suburban communities, winter outdoor activity other than ice skating is at a minimum. Ice skating facilities are easy to construct by flooding low, flat areas, and this form of outdoor activity is particularly popular among children and young adults.

Chicago Park District

The holdings of the Chicago Park District are so large relative to those of other park districts with its activities so diverse that separate treatment is accorded. They represent over 56 percent of the park district acreage reported, and 66 percent of the total assessed valuation recorded for all of the park districts in the six-county area. The parks and recreation facilities of this district serve the 57 percent of the Chicago area population that resides in the city of Chicago, as well as many others who periodically make use of the facilities, particularly those along the lakefront.

The district at present reports 338 developed parks, 334 playgrounds, 153 fieldhouses, 42 outdoor and 11 indoor swimming pools, 594 tennis courts, 138 baseball diamonds, 134 ice rinks, 32 beaches and 14 miles of beach property, 7 marinas, 1,815 slips, moorings and space for boats, 4 golf courses, 2 stadii, a planetarium, 2 conservatories, a zoo, a large underground garage and several large surface parking lots; it maintains the grounds around several institutions

1/ "Illinois Revised Statutes," ch. 105, sec. 8-10.

Table D-21. Park Districts in the Chicago area—Selected outdoor facilities

County	Picnic tables	Swimming pools	Beaches	Marinas	Inland lake or lagoon	Ice rinks	Coasting areas
Cook	1,451	55	40	7	14	238	9
Lake	419	3	4	1	....	16	....
McHenry	95	....	2	....	2	2	1
Du Page	154	4	....	....	1	12	1
Kane	727	3	....	1	....	8	1
Will	629	3	....	....	....	8	1
Total	3,475	68	46	9	17	276	13
Chicago Park District	380	42	32	7	14	134	....

Source of park district data for both tables: "A Profile Survey of Illinois Park Districts", "Illinois Parks." Springfield: Illinois Association of Park Districts, January-February 1961, vol. XVII, No. 1, pp. 10-13 and 14-22. The amount of acreage is understated for the six-county area because 17 park districts failed to respond to the IAPD request for information (5 of which being organized less than 3 years and which may not own land). Of the 17 districts not reporting, 12 are in Cook County, 2 in Lake County, and 1 each in Du Page, Kane and McHenry Counties.

using park lands such as the world-famed Museum of Science and Industry. The estimated attendance at all supervised park programs in 1959 was over 51 million people. The programs for which daily estimates are attempted by district officials total 42 separate activities, the major ones being those conducted at beaches, children's playgrounds, indoor and outdoor gymnasiums, spectator sports areas, clubrooms, conservatories, gamerooms, baseball, softball, and swimming pools. A few of the forms of outdoor recreation with which this study is concerned appear prominent in the list of the district offerings. Major attractions are the water-oriented activities at the beaches (12,583,000 estimated visitors in 1959), swimming pools (1,991,117), ice skating (652,202) and fishing (40,750). These four forms of recreation alone accounted for about 30 percent of the attendance at all of the district activities, indoor and outdoor.

County Forest Preserves

County forest preserves constitute the major source of opportunities for public outdoor recreation in the Chicago area outside Chicago. After the Illinois Supreme Court rendered invalid State legislative enabling acts providing for a system of county preserves in the first decade of the 20th century, a bill was passed which measured up to the judicial test. The Cook County Forest Preserve District was formed in 1915 and the first small plat of land was purchased the following year. The district has been extremely active in acquiring land for preserves and in providing opportunities for the recreation enjoyment of people. The holdings in the county now total over 46,000 acres; in the summer of 1961, the district was given State legislative approval to increase its holding to 55,000 acres.

Forest preserve districts also have been created in four of the remaining five counties of the Chicago area. The exception is McHenry. The Lake County District in February 1961 purchased its only tract of land owned to date. General characteristics of the extent of forest preserve holdings by counties are found in table D-22.

Table D-22. County forest preserve districts in the Chicago area—acreage and tracts

County	Forest preserve acreage	Acres per 1,000 persons	Number of tracts	Average acreage per tract
Cook	46,208	9.01	23	2,009
Lake	28	.10	1	28
Du Page	1,801	5.74	23	78
Kane	585	2.81	6	98
Will	901	4.70	9	100
McHenry	....	....	....	....
Chicago area	49,523	7.96	62	799

Source: Acreage and tract data obtained from each county district. County population obtained from 1960 Census of Population.

Outside the Cook County District, individual preserves are small and average not much more than the average size of park district holdings. In the outer counties, the major difference between forest preserves and park districts is not size but functional use and development. The county districts are not organized to provide supervised programs or permit spectator sports; the activities of the visitor for the most part are unregimented except where necessary to protect the native landscape. The creation of forest preserves was for the purpose of "protecting and preserving the flora, fauna and scenic beauties within such district, and to restore, restock, protect and preserve the natural forests and said lands together with their flora and fauna ... in their natural state and condition, for the purpose of the education, pleasure and recreation of the public." 2/ Hence forest preserves are not parks but natural areas. As natural areas they perform a dual function. They are essentially forested reservations, with recreation facilities provided mainly on the margins of the tracts. The bulk of the holdings are maintained in a natural condition.

2/ "Illinois Revised Statutes," 1959, ch. 57 1/2, sec. 5, pp. 111-112. [Underlining supplied.]

Picnicking is the major form of outdoor recreation in almost all preserve tracts. In addition, marked nature trails have been established at the most favorable places; hiking, bicycling, and horseback riding are possible along paths or trails; fishing and some boating activity take place where water facilities are suitable. Day camping and some organized youth-group camping are permitted in specified places. Interior portions of the preserves are kept inaccessible to the automobile—man is introduced on foot to nature for its educational-recreational effect on him.

Cook County Forest Preserve District

About 93 percent of the county forest preserve acreage in the Chicago area is in Cook County. The tracts of forest and meadow land in this district are organized into nine divisions of considerable individual size. Table D-23 provides summary information on the physical size, average distance and general direction from the Loop of Chicago, and general characterization of the recreation features of each division. (Because three tracts are located some distance from the main holdings of the Des Plaines Division, separate identification is given.)

The forest preserves of this district ring the outer boundary of the city of Chicago, accessible both to city and inner-suburban residents. At least some part of the preserves is within a 30-minute ride of all residents of the city and inner area, and within walking distance of many suburban people. The district holdings present outstanding opportunity for outdoor recreation to these residents, and their importance can be seen in the fact that the acreage in these holdings alone is about 2 1/2 times the acreage of State park, game and fish areas in Illinois within a 110-mile radius of Chicago.

As stated previously, picnic facilities constitute the major means by which people are introduced into the native habitat. Some 190 major picnic groves and 250 roadside picnic sites are provided. The days of peak use bring 400,000 to 500,000 people to the holdings, many of which picnic even though other activities are performed. In order to control the use of the preserves, estimated by district officials to be about 15 million visitations annually, careful distribution is made of picnic centers and parking spaces.

The estimate of 15 million visitations is truly an estimate, for little attempt is made to count visitors except where permits are needed or fees charged. Even if accurate records were attempted, a large margin of error would ensue because of the physical nature of the preserves. In six of the nine divisions, the holdings are long, narrow strips along the major streams in the county (having over 87 miles of river and creek bank), bordered and criss-crossed by paved highways (over 250 miles of highway frontage). Officials also recognize that the primary purpose of the district is to protect and preserve natural lands, not to provide organized recreation and record human use. Major exceptions to previously stated basic policy of providing facilities for unsupervised recreation are the swimming pools (3), golf courses (6), zoological park (operated by the Chicago Zoological Society), and several overnight, youth-group camps, where explanation of presence for the most part is found in historical precedence and insistent public demand rather than official desire.

There are many recreation opportunities in the forest preserve beyond picnicking. Facilities are available for hiking, nature study, fishing, day camping, boating, horseback riding, mushroom and berry picking or nut gathering, tobogganing, ice skating and

Table D-23. Divisional characteristics of the Cook County Forest Preserve District

Division	From Loop		Acreage (1960)	Developed water areas (1958)	Picnicking		Fishing	Boating	Nature trails	Nature centers	Day camping	Youth-group camping	Swimming pools	Riding trails	Winter sports		
	Av. distance (miles)	Direction			Est. number of tables	Est. group capacity									Ice fishing	Ice skating	Tobogganning
Skokie	15-20	N	3,383	395	592	4,700	X	X	X	....	X	X	....	X	....	X	....
North Branch	10-15	N-NW	1,692	0	1,690	40,800	....	....	X	....	X	....	X	X	....	X	X
Des Plaines	....	....	....	85	549	10,200	....	....	....	....	....	....	....	....	....	....	....
Des Plaines River	15-20	NW	3,911	....	....	.....	X	....	X	X	X	X	....	X	....	X	....
Spring Creek Pres.	35	NW	1,277	....	....	.....	X	....	X	....	....	....	....	....	....	....	....
Deer Grove	30	NW	1,259	....	....	.....	X	....	X	....	X	X	....	X	....	X	X
Ned Brown Pres.	20-25	NW	3,293	....	....	.....	....	....	X	....	X	....	....	....	....	X	....
Indian Boundary	10-15	W-NW	3,163	17	925	10,300	X	....	X	X	X	X	....	X	....	X	....
Salt Creek	10-15	W	3,670	5	1,441	26,600	X	X	X	....	X	....	X	X	....	X	X
Palos	15-20	SW	12,158	770	1,456	24,250	X	X	X	X	X	X	....	X	X	X	X
Tinley Creek	20	S-SW	4,757	13	550	2,900	X	....	X	....	X	X	....	X	....	X	....
Calumet	15-20	S	1,472	55	1,175	21,900	X	X	X	....	X	....	....	X	....	....	X
Thorn Creek	20-30	S	6,173	95	1,000	14,800	X	....	X	....	X	X	X	X	....	X	....

Source: Various Cook County Forest Preserve District reports.

some sledding, and plain relaxing. Facilities have been so planned that regular distribution has been made among the different divisions so that no section of the populated area is inconvenienced.

To educate the public on the beneficial attributes of the out-of-doors as well as to improve the quality of use of the preserves, the district has undertaken a large program beyond directly caring for the holdings. A weekly bulletin of activities, interests and conservation matters has a mailing list of 21,000 addresses; naturalists lecture before school assemblies on conservation matters; workshops, training sessions and schools are held for teachers and youth-group leaders; naturalist service is available to each day camp using preserve lands; naturalists from time to time conduct nature walks and are on duty at nature centers; film shorts and programs are furnished local television and radio stations, and a weekly column is prepared for newspaper publication. An office also is maintained to answer inquiries, and assist those in search of specific outdoor opportunities.

State Park and Game Areas

Primary responsibility for State recreation lands and facilities is vested in the Department of Conservation. An inventory of facilities owned or leased by the department (tables D-25 and D-26), however, indicates only limited development in the Chicago area. At present, less than 6,000 acres in eight holdings are listed as being developed as park land. The estimated attendance in 1960 in the major parks within the Chicago area was less than 900,000. Illinois Beach State Park in northern Lake County adjoins Lake Michigan, providing close-in facilities for swimming, picnicking, and family camping in a beach environment. Recent construction of a lodge costing more than $3 million provides a "country club" park environment for those seeking spacious accommodations. To the west is the Chain O'Lakes State Park and McHenry Dam for fishing and hunting, boating in the lakes and limited camping. Along the Illinois River in the southwestern part of the area are river and canal lands for fishing and sightseeing. Within the city of Chicago to the south is Wolf Lake, but this is more aptly described as a conservation area used for fishing and some hunting, but also providing water for small boats. To the south is the Kankakee River State Park, 1,000 acres of which are in Will County. No facilities are found in the western part of the Chicago area—recently 200 acres were purchased near Elgin but they have been turned over to the Du Page County Forest Preserve District for operation.

In addition to the acreage previously mentioned, two State conservation areas totaling 7,700 acres, providing opportunity for hunting and fishing, are available—the Chain O'Lakes area and Des Plaines area. The latter, located near Joliet, is leased by the State from Federal authorities for public hunting and shooting purposes. The department also is developing three water bodies (307 acres total) in the Palos Division in cooperation with the Cook County Forest Preserve District.

Private Sector

Privately-owned facilities in the six-county area also contribute materially to the supply of opportunities for outdoor recreation. In addition to park district and municipal beach facilities, swimming in natural waters takes place off privately-owned lake beaches. Private beach facilities are concentrated in the lake resort section of northwestern Lake County and in the Fox River Valley to the south. In the resort areas are summer homes and rental cottages, resort and motel accommodations, with facilities for swimming, picnicking, fishing and boating as well as some winter sports activity. While not considered among the list of outdoor recreation activities, it must be mentioned that there are also some 16,500 acres of private golf course land and 4,000 acres of polo grounds in the Chicago area.

In spite of extensive picnic facilities on preserve and park district holdings, private picnic groves can be rented by individual groups. The number of groves is unknown—the classified telephone directory for the area carries a listing of only 21 separate places, although a separate tabulation of private groves indicate that there are at least 25 near the Cook County Forest Preserve District holdings. Picnic facilities also are available at the privately-operated beaches.

Commercial boat launching ramps and boat storage facilities, and commercial trout farms are also found in the Chicago area in the stream and lake areas.

While the county forest preserve constitute the main source of facilities for day camping, a number of commercial as well as red-feather day camps are held on privately owned land. A recent directory issued by the Chicago section, American Camping Association, of all types of camps operated by individuals and organizations with headquarters in the Chicago area, lists 47 local private day camps in the area having standards approved by the association. In addition to these, long-term camping facilities (mostly for youths) can be found—the directory lists 1 private camp, 4 Boy Scout or Girl Scout camps (other than those on forest preserve land), 5 YMCA and 1 YWCA camps, 13 agency or similar-type camps, and 2 church and synagogue camps. The listing includes only those camps whose owners hold membership in the association; additional private camps not so affiliated also are available. One of the striking aspects of long-term private camping facilities used by residents of the Chicago area, however, is that most are located outside the Chicago area, with many being located outside the 150-mile radius of the larger Chicago region.

Horseback riding stables are found throughout the area, except in the densely-settled sections. At present 35 commercial stables are located adjacent to the holdings of the Cook County Forest Preserve District. A number of riding stables also are located away from the urbanized sections, utilizing private holdings as well as country roads. Several concentrations of private estates owning horses and riding trails for personal use may also be encountered.

As might be expected in a large metropolitan environment, opportunities for hunting and shooting are quite limited. While the State Department of

Conservation owns or leases land for public use, most hunting is done on private agricultural upland and swampland areas. Of 95 clubs or chapters listed in a report by the Illinois Federation of Sportmen's Club or in the National Directory of Shooting Preserves in the Chicago Area, however, only 9 are known to have holdings of more than 20 acres each with a total of about 1,600 acres. Most of the club members have worked out arrangements with private landowners for exclusive hunting rights; a few use only the public game areas. Clubs that hold property also attempt to add variety to the recreation opportunities of members and their families by developing small lakes suitable for fishing and swimming, and picnicking along the shores. Social events also are prominent features of many such clubs.

The 1,375-acre Morton Arboretum, privately endowed and open to the general public, is one of the outstanding attractions of the Chicago area. Located about 25 miles west of the Loop in Du Page County, this educational and scientific center has over 4,800 species and varieties of woody plants in natural arrangements. Scenic automobile drives and nature trails, along with an herbarium, botanical library, and a schedule of indoor and outdoor lecture classes attract thousands of people from within and without the area. On spring and fall weekend days, the arboretum is filled to capacity with sightseers and nature lovers. On peak-use days as many as 750 automobiles per hour enter the grounds. In the past, visitors have been mainly suburban homeowners, viewing not only color changes in plant life but also in search of home landscaping ideas. Easier access for Chicago residents is now afforded by the completion of Congress Street Expressway and the East-West Tollway. Visitations in the fall of 1960 increased markedly. Picnicking and other types of outdoor recreation except sighseeing and study, however, are not permitted.

Limited winter sports facilities also are offered by private enterprises. Two ski jumps were in operation last year, although climatic conditions were not favorable for this type of activity. Most ice skating and ice fishing are done on public waters; although some ice sailing facilities in the Chain O'Lakes section are offered under private auspices.

FACILITIES IN THE CHICAGO REGION

Municipal parks and playgrounds, park districts, township and county parks are found in the Chicago region, providing facilities for day outings, but with few exceptions these are used almost exclusively by local residents. At least two of the Illinois counties outside the Chicago area but within 100 miles have forest preserves. Seven of the twelve counties in southeastern Wisconsin have one or more county parks; for the most part they serve residents of nearby communities. Few of these parks provide facilities attracting visitors from a distance—only 5 of the 21 county parks outside the Milwaukee metropolitan area have facilities for swimming, 4 for limited camping, and only 1 park for boating, fishing or horseback riding, as the case may be. In addition, certain Wisconsin counties have provided county forests for use by the local populace.

A few of these recreation areas have become popular with residents of the Chicago area. For example, Gary Municipal Beach, a sand dune area along the southern shore of Lake Michigan, and Wicker Memorial Park south of the city of Hammond, Ind., are important attractions to residents on the south side of Chicago and the adjoining suburban area. Sycamore Park just beyond Kane County in the town of Sycamore attracts people from the Chicago area. The major opportunities and facilities for outdoor recreation for outings by residents of the Chicago area beyond the metropolitan area, however, are those provided by State agencies, by commercial enterprises, and by private nonprofit organizations.

Public Sector

In Illinois, the Department of Conservation is the principal State agency responsible for providing opportunities for outdoor recreation. The department was created in 1925 and its operations include: wildlife management; operation of game refuges; habitat improvement of private and public land; distribution of and control of the taking of game; the licensing of hunters and fishermen and of private facilities for hunting and fishing; management of State forests; distribution of seedlings from State nurseries to private landowners and to local governments which own parks and forests; acquisition, development and operations of State parks and memorials; supervision of concessionaries in the parks; and control of stream pollution. Close cooperation is maintained with the U.S. Fish and Wildlife Service and other Federal agencies, and contacts are kept with the Illinois Natural History Survey, the Water Survey, the Geological Survey, the Division of Waterways, Sanitary Water Board, and the Sanitary Engineering Division. The acreage of facilities controlled for recreation has increased from a little over 29,000 acres in 1940 to 128,000 in 1960.

In Indiana all outdoor recreation facilities of the State other than roadside parks which are maintained by the Highway Department and a large recreation area which is controlled by Indiana University, are administered by the Department of Conservation. Created in 1919, its major responsibilities are the development, conservation, and preservation of the natural resources of the State, and the development and operation of recreation facilities. While the State forest acreage has remained almost stable with about 105,000 acres in 1940 and 115,000 in 1959, the State park acreage and game area holdings have increased from 25,800 to about 109,000 acres during the last two decades.

The principal State agency in recreation in Michigan again is the Department of Conservation although 14 other agencies have peripheral responsibilities. The department was created in 1921 by consolidating a group of independent boards and commissions. The principal functions are to protect and conserve natural resources, to promote reforestation of State lands, to guard against the pollution of lakes and streams and encourage the protection and propagation of game and fish. Similar to other conservation departments, outdoor recreation opportunities are administered

under forestry, fish, game and park divisions. The State park and recreation area acreage alone has increased from 38,500 acres in 1940 to over 176,000 in 1960; the 23 forests today total 3,700,000 acres.

Primary responsibilities for outdoor recreation facilities in Wisconsin are vested in the Conservation Department which succeeded an earlier Conservation Commission in 1927, and with the Department of Resource Development which was created in 1959. As noted previously, Wisconsin provides many public as well as private facilities for outdoor recreation which serve as major attractions to recreationists from the Chicago area.

The Conservation Department is responsible for the acquisition of land, development and maintenance of game refuges, fisheries, forests, parks, for the promotion of conservation of natural resources, and for publicizing the recreation facilities and attractions of the State. It maintains and manages the State facilities for outdoor recreation. Consistent with the surge of interest in recreation tourism in Wisconsin, the acreage of State forests and parks has increased from 176,000 in 1940, to about 385,500 in 1960. In addition, over 500,000 acres of owned and leased game and fish areas are now operated for game management and public hunting and fishing.

Although the division of responsibility in outdoor recreation is unclear at present between this department and the Department of Resource Development, the latter is considered primarily as an "idea" agency with direct responsibilities in policy matters. It is directed to prepare long-range plans, plan, develop and promote activities in use of resources, to employ a recreational specialist to survey needs of the recreation industry, and provide advice and assistance to interested persons or groups. The department also may designate lands for consideration as parks, recreation areas, historic sites, natural scenic areas, and the like.

One of the problems in the field of outdoor recreation is the geographic imbalance of population concentration and location of national park and forest lands. The centers of heavy concentration of population in the United States are in the East while the major nationally owned recreation lands are in the West. While much attention is being given at present to the lack of national opportunities for recreation within reasonable distances of large metropolitan areas, federally owned facilities are resource oriented rather than user oriented. The same type of imbalance on the State level is found to exist in the midwest States surrounding Lake Michigan. In Illinois and Indiana, the large State recreation areas are primarily downstate. In Michigan and Wisconsin they are upstate. The Chicago region is in between.

In Illinois, for example, over three-fourths of the population lives within 150 miles of the center of Chicago (62 percent of the State total is actually within the Chicago area), yet only about one-fourth of the State parks and game areas is so located (table D-24). In the adjoining States, which provide not only vacation but daylong and overnight recreation opportunities for Chicago area residents, the situation is similar. In the case of Wisconsin, 59 percent of the Wisconsin population lives within 150 miles of Chicago, yet only

Table D-24. Ratio of State population and State recreation acreage within the Chicago region

State	Percent of State population	Percent of State park and similar facility acreage	Percent of State forest acreage	Percent of State hunting and fishing acreage
Illinois	78	31	0	12
Wisconsin	59	24	7	32
Indiana.....	39	30	2	(1/)
Michigan	10	4	1	(1/)

1/Not obtained.

Source: 1960 Census of Population and various reports obtained from State conservation commissions.

24 percent of the State park, 7 percent of the State forest, none of the 1,469,000 acre national forest, 20 percent and 40 percent, respectively, of the owned and leased public hunting and fishing lands are within this area. Although it has been noted that the States of Illinois, Indiana, Michigan and Wisconsin, together with Federal agencies control extensive land and water areas developed or potentially useful for recreation, the bulk of the holdings are outside the Chicago region.

Tables D-25 and D-26 present in tabular form the general characteristics of each State owned or leased park, forest, recreation, hunting and fishing area by distance rings and sectors. Distance and direction are more critical factors in selecting recreation opportunities for a day outing than an overnight or weekend trip because they constitute elements of the amount of time involved in reaching places beyond the home or neighborhood. With the addition of modern tollways or expressways, and as more people move to the suburbs, however, it becomes easier for people living in the north to reach recreation areas to the south, and vice versa, so that with passage of time, direction and distance will become less important.

State owned and controlled facilities for day outings do not receive the heavy use that the county forest preserves do. The acreage of the State parks and recreation areas within the 110-mile zone is about 57 percent of that of the Cook County Forest Preserve District, yet the estimated overall attendance is not more than one-third as much. It is also evident that certain of the State facilities are more used than others for day outings. Illinois State Beach to the north, White Pines Forest State Park to the west, Starved Rock State Park to the southwest, Kankakee River State Park (Illinois) to the south, and Indiana Dunes State Park and Warren Dunes State Park to the southeast are believed to be the major attractions for the residents of the Chicago area. With suitable accommodations in or near the park lands, overnight and weekend outings are also prominent in places located beyond the 110-mile limit. Devils Lake State Park in Wisconsin, in particular, but also Turkey Run and Pokagon State parks in Indiana are strong attractions.

The large amount of owned and leased public and fishing lands in southeast Wisconsin shown in figure D-6 is somewhat misleading. While many of these

Table D-25. State parks, forests and recreation areas in the Chicago region, by distance rings and sectors

Name	Sector	State	Acreage owned	Picnicking	Swimming	Tent camping	Trails	Boating	Fishing	Hunting	Estimated visitations 1960
10 to 40 miles:											
Illinois Beach	N	Illinois	1,651	X	X	X	X	....	X	....	556,224
Wayne	W	....do	200	(contracted to Du Page)							.....
Wolf Lake	S	....do	580	X	....	....	....	X	X	....	.....
Wolf Lake	S	Indiana	1,414	X	X	....	....	....	X	....	.....
40 to 60 miles:											
Chain O' Lakes	NW	Illinois	738	X	....	X	X	X	X	....	143,109
McHenry Dam	NW	....do	94	X	....	....	X	X	X	....	88,534
Spring Grove Fish Hatchery	NW	....do	42	....	....	....	....	....	....	....	.....
Channahon Parkway	SW	....do	20	X	....	X	X	....	X	....	77,691
Gebhard Woods	SW	....do	30	X	....	....	X	....	X	....	107,000
Illinois and Michigan Parkway	SW	....do	450	X	....	....	X	X	X	....	.....
Yorkville Game Farm	SW	....do	102	....	....	....	....	....	....	....	.....
Kankakee River Dam	S	....do	6	X	....	....	....	....	X	....	.....
Kankakee River	S	....do	2,121	X	....	X	X	X	X	....	306,475
Kankakee River	S	Indiana	1,794	X	....	X	X	X	X	....	9,112
Indiana Dunes	SE	....do	2,182	X	X	X	X	X	X	....	421,824
60 to 80 miles:											
Big Foot Beach	NW	Wisconsin	268	X	X	X	X	X	X	....	209,159
National Fish Hatchery, Lake Mills	NW	....do	74	....	....	....	....	....	....	....	1,200
Buffalo Rock	SW	Illinois	43	X	....	....	X	....	....	....	128,000
Fox River	SW	....do	64	....	....	....	....	....	X	....	.....
Illini	SW	....do	406	X	....	X	X	....	X	....	247,000
Bass Lake Beach	SE	Indiana	20	X	X	X	....	....	X	....	42,603
Tippecanoe River	SE	....do	2,744	X	....	X	X	X	X	....	25,756
Warren Dunes	E	Michigan	1,414	X	X	X	X	....	....	....	568,219
80 to 110 miles:											
Aztalan Historical	NW	Wisconsin	123	X	....	....	....	....	X	....	30,702
Cushing Memorial	NW	....do	10	X	....	....	....	....	....	....	33,194
Kettle Moraine-South Forest	NW	....do	8,212	X	X	X	X	X	X	X	184,453
Lowden Memorial	W	Illinois	208	X	....	X	X	....	....	....	120,000
Oregon Dam	W	....do	28	....	....	....	....	....	X	....	.....
White Pines Forest	W	....do	385	X	....	X	X	....	X	....	514,614
Matthiessen	SW	....do	175	X	....	....	X	....	....	....	86,930
Starved Rock	SW	....do	1,437	X	....	X	X	X	X	....	845,000
110 to 130 miles:											
Kettle Moraine-North Forest	N	Wisconsin	17,843	X	X	X	X	X	X	X	472,500
Lizard Mound Historical	N	....do	20	X	....	....	....	....	....	....	37,001
Terry Andrae	N	....do	186	X	X	X	X	....	X	....	217,167
New Glarus Woods	NW	....do	78	X	....	X	X	....	....	....	14,823
Lake Le-Aqua-Na	W	Illinois	615	X	....	X	X	X	X	....	42,500
Prophetstown	W	....do	53	X	....	X	X	....	X	....	40,000
Woodford County	SW	....do	2,900	X	....	....	....	X	X	X	7,000
Kickapoo	S	....do	1,539	X	....	X	X	X	X	....	107,630
Allegan State Forest	E	Michigan	32,472	X	....	X	X	....	X	X	446,000
130 to 150 miles:											
Old Wade House Historical	N	Wisconsin	105	X	....	....	....	....	....	....	31,458
Blue Mound	NW	....do	714	X	....	....	....	....	....	....	42,186
Devils Lake	NW	....do	2,538	X	X	X	X	X	X	....	1,339,035
Governor Dodge Historical	NW	....do	876	X	X	X	X	X	X	....	133,608
Nevin State Fish Hatchery	NW	....do	105	X	....	....	....	....	....	....	15,000
Tower Hill Historical	NW	....do	108	X	....	X	X	....	X	....	52,489
Apple River Canyon	W	Illinois	157	X	....	X	X	....	X	....	80,000
Johnson Sauk Trail	W	....do	395	X	....	X	X	X	X	....	.....
Mississippi Palisades	W	....do	1,138	X	....	X	X	....	X	....	68,178
U. S. Grant's Home–Memorial	W	....do	5	X	....	....	....	....	....	....	236,836
Fort Creve Coeur	SW	....do	86	X	....	....	X	....	....	....	.....

Table D-25. State parks, forests and recreation areas in the Chicago region, by distance rings and sectors—Con.

Name	Sector	State	Acreage owned	Picnicking	Swimming	Tent camping	Trails	Boating	Fishing	Hunting	Estimated visitations 1960
130 to 150 miles:—Con.											
Jubilee College Memorial	SW	Illinois	96	X	....	X	X	....	X	....	100,000
Weldon Springs	SW	....do	120	X	....	X	X	X	X	....	103,627
Shades	S	Indiana	1,977	X	....	X	X	....	X	....	33,431
Turkey Run	S	....do	1,521	X	....	X	X	....	X	....	174,436
Frances Slocum State Forest	SE	....do	1,087	X	....	X	X	....	....	....	72,000
Salamonie River State Forest	SE	....do	805	X	....	X	X	....	....	....	60,000
Chain O' Lakes	E	....do	1,183	X	X	....	X	X	X	....	.....
Pokogan	E	....do	956	X	X	X	X	X	X	....	190,142
Fort Custer Recreation	E	Michigan	1,228	X	....	X	X	....	....	X	12,291
Grand Haven	E	....do	48	X	X	X	....	....	X	....	1,758,000
Holland	E	....do	43	X	X	X	....	....	X	....	1,274,000
Yankee Springs	E	....do	4,284	X	X	X	X	X	X	X	502,105

Source of data: Official publications of the Departments of Conservation of Illinois, Wisconsin, Indiana, and Michigan, and information provided on specific request.

areas are popular to Chicago area residents for outings involving fishing, the high cost of hunting licenses or permits to nonresidents at present is a strong impediment to their use as hunting preserves. This is borne out by a University of Wisconsin survey on hunting which found that the number of nonresident hunters regardless of State of residence was only a little over 1 percent of 650,000 hunters in 1959.3/ The situation with respect to hunting in Michigan is similar.

Private Sector

Facilities provided through private ownership serve as important resources for daylong and overnight recreation outings. A number of the State parks have lodge or cottage accommodations operated by concessionaires. The numerous lakes in Lake County, Ill. adjacent southeast Wisconsin and southwest Michigan are centers for commercial picnic-beach developments and private resorts. Boating facilities serve thousands of families and groups on Sundays and holidays, and during vacation periods.

Many resorts, lodges, tourist houses, and motels cater to those seeking overnight accommodations; increasing numbers of people are renting or purchasing cottages. Because of the high concentration of population in the Chicago area, many privately-owned recreation facilities depend heavily on residents of the Chicago area seeking water-oriented recreation facilities for daylong and weekend use as the temperature-humidity index rises in July and August.

Skiing also takes place at ski jump areas within the Chicago region, although the major share of resorts providing ski facilities are beyond the 150-mile area.

3/Fine, I. V., and E. E. Werner, "Economic Significance of Hunters in Wisconsin," Wisconsin Vacation-Recreation Papers, vol. I, No. 6, July 1960. Madison: University of Wisconsin, School of Commerce, Bureau of Business Research and Service.

Youth-group camps are located in the Chicago region, but as previously mentioned the majority are found at greater distances.

Travel is a must for outdoor recreation away from the immediate locality of home. As previously noted, travel outside the Chicago area is done largely by automobile rather than mass carrier although certain railroads as well as bus companies provide 1- and 2-day excursions where scenic views are available along the way and at specified destinations. Commercial air travel usually involves more distant destinations, although flying by personal plane for pleasure is done on a more local basis.

After a winter of adverse temperature and snow or ice conditions, traffic is particularly heavy on warm Sundays in spring when early blooming or leafing trees, shrubs, and wild flowers present a colorful scene. Warm weekends in fall tend to bring forth a greater number of pleasure riders who are out to enjoy the scenery of the open countryside before winter conditions prevail. Pleasurable views of Lake Michigan are possible from parallel highways, although urban congestion and jammed highways present imposing hazards to leisurely sightseeing.

The basic elements of recreation travel thus are access highways and roads, scenic views, suitable wayside facilities for eating and rest, and attractive destinations. Access expressways and tollways have extended materially the area in which day and overnight outings can be taken, and Chicago area residents travel the region in search of recreation opportunities. The completion of the northwest and Congress Street expressways in the fall of 1960 save as much as 30 minutes each way from the heart of the city. The tollways in Illinois and Indiana, the freeways in Wisconsin and Michigan, have also made it possible to reach places formerly too distant for a short outing. Inland lakes and rural scenery are

Table D-26. State hunting and fishing areas in the Chicago region, by distance rings and sectors

Name	Sector	State	Acreage		Fishing	Hunting	1960 estimated visitations
			Owned	Leased			
40 to 60 miles:							
Chain O'Lakes Cons.	NW	Illinois	3,476	.....	X	X	209,000
Karcher Marsh	NW	Wisconsin	80	.....	....	X	200
New Munster	NW	.....do	640	1,205	X	X	5,000
Paris	NW	.....do	.....	3,264	....	X	.....
Salem	NW	.....do	.....	1,010	X	X	.....
Des Plaines Cons.	SW	Illinois	.....	4,200	....	X	.....
Des Plaines River Land	SW	.....do	475	.....	X	X	.....
60 to 80 miles:							
Beulah Station	NW	Wisconsin	.....	2,320	....	X	.....
Honey Creek	NW	.....do	516	.....	....	X	2,000
Richmond	NW	.....do	.....	2,349	....	X	.....
Tichigan	NW	.....do	640	460	X	X	3,000
Troy	NW	.....do	.....	7,588	....	X	.....
Turtle Creek Cons.	NW	.....do	358	.....	X	X	1,200
Vernon Marsh	NW	.....do	1,653	1,361	X	X	5,000
Iroquois County	S	Illinois	1,920	.....	....	X	.....
Willow Slough	S	Indiana	8,360	.....	X	X	51,000
Jasper-Pulaski	SE	.....do	7,200	.....	....	X	5,000
Winamac	SE	.....do	3,912	.....	....	X	5,250
80 to 110 miles:							
Cedarburg	N	Wisconsin	19	1,331	....	X	.....
Cedarburg Bog	N	.....do	.....	789	....	X	.....
Colgate	N	.....do	.....	115	....	X	.....
Hartford	N	.....do	.....	1,494	....	X	.....
Jackson Marsh	N	.....do	726	.....	....	X	.....
Ulao	N	.....do	.....	1,353	....	X	.....
Avon	NW	.....do	.....	586	....	X	.....
Brodhead	NW	.....do	.....	3,063	X	X	.....
Clover Valley	NW	.....do	201	1,806	....	X	450
Evansville	NW	.....do	.....	2,920	....	X	.....
Footville	NW	.....do	.....	7,734	....	X	.....
Hanover	NW	.....do	.....	1,100	....	X	.....
Jefferson Marsh	NW	.....do	.....	2,552	....	X	.....
Lake Mills	NW	.....do	420	195	X	X	1,000
Lima	NW	.....do	50	1,850	....	X	1,000
Princess Point	NW	.....do	820	5,128	X	X	1,500
Rome Pond	NW	.....do	970	250	X	X	2,000
Scuppernong	NW	.....do	415	2,294	X	X	2,500
Storr's Lake	NW	.....do	345	547	X	X	1,600
Watertown	NW	.....do	50	.....	....	X	200
Winnebago County	NW	Illinois	688	.....	....	....	.....
Green River Refuge	W	.....do	2,330	.....	....	X	5,000
Sparland	SW	.....do	1,280	.....	X	X	3,200
Crane Pond	E	Michigan	2,913	.....	X	X	.....
Three Rivers	E	.....do	1,964	.....	X	X	.....
110 to 130 miles:							
Adell	N	Wisconsin	.....	1,678	....	X	.....
Allenton	N	.....do	754	1,305	X	X	.....
Eden	N	.....do	.....	2,170	....	X	.....
Kewaskum	N	.....do	.....	758	....	X	.....
Lake Ellen	N	.....do	40	.....	X	....	.....
Nichols Creek	N	.....do	361	825	X	X	.....
Theresa	N	.....do	1,572	3,080	....	X	.....
Albany	NW	.....do	416	1,860	X	X	2,100
Argyle Lake	NW	.....do	.....	2,922	X	X	134,450
Beaver Dam Lake	NW	.....do	3	.....	X	X	23,174
Brooklyn	NW	.....do	202	4,296	X	X	1,000
Browntown	NW	.....do	354	3,650	X	X	2,500
Castle Marsh	NW	.....do	13	.....	X	....	.....

Table D-26. State hunting and fishing areas in the Chicago region, by distance rings and sectors—Con.

Name	Sector	State	Acreage		Fishing	Hunting	1960 estimated visitations
			Owned	Leased			
110 to 130 miles: Con't		Wisconsin....					
Deansville	NW	.....do.....	41	2,630	X	X	900
Dougherty Creek	NW	.....do.....	.....	5	X	....	.....
Hook Lake	NW	.....do.....	52	.....	....	X	50
Horican Marsh	NW	.....do.....	10,483	.....	....	X	.....
Mud Lake	NW	.....do.....	2,156	.....	....	X	.....
New Glarus	NW	.....do.....	.....	3,756	X	X	.....
Shaw Marsh	NW	.....do.....	69	572	....	X	.....
Token Creek	NW	.....do.....	.....	12	X	....	.....
Waterloo	NW	.....do.....	823	6,822	X	X	2,500
Westford	NW	.....do.....	462	601	....	X	.....
Wildcat Swamp	NW	.....do.....	.....	1,915	....	X	.....
Spafford Creek	W	.....do.....	.....	4,074	X	X	.....
Coleta Trout Rearing	W	Illinois	11	.....	X	....	.....
Marshall County Refuge	SW	.....do.....	2,629	.....	X	X	25,000
Spring Branch Cons.	SW	.....do.....	410	.....	....	....	.....
Tri-County Game Pres.	E	Indiana	2,564	.....	X	X	.....
Fennville Game Area	E	Michigan	3,450	.....	....	X	35,000
Gourdneck Game Area	E	.....do.....	1,682	.....	X	X	.....
Swan Creek Exp. Sta.	E	.....do.....	6,862	.....	X	X	20,000
Wolf Lake Fish Hatchery	E	.....do.....	300	.....	X	....	5,000
130 to 150 miles:							
Eldorado	N	Wisconsin ...	2,836	.....	....	X	.....
Killsnake Creek	N	.....do.....	711	.....	....	X	.....
LaBudde Creek	N	.....do.....	104	.....	X	....	.....
New Holstein	N	.....do.....	.....	1,345	....	X	.....
St. Cloud	N	.....do.....	.....	3,352	....	X	.....
Sheboygan Falls	N	.....do.....	.....	3,154	....	X	.....
Supple Marsh	N	.....do.....	.....	321	....	X	.....
Black Earth Creek	NW	.....do.....	.....	70	X	....	.....
French's Creek	NW	.....do.....	1,562	1,633	X	X	.....
Garfoot Creek	NW	.....do.....	.....	17	X	....	.....
Grassy Lake	NW	.....do.....	283	.....	....	X	.....
Jenning's Creek	NW	.....do.....	410	.....	X	X	.....
Mazomania	NW	.....do.....	2,207	7,543	X	X	3,230
Mud Lake	NW	.....do.....	748	.....	....	X	.....
Otter Creek	NW	.....do.....	.....	19	X	....	.....
Pine Island	NW	.....do.....	3,739	.....	....	X	.....
Portage	NW	.....do.....	.....	938	....	X	.....
Salmo Pond	NW	.....do.....	4	.....	X	....	.....
Silver Creek	NW	.....do.....	.....	2,405	....	X	.....
Waunakee	NW	.....do.....	238	.....	....	X	50
Witwerr	NW	.....do.....	.....	2,241	X	X	.....
Yellowstone	NW	.....do.....	1,954	.....	X	X	.....
Benton	W	.....do.....	.....	2,120	X	X	.....
Wyanet	W	Illinois	18	.....	X	....	.....
Fulton	E	Michigan	672	.....	....	....	.....
Barry	E	.....do.....	14,093	.....	X	X	.....

Source of data: Official publications of the Department of Conservation of Illinois, Wisconsin, Indiana, and Michigan, and information provided on specific request.

particularly attractive in the dairy section and Kettle Moraine area of southeastern Wisconsin, receiving many visitors. An inventory of private lake resort areas popular to people from the Chicago area would have to include Lake Delavan, Lake Geneva,, and Brown's Lake as being among the most prominent. While Wisconsin Dells and Devils Lake are too far for a day outing, they are well within weekend distance of the residents of northeastern Illinois who have helped to make this section the most visited part of Wisconsin for recreation purposes. Chicagoland weekend visitors also are found in the Green Lake and

Lake Winnebago area, and even as far north as the beautiful Door County Peninsula.

Pleasure driving in Illinois, away from Lake Michigan and the lake section of Lake County, is mainly destined to specific places. People from northeastern Illinois travel across the State to reach Galena, the Palisades, and the Mississippi River Valley, although these trips because of distance again are best taken on weekend outings. As previously mentioned, Starved Rock and White Pines Forest parks are notable destinations for 1-day and overnight outings, as is Springfield the seat of State government and center of memorials of Abraham Lincoln. Michigan, with its scenic "riviera" along Lake Michigan, the sand dunes, fruit orchards, and inland lake resorts amidst a rural landscape, attracts more and more people from the Chicago area. The House of David Colony, the Holland tulip festival, the car ferry across Lake Michigan by way of Milwaukee and Ludington, and other attractions also provide incentive for recreation travel. Lack of limited-access highways into Michigan from Illinois permitting fast moving through traffic in the past, however, has tended to concentrate pleasure driving in Michigan more on holiday weekends and vacation periods.

SUMMARY AND CONCLUSION

The distribution and use of existing opportunities available to Chicago area residents for day and 2-day outings may be summarized as follows:

1. The forest preserves, Lake Michigan shoreline, and inland lake areas provide the major share of opportunities for outdoor recreation in the Chicago area. On peak use Sundays, for example, officials of the Chicago Park District estimate that 200,000 people use the Chicago beaches, while officials of the Cook County Forest Preserve District estimate that 500,000 people visit their holdings.

2. State owned and controlled recreation areas receiving the heaviest use by Chicago area residents are those that are easily accessible by distance to the urbanized area (e.g., Indiana Dunes State Park to the southeast, Kankakee River State Park to the south, and Illinois Beach State Park to the north), or are most accessible by tollways or major highways (Devils Lake, White Pines, Starved Rock, Warren Dunes, Pokagan). Most of the State park and recreation areas of the four States touching Lake Michigan, however, are located outside the Chicago region.

3. Private or semiprivate facilities are important in serving the needs of residents of the Chicago area for day and overnight outings. The Morton Arboretum is an outstanding attraction for those having an interest in viewing trees and shrubbery in a natural setting; the lakes in northwestern Lake County and the Fox River Valley which drains the Chain O' Lakes and southeastern Wisconsin are centers of concentration for private resorts, cottages, private beaches and access points for water-oriented interests. Cottage and resort accommodations are also centered on the shores of Lake Michigan in Indiana and southwest Michigan, and the inland lakes of southwest Michigan provide many private facilities for outdoor recreation oriented to water.

4. The essentially rolling countryside of farms and small wooded areas provides a rural scene for pleasure driving, providing variety of landscape features to those who live in the more congested surroundings of the urbanized area. Views of Lake Michigan also attract sightseers who in the process make use of public and private facilities for outdoor recreation.

CASE STUDIES SUPPLEMENTARY TO CHAPTERS TWO AND THREE

GROUP PICNICS

Two national surveys of recreation behavior and interests indicate that picnicking is one of the most popular types of outdoor recreation. An inventory of opportunities for outdoor activity in and around the Chicago area suggests that facilities for picnics and cookouts probably come closer to serving the needs of the residents than those for any other type of outdoor recreation.

While no records are maintained as to the total number of picnickers, permit records for individual groups of 25 or more are maintained by the Cook County Forest Preserve District. These records provide a basis for assessing some of the characteristics of group picnicking. A 25 percent sample of 1959 permits indicated that at least half, and probably more if the exact nature of each group were known, were neighborhood in character—church, school, scout, local business, post, club or lodge. Other groups appeared to include people from more than one neighborhood—factory, large store or firm, societal, hospital staff, union, institute, and council. Cursory inspection of names of clubs or organizations established that a variety of ethnic groups were represented—Polish, German, Italian, Croatian, Irish, and Swedish. Family reunions are also prominent.

Most group picnics were held during the warm season with four out of five such picnics held during June, July, and August. Sunday picnics predominated, constituting 45 percent of the total picnics and 53 percent of the estimated attendance during the summer months of 1959. The second most important day, Saturday, had only 18 percent and 17 percent, respectively.

Individual permits carry the name and address of the person obtaining the permit as well as that of the group involved. It was noted that a number of groups originated in communities outside Cook County, including those in Lake County, Ind. The median ratio of group picnickers to township population in suburban Cook County was found to be 29, with only a small difference noted between the northern (32), western (29), and southern (27) suburban areas. These sections respectively tend to contain upper middle to upper, middle, and lower middle to lower income classes.

One of the notable characteristics found is that most picnics were held in those sections of the forest preserve which are closest to home or organization location. In fact, the preference for nearness is so well recognized by district officials that an attempt is made to assign picnic groves on this basis whenever possible. The association between residential neighborhood and picnic grove locations was found for both Chicago and suburban areas.

A tabulation of group picnickers according to postal zones within the city indicates a slightly different picture from that obtained in the suburban section. While the median ratio of picnickers to zone population was almost identical (28) to that found in the suburbs, within the city two primary variations were noted. With the exception of the neighborhoods immediately north and south of the Loop of Chicago, the ratio of picnickers to population was less for the zones immediately bordering the lakefront. This occurrance among upper, middle, and in part lower income groups provides some evidence that people having a high degree of accessibility to beach and lake facilities tend to make less use of the recreation opportunities of the forest preserve. Secondly, proportionately fewer group picnics originated on the south side than on the north side of Chicago, even though comparable facilities are available, supporting other findings that lower income groups (which are more prevalent on the south than north side) participate less in outdoor recreation.

Three generalizations, therefore, are possible from a study of available data. The first is that group picnicking is widespread in popularity, and day outings of this type take place at the closest suitable place. The second is that while no overall difference exists between participation rates between Chicago and the built-up suburban area, the incidence of group picnicking is less in the lower income neighborhoods of Chicago. Place of residence does play a part—juxtaposition to Lake Michigan tends to orient activity toward lakefront recreation opportunities, while somewhat less group picnicking activity takes place among the lower quartile income groups in the city than among their counterparts in the suburbs.

FISHING AND HUNTING

Fishing and hunting are outdoor activities in which fewer residents of large metropolitan areas participate than for the Nation as a whole. Judging from the types of inquiries directed to the Cook County Forest Preserve District, however, interest in fishing is high among Chicago area residents because inquiries on fishing sites constitute the most important single category of requests other than general inquiries on the nature of the forest preserves and facilities included (table D-27).

A tabulation of the ratio of inquiries to population by suburban townships and city postal zones in Cook County indicates that proportionately more inquiries on fishing sites are made by residents of Chicago than by suburbanites. This is believed due to the greater dependence on local fishing sites by Chicago residents rather than greater overall interest in fishing. In contrast to group picnicking, however, proportionately more inquiries are made from the southern sections than northern communities or neighborhoods, both in the city and the suburbs. The results obtained thus suggest that there is greater interest in local fishing facilities among those with incomes below the median than those above. The highest rate of inquiries of all were received from the western suburbs, perhaps because forest preserve

headquarters are located there. Few inquiries are made on hunting opportunities, probably because of general knowledge of the major purpose of county forest preserves.

Data on State fishing and hunting licenses issued in the Chicago area on a population unit basis in 1950 and 1959 indicate that fewer licenses are being sold today (table D-28). This means that either there is less participation in hunting and fishing among residents of the area today than in 1950 or proportionately greater numbers are now going elsewhere to engage in these forms of outdoor recreation. Both could be true. A comparison of the Chicago area and the remainder of Illinois in the incidence of fishing in Wisconsin, however, indicates that there is at present less participation among residents of the Chicago area. Based on a study of fishing and fishermen in Wisconsin, it was found that 20 percent of the 1959 nonresident licenses were purchased by Chicago area residents as against 48 percent Illinois residents elsewhere,4/ even though over 60 percent of the Illinois population resides in northeastern Illinois with a more favorable location to fishing sites in Wisconsin. It was also found that of the overnight fishing trips to Wisconsin, 22 percent came from the Chicago area and 50 percent from other parts of Illinois; for 1-day only fishing trips the percentages were 12 percent and 36 percent, respectively.

While there has been an increase of private hunting and shooting clubs, a decline in licenses issued to hunters attests to decrease opportunities for hunting locally. More distant trips appear to be taken to central and southern Illinois and to the Mississippi River Valley by small parties of men. Hunting on private farm land in the area increasingly is being done by members of private clubs.

Table D-27. Topical inquiries of the Cook County Forest Preserve District, 1958 and 1959

Type of information requested	Percent of total
Maps, general information	50.0
Fishing	24.8
Nature centers	7.8
Family picnics	5.3
Trails	2.9
Golf	2.3
Swimming	1.7
Berries, nuts and fruit	1.4
Cook outs	0.7
Camping	0.7
Illinois State recreation	1.0
Group picnics	0.4
Boating	0.4
Winter sports	0.4
Hunting	0.1
Zoo	0.1

Source: Cook County Forest Preserve District records.

4/Fine, I. V., and E. E. Werner, "Economic Significance of Fishing in Wisconsin," Wisconsin Vacation – Recreation Papers, vol. I. No. 10, Madison: Bureau of Business Research and Service, University of Wisconsin, October 1960. Computed from table 3, p. 2.

Table D-28. Fishing and hunting license data

County	Percent of total population			
	Fishing licenses issued		Hunting licenses issued	
	1950	1959	1950	1959
Cook	4	2	2	2
Lake	36	28	7	5
McHenry	30	13	12	8
Kane	11	9	7	5
Du Page	5	5	4	3
Will	10	11	7	6
Chicago area	6	5	3	2

Source of license data: Department of Conservation, State of Illinois, and U.S. Fish and Wildlife Service.

BOATING

Boating is one of the outdoor activities that has grown rapidly all over the Nation since the late forties. The demand for new boats is highly elastic, however, being sensitive to booms and recessions.

Facilities for boating in the Chicago area and region have not kept up with the demand; there are obvious shortages in inland lake and stream waters, storage, mooring and launching facilities for small powerboats. Lake Michigan provides an excellent opportunity for larger pleasure craft, but the requests for mooring permits from the Chicago Park District each year far exceed the number of spaces provided. The Chain O' Lakes and parts of the Fox River provide boating opportunities, but there is common complaint of conflicts with fishing and that the limits of boating already have been reached. The larger lakes of the forest preserves permit small rowboats, and sailing is permitted on the lagoons in north Skokie Division. A new launching site was opened in 1961 to the south to provide access to the Cal Sag Channel. The efforts being extended to increase boating facilities only serve to emphasize the lack of good facilities to meet local needs.

A boat launching guide issued locally by one of the metropolitan newspapers lists the facilities in the region most available for motorboats. Launching sites are concentrated along the Illinois River, in the morainic lake area of northern Lake County and adjoining southeast Wisconsin, and in southwest Michigan. These areas also provide opportunities for other types of outdoor recreation which compete and often conflict with boating activity. Boaters complain of the lack of facilities, and in turn are condemned by others for the traffic dangers on highways created by boat-towing automobiles, by the noise of motors on the water, and by the danger fast boats and skiers create for swimmers and fishermen.

Part of the growth in boating has come about because it is less sex-typed and class-typed than formerly. Both male and female segments of the population participate as well as white-collar and blue-collar classes. Boating is no longer an instrument to be used just for fishing and hunting; cruising for pleasure, water skiing and scuba diving have

elevated boating to a primary activity in itself. Concomitants of the relative increase in nonfishing uses have been a radical increase in average horsepower and purchase price of motors and motorboats. Today, car ownership, shorter working hours, and higher income are general prerequisites to boat or motor ownership.

During the 3 summer months of 1960, according to the National Recreation Survey, about one out of five people 12 years of age and over had a boating experience of about 1.2 days per person or 5.5 days per boating participant. Slightly fewer residents of large metropolitan areas participated than for the Nation as a whole, although those who participated spent on the average about 1 additional day boating.

Table D-29 gives the estimated outboard motors in use at the end of 1959 and the estimated motor sales in 1960 for the 11 largest metropolitan area boat markets. It is believed that the estimates of motors in use are overstated because of a low scrappage assumption. The Chicago area is considered to be the second largest metropolitan market, partly because of size but also because of the favorable comparison of motors in use to population. In a consolidated consumer analysis by leading newspapers for 22 American cities, however, the comparison is not as favorable—for example, only 3.2 percent of the householders owned boats (1958) and 8.2 percent owned motors (1960) in the Chicago market area as against 8.8 percent and 19 percent, respectively, in Milwaukee.5/

Examination of completed questionnaires from a consumer analysis survey of Chicago and a two and one-half county suburban area has permitted cross tabulation of outboard motor ownership with certain characteristics of the population. Suburban residents presumably engage in boating to a greater extent than city dwellers—the 1960 percent of households owning a boat motor was 11.8 and 6.5 percent, respectively.

5/"Consolidated Consumer Analysis," 1958 and 1960. Data from similar surveys by local newspapers participating in the consumer analysis.

As expected, a class relationship exists between boat motor ownership and car ownership. Of the motor-owning households, 97 percent are car owners and 3 percent non-car owners with only 0.5 percent difference between Chicago and the suburbs. Again, motor ownership is associated with family income, with ownership increasing with income. The low-income household in the city of Chicago has the lowest motor ownership of all (and car ownership as noted previously). With respect to age, boat motor ownership increases with adult age through the 40's where a decline occurs. Ownership is highest in the 41 to 50 age class, with the rate of ownership (11 percent) about 60 percent above those between the ages of 31 to 40.

The rate of motor ownership varies within the city of Chicago, from a low of 5 percent on the south side to a high of 11 percent on the southwest side. The northwest and southwest sides have the highest rates; they include the lowest net residential density areas and are closer to the lakes and rivers suitable for boating away from Lake Micigan. A wide range (8 to 15 percent) characterizes ownership rates in the suburban sectors. The northern suburbs surprisingly have the lowest rate, althoguh these communities have the highest income and with accessibility to Lake Michigan. The northwest suburbs, which are closest to the lake resort areas in northern Illinois and southeastern Wisconsin, have the highest rate, closely followed by the southwest sector.

In brief, it is believed that high interest is held in boating in the Chicago area, but that lack of available opportunities for day outings of this type have reduced the participation rate.

SWIMMING

Swimming, sunbathing, wading, and water play are leading recreation activities of Chicago area residents, particularly of children and young adults. Lake Michigan because of its cool lake waters is an important resource especially during July and August for swimming although beaches are opened earlier.

Table D-29. Leading metropolitan markets for outboard motors

Metropolitan area	Motors in use		Motors sold		Percent of United States population
	December 31, 1959 (thousands)	Percent of United States	1960 (thousands)	Percent of United States	
New York	368.5	6.3	21.3	4.2	5.9
Chicago	236.0	4.0	13.0	2.5	3.4
Detroit	194.0	3.3	12.8	2.5	2.1
Los Angeles	136.2	2.3	15.6	3.1	3.7
Minneapolis	131.3	2.2	9.2	1.8	0.8
Boston	98.4	1.7	8.2	1.6	1.4
San Francisco	80.5	1.4	8.1	1.6	1.5
Philadelphia	75.0	1.3	6.0	1.2	2.3
Seattle	74.1	1.3	6.4	1.3	0.6
Milwaukee	69.1	1.2	6.5	1.3	0.7
St. Louis	66.8	1.1	6.2	1.2	1.1
United States	5,845.0	....	510.0	....	....

Source: "The Boating Business, 1960," and "Boating 1959," Outboard Boating Club of America and National Association of Engine and Boat Manufactures.

Swimming in the numerous lakes of Lake County and southeast Wisconsin overcrowds facilities in summer. Public, semipublic and private indoor and outdoor pools abound in the area, evidencing the third-ranking popularity of swimming among outdoor recreation activities.

There is no known count of places for swimming in and around the Chicago area. The Chicago Chapter, American Red Cross, conduts "learn to swim" classes in 296 pools in Cook and DuPage Counties, 139 of which are outdoor pools. Over half of the listed pools are provided by school and park districts, but country clubs, motels, industrial plants, camps, municipal and swim clubs provide numerous private, semiprivate opportunities for outdoor as well as indoor swimming. While Chicago's restrictive ordinance has prevented construction of private residential pools in the city, it is estimated there are about 1,000 backyard pools in the entire Chicago area.

Some indication of the popularity of swimming can be obtained from available attendance figures. The three pools of the Cook County Forest Preserve District registered 336,525 visitations in 1959, an increase of almost 40 percent over that of 1949. The Chicago Park District registered 1,991,117 visitations to its outdoor pools and 341,903 to the natatoriums, and district officials estimate that there were over 12.5 million beach visitations in 1959. The Chicago Public School District summer swimming program also registered 153,169 swims (22,000 individual children) in its indoor pools. The "learn-to-swim" program is believed to be the largest of that of any city in the Nation—high schools with pools now find that 70 to 90 percent of the incoming freshmen know how to swim.

The cool waters of Lake Micigan except from mid-July through August, the problem of pollution of the streams and inland lakes in the six-county area, safety problems connected with swimming in natural bodies of water, and the increasing popularity of swimming have resulted in rapid pool development in the area. Private nonprofit swim clubs have arisen in a number of suburbs, municipalities have constructed pools, increasing pressure has been placed on park districts to provide swimming facilities. At present, the trend is toward increased swimming in artificial bodies of water where sanitation and safety conditions can be more closely regulated.

The beach areas along Lake Michigan and numerous lakes in Lake County provide the natural waters for swimming in the six-county area. Outside the Chicago area, the major points of attraction are the beaches of northwestern Indiana and southwestern Michigan, and the lakes of southeastern Wisconsin. Outdoor swimming also is combined with other outdoor activities such as camping, picnicking and fishing, and at overnight stays at favored resort, motel, and cottage locations. Many country clubs have outdoor pools in which children swim while parents use the golf courses and other club facilities.

While not considered as outdoor recreation, much swimming in indoor pools takes place in winter. Schools and local colleges, the Chicago Park District, YMCA, private clubs, and other organizations provide facilities for off-season swimming in which children are the prime participants. In high schools having suitable indoor pools, swimming is a required part of the physical education program—in the Chicago Public School System, for example, approximately 60 percent of the high school enrollment takes part in the swimming program.

Some evidence of the interest in swimming is found in a vacation recreation survey made by the University of Wisconsin.6/ Questionnaire returns from a sample of persons who previously had made written requests for information to the Madison or Chicago information offices maintained by the Wisconsin Conservation Department indicated high interest in swimming opportunities. About two out of five persons writing to the Chicago office (over 90 percent of all inquiries coming from Illinois residents) specifically requested information on swimming and water sports. Water-oriented activities led the list of types of activities for which inquiry was made.

CAMPING

Camping, as the term is used locally, includes at least three different types of outdoor activity. Day camping is a daylong activity sponsored by private and public organizations in local facilities for the benefit of children primarily between the ages of 7 to 12. Youth-group camping is overnight, weekend, and long-term vacation activity for children more typically between the ages of 10 to 13 in camps both locally and at some distance from the Chicago area. Adult camping is mainly family camping in tents or trailers and station wagons on an individual basis, although certain organizations such as churches and the YMCA sponsor adult activities or family outings in a campsite environment.

Day camping

Day camps are most prevalent in the forest preserves by various types of youth-group organizations—Girl Scouts, Campfire Girls, YMCA branches, settlement houses, Jewish community centers, recreation departments, schools or school social centers, private play clubs. Day camps in the forest preserves operate during the Monday or Tuesday through Friday period in the warm season in areas specified through advance permits. The areas used are generally picnic groves providing shelters and open areas for play. In addition to nature study, most day camps emphasize group activities such as camping skills, cookouts, games, crafts, and pageants. Many of the camp organizations using the preserves of Cook County schedule trips to one of the nature centers, and on scheduled days a District naturalist conducts nature study outings. Many children come from underprivileged homes and neighborhoods, and day camps represent for many children of the "inner city" of Chicago the only contact with the outdoors in a naturalistic setting.

The number of children or child-days in day camps, however, has tended to decrease somewhat over the

6/Fine, I. V., and E. E. Werner, "Analysis of Requests for Vacation-Recreation Information," vol. I, No. 9, September 1960. Madison: University of Wisconsin, Bureau of Business Research Service.

last decade. The number of child-days naturalist service in the Cook County preserves was 29,442 in 1960 against 32,192 in 1950. The reason for the apparent stagnation in activity is due to the increase in resident youth camping outside the Chicago area, in family camping, and to a decline in private day camp registrations.

Day camps are particularly helpful in serving the interests of young girls. Part of this is due to the fact that organizations for boys are oriented more toward overnight camping, and wives are more available than husbands as leaders during the week. The Girl Scout day camps alone, for example, accounted for over 40 percent of all 1960 day campers in the Cook County Forest Preserve. Day camping is more prevalent among children in suburban Cook County—for example, less than 10 percent of the Chicago Girl Scouts had a day camp experience as against over 20 percent of those in the suburbs. The difference is even more pronounced than these figures indicate because while about 13 percent of the girls of Scout age in Chicago were troop members, in suburban communities the proportion runs over 25.

Overnight camping

Organized youth-group overnight camping is sponsored primarily by nonprofit agencies and organizations deriving financial support by voluntary contributions and by community fund-raising efforts. Weekend camping takes place in camps owned by such agencies as well as at designated places in certain of the forest preserves. Long-term resident camping also is found in camps within the Chicago area, although typically at some distance away in Wisconsin and Michigan. For example, of 14 YMCA camps with a total of almost 2,000 acres, only 5 of the camps and 35 percent of the acreage are in the six-county area; actually, 4 camps and 42 percent of the lands are beyond the 150-mile zone. Of 23 Boy Scout Council resident camps totaling about 14,000 acres, 11 camps with 92 percent of the acreage are beyond the 150-mile zone. Of 11 Girl Scout resident camps, only 2 are in the six-county area with 6 more than 150 miles away. Leaders of these organizations point to two major factors governing location of long-term camps—the high cost of land in the Chicago area and better sites in the wooded lake sections outside the Chicago region to the north. Distance increasingly becomes less important in selection of camp locations.

Incomplete figures preclude concise comparative analysis of the characteristics of youth campers. For some 60 "red feather" resident camps polled by the welfare council, about 65 percent of the children live in Chicago, 27 percent in suburban Cook County and the remainder outside. "Inner city" children are not as well represented as those living in outer sections of the city and in the suburbs—a survey by the Chicago City Missionary Society indicated that under 6 percent of the children in the underprivileged sections, white and nonwhite alike, had an overnight camp experience.

Camps operated by private individuals and groups for profit are much more expensive, averaging around $75 a week per child. While a few such resident camps operate in the Chicago area, of the 57 listed by the Chicago section of the American Camping Association, 80 percent are located beyond 150 miles of Chicago, with over 75 percent being located in Wisconsin alone.

Family-type camping

Family camping is one form of outdoor recreation that has received nationwide interest since World War II. In fact, many feel that this form of camping probably has increased at a greater rate than any other form of activity in a natural environment in recent years. It is an outdoor venture that can be shared by the entire family, it is inexpensive if only the basic equipment of sleeping bags, tent and stove are purchased, it symbolizes "roughing it" but with a degree of comfort. One spokesman for a local travel information agency believes that camping activity among residents of the Chicago area has increased at least 10 percent each year since 1955, that interest in family camping opportunities has increased over 200 percent since World War II. Explanation is given in terms of the increase in family-type vacations and overnight weekend trips, the reoccuring recessions during the last decade which have helped stimulate the desire for inexpensive pleasure trips away from home, the fact that the cost of basic camping equipment has not kept pace with general inflation.

Overnight, weekend camping opportunities are limited in the Chicago region and are overcrowded, particularly those that have scenic attractions and offer facilities for outdoor activity such as boating, fishing and swimming. The most popular close-in facilities to Chicago area residents are the Indiana Dunes, Starved Rock, Illinois Beach, and Big Foot Beach. Indiana Dunes has been a major attraction, providing a lakefront, dunes environment. Among the more distant campsites for weekend outings, as well as for vacation periods, Devel's Lake, White Pines, Turkey Run and Pokagan, and Warren Dunes are noted as being particularly frequented by people from the Chicago area. Table D-30 provides data on capacities and overall camp attendance at the State park and forest areas in the Chicago region.

Besides weekend camping, vacation camping is an important part of the outdoor recreation experience. Although metropolitan Chicago residents may be found camping throughout the United States and Canada, Wisconsin and Michigan are particularly popular. In a 1960 survey of campers in Wisconsin State parks and forest recreation areas, it was found that 20 percent were from the Chicago area, about half as many as those from the entire State of Wisconsin. In a 1960 survey in Michigan it was found that almost one out of every five nonresident campers in Michigan were from Illinois. Surprisingly, a somewhat higher portion of out-of-state campers in the Upper Peninsula were Illinois residents (22 percent) than in the southern part of Michigan (18 percent), indicating the importance of northern Michigan as a vacation camping area. The survey also indicated that a larger number of Illinois campers visited the northern than the southern section of Michigan.

The overcrowded conditions of public campgrounds attest to the current deficiency in opportunities for weekend and vacation camping within 150 miles of

Table D-30. Public campgrounds in the Chicago region—1960 data

[Leaderline indicates data not available]

State and area	Campsites	Number of campers	Camper days	Facilities
Illinois:				
Illinois Beach ...	....	11,687	22,334	F-Pa-Sw-T
Chain O'Lakes...	....	10,717	29,089	B-F
Channahon Pkwy.	10	3,554	4,368	F-Pa
Kankakee River	....	12,416	33,050	F-Pa-T
Illini	10	5,137	15,487	F-T
Lowden Memorial	....	5,186	9,633	F-T
Starved Rock	50	10,234	18,225	F-Pa-R-T
White Pines Forest	....	18,609	42,679	F-Pa-T
Lake Le-Aqua-Na	....	1,476	3,532	B-F-Pa-T
Prophetstown	10	176	718	F
Kickapoo.....	....	957	2,542	F-Pa-R-T
Apple River Canyon	....	7,145	19,159	F-T
Miss. Palisades..	....	6,871	13,754	B-F-Pa-T
Johnson Sauk Trail	20	953	2,420	B-F-Pa-T
Jubilee College ..	....	4,278	9,687	T
Weldon Springs...	....	3,153	6,762	B-F-Pa-T
Total Illinois ..	....	102,549	233,439	
Wisconsin:				
Big Foot Beach ..	144	....	22,493	B-F-Sw
Terry Andrae	105	....	27,951	F-Pa-Sw-T
New Glarus Woods	....	....	1,251	Pa-T
Devils Lake	550	....	187,037	B-F-Pa-R-Sw-T
Tower Hill.....	21	....	3,869	F-Pa-T
Kettle Moraine ...	386	....	87,446	F-R-Sw-T
Governor Dodge ..	20	....	6,529	F-Sw-T
Total Wisconsin	1,226	....	336,576	
Indiana:				
Indiana Dunes....	200	....	100,388	F-Pa-Sw-T
Tippecanoe River	50	....	20,210	F-Pa-R-T
Bass Lake	15	....	16,978	B-F-Pa-Sw
Turkey Run.....	50	....	24,623	F-Pa-R-T
Shades.....	5	....	9,300	F-Pa-T
Pokogan	40	....	52,987	B-F-Pa-R-Sw-T
Total Indiana ..	360	....	224,486	
Michigan:				
Warren Dunes	75	12,764	31,723	Sw-T
Yankee Springs...	207	20,580	58,995	B-F-Sw-T
Holland	377	33,164	130,908	F-Sw
Grand Haven.....	237	16,334	65,656	F-Sw
Total Michigan	896	82,842	287,282	
Grand Total....	....	....	1,081,783	

Key to Facilities:

B – Boating Pa – Playground area Sw – Swimming
F – Fishing R – Riding T – Trails

Source: Data obtained from each State Department of Conservation.

Chicago. The camping area of the Indiana Dunes State Park, for example was closed several times during the 1959-60 season for lack of camp space. Another example of the conditions that exist is the case of Devil's Lake, Wis., one of the most popular places for Chicago area family and other group camping enthusiasts. Because of sanitation problems, State conservation officials deemed it necessary in 1960 to reduce the number of campsites to 550—formerly the number of tents at the maximum period exceeded 1,500 even though not all potential campers could be accommodated. While the decision was announced in Wisconsin, the information apparently did not reach people living in adjoining States. On the Fourth of July weekend, at least two, perhaps three camping groups were turned away for every one assigned a site; belatedly a part of the Baraboo Ordnance Plant grounds were opened, farmers around Devil's Lake State Park opened farm yards and fields to accommodate the overflow.

The deficiency in opportunities for family camping and the increase in demand with each succeeding year has been noted publicly by officials in Illinois, Wisconsin, Indiana, and Michigan, with promises given to take positive steps to add materially to the number of available campsites. 7/ Each of the States recognizes the large market centered in the metropolitan complex around the southern end of Lake Michigan.

To date, campsites have been provided almost entirely in State-owned facilities. Temporary housing away from home for recreationists as provided by private enterprise has been in the form of motels, hotels, resort cottages and cabins, overnight lodging in private rooms, and trailer parks. Private capital has not been channeled into the development of parks or resorts in which tent, trailer, or station wagon camping is permitted or encouraged. Only two private campgrounds of a more permanent nature and within range of the Chicago area for tent camping are known—one near Wisconsin Dells, Wis., and the other in the western part of northern Illinois. Each provide about 200 campsites and advertise recreation facilities appealing to family campers. Six other private sites are listed in being available to campers in Wisconsin within 150 miles of Chicago, but for the most part the facilities are not well developed or designed specifically for camping. While certain nonprofit agencies such as the YMCA, church groups, and welfare organizations encourage adult and family camping at certain of their camps, the number actually making use of such facilities is nominal to date.

WALKING AND HIKING

According to the National Recreation Survey, some 17 percent of the residents in the large metropolitan areas of the Midwest, 12 years of age and over, participated in nature walks during the summer of 1960. Thirty-eight percent also took pleasure walks, while 6 percent hiked on trails with pack. Only one out of five of those stating a preference, however, listed walking for pleasure among their first three choices for a selected outdoor activity.

7/ By way of example, the annual number of camper days in Wisconsin State parks and forests has had a phenomenal increase of over 25 percent each year since 1953. In Michigan, 184,000 camp permits were issued in 1960 with some 42,000 additional parties denied access because use would exceed designed capacity and standards.

A breakdown of participation by age groups in the Nation indicates that it is the youthful segment of the population that engages in these activities. For both males and females, it is the 12-17 age group that participates to any significant degree in nature walks and hiking, and a steady decline in the proportion walking for pleasure takes place with each successively older age group.

Chicago area residents, like those in other large metropolitan areas, walk for pleasure, of course. On seasonable days and nights, city dwellers can be observed walking around the block, through business districts to window shop, or through neighborhood parks. The Chicago Park District contains certain sites designed specifically for nature study while walking. Along the lakeshore, the park district has many miles of paved walks adjoining beaches, promontories, inlets, and small boat harbors. The forest preserves maintain trails for pleasure walking and nature study, many of which are centered on picnic groves. Walking and nature study takes place outside the Chicago area in State-owned recreation areas, one of the closest and most enjoyable being the Indiana Dunes State Park.

One of the common statements of recreation officials in the area, however, is that there is a general disinclination to walking among adults. There is also a general lack of awareness of natural sites of interest to walkers, and according to some there is a lack of interest except for the most dedicated nature lovers. In spite of the efforts of officials of the Cook County Forest Preserve District, for example, to provide footpaths into the interior of the wooded preserves, to distribute maps showing all trails, most people make use of the recreation facilities that are provided on the margins of the preserves and within sight of their automobiles. Three nature centers with a system of educational trails, however, are proving popular, particularly among youth groups and families—the Little Red Schoolhouse attracts an estimated 60,000 visitors a year and Trailside Museum about 40,000.

Youth camping groups participate in nature walking and trail hiking. Lengthy, marked trails are found in the Palos Hills Division of the Cook County District, and the Fort Dearborn Trail and Illinois Trail along the Illinois and Michigan Canal and Illinois River are well known. Day campers also utilize the trails in the preserves.

Nature walking by groups is sponsored not only by the Boy Scouts, Girl Scouts, and other organizations, but by outing clubs which cater to young adults. The most important of the young adult organization in terms of membership is the American Youth Hostels (AYH), with a current local membership of some 3,000 people. About 90 percent of the members are between 18 and 30 years old and most are unmarried. Besides outings for canoeing, cycling, horseback riding, and skiing, there were 40 weekend hiking outings held by the AYH in 1960—13 in the metropolitan area, 10 elsewhere in Illinois, 7 in Michigan, 5 in Wisconsin, 2 in Indiana, and 3 in Missouri and Kentucky.8/ Another outdoor group composed mostly of young adults is the Sierra Club with about 200 members from the Chicago area. Like the AYH, this club sponsors a variety of outings—hiking, walks, camping, river touring, sightseeing, etc. Exploration, conservation, ecological study, and scenic tours are the main purposes of this organization.

There are also a number of hiking clubs whose members represent an older age group than the outdoor clubs. The better known are the Prairie Club, Forest Trails Hiking Club, Fort Dearborn Club and the Park District Outing Club. There are also community clubs such as the Fox River Valley Hiking Club.

In addition, there are 100-or-so nature and conservation clubs formed for specialized purposes. The types of interests of these can be seen by their names—"Friends of Our Nature Landscape," "Wildflower Protection Society," "Chicago Ornithological Society," "Illinois Audubon Society," "Evanston Bird Club," "Earth Science Club of Northern Illinois," "Friends of the Pleistocene," "Chicago Mountaineers," "Chicago Camera Club." Conservation groups include "Nature Conservancy" and "Natural Resources Council of Illinois."

In summary, before the development of modern forms of transportation, walking and hiking were important forms of outdoor recreation. Today, and especially in large urbanized areas such as the Chicago area, walking is not only more difficult but hazardous. Many fear that urban people are losing contact with nature and interest in walking for pleasure. In fact, there is some propensity to regard adult participants in hiking and outing clubs as eccentrics and "egg-heads." The group organization of walking and hiking outings also is indicative of the trend toward institutionalization of outdoor activity among urbanized people. The young and middle-aged adult appear to have lost the art of walking; even the young who reach driving age take to motorized substitutes.

HORSEBACK RIDING

An index of the importance of horseback riding today as against a previous time is found in the operation of commercial stables. According to a leading source,9/ in 1920 there were 12 commercial stables in the Chicago area with a total of about 400 riding horses serving perhaps 4,000 riders and using 26 miles of constructed bridle paths. Of these, eight were located in Chicago and four in the suburbs. By 1940, the construction of 470 miles of trail outside Chicago was accompanied by an increase in riders to around 40,000, riding 4,000 horses stabled in over 100 major stables and a number of smaller ones. World War II conditions brought about a substantial decline in the horse population, and since then many miles of trail have been absorbed through new highway construction, new subdivisions and other urban-type facilities. It is estimated that by 1960 the number of riders had declined to about 30,000, riding about 3,000 horses stabled in 50 large and an unknown number of small stables.

Commercial stables in the city of Chicago have been closely associated with the large parks of the

8/Interview with Sidney Zwick, Executive Director, AYH Chicago Council.

9/Interview with Wayne Dinsmore, Secretary of the Horse and Mule Association of America until its dissolution in 1949.

Chicago Park District. The peak number of eight has declined to three at present. The horse population is 125 for rent and 80 for boarding. An estimate of the number of riders is 150 per average warm weekday and 450 per average warm weekend day. At least two of the stables are doomed to extinction because of urban redevelopment projects.

The number of commercial stables adjacent to the Cook County Forest Preserve District has dwindled from a high of 93 in 1940 to 35 in 1960. The preserves in this district include about 170 miles of bridle path which also serve as trails for hiking, limited cycling, for patrol cars and firefighting equipment. The number of horses today (1,200) is about the same as in 1950, with over half of the horses being privately owned. The decline in such stables is attributed to increases in land and labor costs, to a declining proportion of the population renting horses, and to the fact that increasing urbanization has absorbed farm land once associated in a profitable way with many of the stables.

In the outlying sections of the Chicago area there are but a handful of commercial stables, although even the larger ones are essentially boarding stables. The outlying network of bridle paths are primarily for privately-owned horses, many of which are kept in private stables. No figures exist as to the number of horses, although it is believed that the number of privately-owned horses has increased since 1946. Around 80 riding clubs are active today, many of which are oriented to showing fancy horses and to riding exhibitions. Some 130 horse shows were planned for the summer of 1961, about twice as many as were held in 1956.

Most of the trails in the suburban areas are unmarked paths through private farms and woodland, connected through use of rural side roads, and frequented almost exclusively by local residents and by private club members. Concentration of clubs and riding trails are found in areas of "gentlemen farmers" and associated with large estate subdivisions—near Lake Forest and Lake Bluff in Lake County with trails extending southward to connect with those in the northern forest preserves of Cook County, in the Barrington Hills area of northwestern Cook County, at Dunham Woods near the village of Wayne east of the Fox River and mostly in eastern Kane County, north of Hinsdale in eastern DuPage County, and near Steger in Will County to the south.

No survey has been made locally of the demographic, socioeconomic characteristics of horseback riders. Obviously, most urban people owning horses are of substantial economic means because riding clubs and trails are concentrated in upper-class suburban communities. The National Recreation Survey of horseback riding during the 1960 summer season indicated that the incidence of horseback riding increases with income, with the highest participation found among those in the $15,000 and over income group. It was also found that a higher percentage of riders are found in the 12-17 age class with 18-24 being the second highest group.

The required licensing of riders utilizing the trails in the Cook County Forest Preserve District provides partial local information. An analysis of over 1,000 3-year licenses already issued for the June 1961 to June 1964 period indicates that almost two-thirds of the riders are under 18 years of age with an additional one-third between the ages of 18 and 30.

WINTER SKIING

Skiing is considered the fastest growing outdoor winter sport in the United States. While estimates vary as to the number who participate each winter, more conservative guesses place the figure around 3 million, double that for 1947. Skiing on a commercial basis has had only recent development in this country—the first rope tow was introduced in 1934 and the first chair lift in 1937. Today there are about 700 ski areas with about 270 of these considered as major centers. Of the latter, 70 are in the midwest with 37 being in Michigan and 21 in Wisconsin.10/

Skiing opportunities require below freezing temperatures, the maintenance of a snow cover, and a slope. These are combinations difficult to find in the Chicago area. Only two commercial ski jumps are located here, both of which manufacture artificial snow out of compressed air and sprayed water. Even in Wisconsin and Michigan winter conditions are changeable. For the winter of 1960-61, for example, spokesmen for Wisconsin ski operators claimed a $1 million loss, attributing this loss primarily to a lack of a snow cover and consistently above freezing temperatures which limited good skiing to about 10 days.

Skiing is predominantly a weekend venture since winter is the busy season in the business world with few people taking long-term vacations. Altogether, it is estimated that there are about 60,000 people in the Chicago area who ski today.11/ Of these, about half ski three or four times a year with the remainder participating once a year or every 2 or 3 years. In 1950, there were probably about 5,000 regular skiers and an equal number of sometimes skiers.

One measure of ski activity by Chicago area residents is ski tours by commercial carrier. In 1950, it is estimated that only about 250 skiers used public transportation. During the 1960-61 season, about 5,000 people took ski tours including flights to Europe. The increase in the number of ski areas is another measure of growth. There were but 8 major ski areas in 1950; today there are over 70 in Minnesota, Wisconsin, Illinois, and Michigan.

There are currently about 40 ski clubs in the Chicago area, 19 of which are affiliated with the Metropolitan Ski Council of Chicago and having about 6,000 members. Most of the clubs are less than 5 years old and few were in existence in 1950. Not all members are skiers - most of the clubs hold meetings and sponsor social events year round.

A recent survey of 3,000 club skiers indicated that over 85 percent were between the ages of 18 and 30, with 88 percent unmarried males and females. Sixty-eight percent were college graduates and 46 percent were engaged in white-collar occupations. Thus it is evident that ski clubs attract young, single adults in search of an exciting outdoor sport but in which much social mixing and courting takes place.

10/"Ski Life," December 1960, pp. 97-100.

11/Interview with Pat Farrell, Executive Secretary, North American Ski Operators Association.

Chapter Four

EMERGENT PRESSURES—WHAT NEEDS TO BE DONE

Previous considerations have led to the conclusion that the existing supply of opportunities and facilities for outdoor recreation is deficient in terms of the current level of demand of residents of the Chicago area for day and overnight outings. Even if it could be assumed that the future level of demand for outdoor recreation would remain at present levels, decisive efforts would have to be made to overcome this deficiency. A qualitative measure of this deficiency was found in the area rating study conducted by ORRRC wherein it was found that the Chicago area and its environs rank in the lowest group of 66 sampling areas in terms of recreation resources and availability but in the second highest rank in use. A quantitative, physical measure was obtained by comparing the public recreation acreage available within a 60-mile radius of the center of the Chicago area with that for other large metropolitan areas. If attempts were made, for example, merely to match the public acreage now existing in the Detroit area on a population unit basis (and the Detroit Metropolitan Area Regional Planning Commission concluded from its study that more acreage is needed to meet existing needs), it would be necessary to acquire and develop about 50,000 acres of recreation land within a 60-mile radius of the center of Chicago.

The assumption of static conditions in the future obviously is not a tenable one. If it is assumed there will be no thermonuclear war or other major disruptions in the economy, a mass leisure market of greatly increased proportions for outdoor recreation appears to be in the making. The pressures to come in the Chicago area and throughout the region for opportunities for day and overnight outings appear to be greater than those previously experienced or envisaged. Recreation authorities do not appear to be overly concerned at present with refinements in the level of demand for various types of outdoor activity; what is of most concern is the overuse of existing facilities on peak use days and the overall demand for such facilities in the rapidly approaching future. Perhaps this is one of the main reasons for the cursory attention currently given to the matter of obtaining precise counts of visitations or activity days and of analyzing the characteristics of existing recreationists and their needs and preferences.

POPULATION AND ECONOMIC CHANGE

Even the most conservative estimates of growth and progress in the Chicago area suggest that trends in the basic elements of demand—population, income, leisure, and mobility, will result in a much greater need for outdoor recreation opportunities and facilities by years 1976 and 2000 (these years have been suggested by ORRRC as providing a short-range and long-range look into the future). The Northeastern Illinois Metropolitan Area Planning Commission has completed an extensive study of employment growth and industry trends, with projections into the future. 1/ In brief, the major post-World War II trends in the economy of the Chicago area are expected to continue for some time to come. Automation of industry appears to have increased somewhat faster than the national rate, and consistent with the national experience, low-skill occupations have been affected the most. As in the 1947-59 period, the most rapid growth in future employment is expected to take place in the nonmanufacturing sector of the economy, particularly in distribution and business services. And as automation continues to reduce the demand for untrained workers, future demand will increase for professionally educated and technically skilled wage earners. The past high rate of in-migration of poorly educated and trained whites and nonwhites from the South is expected to decline.

Based on these employment projections and taking into account employment-population ratio trends, a projection of population growth in the Chicago area has been made by the commission. 2/ Although the projections assume that the rate of growth will decrease from that experienced in the past two decades, the number of people is expected to increase to 7.59 million by 1976 and 10.96 by 2000. This growth in population represents an increase of 22 percent and 76 percent, respectively, over the 6.22 million in 1960.

The National Planning Association in a study for the Outdoor Recreation Resources Review Commission has analyzed the potential characteristics of the anticipated future economy of the United States and its various sectional parts. Taking into account regional and State trends in employment conditions, NPA has projected per capita personal and disposable income for the Chicago Standard Consolidated Area (which combines the six-county Chicago area with two northwestern Indiana counties). Per capita income in constant dollars is expected to rise 60 percent by 1976 and 100 percent by 2000 over that in 1960. The gain expected in the consolidated area is accepted as being representative of the Chicago area since the basic NPA trend assumptions are consistent with those made by NIMAPC.

The amount of leisure time available also is expected to increase. According to estimates supplied by the Bureau of Labor Statistics, U.S. Department

1/ "Employment in 1980 in Northeastern Illinois." Unpublished to date by Northeastern Illinois Metropolitan Area Planning Commission.

2/ "Anticipated Population of Northeastern Illinois, 1970, 1976, 1980 and 2000." Unpublished to date by Northeastern Illinois Metropolitan Area Planning Commission.

of Labor, the annual average number of hours worked per week in the Chicago Standard Consolidated Area will decrease to 34.9 by 1976 and 30.4 by 2000. In 1960 it was 37.7. Assuming an average of 14 hours a day consumed in sleeping, eating, commuting, and other nonwork activities, the amount of leisure time per person will increase a little over 8 percent by 1976 and about 22 percent by 2000.

Mobility will also increase; projected estimates provided ORRRC by A. J. Goldenthal and Associates of the volume of future domestic intercity travel by all forms of transportation point to a national increase in the number of miles traveled per person by about 60 percent by 1976 and 160 percent by 2000. If it is assumed that the Chicago area residents will share in equal proportion to the increase in miles traveled, and that a proportionate part of this increase will be made for recreation purposes, an index of increased outdoor recreation of all types due to mobility thus is obtained.

A summary of the projected estimation of population, income leisure and mobility increases for 1976 and 2000 are given in table D-31. Although estimates of the future level of demand for outdoor recreation are unavoidably rough because at present there is only limited quantitative knowledge of the manner in which various demand factors contribute to the explanation of outdoor recreation activity, the magnitude of growth in each of these factors indicates that outdoor recreation will increase at a rapid rate in the future. If outdoor recreation increases in direct proportion to individual changes in the four basic factors of total demand, the magnitude of the combined increase would suggest that the future level of demand for all types of outdoor recreation opportunities and facilities will be about 3 1/2 times greater by 1976 than at present and over 11 times greater by 2000.

Table D-31. Projected increases in population, income, leisure time, and mobility in the Chicago area, 1976 and 2000

	1960	1976		2000	
		Quantity	1960-1976 increase	Quantity	1960-2000 increase
Population (millions)	6.22	7.59	1.22	10.96	1.76
Income (1959 dollars):					
Personal income	$2,900	$4,537	1.60	$5,699	2.00
Disposable income	$2,494	$3,978	1.60	$4,890	2.00
Leisure time (hours)	1,690	1,835	1.08	2,069	1.22
Mobility (U.S.), per capita travel miles	4,170	1/6,760	1.60	11,000	2.60

1/NPA projects a high of 6,950 and a low of 6,600 miles per capita for 1976.

Source: Population and mobility increase projected by NIMAPC. Income figures based on National Planning Association projections; leisure hours derived from data supplied by Bureau of Labor Statistics; mobility based on study by A. J. Goldenthal and Associates.

Before an attempt is made to give further meaning to this measure of demand for recreation opportunities in and around the Chicago area, however, a closer examination of each of the four factors must be made.

CHICAGO AREA DEMAND FACTORS FOR DAY AND OVERNIGHT OUTING FACILITIES

Population characteristics

It will be recalled that national survey findings demonstrate that age is one of the important elements underlying variations in outdoor recreation activity and preference. In the assessment of the characteristics of the existing Chicago area population, it was noted that the older age categories (up to the senior citizen level) are relatively more important locally than nationally; hence the age composition of the population has a differential effect on the Chicago area current level of demand for outdoor recreation.

An estimate of the age composition of the future population of the Chicago area has been made. As table D-32 data indicate, it is anticipated that the greatest growth by age categories will take place in the 15-19 and 20-34 age groups. Since national surveys indicate that people between these ages are the most active of all groups in outdoor activity, the shift toward greater representation of adolescents and young adults and a proportionate decrease of people over 45 years of age would suggest increased overall participation in outdoor recreation in the future beyond that in direct proportion to gross population increase only.

Table D-32. Age composition of Chicago area population—1930, 1940, 1950, and 1960, with projections to 1976 and 2000 (percent)

Age group	1930	1940	1950	1960	1976 1/	2000 1/
Under 5	7.7	6.4	9.4	11.4	20.4	21.6
5 to 9	8.4	6.4	7.5	9.9		
10 to 14	8.6	7.5	6.0	8.4	18.0	19.1
15 to 19	8.7	8.2	5.8	6.5		
20 to 24	9.4	8.9	7.4	5.8	22.6	21.5
25 to 34	18.4	17.8	17.0	13.3		
35 to 44	17.1	16.3	15.8	14.3	10.5	12.2
45 to 54	11.0	14.2	13.3	12.4	19.7	17.5
55 to 64	6.4	8.3	10.3	9.4		
65 and over	4.3	6.0	7.5	8.6	8.8	8.1

1/Estimated.

Source: Decennial population reports, Bureau of Census, U.S. Department of Commerce for 1930, 1940, 1950, and 1960. Estimates for 1976 and 2000 provided by NIMAPC.

Marked shifts in population through continued suburban growth also will take place. By 1976, the

suburban area is expected to contain about 57 percent of the total Chicago area population 3/ whereas in 1960 the suburban share was 43 percent. The outward flow of population, plus the anticipated decline of unskilled in-migrants, may result in an increased vacancy rate in the rental units of Chicago. This condition will depress rentals which in conjunction with increments to the supply of housing through urban renewal may significantly reduce the rate of further outward movement. The suburban share of the population will continue to increase, however, so that by 2000 it is estimated that from 73 to 75 percent of the population will reside outside the present incorporated limits of Chicago.

Future changes in population distribution thus are in the direction of lower densities of living for a greater portion of the population with better accessibility to outdoor recreation facilities near the outer edges of the Chicago area and beyond. As suburban communities are swelled by greater numbers of people, there will be increased opportunities for making use of recreation facilities away from the urbanized sections of the area. This suggests that there will be a greater proportion of the population engaging in outdoor recreation in a nonurban-type environment than at present.

Even though the rate of population growth resulting from in-migration from the South is expected to slacken in the future as job opportunities for unskilled workers decline, the proportion of nonwhites to total population is expected to increase as a result of high net internal growth. The level of outdoor recreation demand among nonwhites, both in terms of numbers participating and per person activity days, however, may be expected to increase materially as northern urban attitudes toward outdoor recreation are assumed, as income levels improve, and as a greater variety of recreation opportunities becomes available to nonwhites through reduced restrictions in use and greater availability of all types of facilities.

Thus not only is the population of the Chicago area increasing, but future outdoor recreation participation rates will rise as a result of changes in age composition, place of residence, and increased participation of nonwhites.

Other factors affecting demand

The National Planning Association projections indicate that national expenditures per household for all types of goods and services, including recreation, will more than double by 2000. The proportion of total income earned by families and individuals with incomes below $6,000 (expressed in 1959 dollars) also is expected to decrease from 31 percent in 1957 to 5 percent in 2000, while the proportion of expenditures by consumer groups with incomes over $10,000 will increase from 36 percent to almost 85 percent over the same period. The general upgrading of persons along the income scale not only is expected to result in higher outdoor recreation participation rates but in greater selectivity in type and place of outdoor activity as well.

The expected gain in leisure time by the Chicago Standard Consolidated Area labor force shown in table D-31 may be distributed by source from the estimates provided by the Bureau of Labor Statistics. For the 1960-76 period, 75 percent of the gain is expected from a reduced workweek, 4 percent from increased holidays, and the remaining 21 percent from increased vacations. For the 1960-2000 period, a reduced workweek and increase in holidays will provide 86 percent of the gain in leisure. The implication is that the overall demand for facilities for day and overnight outings will increase faster than that for vacation facilities.

Higher incomes and greater leisure will contribute to an increased mobility of the population. However, estimates of the per capita miles of travel by all kinds of transportation are not as significant to this study as the projections of automobile use, since it is expected that the latter will continue to furnish the transportation mode for most day and overnight outings. Projections of the number of passenger cars per capita in the Chicago area indicate a 30 percent increase by 1976 and a 70 percent increase by 2000.

Adjusted estimates of future demand

Projections of the combined increases in population, income, leisure, and mobility provide a basis for estimating the future level of demand for outdoor recreation. If continuity over time in characteristics of outdoor activity is assumed, but adjustments made according to changes in age composition, place of residence, and other demographic, socioeconomic variables, the projections suggest that the demand by residents of the Chicago area for outdoor recreation opportunities and facilities accessible for day and overnight outings will be about 1.7 times greater by 1976 and 3.3 times greater by 2000 than at present.

THE NEED FOR ADDITIONAL OUTDOOR RECREATION FACILITIES

If these estimates of future demand and the assumptions underlying the individual factors are accepted as being reasonable approximations of future trends, a basis for estimating the gross amount of public acreage required to satisfy this demand has been established. At present there are less than 12 acres per 1,000 persons of public park and general recreation land within a radius of 60 miles of the center of the Chicago area. By way of comparison to conditions in other large metropolitan areas, especially Detroit as the second largest metropolitan area in the midwest, a deficiency of about 50,000 acres of public recreation land is indicated, almost all of which is required to meet the needs for outdoor recreation carried out within reasonable outing distances. In addition to this deficit, a deficiency is found in lands available for public hunting and fishing and as wildlife refuges. At present, lands of this type total

3/ "Anticipated Distribution of the Population of Northeastern Illinois." Unpublished to date by Northeastern Illinois Metropolitan Area Planning Commission.

to only 2 acres per 1,000 persons which is considered to be considerably less than what is needed to meet all such needs.

If existing deficiencies in opportunities are to be met as well as the projected 1.7 and 3.3 increases in demand by 1976 and 2000, respectively, a strong land acquisition program must be initiated. Plans and actions to meet current and future demand must be made now, else lands suitable for recreation purposes at the places most needed will have been taken for other purposes or after desirable sites become too costly to acquire.

The question of what types of land should be acquired or preserved to meet future recreation demand cannot be resolved satisfactorily on the basis of present knowledge. At present, the most popular activity in terms of numbers participating and activity days is pleasure driving. As the numbers of passenger cars per unit of population increase in the Chicago area, the demand for scenic views and pleasure drives also will increase. The high cost of land acquisition, the lack of truly outstanding natural attractions, the increasing urbanization of the landscape and traffic congestion undoubtedly will have a twofold effect. First, more pleasure driving will take place within an urban environment with man-made scenes replacing the natural landscape, and second, that carried out on overnight, weekend outings will take place at increasing distances from the Chicago area. The need to preserve some of the rural, open space land in the Chicago area, however, is evident. It is believed that programs of acquisition of open space for recreation use should include public acquisition of partial rights to the use of private property. Easement right purchases for specified, limited purposes make it possible to retain land for nonurban private use, yet through purchase of partial specified rights make land available for recreation enjoyment. Costs of easements should prove to be less than those for full acquisition of land rights, not only for scenic values but also for facilities for hunting, fishing, and possibly other types of recreation.

Pleasure walking ranks high in the list of outdoor activities according to national surveys, and in terms of outings it is preferred most when only 2-3 hours of recreation leisure time are available. It has been noted that walking for pleasure in areas retained in an essentially natural condition appears to be declining in popularity in the Chicago area. Many recreation authorities lament this decline, pointing to the physical and mental benefits to be derived from healthful and educational walks in a natural environment. While the relative demand in the future for such opportunities is uncertain, future lands to be acquired should be suitable for pleasure walking and nature study.

According to survey data, people express preferences for certain types of outdoor activity that are not drastically unlike their present activities. Picnics and swimming are preferred most when daylong outings are taken, and preferences become stronger for boating, camping, and fishing on overnight, weekend trips. Except for possibly picnics when they represent the only purpose of an outing, it is noted that the most rapidly growing activities are oriented to water bodies. While it is not possible to quantify the amount of recreation land which should be acquired in the future with juxtaposition to streams, lakes, and reservoirs, the preferences stated through national surveys and the trends that appear to be developing suggest that future acquisitions of land should be primarily in this direction. Where no water bodies exist, selection of specific sites should be made on the basis of potential development of water resources and facilities suitable for outdoor recreation.

The question of the respective roles to be played by public programs and private enterprise in supplying facilities for outdoor recreation is not an easy one because past efforts of both have been closely interrelated. The equipment for outdoor recreation, such as automobiles, boats, fishing tackle, and camping equipment, and much of the overnight accommodations and services, have been supplied by private enterprise. Public authorities in turn have provided most of the land resources and opportunities. The interrelationship is likely to become even closer and more complex in the future.

It has been previously suggested that increases in income are likely to result in greater selectivity in place and type of outdoor recreation. In this sophistication of demand, it is expected that more recreationists will make use of facilities provided by private clubs, resorts, and lodges. In addition, the trend will probably be toward activities that require a larger outlay of money—such as boating and allied activities. While it is expected that private enterprise will increasingly provide a greater share of accommodations and services than at present, current trends suggest that many private facilities will be clustered around reservoirs, lakes, large parklands, and game areas which will be publicly controlled and which will provide the major resources for outdoor recreation. To this extent, at least, the private sector will play a more important role as a supplier of future recreation accommodations.

Facilities for youth-group activities are provided both by nonprofit and for-profit agencies. The latter are motivated by profit considerations and through the price mechanism private camping and related facilities will increase in relation to effective demand. Outdoor camping as conducted by nonprofit red feather organizations, on the other hand, should continue to develop in accordance with the recognized need for supporting fund drives. The roles that each type of organization play are closely related to each other and are not overlapping with public programs, since both types of agencies also utilize public lands for day and overnight outings.

FUTURE POSSIBILITIES

City of Chicago

Within the city of Chicago, relatively little land remains undeveloped or available in large contiguous areas potentially suitable for outdoor recreation. Attention is being turned increasingly toward the program of urban renewal as a means of recapturing land for local neighborland recreation use, but there

is little likelihood that the renewal process will permit retention of land in sufficient amounts to provide for outdoor recreation in natural surroundings. The essential purpose of this program is renewal and rehabilitation of urban neighborhoods and not restoration of land to a natural condition.

Officials of the Chicago Park District have under consideration a new plan for the further development of the lakefront of Lake Michigan. None of the details of the plan are available as of now. It is expected, however, that in addition to proposals to add to park and beach facilities and improvements, including additional parking facilities (two underground parking areas already have been built), any plan agreed upon will include expansion of pleasure boat harbor, moorage, and launching facilities. There is considerable evidence that present capacities for large pleasure craft fall far short even of the current demand. This is true also in communities along the north shore outside Chicago.

Many suggestions also have been advanced to make the lakefront more functional as a recreation area. Proposals have been advanced to fill in about four areas along the lakefront, to construct pedestrian bridges and tunnels to make beach and park facilities more accessible and less dangerous to reach, to acquire all remaining privately-owned properties and convert to general public recreation purposes (the Chicago Park District now controls over 70 percent of the shore property), to convert the Outer Drive, now a major access route to and from the Loop and contiguous areas, to a local pleasure drive along Lake Michigan and to a local access route for lakefront park and beach areas. Each of these proposals warrant serious consideration because they would result in additional opportunities for outdoor recreation consistent with emerging water-oriented needs.

Another of the proposals repeatedly advanced is the development of peninsulas or promontories and offshore islands in Lake Michigan. Underlying these proposals is the recognition that Lake Michigan is Chicago's most outstanding natural feature, world-recognized for its beauty, and that it is a heritage to be protected for the pleasure of future generations.

The Burnham Plan of Chicago, 1909, appears to have made the first serious proposal for offshore islands, although the islands were to be created for aesthetic purposes rather than recreation. Since then there have been at least nine different comprehensive or specific project proposals. To date, only one island has been created—Northerly Island, which is now used for a city airport, a planetarium, and as a protective strip for a pleasure-boat harbor.

The feasibility of such islands and peninsulas has been studied and restudied. The most comprehensive report now in existence is a recent unpublished treatise by the Department of City Planning. 4/ This report concludes that the development of islands or peninsulas imposes no impossible engineering problems, and that based on current estimates, an estimated approximate cost of $2.50 per square foot of developed land would be less than recent redevelopment land costs in the city and considerably below what is being paid for prime apartment land.

A major question to be resolved is how such islands at the developed cost of over $100,000 per acre could be financed for recreation use. A way of making the project financially feasible is suggested by having the city issue bonds to defray the costs of building islands and then retire the bonds through sale of land. This proposal would result in private ownership and development of the islands. It is feared by some that if medium and high residential buildings are erected, the inspiring view of the lake would be eventually obscured. Hence the lake would lose much of its scenic value. It is also feared that private residential interests would predominate to the exclusion of those of public recreation. Yet the possibilities exist for creating islands for mixed residential-recreation purposes whereby beach lands, marinas, and pleasure harbor facilities would be gained to meet expanding water-oriented outdoor recreation interests.

Even though the growth trend of the Chicago area is away from the lake into the suburban area, it is clear that the resources of Lake Michigan must be protected not only for their natural attractiveness but also for their recreation value to all inhabitants of the area and ready accessibility to those who live in the high density neighborhoods of the city. If Chicago becomes more than "half a city" through the development of offshore islands and peninsulas, it is vital that provision be made for safeguarding public recreation benefits. Effective controls need be imposed to maintain the scenic values of the lake and to expand rather than diminish opportunities and facilities for recreation.

The conflict with other Great Lakes States and Canada arising from the local diversion of lake waters must also be resolved. The municipal water supply—sewage disposal system of Chicago and certain suburban communities is based on pumping useable water directly from Lake Michigan and discharging sewage, storm water, and industrial waste toward the Illinois River. While the advantages of this system as a source of potable water for urban purposes are evident, the system also has a salutatory effect of safeguarding the sanitary conditions of beaches and recreation water. If an adverse decision is rendered by the U.S. Supreme Court in litigation now being heard wherein no additional water may be so diverted (or, in the extreme, none at all) without returning an equal amount to the lake (meaning in the form of sewage), it is almost certain that the beaches and shore waters will become so polluted as to render them unsuitable for many recreation purposes. A satisfactory solution is critical not only to the sanitary welfare of the Chicago area but also to the problem of meeting existing and future needs in outdoor recreation.

Another possible addition to the supply of facilities for recreation in the city and its margins is the use of the North Shore Channel of the Chicago River which connects with Lake Michigan in the north shore community of Wilmette. Little used now except for storm and sanitary flow, it has been proposed that the channel and its banks be turned into a watercourse, highway and park strip. As a watercourse it would

4/ Background Material Covering the Feasibility of Creating Islands Near Chicago. Chicago City Planning Department, Mimeographed First Draft, January, 1961.

provide a valuable connection for pleasure craft between Lake Michigan and the Illinois River. It would also provide an almost unbroken strip of park land facilities from the north shore to the near north side of Chicago. A feasibility study to this end has just been completed by a consulting firm at the request of the Metropolitan Sanitary District of Greater Chicago who controls the channel strip.

Suburban area

One of the important questions in connection with adding to the supply of recreation opportunities is the overall availability of suitable open space within reasonable distances for day and overnight outings. Of particular importance is the question of open space in the Chicago area, since this is where increasing numbers of people will seek new homes and economic opportunities.

It is estimated that not more than half of the central city and inner suburban area has now been converted to urban use. The remaining portion of the Chicago area, except that in and around the satellite cities that ring the inner area, is essentially rural or rural-nonfarm. Roughly 75 to 80 percent of the total Chicago area of 3,714 square miles of land is still in fields, woods, wetlands and wasteland. With about 100,000 persons annually being added to the suburban population over the past decade, approximately 25 square miles of land annually are being converted to urban use. On the basis of future population—urban occupance estimates, it appears that about one-third of the Chicago area will be converted to urban use by 1976 and a little over one-half by year 2000.

While the need for a strong program of conserving open space for recreation use on the basis of the above estimates would appear to be of no immediate concern, the fact is that open space suitable for outdoor recreation purposes is rapidly disappearing. The fact is that the best lands rapidly are being taken for commerce, industry, and residence, with little effective action taken to preserve land for flood control, water supply, waste disposal, and for recreation needs. In many of the close-in suburban areas, almost total development of the land is taking place; elsewhere, open space is functionally disappearing, generally without benefit of an orderly plan for economical use of the land base. This functional disappearance to date has taken place in a number of ways—through scatteration of subdivision developments, through urban expansion along the major access routes of travel, by incomplete subdivision whereby small plats of nonurban land are skipped over or left surrounded by incompatible uses, through expressways and large cloverleaf abutments. Vacant areas between developments also are frequently left without purpose, functionally or taxwise. The problem of preserving land for open space purposes is of immediate as well as future concern.

A number of programs underway or contemplated have a direct bearing on opportunities for recreation in areas providing maximized natural conditions. The Cook County Forest Preserve District as the major supplier of outdoor recreation resources in a wooded environment now has the statutory authority to increase its holdings to 55,000 acres. There is doubt at present whether the total holdings of this district will go beyond 60,000 because this amount will include about all of the land remaining that is considered suitable for forest preserve purposes. It will also result in a preserve holding of about 10 percent of the total acreage of the county, a figure which under past standards has been considered desirable and satisfactory.

Further liberalization of the intent and purpose of county forest preserves, however, has been made through recent State legislative action. Previously, it was possible only to acquire lands already in a wooded condition or lands connecting forested parts. The recent statutory amendment enlarges the scope of the types of holdings permitted to include land capable of being reforested and land along or enclosing watercourses, ponds, lakes, planned impoundments, or elsewhere which is required to store floodwaters or control other drainage and water conditions necessary for the preservation of ground water and forested areas acquired or to be acquired. Thus the scope of the purpose of forest preserve holdings has been broadened to cover a number of "open space" purposes such as maintenance and development of forests, protection of wildlife, surface drainage and flood control, preservation of ground water, and recreation. To serve adequately all such multiple needs may prove to require additional acreage beyond standards previously considered appropriate.

As previously noted, the amount of forest preserve acreage in the other counties in the Chicago area is extremely small. The need for a stepped-up program is evident by the current low acreage per unit population in the outlying counties and by the fact that rapid urbanization in the future will make it increasingly difficult and costly to preserve lands suitable for various multiple purposes. A 1959 State legislative act extended authority previously given only to the Cook County District to all county forest preserve districts to issue nonreferendum bonds for the acquisition of land for preserves and to levy a tax necessary to pay off the bonds. While the new bonding authority would permit acquisitions up to about $15 million in the outlying counties, only a small part of the permitted amount has been used to date. A greatly stepped-up program in counties outside Cook County is called for if resources are to be provided for recreation and other open-space purposes necessary for the health and welfare of the suburban residents.

Other multiple-purpose projects are under study which, it is hoped, will contribute to the supply of opportunities for outdoor recreation. The U.S. Corps of Engineers has undertaken a study of the Little Calumet River and tributaries south of the city of Chicago both in Illinois and Indiana, the Kankakee River to the south, and the Fox River and tributaries west of the urbanized inner portion of the Chicago area. While these studies primarily are for the purpose of determining the feasibility of flood control improvements, they have a direct bearing on the potentiality of the water courses as recreation resources.

The Division of Waterways, Department of Public Works and Buildings, State of Illinois, has completed a study of the Des Plaines River from the western suburbs of Chicago north to the Wisconsin line. The results of this study are not yet available, but it

appears that it is possible to develop two reservoirs in Lake County: one along the main stem of the river and another on tributary Mill Creek. The two reservoirs would have a combined storage capacity of over 50,000 acre-feet which would require the purchase of perhaps 10,000 acres of land. Similar studies are being made of the Du Page River and the Fox River and tributaries which may reveal suitable sites for reservoirs. While development of such reservoirs are being considered as a means of controlling storm water runoff, the possibility of using reservoir as recreation resources appears practical—for fishing, hunting, and boating and for a series of shoreline parks interconnected by highways.

The Northeastern Illinois Metropolitan Area Planning Commission, the individual counties, and the U.S. Geological Survey have recently instituted a flood hazard mapping program. Experience gained from several nationwide studies of flooding problems suggests that in order to obtain a reasonable degree of flood protection in a rapidly expanding metropolitan area, there is need to regulate land use to avoid the creation of unnecessary new flood problems. The results of the mapping program will provide detailed information on the flood plains and of the flood hazard to help guide the development of low-lying lands along streams of the Chicago area, including the potential of certain areas for recreation use.

It is apparent from the estimated amount of total land needed in the future to satisfy outing demands for outdoor recreation that all needs cannot be met in the Chicago area alone. To set aside an additional amount of 880,000 acres of public land just for day and overnight outings would require an amount equal to 6.4 times the present size of the city of Chicago or 37 percent of the total land base of the Chicago area. Further, the Chicago area simply does not have the amount of open space with existing natural attractions suitable for outdoor recreation. An inventory of inland lakes in the area reveals that combined they total only 20,000 acres, and almost all of this acreage already is being used. An inventory of land with other suitable natural features such as areas with topographical variety, woodlands, marshes, abandoned gravel pits, and strip mines remaining as open space provides a total of only about 65,000 acres, including many small, noncontiguous parcels which are virtually useless for outdoor recreation purposes. The surprisingly small inventory of land remaining with suitable natural features thus suggests not only the need for multiple-purpose projects but acquisition of land with no existing attractions. The costs of developing features suitable as an environment for outdoor recreation will be high but necessary if the needs for facilities with ready accessibility are to be met. For recreation facilities away from the area require added time of travel and individual and public cost to reach them.

A plan of preserving open space to meet existing and potential needs is necessary if orderly development of the Chicago area is to take place. The preparation of such a plan is now underway by the Northeastern Illinois Metropolitan Area Planning Commission. An open space plan must take into consideration community, county, and metropolitan needs for open space; to be effective it requires the voluntary cooperation of private and public, recreation and nonrecreation interests. It requires in the end a financing plan that will combine community, county, State, and Federal sources of revenue for metropolitan-wide public benefits.

Two recent developments show promise of supplementing existing methods of providing space for outdoor recreation, one in the public and the other in the private sector. Title VII of the Housing Act of 1961 for the first time provides Federal assistance to State and local governments to help finance the acquisition of title to, or other permanent interests in, open-space land under an orderly comprehensive plan. The purpose of the new enactment is to help curb urban sprawl by encouraging desirable urban development, and to help provide necessary recreation, conservation, and scenic areas through assisting in preserving open space land. The program of grants-in-aid may prove to be a forerunner of a national open space policy with direct emphasis on recreation.

A local development in the private sector with promise of maintaining open space areas with recreation benefits is the establishment of a nonprofit organization called the Midwest Open Land Association. The purpose of this association includes acquisition of all kinds of open space lands useful for preservation for outdoor recreation or conservation areas. The lands acquired by donations of land or purchase through use of funds privately donated would be either turned over to the appropriate public recreation or conservation agency or leased at a nominal rent or conveyed to an eleemosynary institution. In this sense, the MOLA would act as a private clearing house, and hence would be able to reach hitherto untapped sources of private generosity.

Chicago region

Even though possibilities exist for the development of reservoirs and flood plains for recreation, and for additions to Lake Michigan recreation facilities and county forest preserves, for large parks and conservation areas, for open space preservation which provides recreation benefits, it has been pointed out that total outdoor recreation resource needs of the future residents of the Chicago area cannot be met entirely in the area. Nor is it necessary or even advisable. As a concomitant to the addition of new and more efficient access routes of travel, to income and leisure time increases, the distance range of day and overnight recreation outings will increase. In effect, by widening the area of access a wider selection of landscape features will be available as the radius of travel time expands. Certain attractive natural features away from the Chicago area in the western part of the State along the Mississippi River, developments in central Illinois such as possibilities of a 25,000-acre reservoir some 150 miles from Chicago, and notable attractions in Wisconsin, Indiana, and Michigan will become more accessible. The need for facilities best provided by State and Federal agencies within the Chicago region will grow in the future.

The total acreage of State parks and other types of recreation land in Illinois lags behind that of other neighboring States and the bulk of the acreage is downstate away from the Chicago area. A possible start to materially improve the outdoor recreation opportunities and the tourism industry was taken in mid-1961 by the establishment of two new State agencies. A Commission on Recreational Development was created to study all aspects of planning, acquisition, development, and financing of public recreation areas, parks, and facilities, and to report to the legislature not later than March 1, 1963. A Board of Economic Development also was created and charged with the responsibility of furthering all aspects of economic development of the State, including recreation. This board has the authority to assemble information as to potential recreation locations in the various sections of the State, to encourage and promote tourism, to investigate ways by which the water resources of the State may be put to maximum beneficial use and to provide ways for the reconciliation and adjustment of the various conflicting claims to water by users and uses.

While it appears that these State bodies have overlapping responsibilities in the field of recreation, a program devoted to studies leading to ways and means of implementing the supply of facilities for outdoor recreation is long overdue. It is also official recognition that the recreation resources of the State are underdeveloped and that an imbalance between supply and demand exists.

The State of Wisconsin at present provides a major share of opportunities, private and public alike, for weekend and vacation recreation trips by residents of the Chicago area. Facilities in the southeastern section of the State are also within range for day outings. Having watched the rapid exploitation of natural resources during the 19th and first part of the 20th centuries, State officials and the general public have been extremely receptive to conservation measures to restore and develop State resources. The economic welfare of Wisconsin has been considerably enhanced through efforts to develop opportunities for outdoor recreation by visitors from out-of-state, including the Chicago area.

In a "Resource Development Message" to the legislature in March 1961, Governor Nelson presented a dramatic 10-year program to increase facilities for outdoor recreation. Calling for emergency action support, he proposed that the State spend $50 million over a 10-year period for State parks and State forest recreation areas (33 million), fish and game habitat (9 million), youth conservation camps, protection of scenic resources along highways, creation of new lakes under the Federal small watershed program, State aid to assist metropolitan areas in acquiring new recreation space, additional tourist information centers, and additional surveys and planning vital to the recreation program. Almost all of the money would be used to supplement present conservation activities, and it would be financed by an additional 1-cent tax on cigarettes. The additional tax and the underlying program were approved by an otherwise economy-minded legislative body.

According to the Governor's message, the 10-year program is expected to add 145,000 acres of park and forest recreation area land, 353,000 acres of prime game habitat, 25 to 30 new lakes, 103 new areas of land under the fish-management program, 3,000 miles of highway scenic rights, and other recreation land. Significantly, major emphasis in much of the program is on the development of recreation facilities in southeastern Wisconsin and in the southwestern part of the State, both of which are accessible to Chicago area residents as well as the centers of heavy population concentration in Wisconsin.

One of the striking features of the Wisconsin program is that almost one-seventh of the funds is intended for purchase of easement rights. Specifically mentioned are scenic easements, public access rights, public hunting and fishing rights, wetland drainage rights, fencerow rights for protection of game cover, platting rights along streams, subdivision and timber cutting rights along lake shorelines, development rights to protect lands adjacent to State parks and campgrounds. The experience of the Wisconsin Highway Department with purchasing scenic easement rights along the Great River Road paralleling the Mississippi River has been encouraging in that the scenic rights cost only one-third to one-half as much as outright or complete purchase of land.

Chicago area residents, particularly those in the southern section, have long been interested in opportunities for day and overnight outdoor recreation along the Indiana southern edge of Lake Michigan. Proposals for strengthening the use of the dunes area have for a long time received strong support from northeastern Illinois. The conflict between industrial development interests with those of recreation has been deep and bitter at times; recently, however, northwestern Indiana as well as national political support has been gained toward the establishment of a National Dunes Park. Two Senate bills now under study, call for the establishment of such a park, one which would authorize a 5,000- to 6,000-acre dunes area including the present 2,000-acre State park, and the other which would include a considerably larger area of dunes. The long struggle between recreation and industrial interests would appear to be closer to solution; the major conflict at present appears to be over what lands to include and how much to be acquired for recreation and conservation.

While Michigan is a favorite spot for many vacationers from the Chicago area, it has been less important as a public and private resource for daylong and even overnight outings. By straight-line distance, the western section of the State is in close proximity to northeastern Illinois, but Lake Michigan, congested highways, and urban concentrations around the southern tip have been major barriers to ready access. As tollways and expressways are connected to materially reduce traveltime, it is expected that recreation facilities in southwestern and west-central Michigan will be used to a much greater extent for outings of a day or overnight duration.

One of the developments in the field of transportation which may revolutionize travel is the use of an air cushion between the ground surface and vehicle of travel. A hydrofoil ship may one day be used to transport passengers and freight across Lake Michigan, traveling at the speed of 70 to 100 miles an hour. This would make it possible to cross the lake to South

Haven, Mich., in about an hour and to Ludington in 2 hours. The first oceangoing hydrofoil ship has already been constructed; large lake craft are almost sure to follow.

A plan to establish a national park along 35 miles of Lake Michigan shoreline to include about 80,000 acres west of Traverse City, Mich., if effectuated will create a new and important outdoor recreation resource to Chicago area residents for long weekend and vacation trips. The establishment of national parks along the shores of Lake Michigan, such as a Dunes Park in Indiana and the proposed Sleeping Bear Dunes Park in Michigan, would provide national recreation areas within reasonable distance of the Chicago area for day and weekend outings for the first time.

CONCLUSION

The foregoing sections of this chapter have provided an estimate of the magnitude of future demand for outdoor recreation of residents of the Chicago area in the context of anticipated characteristics of the underlying elements of that demand. The amount of public recreation land required to meet existing deficiencies and emerging needs is a matter of judgment, based on careful weighting of the evidence available of the existing level of demand and what is expected in the future. The respective role of the private and public sectors in providing facilities for outdoor recreation within reasonable distance for day and overnight outings is also a qualitative consideration based on past conditions and what is expected to occur. While other investigators might assess current and future needs somewhat differently, the judgments expressed here are considered to provide a reasonable, conservative appraisal of emerging pressures in the light of what is known today.

One of the problems only lightly touched upon has to do with the question of where lands should be acquired and public and private facilities developed for outdoor recreation. At present, it is apparent from estimates of visitations that most day outings are spent in the Chicago area with only a small proportion going out as far as 100 or 110 miles. It is believed also that most overnight outings for outdoor recreation are spent outside the Chicago area but within the Chicago region. How much is "most," however, is not ascertainable on the basis of present knowledge, nor is it possible to predict the area of day and 2-day outings in the future.

While the area of outings is certain to expand as the per capita number of automobiles increase along with new and improved limited-access expressways to speed up travel, and as outward movement of population continues, it is expected that the recreation resources of the Chicago area will continue to receive the majority of the day outing visitations for some time to come. As distance between residence and place of recreation increases, both the expense of travel and the time involved increase. And as demonstrated by a number of investigators, the higher the cost and travel the less frequent visitations are made. Perhaps as much as 60 percent of the leisure time consumed in all-day and 2-day outings will be spent within the Chicago area by 1976 and half by 2000. This is only a rough estimate at best, but it serves to emphasize the fact that regardless of the relative lack of natural features in the Chicago area, a major part of the outing needs will have to be met locally even though by usual standards the physical attributes of much of the remaining open space suffer by comparison with certain more notable areas elsewhere in the Chicago region. Consumer-oriented land must be acquired within or near the margins of the Chicago area even though it may have only limited potential at present for recreation use.

The above conjectures cannot be taken to mean, however, that decisive action need not be taken to preserve and enhance the natural attractions elsewhere in the Chicago region, in Illinois as well as adjoining States for serving recreation needs and preferences of the residents of the Chicago area. While the number of visitations and activity days on outings may decrease with distance away from the area, the desire to travel to see unfamiliar places and enjoy new experiences is a strong motivating force for outdoor recreation. Increases in the supply of opportunities and facilities for long weekend and vacation recreation must also be made in the region. It is expected that resources elsewhere for such activities as camping, fishing, hunting, boating, and winter sports will never be duplicated in the urbanized environment of northeastern Illinois, or that the magnitude of demand for specific types of water-centered recreation facilities will ever be met by the local resource potential.

Another of the problems which must be faced is the structure of political organization and finance if reality is to be made of what needs to be done. Almost all of the resource potential for outdoor recreation is held in some type of private ownership which means that land must be acquired at a price. Who shall do the acquisition, development, and maintenance, and who shall pay for it? Unfortunately, the recreation resources of the area and in the region are irregularly distributed and the population has a different type of distribution. Recreationists will continue to cross political boundaries to take advantage of recreation opportunities, and it cannot be expected that local communities pay the total costs of recreation facilities for the use by others. It seems clear that a larger share, at least of operating costs, than at present must be passed directly to recreationists on a user-benefit basis.

Where local facilities are used by people nearby, individual counties must assume the leadership necessary to finance the creation of opportunities for outdoor recreation. This is being done now with differential success in the case of forest preserves. Where facilities become used by people from outside, it is suggested that counties develop intercounty committees for joint action. The irregularity of population distribution and tax yields by governmental districts, and the unevenness of recreation potential from one section of the Chicago area to another, however, require an integrated metropolitan approach to the preservation and expansion of recreation opportunities. To this end, an open space plan must consider all types of open space use, including recreation, with a system of priorities established and a plan of financing for short-range and long-range benefits.

The State must take a more active part in the provision of consumer-oriented recreation areas. While the Illinois Department of Conservation has developed a State park and conservation area system, the rate of expansion lags behind that in neighboring States. In addition, only limited attempts have been made to create resources for recreation on a sectional basis. The amount of park and reservation acreage in and around the Chicago area is extremely limited, and a program of rapid acquisition is needed before open space of recreation potential disappears. It is imperative that the two newly-created agencies under the responsibilities given them develop through their researches a program of State action to meet nonurban, day and overnight recreation needs on a sectional basis. These agencies now have the opportunity to provide the citizens of the State and their political leaders with a better understanding and appreciation of the physical and financial resources needed to sustain recreation and tourism which are vital to the welfare of the economy of the State and its individual parts.

The 10-year program of action being initiated by the State of Wisconsin captures the imagination because it recognizes the importance of preserving and developing recreation facilities where they are most needed and the vital role the tourist industry plays in the economic welfare of the State. The financing plan has many advantages in that it is a statewide tax to provide statewide benefits. It is based on a tax of a consumer item not considered a necessity for subsistence, and to the extent that cigarettes are purchased by out-of-State recreationists, the costs of acquiring and developing facilities and attendant elements necessary for outdoor recreation are passed on to those outsiders who take advantage of the opportunities made available. The program also has sufficient flexibility to combine Federal assistance grants-in-aid with State and local financial resources. It is not necessary that Illinois follow the exact path of Wisconsin; what is being suggested is that Illinois must develop a recreation program and sound fiscal policy of her own.

Many Federal agencies directly or indirectly provide assistance to State and local public bodies in recreation. The National Government has never stated a national recreation policy, however, and until the Housing Act of 1961 has given but scant financial attention to the user-oriented recreation problem and the rapid disappearance of resource potentials for recreation in and around large metropolitan areas such as that in northeastern Illinois. In fact, a number of aids such as payments made for wetland drainage have served to work against the preservation of areas favorable to outdoor recreation.

There are vast regional differences in the extent of Federal recreation land and multiple-purpose programs which provide recreation benefits. The Chicago area and its environs is one that is deficient in national facilities. The primacy of metropolitan area problems in outdoor recreation must be recognized, both in the provision of national parks and projects accessible to the highly urbanized area, and in the strengthening of State and local efforts to provide suitable opportunities and facilities for outdoor recreation.

Open space is the major resource in and around the Chicago area for outdoor recreation. Will the use in the future be wasteful and indiscriminate; will it be orderly in which all uses, including those for outdoor recreation, are functionally balanced? Public policy decisions are needed now and programs of action initiated before disappearance of the recreation resource potential takes place.

THE ADVISORY COUNCIL

The act establishing the Commission provided for an Advisory Council consisting of Federal liaison officers from agencies having a responsibility for outdoor recreation and 25 other members representative of various major geographical areas and citizen interest groups. The following persons served on the Council.

FEDERAL LIAISON MEMBERS

Department of the Treasury
A. Gilmore Flues
Assistant Secretary

Department of Defense
Carlisle P. Runge
Assistant Secretary

Department of Justice
Robert F. Kennedy
Attorney General

Department of the Interior
Stewart L. Udall
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Department of Health, Education, and Welfare
Ivan A. Nestingen
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Federal Power Commission
Howard Morgan
Commissioner

Housing and Home Finance Agency
Milton Davis
Office of Program Policy

Interstate Commerce Commission
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Small Business Administration
John J. Hurley
Special Assistant to the Administrator

Smithsonian Institution
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Museum of Natural History

Tennessee Valley Authority
Robert M. Howes
Director
Division of Reservoir Properties

Veterans Administration
W. J. Driver
Deputy Administrator

OTHER MEMBERS

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Game and Fresh Water Fish Commission
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National Assn of Travel Organizations
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Kansas State Board of Health
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DeWitt Nelson
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State of California
Sacramento, California

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Trade and Industry Relations
The Curtis Publishing Company
Philadelphia, Pennsylvania

Joseph Prendergast
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National Recreation Association
New York, New York

T. J. Rouner
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New England Power Company
Boston, Massachusetts

David A. Shepard
Executive Vice President
Standard Oil Company of New Jersey
New York, New York

Gilbert F. White
Chairman of the Department of Geography
The University of Chicago
Chicago, Illinois

FORMER MEMBERS

(Titles indicate affiliation at time of membership on Council)

Bertha S. Adkins
Under Secretary
Department of Health, Education, and Welfare

Elmer F. Bennett
Under Secretary
Department of the Interior

Newell Brown
Assistant Secretary
Department of Labor

Ward Duffy (deceased)
Editor
Hartford Times
Hartford, Connecticut

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National Science Foundation

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Housing and Home Finance Agency

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Mrs. Oveta Culp Hobby
President
The Houston Post
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E. L. Peterson
Assistant Secretary
Department of Agriculture

Matthew A. Reese, Jr.
Special Assistant to the Administrator
Small Business Administration

Frederick Stueck (deceased)
Commissioner
Federal Power Commission

ORRRC STUDY REPORTS

Page counts are estimates. All are for sale by the Superintendent of Documents, U.S. Government Printing Office, Washington 25, D.C.

1. Public Outdoor Recreation Areas—Acreage, Use, Potential, 205 pages, prepared by the Commission staff, presents a description and analysis of all nonurban public designated recreation areas in the 50 States, Puerto Rico, and the Virgin Islands. Nearly 10,000 named areas, and an additional 15,000 small areas, are included, with pertinent data on their acreage, location, and management agency. Areas containing more than 40 acres are evaluated and analyzed in terms of visits, use pressures, major activities, facilities, number of employees, and future expansion potential. This study contains a separate inventory of recreation use of military areas, public domain, and Indian lands in the United States. Definitions and procedures utilized in the study are included.

2. List of Public Outdoor Recreation Areas—1960, 173 pages, prepared by the Commission staff, contains the names of approximately 10,000 recreation areas, grouped by State and managing agency, and provides data on their acreage and county location. Additional aggregate data for minor recreation areas, such as waysides and picnic areas, are included. Data on areas are presented by census region, management agency, and size category. Definitions and procedures utilized in obtaining these data are included.

3. Wilderness and Recreation—A Report on Resources, Values, and Problems, 352 pages, prepared by The Wildland Research Center, University of California, Berkeley, presents a comprehensive discussion and analysis of wilderness preservation. The study contains an inventory of 64 areas, containing approximately 28 million acres. It discusses traditional concepts of wilderness, various approaches to its economic evaluation, and basic legal and administrative considerations and problems involved in wilderness preservation. An evaluation is made of the commercial potential of existing wilderness areas—timber, grazing, water, and mineral resources. An analysis of the social and economic characteristics of wilderness users is based upon a sample survey carried out in three specified areas.

4. Shoreline Recreation Resources of the United States, 156 pages, prepared by The George Washington University, contains an analysis of the Great Lakes and ocean shoreline of the contiguous States, and presents a detailed State-by-State summary of quantitative and qualitative factors affecting their recreational use. It includes a classification of national shoreline resources—beach, marsh, and bluff. Problems of private ownership, access, and suitability are discussed, and recommendations are made.

5. The Quality of Outdoor Recreation: As Evidenced by User Satisfaction, 95 pages, prepared by the Department of Resource Development, Michigan State University, presents the findings of a study designed to test the usefulness of user satisfaction as a measure of area quality. This study is based in part upon a user survey of 24 recreation areas, Federal, State, and local. Data from the survey are summarized and evaluated in terms of socioeconomic characteristics and activities engaged in. Field appraisals of various elements which affect quality—facilities, physical characteristics, cleanliness, degree of congestion—of each site were carried out by a team of resource technicians to provide a framework for relating and assessing the survey findings. An analysis is made of the validity of employing expressions of user satisfaction as a measure of area quality, and the resulting implications for public policy are discussed.

6. Hunting in the United States—Its Present and Future Role, 128 pages, prepared by the Department of Conservation, School of Natural Resources, The University of Michigan, examines the forces affecting game supply and summarizes a State-by-State survey of factors influencing hunting in the 48 contiguous States. Attention is given to wildlife regulations, limitation of hunting access, public hunting areas, fee hunting, and shooting preserves. The significance of land-use trends and Federal land-use programs as they

affect game supply are evaluated. Problems affecting State game agencies are analyzed and suggested solutions are offered.

7. Sport Fishing—Today and Tomorrow, 140 pages, prepared by the Bureau of Sport Fisheries and Wildlife, U.S. Department of the Interior, presents an appraisal of fishing as a form of recreation in the United States and includes a State-by-State survey of the problems of supply, status of fishing waters, and management policies and responsibilities. It covers present and future supply of both warm- and cold-water fish and makes projections of the status of sport fishing in the years ahead. It summarizes the future prospects by regions.

8. Potential New Sites for Outdoor Recreation in the Northeast, 123 pages, prepared by the Economic Research Service, U.S. Department of Agriculture, presents the findings of a study designed to determine the existence of potential recreation sites of 30 acres or more, currently in private ownership and located in the 10 densely populated Northeastern States. The location of sites is based upon an analysis of aerial photographs. Site potentiality is determined according to land type, recreation suitability, and proximity to major metropolitan concentrations. Case studies carried out in New Hampshire, Pennsylvania, and Connecticut are utilized to illustrate ownership patterns, problems, history of land transfer, current land use, and availability for public purchase. The report describes procedures used by and available to State agencies for land acquisition and development.

9. Alaska Outdoor Recreation Potential, 63 pages, prepared by The Conservation Foundation, appraises the major factors affecting the development of Alaska's recreation potential. It discusses land control and disposition patterns and economic development problems. It evaluates the present status of recreation, examines the essentials of sound recreation planning, and concludes with a summary of current problems and recommendations for future development of Alaska's recreation potential.

10. Water for Recreation—Values and Opportunities, 73 pages, prepared by the Geological Survey, U.S. Department of the Interior, presents an analysis of future water-based recreation in the United States. It relates recreation uses of water to other types of water development and discusses the importance of including recreation in the planning of water resource projects. The problem of access is discussed, and the effects of such factors as water quality and reservoir management upon recreation use are analyzed.

11. Private Outdoor Recreation Facilities, 154 pages, prepared by the Economic Research Service, U.S. Department of Agriculture, consists of two parts. The first reports on a mail survey of private owners of recreation facilities such as resorts, dude ranches, campgrounds, ski areas, vacation farms, and resort hotels, and includes a partial inventory from secondary sources of industrial recreation areas, including large commercial timber holdings. The second phase of the study is a qualitative appraisal of 66 cases representing various types of private recreation facilities scattered throughout the United States. Included is a discussion of such factors as type of specific activities provided, amount of land used, number of visitors, fees charged, problems encountered, and plans for expansion.

12. Paying for Recreation Facilities, 108 pages, prepared by the National Planning Association, contains an analysis of the difficulties involved in obtaining long-term financing for recreation facilities. The role of concessioners is the principal focus with particular emphasis on factors such as Federal policy, short season, contract provisions, and general philosophy. Some consideration is given to State policies. The analysis is supplemented by 18 case studies of concession operations on Federal lands and the approach of seven selected States: California, Indiana, Kentucky, New Hampshire, New York, Oklahoma, and West Virginia.

13. Federal Agencies and Outdoor Recreation, 130 pages, prepared by The Frederic Burk Foundation for Education, San Francisco State College, presents a descriptive analysis of the organizational and administrative structure of Federal agencies concerned with outdoor recreation. While the traditional Federal land-managing agencies receive primary consideration, attention is also given to other agencies which indirectly affect the total supply of outdoor recreation opportunities. The study is focused upon recreation program objectives and policies of the agencies. Important problems encountered are analyzed, and opportunities for more effective program coordination and cooperation are identified.

14. Directory of State Outdoor Recreation Administration, 196 pages, a Commission staff project based on an American Political Science Association study, presents a State-by-State description of recreation administration. It is designed to serve as a directory of State agencies concerned with outdoor recreation, together with a brief description of agency authority, organization, and programs. Attention is given to

significant or unique activities or administrative features.

15. Open Space Action, 130 pages, prepared by William H. Whyte, deals with ways and means of acquiring open space in the fast developing areas of this country. Part I is a brief history of significant Federal, State, and local developments in open space action. Part II contains observations and guidelines for open space action programs. Specific recommendations for action by all levels of government are presented in part III. An appendix contains examples of Federal and State legislation, tax abatement measures, easement forms and costs, and plans incorporating new devices such as cluster development.

16. Land Acquisition for Outdoor Recreation—Analysis of Selected Legal Problems, 76 pages, prepared by Norman Williams, Jr., reviews the constitutional power of State and local governments to acquire land by purchase or condemnation for recreational purposes and for related open space, and the constitutional power of the Federal Government to condemn land for such purposes. The study also examines legal problems involved in acquiring easements and other less-than-fee rights in land for recreation and open space.

17. Multiple Use of Land and Water Areas, 48 pages, prepared by John Shanklin, discusses multiple use both in a statutory and in a management sense and analyzes the relationship of recreation to other uses of land and water. It reviews the multiple-use concepts of the land management agencies of the U.S. Government and includes sections on multiple use at the State level and on private land. The volume contains sections on multiple-use criteria and suggestions for multiple-use management of public lands. Comments on the study from Federal, State, and private land management agencies are included in the report.

18. A Look Abroad: The Effect of Foreign Travel on Domestic Outdoor Recreation and a Brief Survey of Outdoor Recreation in Six Countries, 45 pages, prepared by Pauline Tait, discusses the effect of Americans going abroad as a substitute for major outdoor recreation trips in this country and the impact upon our own outdoor recreation resources of foreign travelers coming to this country. It presents travel projections to the years 1976 and 2000. A second part contains a brief review of outdoor recreation programs in Great Britain, France, West Germany, Denmark, The Netherlands, and Japan. Attention is directed to innovations that might be applicable in this country.

19. National Recreation Survey, 381 pages, prepared by the Commission staff on the basis of data collected by the Bureau of the Census, contains the tabular results and analysis of a nationwide survey of the outdoor recreation habits and preferences of the American people 12 years of age and over. These data are derived from four separate samples, each involving approximately 4,000 interviews. Tables show various participation rates by activity and region, according to age, sex, place of residence, education, occupation, and race. Activity rates are also shown by state of health, physical impairment, and size of community. Activity preference and data on vacation trips and outings are expressed according to selected socioeconomic characteristics. Estimates are made of expenditures, proportion of leisure time devoted to outdoor recreation, and other factors. Descriptive analyses of the results of the survey include socioeconomic factors associated with participation in 17 specified outdoor activities; expenditures on vacations, trips, and outings; and background factors associated with participation in certain groups of activities.

20. Participation in Outdoor Recreation: Factors Affecting Demand Among American Adults, 100 pages, by Eva Mueller and Gerald Gurin with the assistance of Margaret Wood, contains the results of a survey conducted by the Survey Research Center, The University of Michigan. It discusses the effect upon participation of income, education, occupation, paid vacations, place of residence, region, sex, age, life cycle, and race. Included are discussions of outdoor recreation in relation to leisure-time use, vacation and weekend trips, parks and recreation areas. It contains a chapter on camping. The study is based upon 2,759 interviews with a representative sample of U.S. adults.

21. The Future of Outdoor Recreation in Metropolitan Regions of the United States, three volumes containing separate studies of five selected metropolitan regions. Prepared jointly by the Commission staff and selected universities and planning agencies, the volumes describe the particular outdoor recreation problems of metropolitan residents, including the problem of access, and contrast present and future outdoor recreation opportunities against the backdrop of expanding urbanization. Volume I, 300 pages, covering Atlanta, St. Louis, Chicago, contains studies made by the Center for Continuing Education, University of Georgia; Washington University, and Northeastern Illinois Metropolitan Area Planning Commission. Volume II, 260 pages, covers New York-New Jersey-Philadelphia, with the study being made by The In-

stitute of Public Administration. Volume III, 200 pages, covers Los Angeles, with the study by University of California, Los Angeles. The central topic of each study is an analysis of the supply and demand aspects of outdoor recreation. In each case, central problems are identified and possible solutions suggested.

22. Trends in American Living and Outdoor Recreation, 315 pages, contains a group of essays dealing with the effects of current social and cultural trends upon future needs and preferences for outdoor recreation. These essays, prepared independently by recognized scholars in the behavioral sciences, are focused upon the following topics as they relate to outdoor recreation: historical development; cultural change; demographic factors; the family; mass communication; physical and mental health; education; voluntary groups; political institutions; urban growth; and the planning process. Authors include Lawrence K. Frank, Herbert J. Gans, William J. Goode, Morton Grodzins, Philip M. Hauser, Max Kaplan and Paul F. Lazardsfeld, Margaret Mead, Jay B. Nash, Harvey S. Perloff and Lowdon Wingo, Jr., Julian W. Smith, George D. Stoddard, and Melvin M. Webber.

23. Projections to the Years 1976 and 2000: Economic Growth, Population, Labor Force and Leisure, and Transportation, 510 pages, contains a set of four fundamental studies which project the size, distribution, income, leisure, and mobility of the American population to 1976 and 2000. The population studies are by the Commission staff, economic projections by the National Planning Association, labor force and leisure projections by the Bureau of Labor Statistics, U.S. Department of Labor, and the transportation study by A. J. Goldenthal, Washington, D.C. In addition to national aggregates, attention is directed to regional and State characteristics.

24. Economic Studies of Outdoor Recreation, 174 pages, contains a group of essays dealing with various economic aspects of outdoor recreation. Both theoretical and practical approaches are taken to some basic economic problems of recreation development, including those of investment, pricing, timing, benefit-cost evaluation, public-private relationships; and economic impact. Methods of economic analysis and evaluation utilized by various Federal resource development agencies are discussed. In addition to Commission staff, contributors include Marion Clawson, Resources for the Future; Arthur L. Moore, the National Planning Association; and Ivan M. Lee, University of California, Berkeley.

25. Public Expenditures for Outdoor Recreation, 90 pages, prepared by the Commission staff, indicates the total direct expenditures made by Federal, State, and local governments for providing outdoor recreation opportunities, facilities, and services during the period 1951–60. An analysis is made of the relative amounts spent within each State and each major census region, as well as among the agencies concerned, for land acquisition, development, construction, operation and maintenance. Appendix tables show detailed data on annual expenditures by level of government, by agency, and by objective.

26. Prospective Demand for Outdoor Recreation, 72 pages, prepared by the Commission staff, measures the needs and preferences of the American people for a number of outdoor recreation activities. This comprehensive analysis is based on data obtained from the National Recreation Survey, the Commission inventory, the metropolitan studies, and the essays concerned with trends and patterns of American life.

27. Outdoor Recreation in the U.S.: Its Literature and History, 100 pages, divided into two sections. Volume 1, a survey by the Library of Congress of the literature, includes a basic listing, description, and assessment of some of the more important references. The discussion is divided into literature on resources and literature on uses. Two appendixes contain separate bibliographies on leisure and intergovernmental problems. Volume II, written by Arthur Hawthorne Carhart and entitled "Historical Development of Outdoor Recreation," traces efforts from colonial days to the present to make the outdoors available to the people. Included is a chronology of significant events from 1710 to 1962.

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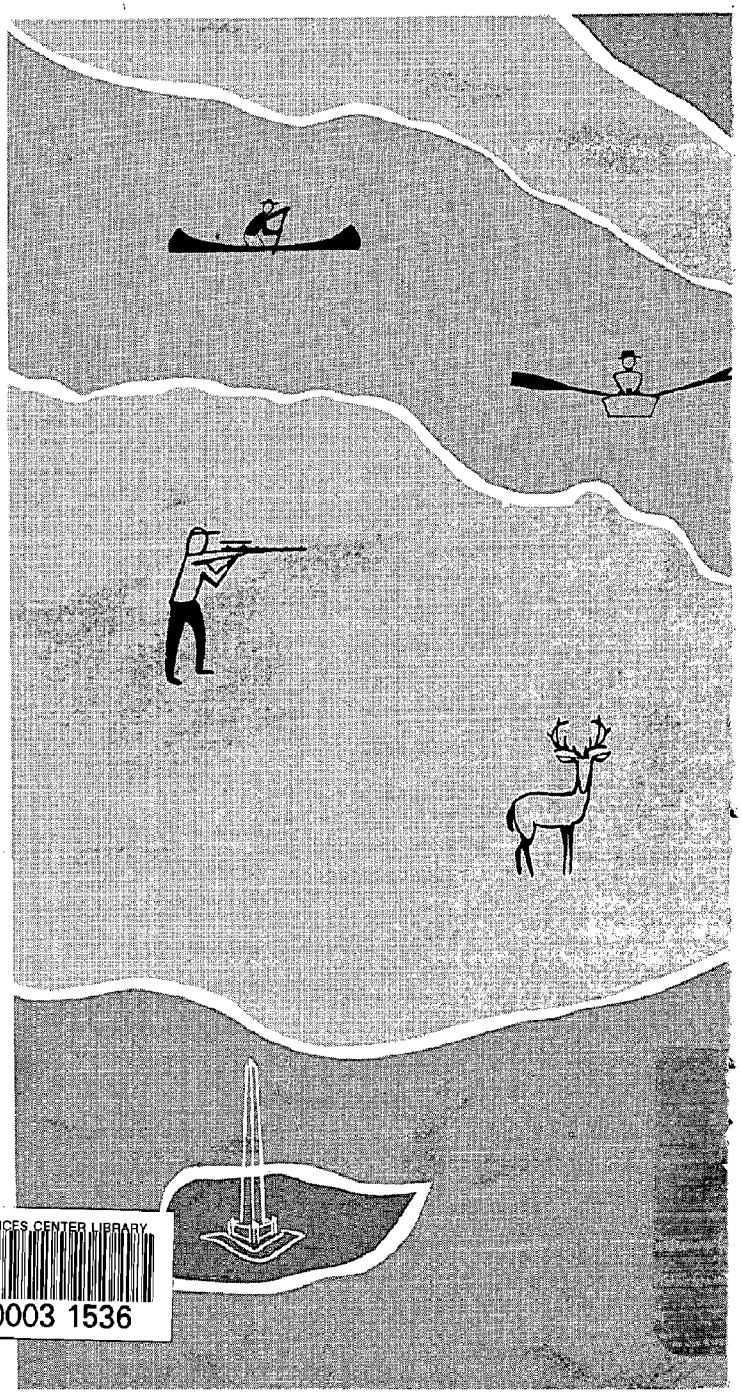
"The outdoors lies deep in American tradition. It has had immeasurable impact on the Nation's character and on those who made its history. . . . When an American looks for the meaning of his past, he seeks it not in ancient ruins, but more likely in mountains and forests, by a river, or at the edge of the sea. . . . Today's challenge is to assure all Americans permanent access to their outdoor heritage."



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