Untaxing Open Space

An Evaluation of the Effectiveness of Differential Assessment of Farms and Open Space

Coastal Zone Information Center

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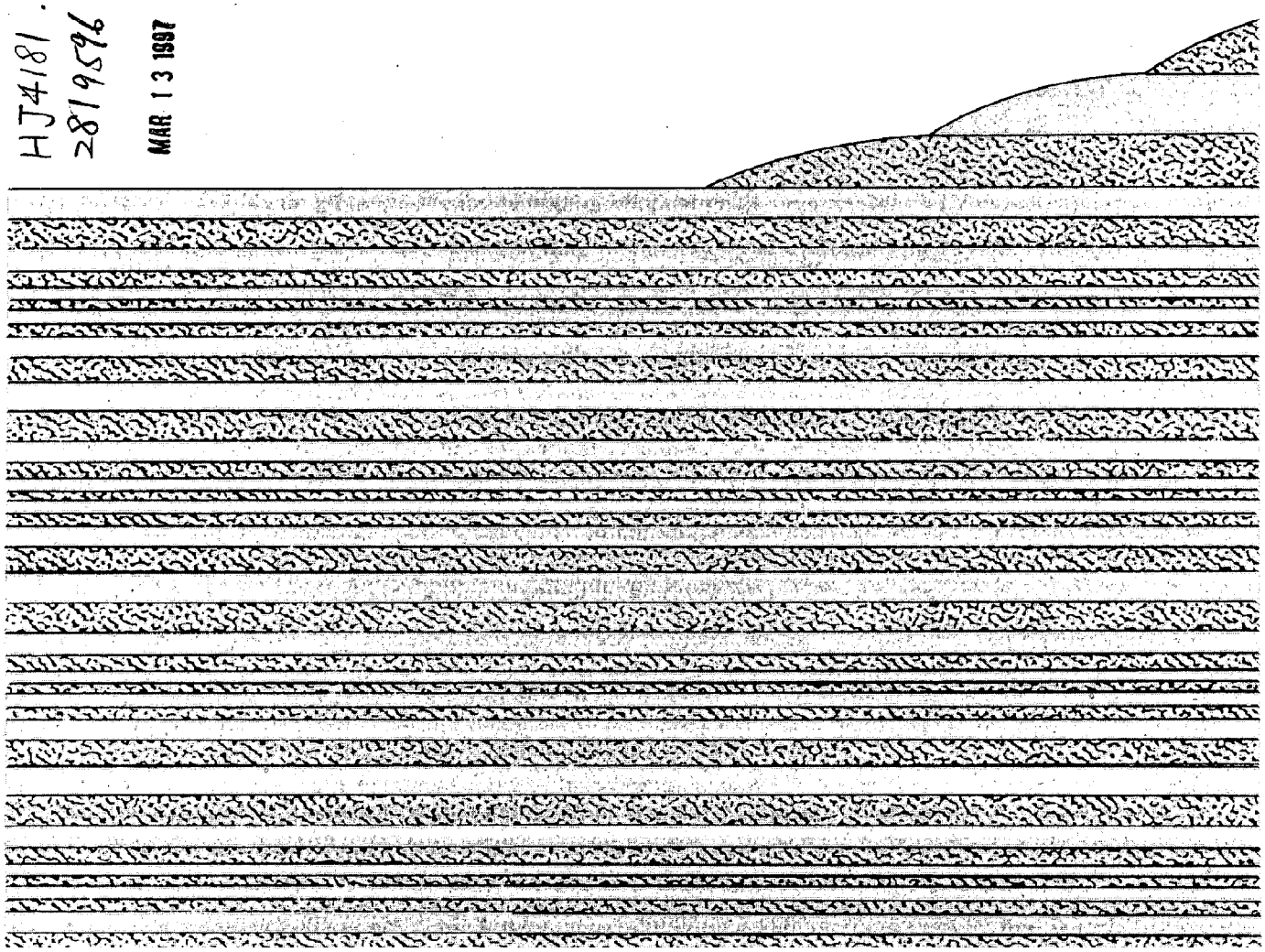

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PREFACE

Rural land values and property taxes paid on farmland and open space have been increasing in many areas of the country. To an alarming degree, these changes are caused by expanding urban areas that increase pressures for development over a wide area at the metropolitan fringe. As this occurs, land increases in value far above its farm or forest value because of its potential for residential, commercial, or industrial use. At the same time tax rates increase because new residents increase the demand for schools, water and sewer systems, roads, police protection and other public services. Caught in the double crunch of paying taxes at higher rates on land whose market value is rising, farmers and other owners of undeveloped land have sought to have their land assessed for real property tax purposes at its current or farm use value rather than at its fair market value, which often includes a substantial element of development value.

Since 1957, when Maryland enacted the first statute authorizing differential assessment of farmland, 41 state legislatures have passed laws which granted preferential treatment to farm or other types of undeveloped land. Most of the remaining states either have so-called classification laws which allow modest preferential treatment of agricultural land or are currently considering differential assessment legislation. These laws were usually enacted to serve the dual purpose of easing tax burdens for farmers and preserving current farm and other open space uses. Underlying this rationale is the assumption that reducing the tax burden on such lands will reduce the rate at which they are converted to higher intensity uses.

The purpose of this report is to examine the effectiveness of these laws in accomplishing these important environmental goals. As the conclusions of the report point out, differential assessment laws in general work well to reduce the tax burden on farmers. Acting alone, however, they are not very effective at preserving current uses. It is only when such laws are combined with other effective land use mechanisms in rural areas that can contribute to successful long-term preservation of open lands.

We realize that the analyses and conclusions of this report raise questions about some of the claims that have been made in the past about the benefits of differential assessment. Nonetheless, we hope the report will be seen as a positive contribution to understanding how these tax laws work and how they can be improved to serve both economic and environmental goals.

Russell W. Peterson

Russell W. Peterson
Chairman

FOREWORD

This study was prepared under contract with the Council on Environmental Quality by the Regional Science Research Institute in Philadelphia. The authors of the report are:

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The data, analyses, and opinions presented in this report do not necessarily reflect the official position of the Council.

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*Prepared by John C. Keene.
+Prepared by Robert E. Coughlin.

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*Prepared by Ann L. Strong.
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*Prepared by David Berry and Thomas Plaut.

PART ONE

Chapter I

INTRODUCTION

In the early days of the Republic, there were few attempts to regulate land use and land development. The primary means of regulating undesirable externalities from these activities were the sanctions of common law nuisance. The principles of this body of law were developed in the relatively stable context of English agrarian society. With the advent of the Industrial Revolution they came to be less adequate for the job.

The technological revolution did not begin to have its full impact on land development and use until after the Civil War. In rapid succession, a series of inventions changed the face of the countryside and sped up the rate at which rural land, was converted to urban use: the railroad, the elevator, the street car, farm equipment of amazing variety, high-rise buildings, cheap electricity, the automobile, bulldozer, and many others. Man achieved a new order of technological power to harness nature and to convert natural resources into commodities of all sorts. He also achieved a capacity to pollute the environment and to change the face of the earth, which was inconceivable a century before.

State and local governments sought to gain control of the myriad private activities affecting land use. They had three basic types of powers at their command with which to do this: the power of eminent domain, the police power, and the power to tax. To these could be added a fourth, the informal power to act affirmatively, either by constructing public facilities such as sewerage systems and highways, or by conferring or withholding benefits in return for concessions. The power of eminent domain was the most limited. For a price, "just compensation," the government could take a person's land and use it for public buildings, roads, park and schools. Railroads and utilities could use it to condemn rights of way. After the Second World War, local governments were granted the power and the money to clear and redevelop obsolete and blighted areas in the cities, under the urban renewal program. The effects of the use of the power of eminent domain were far-reaching and controversial, but the power was essentially a limited, surgical one which involved, a specific decision and the selection of a specific site for its application. It affected only a minute portion

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of the total stock of private land, although the impact of clearance was felt throughout the market.

The second fundamental power, the police power, or the ability to regulate private activity to protect the health, safety, morals and general welfare, was used only sparingly before the Twentieth Century. After the First World War, zoning swept the country, and for the first time urban municipalities exerted direct control over the location, pace and nature of land development and use. This process, supplemented by subdivision regulation, environmental controls and building and housing codes, was accelerated after the Second World War during the housing boom of the fifties and in response to increasing awareness of environmental considerations of the last ten years. The power to regulate is now the principal tool used by local government to shape the product of the land development process.

Until recently, the power of taxation was conceived of primarily as a means of generating revenue rather than as a tool for achieving other, more general, social objectives. Of course, there were many instances where non-revenue objectives were important. The progressivity of the federal income tax served to redistribute income. Oil depletion allowances were designed to encourage exploration and the development of new reserves. The exemption from the property tax of real property owned by charitable organizations was designed to encourage private entities to carry on activities which otherwise would become the responsibility of government, or not be carried on at all.

The present study is an evaluation of one instance where the incidence of the real property tax has been manipulated with the intent of achieving non-revenue objectives. The logic is simple. All across the country, rural land values and tax rates have been rising as urbanization moves out from the city to undeveloped areas. As this occurs land acquires an increment in value over and above its farm use value because it can be used for residential, commercial, and industrial purposes or has a potential for such development. Tax rates rise because the new residents of the rural-urban fringe demand schools, water and sewer systems, roads, police protection, and other public services which were previously unnecessary. Caught in the double crunch of paying taxes at higher rates on land whose market value was rising, farmers and other owners of undeveloped land sought to have their land assessed for real property tax purposes

at its current or farm use value rather than at its fair market value, which often included a substantial element of development value.

Since 1957, when Maryland enacted the first statute authorizing differential assessment of farmland, 42 state legislatures have responded by passing laws which granted preferential treatment to farm or other types of undeveloped land. Most of the remaining states have so-called classification laws, which allow modest preferential treatment of agricultural land, or are currently considering differential assessment legislation. These laws were enacted under the banners of preserving open space and of easing the tax burdens of farmers. The purpose of this study has been to evaluate the fundamental principle on which they were based: that, by reducing property taxes, the rate at which farmland was being converted to non-farm uses could be significantly decreased. In the course of this evaluation, many other aspects of differential assessment are also examined, and the results of this examination are also reported.

In order to set the stage for the analysis which follows, it is necessary to review some of the basic contextual factors within which differential assessment operates. The first involves the agricultural industry.

Farmers are producers of two entirely different classes of goods for two different markets: agricultural commodities and development sites. The common factor joining these two markets is the farmer's land. When treated as an input to the production of commodities, land has a value which is related to its capitalized economic rent as a factor of production. Its economic rent is determined by such factors as soil quality, topography, distance from the market, access to transportation facilities, level of management including drainage, crop rotation, and soil conservation practices, general conditions in local, regional, national and international commodity markets, natural conditions such as drought, and so on. The rate at which economic rent is capitalized is a function of property taxes, capitalization rates of competing investment, and investors' expectations concerning appreciation in land values.

When land is used for residential, commercial or industrial facilities, its value is determined by its proximity to urban development, transportation facilities, areas of special scenic or recreational interest, etc., by conditions

in the mortgage markets, population growth and migration, and, generally, the demand for new facilities of all types. The individual farmer provides land for this market essentially on a once-in-a-lifetime basis.

In many farming areas, especially those on the rural-urban fringe, there are large differentials between the value of land as an input to the production of agricultural commodities and its value as an input to development. These differentials have produced the crisis which has led most states to adopt some form of differential assessment law which permits agricultural land (and, in many states, land used for timber production, recreation and open space uses) to be assessed at values approximating its value as an input to agricultural production rather than as a site for development. These laws constitute explicit departures from the uniformity principle found in most state constitutions.

Differential assessment laws are usually categorized as falling into one of three categories: Preferential assessment, deferred taxation, and restrictive agreement.[1] Preferential assessment laws produce an abatement of taxes by authorizing assessors simply to assess eligible land on the basis of farm use value, rather than on market value, which in many locations is much higher because the demand for developable sites is strong. Deferred taxation laws add an additional feature, by imposing a sanction requiring owners of eligible land who convert land to non-eligible uses to pay some or all the taxes which they were excused from paying for a number of years prior to conversion. Restrictive agreement laws include both preferential assessment and, in all states except Vermont, a sanction in the form of a payment of back taxes. In addition, they require the owner to sign a contract spelling out his rights and duties. In California, for instance, he must wait until the end of a 10 year run-out period after signifying his intention of nonrenewal before he can convert the land to noneligible uses as of right.

Differential Assessment Laws Create Tax Expenditures

All differential assessment laws are examples of what has come to be known as "tax expenditure," by means of which the tax bills of some taxpayers are reduced as a result of

[1] See, e.g., Hady and Sibold, Differential Assessment of Farm and Open Space Land (Washington, D.C.: Economic Research Service, U.S.D.A., 1974).

special tax treatment. In most cases, the cost of this reduction is spread out over all the other taxpayers.

Any tax system can be viewed as consisting of two parts. The first establishes the normal structure of the tax by defining the tax base, whether it be taxable income, property or some transaction such as a sale, and establishing the rate of, and procedures for collecting the tax. The second consists of a set of tax benefits which are conferred by the government by means of tax reductions for certain classes of taxpayers, with the objectives of providing incentives for certain kinds of socially desirable activities, easing hardships, or simply favoring politically powerful interest groups. The second part is not necessary to the proper working of the tax structure.

Tax expenditures take a variety of forms such as exclusions from the tax base, exemptions, deductions, tax credits, preferential tax rates, and tax deferral. For instance, homeowners' exemptions remove up to a certain maximum amount of assessed value from the tax base. While there are borderline cases in which opinions may differ as to whether a particular item is part of the normal structure of a tax expenditure, there is little question that differential assessment is a classic example of the latter.

The effect of a tax expenditure is precisely the same as if the taxpayer who receives the benefit were to pay taxes at the same rate as other, non-preferred taxpayers, and then were to receive a simultaneous grant from the government in the amount of the tax benefit. Thus, there are two ways in which a government can make financial assistance available to a particular class of taxpayers. The first is to tax all taxpayers on the same tax base at the same rate and then make grants in the desired amounts to preferred classes. The second is to structure the tax expenditure system so as to reduce the tax bills of the preferred classes by the same amount. In the first instance the governmental budget would be increased by the amount of the direct grants to beneficiaries, and the appropriations would be made for this purpose each year. In the second, the payments to them would be made through the tax expenditure structure, where they largely escape annual legislative review. Where tax expenditures exist, they have the effect of shifting the tax burden away from the preferred class to all other taxpayers in an amount equal to the benefits conferred on the preferred class.

Introduction

Tax expenditures for the federal government must be estimated in the annual budget,[1] pursuant to the Congressional Budget and Impoundment Control Act of 1974, and state governments are beginning to gather information on tax expenditures at the state and local level. Most state real property tax systems are riddled with tax expenditures of significant magnitude, such as examptions for property belonging to government, charities, and educational institutions, exemptions for homeowners', and preferential assessment of agricultural land.

Outline of this Report

The report which follows is divided into two major parts. Part One consists of six chapters which present the general findings and conclusions of the study. In Chapter II, the history and characteristics of differential assessment laws are reviewed. In the next two chapters these laws are evaluated with respect to their effectiveness for achieving two major goals: the provision of tax benefits to farmers and other owners of eligible undeveloped land, and their effectiveness as tools for maintaining current use of such land. In Chapter V, differential assessment laws are evaluated with respect to their equity, ease of administration, and political feasibility. Finally, the general conclusions and recommendations of the report are presented.

Part Two consists of ten special analyses and a bibliographical report. Detailed studies are presented of the operations of differential assessment programs in nine states: California, Connecticut, Hawaii, Indiana, Maryland, New Jersey, New York, Oregon, and Washington. These states were chosen because they have had significant experience with differential assessment, they have been experiencing urbanization, and

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[1] It is instructive to note that the U.S. Supreme Court has held that tax expenditures are to be considered the same as direct grants in determining their constitutionality. In Committee For Public Education and Religious Liberty v. Nyquist 93 S. Ct. 2955 (1973), the Court held that a New York program which provided both tuition grants and scaled income tax deductions with children in non-public elementary and secondary schools, violated the Establishment Clause of the First Amendment. Thus, what started as a theoretical tool for better describing the fiscal impacts has been legitimated for purposes of judicial analysis of government programs.

their laws embodied representative approaches. Next is an analysis of the general relationships among supply and demand factors in the land market at the rural-urban fringe, including real property taxes. Part Two concludes with an annotated bibliography listing all the studies found concerning differential assessment and related topics.

Chapter II

A SURVEY OF DIFFERENTIAL ASSESSMENT LEGISLATION

A. OBJECTIVES OF DIFFERENTIAL ASSESSMENT LEGISLATION

As is true of any piece of complex legislation, differential assessment laws have been enacted to achieve more than one objective. In the analysis in later sections of this report, we will examine the effectiveness of such statutes with respect to what appears to be the predominant legislative aims: to provide tax relief for farmers and to preserve open space. It is useful here, however, to review some of the public policies which different differential assessment laws have sought to advance.

In some states, the objective appears to be help the family farmer. Texas, for instance, requires that the owner must be a natural person, not a corporation, that he be in agriculture for profit and that agriculture be his primary occupation and income source. In addition, the land must have been in agricultural use exclusively and continuously for the three preceding years.

In other states, the objective has been to give a tax benefit to all farmland, regardless of ownership, quality of soil or proximity to urban development. In Indiana, the legislature simply directed assessors to assess land in agricultural use as agricultural land and set no further eligibility criteria. This definition has been expanded somewhat by the State Board of Tax Commissioners so that agricultural land is defined as "an area in open country used for producing crops and raising livestock, and whose principal value arises out of such use." All land classified as agricultural by the assessor is automatically awarded preferential assessment.

Some statutes seek to protect other kinds of open land. California's Williamson Act makes differential assessment available to qualifying land devoted to agricultural, recreational, scenic, wildlife habitat and open space uses.

Still other states have established planning and zoning requirements which are designed to limit participation to those tracts of land which are in areas which have been designated for agricultural use in a municipal comprehensive plan. Again, California is an example.

These examples serve to illustrate the variety of objectives which differential taxation laws have sought to achieve. Each state's statute must of course be evaluated in terms of its own set of goals.

B. CHARACTERISTICS OF DIFFERENTIAL ASSESSMENT LEGISLATION

1. General

Table 1, which follows, summarizes the provisions of state laws granting differential assessment to agricultural and open lands which had been enacted as of May, 1975. These data were assembled from two excellent earlier studies,[1] from information supplied by tax officials in the fifty states, and from staff research. The Hady study contains a detailed state-by-state review of statutes in effect as of the beginning of 1974, while the Gloudemans report emphasizes more the evaluation of the operation and impact of these laws on the tax base and on land use.

The state programs identified in Table 1 are listed alphabetically under the classifications: pure preferential assessment, deferred taxation, or restrictive agreement. Some states have more than one program, and these are listed separately. The table is accompanied by explanatory notes, given in section 2 below. They begin with general explanatory notes on each of the program characteristics, and end with specific comments on selected state programs. A summary list of programs by type is given in Table 2 and the legislative citations for each state program are given in Table 3.

For the purposes of classification, we have adopted a strict definition of restrictive agreement. The programs in Hawaii, New York, Pennsylvania, and Washington are classified as deferred taxation programs even though they require the landowner to commit his land to the eligible use for a specified number of years. This is done because the agreements are not enforced. As long as the landowner in these states pays the rollback tax and any other penalties, he may change the use of his land without petitioning for release from the agreement.

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[1] Hady, Thomas F. and Ann Gordon Sibold, State Programs for the Assessment of Farm and Open Space Land, Economic Research Service (U.S.D.A.) (Washington, D.C.: U.S. Government Printing Office, 1974) and Gloudemans, Robert J., Use Value Farmland Assessments: Theory, Practice, Impact (Chicago: International Association of Assessing Officers, 1974).

Differential Assessment Legislation

Table 1 specifically excludes three widespread forms of legislation which have the effect of reducing the tax burden on specified open lands: state open space easement enabling statutes, forest taxation laws, and classified property tax systems.

Many states have enacted open space easement laws which authorize municipalities to acquire interests in open land for the purposes of preserving open space. Once an owner has conveyed such an interest, his property is assessed at its market value minus the value of the rights and interests surrendered. In practical effect, there is little difference between the conveyance of an open space easement for a term of years and entering into a restrictive agreement for a like term. Conceptually, however, there is no preferential assessment of land in the first case because the assessor is simply assessing the remaining property interests on the basis of their fair market value. Because of this fact, open space easement programs have not been included in this study.

Forest and timber taxation laws generally set the annual assessment of eligible forest or timber lands at a very low level and provide for a yield tax at time of harvest. While the goals of these laws, giving a tax break to the forest products industry and promoting conservation of forest resources, overlap somewhat with the goals of the use-value assessment statutes discussed here, they raise a set of issues which are outside the scope of this study.[1]

Seven states have enacted classified property tax systems which mandate different assessment-market price ratios for specified classes of real property. Generally agricultural and residential properties are assigned similar ratios, which are less than the ratios for industrial, commercial, and utility properties. While granting some preferential assessment for open land, these acts do not protect urban fringe land from higher taxes due to rising market values if the ad valorem principle is maintained. The fact that residential and agricultural property are often given the same ratio indicates that agricultural use is not preferentially assessed relative to its major competitor. Because these provisions are not aimed specifically at agricultural and open lands and involve different concepts than the laws discussed here, they have not been included in the table.

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[1] See, e.g., Klemperer, W. David, Evaluating Forest Tax Alternatives for Oregon (Salem, Oregon: 1975), and Hargreaves, L.A. Jr., and Jones, Richard W., Forest Property Taxation. Report No. 29, Georgia Forest Research Council, 1972.

Table 1

PROVISIONS OF STATE DIFFERENTIAL ASSESSMENT LAWS

Pure Preferential Assessment

Program Characteristics	Arizona	Arkansas	Colorado	Delaware	Florida 1	Idaho	Indiana	Iowa	Missouri	New Mexico	North Dakota	Oklahoma	South Dakota	Wyoming
Year of Enactment	67	69	67	68	59	71	61	67	75	67	73	74	67	73
Eligible Uses														
Agriculture	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Open Space, Envir. Protection	●											●		
Timber or Forest	●	●		●	●		●	●	●	●		●		
Recreation	●											●		
Additional Eligibility Requirements														
Min. Farm Income Required				●					●					
History of Eligible Use Required			●	●									●	●
Min. Length of Tenure w/in Family									●					
Land Must be Planned for Eligible Use														
Land Must be Zoned for Eligible Use														●
Sanctions on Conversion														
Rollback Taxes Collected (no. of yrs.)														
Interest on Deferred Taxes														
Penalty Based on Mkt. Val. in Yr. of Conversion														
Other Penalty														
Restrictive Agreements														
Min. Length of Term (no. of yrs.)														
Scope of Program														
Statewide	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Local Option														
Voluntary, Requires Application		●		●	●				●	●				
Automatic for Eligible Lands	●		●			●	●	●			●	●	●	●
State Subvention Payments Provided to Offset Revenue Loss														

Deferred Taxation

Program Characteristics	Alaska	Connecticut	Hawaii 1	Hawaii 2	Illinois	Kentucky	Maine	Maryland	Massachusetts	Minnesota 1	Minnesota 2	Montana	Nebraska	Nevada	New Hampshire 1	New Jersey	New York 1	New York 2	North Carolina	Ohio	Oregon	Pennsylvania 1	Pennsylvania 2	Rhode Island	South Carolina	Texas	Utah	Virginia	Washington
Year of Enactment	67	63	61	73	70	70	71	56	73	67	69	73	74	75	72	64	71	71	73	74	63	66	74	68	75	66	69	71	70
Eligible Uses																													
Agriculture	●	●	●	●	●	●	●	●	●	●		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Open Space, Envir. Protection		●	●				●							●	●							●		●				●	●
Timber or Forest		●													●	●			●			●	●	●				●	●
Recreation			●				●	●			●				●														
Additional Eligibility Requirements																													
Min. Farm Income Required	●								●	●		●		●			●	●	●	●			●			●	●		
History of Eligible Use Required			●		●	●			●							●	●	●	●	●	●		●			●	●		
Min. Length of Tenure w/in Family										●									●										
Land Must be Planned for Eligible Use			●	●													●					●						●	●
Land Must be Zoned for Eligible Use													●				●					●							
Sanctions on Conversion																													
Rollback Taxes Collected (no. of yrs.)	7		*	10	3	2	10/15	2	4	3	7	4	5	7		2	5		5	4	10	5	7	2	5	3	5	5	7
Interest on Deferred Taxes	●		●	●	●		●						●	●					●		●	●	●					●	●
Penalty Based on Mkt. Val. in Yr. of Conversion		●							●						●			●											
Other Penalty																													●
Restrictive Agreements																													
Min. Length of Term (no. of yrs.)																													
Scope of Program																													
Statewide	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		●	●	●	●	●		●
Local Option																						●						●	
Voluntary, Requires Application	●	●	●		●	●	●		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Automatic for Eligible Lands				●				●																					
State Subvention Payments Provided to Offset Revenue Loss	●																	●											

Restrictive Agreements

Program Characteristics	California	Florida 2	Michigan	New Hampshire 2	Vermont
Year of Enactment	65	67	74	73	69
Eligible Uses					
Agriculture	●		●		●
Open Space, Envir. Protection			●	●	
Timber or Forest					
Recreation		●			
Additional Eligibility Requirements					
Min. Farm Income Required					
History of Eligible Use Required					
Min. Length of Tenure w/in Family					
Land Must be Planned for Eligible Use	●		●		
Land Must be Zoned for Eligible Use	●				
Sanctions on Conversion					
Rollback Taxes Collected (no. of yrs.)		*	7		
Interest on Deferred Taxes		●			
Penalty Based on Mkt. Val. in Yr. of Conversion	●			●	
Other Penalty	●				
Restrictive Agreements					
Min. Length of Term (no. of yrs.)	10	10	10	10	
Scope of Program					
Statewide					
Local Option	●	●	●	●	●
Voluntary, Requires Application	●	●	●	●	●
Automatic for Eligible Lands					
State Subvention Payments Provided to Offset Revenue Loss	●				

* indicates that there is a total roll-back of deferred taxes

Table 1 and the accompanying notes cannot replace careful consideration of each individual statute. Since there do not appear to be widely-copied model or leading statutes in this area of the law, there are numerous small but important differences in the statutes. The simplification into tabular form has undoubtedly created distortions. The table should be useful in determining such facts as how many states have rollback penalties or what the typical terms of restrictive agreements are. However, it should not be used to try to draw fine comparisions.

2. Notes to Table 1

a. Program Characteristics

i. Eligible Uses

Agriculture: The definition of qualifying agricultural uses varies across programs, but is generally quite broad, ranging from pasture to intensive cultivation. Associated waste and wooded land usually is also eligible, but the improvements generally are not.

Open Space, Environmental Protection: The definition of these lands is broad, but eligibility is usually contingent on approval by a public body Critical natural, scenic, and historical resources are usually included in the list of eligible lands.

Timber or Forest: While 17 states include this as an eligible use, many also have forest taxation laws which provide greater benefits to landowners. (See the Washington and Oregon case studies, in Part Two).

Within the statutes listed here, there may be different intent in the preferential taxation of forest land from that behind the preferential taxation of "timber" land, with the latter implying benefits to harvesters and the former a reward for resource conservation. However, such distinctions are not apparent on the face of most statutes and the words seem to have been used interchangeably to refer to land with large numbers of trees growing on it. In several cases the eligibility of these lands hinges on the approval of a state official, such as the State Forester.

Recreation: These provisions are designed to benefit country clubs, golf courses, ski areas, hunting grounds, and other such recreational facilities.

ii. Additional Eligibility Requirements

Minimum Farm Income Required: This is typically worded in terms of a minimum required level of gross annual receipts, with an additional amount per acre in some cases. Two states require that the owner earn a minimum percent of his income from the land. In Minnesota, the owner must satisfy one or the other of these provisions, a requirement designed to make speculators ineligible while including low-income subsistence farmers. Two states which merely require that land must be used for profit are not included in this category.

History of Eligible Use Required: In these programs, the land must have been in the eligible use for a number of years prior to application, typically two years.

Minimum Length of Tenure within Family: Programs listed here require that the land has been owned by the applicant's family for a period of years. In North Carolina and Minnesota, this is seven years, unless, in the latter, the applicant lives on the property.

Land Must Be Planned or Zoned for the Eligible Use: These provisions, which link preferential assessment to the land use planning process, are rarely included. When included, their strictness and effectiveness vary greatly across states. In most of these programs, a use must be allowed under the zoning ordinance to be eligible, but there is no provision that other uses could not be allowed under the zoning category. Five states terminate eligibility when the owner applies for a zoning change or files a subdivision plan.

Connecticut and Washington have planning requirements for lands in the "open space" category but not for farmland.

iii. Sanctions on Conversion

While most penalties are assessed on conversion of the land to a nonqualifying use, a few states assess the penalty either then or at time of sale. Eleven programs specifically require notification of changes in use, and some provide additional penalties for failing to do so.

Roll-back Taxes Collected: These are usually calculated as the difference between the taxes that would have been due at market value assessment and the taxes actually paid under the program, summed over the number of specified years. For administrative simplicity, several states have changed this to a multiple of the difference between market and use-value taxes in the year of conversion. In a market with rising property values, this will produce a larger rollback.

Interest on Deferred Taxes: The interest rates range from 5% to 10% and are usually not compounded. Michigan has compound interest for early termination.

Penalty Based on Market Value in Year of Conversion: This is a specified percentage of sale price or market value at conversion.

Other Penalty: For withdrawal before a specified number of years, some states levy an additional penalty, such as a certain percentage of the deferred taxes.

iv. Restrictive Agreements

Minimum Length of Term: While the term is negotiable in most states, four out of the five states set a minimum length of term.

v. Scope of Program

A program is considered statewide if local assessors or governing bodies have no choice in the acceptance of applications from lands that meet the statutory eligibility requirements. In a very few cases, the laws apply only to specified parts of the state.

In the voluntary programs applications are required initially and in some cases annually. In the automatic programs assessment regulations

for all specified lands are state mandated.

vi. State Subvention Payments

State payments to offset the revenue loss attributable to preferential assessment are provided under only three programs. In California, these are tied either to the estimated tax loss or the acres of land in the program, whichever is the lesser amount. In New York, subventions are provided only when the state initiates an agricultural district, which has not happened to date.

b. Notes for Selected State Programs

i. Pure Preferential Assessment

Arizona: The legislatively mandated appraisal methods specify that when market data are used as an indication of market value "the price paid for future anticipated property value increments shall be excluded." This, in conjunction with Arizona's classification system granting preferential treatment to agricultural land, led us to include the program in this category. While assessors are given wide latitude in transitional areas, use-value assessment is allowed by law.

Florida 1: Agricultural land in the path of development may be reclassified non-agricultural by the board of county commissioners. There is a presumption of non-agricultural use if the land sells for greater than three times its agricultural value.

New Mexico: A new program, outlined in the revised property tax code, is described here.

North Dakota: This limited program only applied to agricultural lands annexed by municipalities.

Oklahoma: By statute, all real property is assessed on the basis of its value in its current use. When a landowner applies for a zoning change, the assessment basis will change to the intended higher use.

ii. Deferred Taxation

Alaska: Farm proceeds must be at least 10% of income to qualify. Rollback taxes up to the amount of the subvention paid by the state go directly to the state.

Connecticut: Open space lands must be designated on the local plan of development to be eligible. Forest land must be certified by the State Forester.

A decreasing conveyance tax is levied on participating lands which are sold or converted. It is 10% in the first year of ownership or classification, whichever is first, and declines 1% per year until it no longer applies.

Hawaii 1: Under this statute, owners can dedicate land to the qualifying use for 10 or 20 years. If the 20 year period is chosen, the assessment is cut to one-half agricultural use-value.

Hawaii 2: Land classified agricultural by the Department of Taxation and used for agriculture, whether dedicated or not, is to be assessed at agricultural use value and the taxes which otherwise would have been payable are deferred.

A rollback of up to 10 years plus a 10% per annum penalty are collected following a rezoning or subdivision upon petition of an owner or lessee. If rezoning or subdivision occur within five years of enactment of the law, the rollback and penalty are doubled. However, the owner may escape the rollback and penalty by dedicating the land within one year of rezoning.

Maine: The rollback is 10 years for agricultural land and 15 years for open space land. Only open space lands, including recreational lands, must be approved by the local planning boards. If there is no plan or the land is not classified open space, the assessor must determine eligibility in light of both statutory and Constitutional definitions.

Massachusetts: The sanction on conversion is either the four year rollback or a declining conveyance tax similar to the Connecticut provision, whichever is greater.

Minnesota 1: For eligibility a landowner must earn a minimum gross farm income of $300 plus $10 per tillable acre or one-third of total family income.

New Hampshire 1: The penalty for conversion is 10% of the assessed value at time of conversion, without regard to tax deferral.

New York 1: This applies to lands within Agricultural Districts. State subvention payments are made only when the state initiates the District.

New York 2: This applies to land outside Agricultural Districts. The penalty for conversion is twice the total taxes due in the year of conversion based on market value assessment.

North Carolina: If the owner lives on the land, no minimum length of tenure is required.

Oregon: Land zoned for farm use is automatically eligible, while land not zoned for farm use must have been devoted to agricultural use for the two previous years. For zoned land, the roll-back is the deferred taxes of the previous year times the number of years in the program, up to ten years. Unzoned land is subject to a standard roll-back up to 10 years with 6% interest. An additional penalty is levied for failure to notify the assessor of a change in use.

Pennsylvania 1: This is a local option program available only to certain classes of larger counties.

Texas: Applicant must be a "natural person" and the land must constitute his principal occupation and source of income.

Washington: If the land is converted before the initial seven years under classification, an additional penalty of 20 percent of the deferred tax is due. Only land classified as open space requires approval of a planning body.

iii. Restrictive Agreements

California: Under the Williamson Act contract, there is a 10 year "run-out period" after notification of non-renewal, during which the assessment is gradually increased to market value and the owner cannot convert the land. If early termination is granted by special exception, there is a penalty of 12.5% of market value at time of conversion or termination.

Florida 2: There is no specified roll-back term, indicating a total roll-back, with 6% interest.

Michigan: This program has two components: farmland development rights agreements and open space development rights easements. The application and review process for both is complex.

An owner who enters a farmland development rights agreement is entitled to a credit against his state income tax liability for the amount by which the property taxes on the land and structures used in the farming operation, including the homestead, exceeds 7% of household income. If an early termination is granted upon petition by the owner, the total amount of the tax credit, plus 6% per annum compounded interest, becomes a lien on the property. If termination is at the request of the state, there is no penalty or interest. Upon due course termination, the rollback is the total amount of the tax credit received by the owner in the last seven years, without interest.

Through this mechanism, the farm property tax burden is shifted to other income tax payers statewide rather than onto other classes of property within the same local taxing jurisdiction.

An owner who enters an open space development rights easement is granted a current use assessment. For early termination, a total roll-back, plus 6% per annum compounded interest, falls due. Upon due course termination, there is a seven year rollback without interest.

New Hampshire 2: Localities may negotiate "discretionary easements" with owners of open space lands. The penalty for early termination, when allowed by the local governing body, is 12% of assessed value during the first half of the agreement and 6% of assessed value during the last half.

Vermont: This statute enables the locality to negotiate with a farmer to fix either the assessment on his property, the tax rate to be applied, the actual amount of taxes to be paid, or the property's tax as a percentage of the total annual tax, for a term of years not to exceed 10 years.

Table 2

SUMMARY LIST OF PROGRAMS, BY TYPE

PURE PREFERENTIAL ASSESSMENT (14 State Programs)

Arizona	Iowa
Arkansas	Missouri
Colorado	New Mexico
Delaware	North Dakota
Florida 1	Oklahoma
Idaho	South Dakota
Indiana	Wyoming

DEFERRED TAXATION (25 States; 29 Programs)

	Years Rollback		Years Rollback
Alaska	7	New York 1 (inside district)	5
Connecticut	(conveyance tax)	New York 2 (outside district)	(2x market value taxes)
Hawaii 1 (dedication)	(total)	North Carolina	5
Hawaii 2 (deferral)	10	Ohio	4
Illinois	3	Oregon	10
Kentucky	2	Pennsylvania 1 (1966)	5
Maine	10,15	Pennsylvania 2 (1974)	7
Maryland	2	Rhode Island	2
Massachusetts	4	South Carolina	5
Minnesota 1 (agri.)	3	Texas	3
Minnesota 2 (recr.)	7	Utah	5
Montana	4	Virginia	5
Nebraska	5	Washington	7
Nevada	7		
New Hampshire 1	(10 % of assessed value)		
New Jersey	2		

RESTRICTIVE AGREEMENTS (5 State Programs)

California	10 yrs. min. term; for sanctions, see notes by State.
Florida 2	10 yrs. min. term; complete rollback.
Michigan	10 yrs. min. term; 7 yrs. rollback.
New Hampshire 2	10 yrs. min. term; sanction of 12% of assessed value if breached in first half of term; and 6% if breached in second half.
Vermont	See notes by State Program.

NO PROGRAM

Alabama*	Mississippi
District of Columbia	Tennessee*
Georgia	West Virginia*
Kansas	Wisconsin
Louisiana*	

*State with a classified property system. Arizona, Minnesota, and South Carolina also have such statutes. Louisiana and Wisconsin have amended their constitutions to permit differential assessment. Kansas is in the process of doing this.

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Table 3

LEGISLATIVE CITATIONS: STATE PROGRAMS FOR THE DIFFERENTIAL ASSESSMENT OF AGRICULTURAL AND OPEN LANDS

Alaska	Alaska Stat. 29.53.035, as amended by Sen. C.S. for H.B. 827 (1974)
Arizona	Ariz. Rev. Stat. 420123, 42-136 (1974 Supp.).
Arkansas	Ark. Stat. Ann. 84-479 through 84-486 (1973 Supp.).
California	Govt. Code 51201 et seq. (1974 Supp.).
Colorado	1963 Colo. Rev. Stat. 137-1-3 (5) and 137-1-3 (6).
Connecticut	Conn. Stat. Ann., Title 12, 107 (a) through 107 (e) and 504a.f (1974 Supp.).
Delaware	Del. Code, Title 9, Sect. 8330.
Florida 1	Fla. Stat. Ann. 193-461 et seq. (1974 Supp.) (Preferential Assessment for Agricultural Land).
Florida 2	Fla. Stat. Ann. 193-501 et seq. (1974 Supp.) (Recreation Land Restrictive Agreement).
Hawaii 1	Haw. Rev. Stat. 246-12 et seq. (1973 Supp.) (Dedication Program).
Hawaii 2	Id, (Deferral Program).
Idaho	Idaho Code Ch. 2, 63-202 (1974 Supp.).
Illinois	Ill Rev. Stat. Chap. 120, Sect. 501 (a) (1) through 501 (a) (3) (1974 Supp.).
Indiana	Ind. Code 6-1-26-2 et seq. (1974)
Iowa	Iowa Code 404.15, 441.21, 441.22.
Kentucky	Ken. Rev. Stat. 132.010, 132.450 et seq.; Const. Sect. 172A.
Maine	Me. Rev. Stat. Ann. 36-585-593; Const. Art. IX, $8.
Maryland	Md. Code Ann. Art 81 §19
Massachusetts	Mass. Session Laws, Chap. 1118, enacting Mass. Genl. Laws Chap. 61A.
Michigan	Acts of 1974, Act. No. 116.
Minnesota 1	Minn. Stat. Ann. 273.111 (1974 Supp.) (Preferential Assessment for Agricultural Lands).
Minnesota 2	Minn. Stat. Ann. 273-112 (1974 Supp.) (Golf Course & Ski Area Program).
Missouri	S.B. 203 (78th General Assembley, 1975)
Montana	Laws of Montana, 73-512, 74-56. R.C.M. (1974), Sect. 84-401, 84-429.12, and 84-437.1 to 84-437.17.
Nebraska	Laws of Nebraska, Legis. Bill 359 (1974).
Nevada	Ch 749 (S.B. 167)
New Hampshire 1	N.H. Rev. Stat. Ann. 79A:1 through 26 (1973 Supp.); Const. Art. 5-B (Current Use Taxation)
New Hampshire 2	N.H. Rev. Stat. Ann. 79A:15 through 21 (1973 Supp.). (Discretionary Easements).

Table 3 - continued

New Jersey	N.J. Stat. Ann. 54:4-23 et seq.; Const. Art. 8, Sect. 1 Para. 1.
New Mexico	N.M. Stat. Ann. 72-2-14.1 (1973 Supp.) and 72-29-9 (1975) Specl. Supp.) (Agricultural Lands) and 72-6-8 (1973 Supp.) (Grazing Lands).
New York 1	Agric. & Mkts. Law §§300 to 307. (1974 Supp.). (Land in Agricultural Districts).
New York 2	Id. (Other Agricultural Lands).
North Carolina	N.C. Genl. Stat. 105-277.2 through 105-277.7.
North Dakota	N.D. Stat. Code 57-02-27 (1973 Supp.).
Ohio	Ohio Code 5713.30--5713.37 (1975 Supp.).
Oklahoma	Senate Bill. 237(1974).
Oregon	Ore. Rev. Stat. 308.345 et seq. (1974 Supp.).
Pennsylvania 1	Purdon's Stat. Ann. Title 16, Sect. 11941 et seq.
Pennsylvania 2	Purdon's Stat. Ann. Title 72, Sect. 5490.1 to 5490.13 (Laws of 1974, Act. 319).
Rhode Island	Genl. Laws of R.I. 44-27-2.
South Carolina	Senate Bill 209 (1975).
South Dakota	S.D. Com. Laws 10-6-31-33 (1974 Supp.).
Texas	Const., Art VIII, Sect. 1-d(a) et seq.
Utah	Utah Code 59-5-88 et seq.
Vermont	Vt. Stat. Ann. Title 24, 2741 (Development Rights Program).
Virginia	Va. Code Ann. 58-769.4 et seq. (1974 Supp.).
Washington	Rev. Code Wash. 84-34 et seq. (1974 Supp.); Const. Art. 8.
Wyoming	Wyo. Stat. Ann. 39-82 (1974 Supp.).

Chapter III

EFFECTIVENESS: PROVIDING TAX BENEFITS TO FARMERS AND OTHER OWNERS OF ELIGIBLE LAND

A. GENERAL CONSIDERATIONS

As has already been indicated, a primary goal of differential assessment is to reduce the real property taxes of farmers and other owners of eligible land. In many states, this appears to have been the only, or at least, the overriding goal. In any case, the other goals, such as retarding the conversion of open land to urban uses, the securing of recreational benefits, the protection of scenic resources, and the controlling of urban development, all depend on the magnitude of the tax benefit. The larger it is, the more likely it is, so the argument goes, that owners of undeveloped land will be induced to hold the land off the market and maintain it in its current use. It is, therefore, appropriate to begin our analysis of the effectiveness of differential assessment by examining the tax benefits which result and how they are affected by various types of programs.

The analysis which follows will, for purposes of simplification, focus on farmers and farmland. These owners are the primary beneficiaries of most differential assessment laws, and in almost all cases factors affecting tax savings for them will be similar to factors affecting owners of timber, recreational, scenic and other types of undeveloped land. Where different considerations come into play for these latter classes of land, they will be noted.

The tax benefits which owners receive as a result of differential assessment of land are measured by the difference between those taxes which they would pay if they did not participate in the program and those which they pay as participants. In evaluating the effectiveness of a particular type of differential assessment program it is therefore essential to understand the context within which it operates. This context can be best analyzed in terms of the interaction between rural land market factors and property tax factors.

Effectiveness for Providing Tax Benefits

1. Land Market Factors and Property Tax Factors

As we have indicated in Chapter I, agricultural land is sold in two types of markets: the market for land to be used to produce agricultural products and the market for development sites. The first type exists in its purest form in rural areas remote from the pressures of urbanization, where agriculture is the highest bidding use. The second exists in suburban areas where little farming occurs. In between, in the rural-urban fringe, the two markets overlap, so that some land is sold for agricultural use, and some for development, but at intermediate prices.

a. Remote Rural Areas

In remote rural areas, land values are a function of the annual economic surplus which a reasonably able farmer estimates he can generate from the land, the capitalization rate which reasonably prudent farmers will as assign to this surplus (or to state it differently, the rate of return which they will demand from their investment), and the effective property tax rate for the taxing jurisdiction in which the farm is located.

In such areas the property tax is based on agricultural use value and therefore is a percentage of net income (or more precisely surplus) from the land.[1] As Figure 1 shows, in a typical state where the capitalization rate is around

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[1] Where agriculture is the highest bidding use (or the "highest and best use"), land value, V, will be a function of the annual economic surp us, S, the capitalization rate, C, and the effective property tax rate, R.

This relationship is expressed as follows:

$$V = \frac{S}{C + R}$$

Three of these terms -- V, C, and R -- are in common use, but S, economic surplus, requires a brief discussion. The surplus is the dollar exchange value of farm output minus a) the dollar exchange value of farm inputs such as seeds, fertilizer, depreciation of machinery and equipment, etc., and b) the dollar exchange value of farmer's wages and management payments to himself and other labor. (Note that if the farmer's input costs are high, if farm prices are

7% and the effective property tax rate about 2%, the real property tax would constitute a 22% tax on economic surplus before property tax, if assessed values were based on farm use value. The impact of the tax is reduced because it is a deductible item for Federal income tax purposes. Thus, in the example above, for a typical taxpayer who is in the 30% Federal income tax bracket, the net cost of the real property tax would be approximately 15% of net income before taxes.

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[1]footnote continued

low, or his expected wages to himself are too high, S could be negative, in which case the loss comes out of his own wages and management returns.)

In areas where agriculture is the highest bidding use, the appraised values which property tax assessors use to establish the tax base should, in principle, be the agricultural use value, and in such cases, the dollar value of the tax on the land, T, is:

$$T = R \cdot V$$

Substituting for V,

$$T = \frac{RS}{C + R}$$

We may now express T as a proportion of the surplus, S, to obtain the tax rate on the economic surplus of farming, P:

$$P = \frac{T}{S}$$

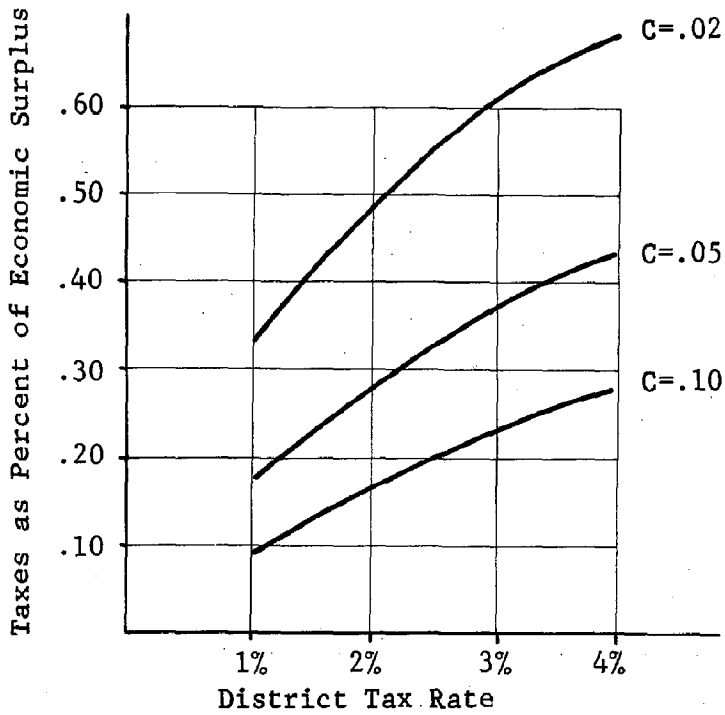
Substituting terms and simplifying,

$$P = \frac{\frac{RS}{C + R}}{S} = \frac{R}{C + R}$$

Thus, for all levels of surplus, the tax rate on the surplus, P, is determined by the magnitudes of the real property tax rate, R, and the capitalization rate, C.

Figure 1

TAXES AS A PROPORTION OF ECONOMIC SURPLUS VERSUS DISTRICT TAX RATES FOR VARIOUS CAPITALIZATION RATES



b. The Rural-Urban Fringe

In the second type of market, where pressures from urban development are at work, land values are bid up by buyers who will pay more than the land is worth for agricultural use because they, in turn, can develop it and sell it at a higher price to homebuyers and businesses. The difference between farm use value and fair market value for development is the development value of the land. In the absence of a differential assessment law or similar legislation, property tax assessors are mandated to appraise land

at its fair market value, including both agricultural use value and development value.

As a result, assuming no de facto preferential assessment (where assessors improperly hold appraised values at agricultural use value levels), appraised values will rise as development values increase. The farmer's taxes increase correspondingly, even though his economic surplus from agricultural activity remains at essentially the same level. The taxes, which are no longer related to the economic surplus attributable to farming, become a larger and larger component of his costs, sometimes rising to the point where they equal or exceed the economic surplus before property taxes. The farmer may then be caught in a classic income squeeze and may start to look for a buyer. Differential assessment laws are designed to alleviate this squeeze by authorizing assessors to re-appraise eligible land according to its agricultural value and thereby re-establish agricultural economic surplus as the basis of the real property tax.

2. The Effect of Market and Property Tax Factors on Tax Savings

There are three factors relating to the land market and the real property tax system in a particular landowner's taxing jurisdiction which influence the magnitude of the tax benefits he might receive from differential assessment:

a. the difference between the assessed value of the land based on fair market value and its assessed value based on current-use or farm value. Obviously, farmers at the rural-urban fringe would, in principle, enjoy the largest reduction, although the fact that de facto preferential assess-assessment of farmland is widespread in these areas may, in practice, reduce the magnitude of the benefit. In these areas, differential assessment would protect the farmer against future increases in tax burden resulting from rising land values and reassessment.

b. the percentage which the assessed value of farm land and associated real estate improvements, such as barns, is of the total assessed value tax base before the establishment of differential assessment. If all realty in the taxing jurisdiction is in eligible agricultural use, there would be no benefit to an individual farmer. The

assessed value of his land would be reduced, but, since the tax revenue needs of the municipality would remain the same, his tax rate would go up by an amount sufficient to produce the same tax revenue, and his tax bill would remain unchanged. At the other extreme, if there is a very small amount of eligible land in a jurisdiction, the tax saving for its owner would be proportional to the reduction in assessment. This matter is discussed fully in Chapter IV.

c. the percentage which the improvements on a particular farm are of its total assessed value before differential assessment. The tax benefit usually involves only taxes on land, and improvements continue to be assessed at fair market value.

The effect of these three factors can be seen in Table 6. Note that the first two factors relate to community characteristics: the pressure for development on land prices (and therefore on the ratio between preferential and market value assessment) and the portion of the tax base (before differential assessment) which is in farmland. The third factor is specific to the individual farm owner. The table indicates that many outcomes are possible given the levels of each of the factors. For example, assume that the land price structure in the community is such that farmland is to be assessed differentially at 40% of market value, and that 50% of the original tax base (computed on fair market value) is in property which is to be assessed preferentially. If an individual's farm property consists of nothing but land, his taxes will be 57% of what they would be without differential assessment. If, however, his property value (computed on fair market value) consists of 75% land and 25% buildings, his taxes will be 79% of the pre-differential assessment amount; if his property value consists of 50% land and 50% buildings, his taxes will be unchanged from what they would have been without differential assessment.

In general, if an individual owner is to be better off after the institution of a differential assessment program, the percentage of his farm's value which is in eligible land must be at least as large as the percent of the entire tax base which is in eligible land. Thus, not all farmers will enjoy a net benefit from a differential assessment program. Those with a high proportion of improvement value to land value may see their tax bills rise, even though their land is assessed at a lower rate.

Table 4

REAL ESTATE TAXES PAID BY AN INDIVIDUAL OWNER IN THE PROGRAM AS PERCENT OF TAXES PAID WITHOUT PROGRAM

Percent of Tax Base to be Assessed Differentially[1]	Differential Assessment as Per Cent of Fair Market Assessment									
	100	90	80	70	60	50	40	30	20	10
	a) Individual whose property value is 100% land, 0% buildings									
100	100	100	100	100	100	100	100	100	100	100
90	100	99	98	96	94	91	87	81	71	53
80	100	98	96	92	88	84	77	68	56	36
70	100	97	93	89	83	77	69	59	45	27
60	100	95	91	85	79	72	62	52	38	22
50	100	95	89	83	75	67	57	46	33	18
40	100	94	87	80	71	63	53	42	29	16
30	100	93	85	77	68	59	49	38	26	14
20	100	92	83	74	65	56	46	35	24	12
10	100	91	82	72	62	53	42	32	22	11
	b) Individual whose property value is 75% land, 25% buildings									
100	100	100	100	100	100	100	100	100	100	100
90	100	102	104	106	110	114	129	129	142	178
80	100	101	102	102	103	105	106	108	112	116
70	100	100	99	99	97	97	95	93	91	88
60	100	98	97	95	92	90	86	82	77	71
50	100	97	95	92	87	83	79	73	67	60
40	100	96	92	90	83	78	73	67	59	51

Table 4 - continued

b) Individual whose property value is 75% land, 25% buildings

Percent of Tax Base to be Assessed Preferentially[1]	100	90	80	70	60	50	40	30	20	10
30	100	96	91	86	80	74	68	61	53	45
20	100	95	88	83	76	70	64	55	48	40
10	100	93	87	80	73	66	59	51	44	36

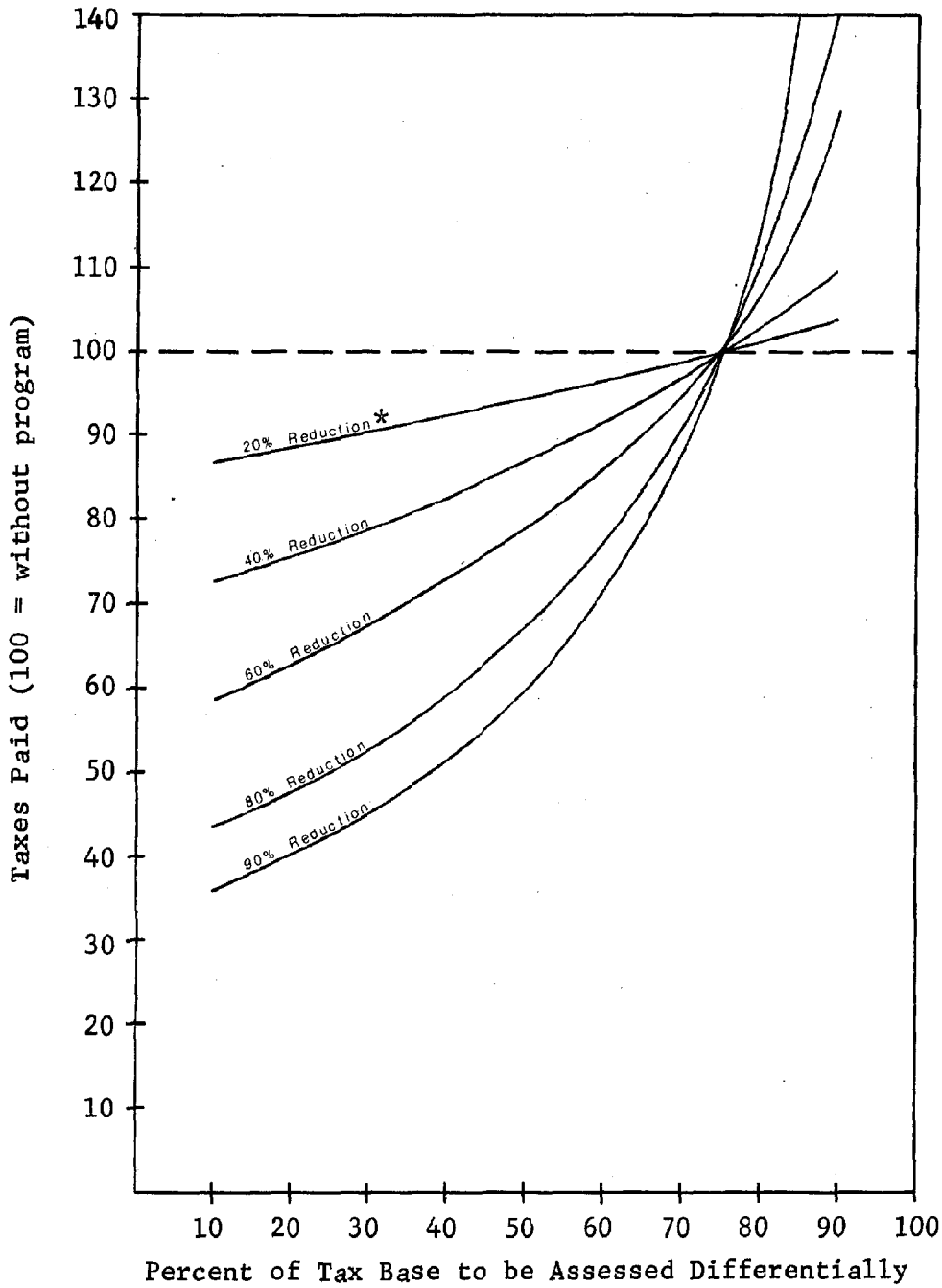
c) Individual whose property value is 50% land, 50% buildings

100	100	100	100	100	100	100	100	100	100	100
90	100	105	110	116	125	137	152	175	214	289
80	100	104	108	112	118	126	135	148	167	196
70	100	103	105	108	111	116	121	128	136	148
60	100	101	103	104	106	108	109	112	115	119
50	100	100	100	100	100	100	100	100	100	100
40	100	99	98	97	95	94	93	91	88	81
30	100	98	96	94	91	88	86	83	79	76
20	100	97	94	90	87	84	80	76	72	67
10	100	96	92	88	83	79	74	70	66	61

[1] Where entire tax base is assessed at market value.

Figure 2

PROPERTY TAXES PAID BY AN OWNER WHOSE PROPERTY VALUE IS 75% ELIGIBLE LAND AND 25% INELIGIBLE IMPROVEMENTS



* Reduction in assessment due to differential assessment.

B. PROGRAM FACTORS AND THE PROVISION OF TAX BENEFITS

For a given configuration of rural land market and property tax factors, the tax benefits a landowner receives will be determined by a third set of variables. These are the "program factors" established by the relevant differential assessment legislation and associated administrative regulations and practices which determine eligibility, method of assessment, sanctions, and so forth.

The three principal forms of differential assessment, preferential assessment, deferred taxation, and restrictive agreements, can be viewed most usefully as sets of progressively more restrictive provisions, variations of which have been used by different states. Thus, all differential assessment laws grant preferential assessment. We will examine the major types of eligibility criteria, methods of assessment and non-tax benefits which different states have included in their laws to see how they expand or contract eligibility and increase or decrease tax benefits. Most states have added rollback provisions to capture some or all of the taxes deferred. We will analyze how variations in rollback taxes affect the achievement of the goal of making tax benefits available to farmers. Finally, five states have added a legal sanction to the economic one of deferred taxation and have required eligible owners to sign long-term restrictive agreements which tie up their land for a specified period. These provisions also will be examined in light of their effect on the achievement of the above goals.

In the analysis which follows, we will start with provisions of differential assessment laws which provide the greatest tax benefits and the most attractive programs for farmers and see how other provisions successively narrow the class of eligible land and reduce the total tax benefits conferred on the class of eligible owners.

1. Preferential Assessment

a. Eligibility Criteria

The best example of a law with broad eligibility criteria is Indiana, as has been already pointed out. There, all land which is devoted to agricultural use is to be assessed as agricultural land. The local assessor makes

the determination as to whether land is in agricultural use, and once it is so classified, it automatically receives preferential assessment. Thus, all farmland in the state receives preferential assessment.

Several states have enacted additional criteria which limit eligibility. Their primary goal has been to exclude speculators and other non-farmers from the benefits of the program. For instance, Texas requires that the owner must be a natural person whose farm business is his primary occupation and source of income. North Carolina also requires that the owner be a natural person, and further that the land (1) be at least 10 acres in area, if farmland (20 acres, if forest land), (2) have produced agricultural and horticultural products producing an average gross income of $1,000 per year for the preceding 3 years, and (3) have been the owner's place of residence or have been owned by one family for the 7 years preceding.

A few states require that the owner must receive a certain amount of gross income per acre or a minimum percentage of his income from the land. For instance, Montana's law provides that, in order to be eligible, land must be exclusively devoted to agricultural use and must produce the equivalent of 15% or more of the owner's annual gross income. In Alaska, he must derive at least 10% (recently reduced from 25%) of his income from such activities.

In many states, it is necessary for the owner to apply for differential assessment. This may be a fairly simple procedure with automatic renewal from year to year, or it may involve the preparation of a survey, the submission of plat plans, and the payment of a substantial fee, as in California. In some states, such as North Carolina, it is necessary to review the application every year.

Eligibility is further limited by some states which have prescribed planning and zoning requirements designed to limit participation to those properties which have been designated in a plan as open space or been zoned for that purpose. For instance, Pennsylvania's 1966 law requires that, to be eligible, land must be "designated as farm, forest, water supply or open space land in a plan adopted following a public hearing by the planning commission of the municipality, county or region in which it is located."

Effectiveness for Providing Tax Benefits

In California, land must be in an agricultural preserve so designated in a general plan and must be suitably restricted by zoning or some other means to permissible uses within two years thereafter.

Florida's preferential assessment law has two interesting eligibility provisions. One allows a board of county commissioners to deny eligibility to lands which are contiguous to urban or metropolitan development where the board finds that "the continued use of such lands for agricultural purposes will act as deterrent to the timely and orderly expansion of the community." The second creates a rebuttable presumption that land which sells for three or more times the agricultural assessment placed on the land is not used primarily for agricultural purposes.

In some cases, eligibility has been tied to the productivity of soils. In California, the original Williamson Act differentiates between farms with prime agricultural land and those with non-prime soils. A larger state subvention or subsidy to replace lost revenue is given for prime agricultural land.

For several reasons, there is no way of determining empirically what percentage of otherwise eligible land in a given state will be excluded by a particular eligibility criterion. First, most states do not have an accurate inventory of land in agricultural or other eligible uses, so that the universe of potentially eligible land is not well-defined. Second, owners may be receiving substantial de facto preferential assessment, so that they have little incentive to enroll. This appears to be the case in North Carolina where few have taken advantage of the state's new differential taxation law. Third, an owner who contemplates development in the near future may not think it worthwhile to enroll. Fourth, no data are available on an aggregate basis concerning such factors as years in agricultural use, gross income per acre, length of ownership, acreage owned by corporations, or owner's income, which would allow one to determine how many acres of land were rendered ineligible because of failure to meet a particular criterion. Thus, we are left with the simple argument based on reason that the more eligibility criteria there are, the smaller will be the percentage of farmers who actually enroll in the program and receive tax benefits.

b. Methods of Assessment: The Magnitude of the Tax Benefit

In evaluating the effectiveness of differential assessment for conferring tax benefits, we must examine not only the inclusiveness of eligibility criteria, but also the magnitude of the assessment differential which an eligible farmer is accorded. This, in turn, is influenced by the method used by assessors to re-establish agricultural economic surplus as the primary determinant of appraised value and,consequently, of assessed value and property tax burden.

To determine agricultural use value assessors may use either of two basic methods. One is to estimate value directly based on data on comparable sales. A second is to estimate the capitalized value which is consistent with the agricultural productivity of the land and a commonly accepted capitalization rate. The methods used to determine the current use value on which differentially assessed values are based are often specified by statute or established by the state revenue agency. Some statutes such as those of Indiana and Arkansas provide only that land in agricultural use shall be assessed at its value for such use. Others are explicit about what methods can and cannot be used.

The comparable sales method of appraisal (which derives the fair market value of one property from recent sales data of other properties with similar location, accessibility, pro uctivity, size,and so on) is often not appropriate for farm use value appraisal, because the other sales prices often contain significant components of development value. Most of the states studied in detail do not use comparable sales. California law forbids the use of this approach and requires assessors to use the capitalization of income approach. Oregon permits the use of comparable sales, but under conditions so restrictive that assessors are forced to use the capitalization of income method.

Where the capitalization of surplus approach (or more loosely the capitalization of net income) is used, assessors normally attempt to determine surplus by looking at rental data to determine what rent a particular tract could be expected to bring. However, in many areas, such as New Jersey, rental values are distorted by the very existence of differential assessment. Investors and developers are willing to rent out land to a nearby farmer for little more than the real property taxes attributable to the land, so as to qualify it as agricultural land in order to obtain the benefits of differential assessment. Observed rents in such situations may bear little relationship to the economic surplus attributable to the land in agricultural use.

In cases where relevant rental data are not available, assessors look to the estimated economic surplus from the agricultural commodities which are, or could be, produced on the land and capitalize the surplus at a prescribed rate.

Capitalization rates vary considerably. Maryland uses 5%, California, 7.25%, Oregon, 8%, Washington, 8.5%, and New Jersey, 10%. They also change from year to year within a particular state. Effective tax rates generally range between 1.5% and 2.75%, so that surplus from the land may be capitalized at a rate varying from 7 or 8% to 11 or 12%. Some states add further refinements. California, for instance, includes a risk component of from ¼ of 1% to 3% and, in the case of perennials, such as orchards or avocado plants, an amortization element.

Several analysts have noted that capitalization rates expected by buyers of agricultural land are lower than those demanded by investors in other markets, such as that of commercial realty. The typical expected agricultural return is in the 2 to 4% range,[1] largely because there is good reason to expect rural land values to rise at the rate of 5% or more per year, so that net return from the land ranges between 7 and 9%. A method of assessment which uses a higher-than-agricultural-land-market capitali-

[1] See, e.g., Ferraro, Anthony G., "Valuation of Property Interests for Ad Valorem Taxation of Extractive Industry and Agricultural Realty," in Lynn, Arthur D., Jr., The Property Tax (Madison, Wis.: The University of Wisconsin Press, 1971).

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zation rate produces a current use value which is lower than the "real" use value for which one farmer could sell his land to another. It thus amounts to a preference on top of a preference.

Some states such as Indiana and Maryland, either by statute or by regulation, prescribe values based on soil productivity ratings. Local assessors determine the appropriate average productivity rating for a particular tract and then use the table provided to arrive at estimated true cash value for farm use. Examples of productivity rating tables from Maryland and Indiana follow.

The appeal of productivity ratings lies, first, in the fact that all farmland of a given productivity rating will be treated the same throughout the state, and, second, in the fact that local assessors need not do the work involved in computing the income attributable to each tract of land. Ratings have been criticized because they fail to take into account many of the factors which affect farm land values, such as location, accessibility, and differential suitability for different kinds of crops.

In summary, then, the magnitude of the tax benefits which a particular program provides will be significantly influenced by the method of assessment used. If the comparable sales technique is used, as is possible in some states, it is likely that some development value will be included in fair market value. If it is, it raises the differentially assessed value and consequently reduces the tax benefit conferred. If productivity ratings are used, they may understate agricultural use value. In many states such as Indiana, farmer representatives play an important role in the establishment of such ratings, and it is obviously in their interest to have them set at conservative levels. In addition, where such ratings are used across an entire state, they will not take into account locational differences, such as accessibility to markets and rainfall. Thus, they will underestimate agricultural use value in some areas, and overestimate it in others. Where the capitalization of surplus method is used, generous estimates of surplus will result in higher agricultural use value, while niggardly estimates will lower it. Capitalization rates will also have a significant influence on the magnitude of tax benefits. We have seen that they

Table 5

SOIL PRODUCTIVITY RATING TABLE PRESCRIBED BY INDIANA

GRADES AND SUGGESTED VALUES PER ACRE OF FARM LAND TABLE

Kind of Land and Grade Crop Land	Capable of Producing	Productivity Rating Average = 100*	Estimated** True Cash Value		Recommended True Cash Value
			Low	High	
A Excellent	Over 75 bu. of corn or over 35 bu. of wheat or their equivalent	130	375	565 & up	420
B Good	60 to 75 bu. corn or 30-35 bu. wheat or their equivalent	105	315	375	320
C Average	45 to 60 bu. corn or 22 to 30 bu. wheat or their equivalent	75	190	315	210
D Fair	20 to 45 bu. corn or 10 to 22 bu. wheat or their equivalent	45	115	190	120
E Poor	Below 20 bu. corn or below 10 bu. wheat or their equivalent	20	40	115	75
Permanent Pasture					
A Excellent		45	90	190	150
B Good		35	65	90	85
C Average		25	50	65	60
D Fair		15	25	50	45
E Poor		5	15	25	20
Woods					
A Excellent	Large saw timber	13		150 & up	150
B Good	Medium saw timber	10	100	150	110
C Average	Medium to small saw timber	7	65	100	75
D Fair	Small second growth	5	25	65	55
E Poor	Badly eroded and cut over land	2	15	25	20

*Productivity factor of 100 represents a national standard for agricultural productivity of an average year and under average farm management practice of 50 bu. of corn per acre, 25 bu. of wheat per acre, 25 bu. of soybeans per acre, 2 tons of mixed hay per acre, or their equivalents.

**Estimated true cash value and average cash values are at 100% Assessed values will be at 33⅓% of above.

Source: Indiana Real Estate Property Appraisal Mannual, State Board of Tax Commissioners, Regulation 17, (1968).

Table 6

SOIL PRODUCTIVITY RATING TABLE PRESCRIBED BY MARYLAND

GUIDE TO VALUING AND ASSESSING LANDS DEVOTED TO FARM AND AGRICULTURAL USE

Value ranges for land devoted to agricultural use; based upon soil productivity capability ratings.

CLASS	FULL VALUE	ASSESSMENT VALUE	USE CAPABILITY
A	$300-320	$150-160	Soil with high productivity rating capable of producing, under average management, 50-70 bushels of corn per acre.
B	$240-260	$120-130	Soils with medium productivity rating capable of producing, under average management, 30-50 bushels of corn per acre.
C	$190-210	$ 95-105	Soils with low productivity rating capable of producing, under average management, 20-35 bushels of corn per acre.
D	$ 90-120	$ 45-60	Soils with severe limitations for cultivated crops; may be used for pastureland.
E	$ 20-60	$ 10-30	Borrow pits, scrub land, marsh, spent quarries, stony land. (SPECIFY)
Woodland	$ 50-70	$ 25-35	Varies according to suitability for different species of trees.

Source: Guide to Valuing and Assessing Lands Devoted to Farm and Agricultural Use, Maryland Dept. of Assessment and Taxation.

vary from as low as 5% in Maryland to 10% in New Jersey. A New Jersey farm which is identical in all other relevant respects to a Maryland farm would be appraised at approximately half the appraised value of the Maryland farm and receive correspondingly greater tax benefits.

c. Other Considerations

Several states have enacted special provisions which are designated to retard urbanization in predominantly agricultural areas and to insulate farmers from special assessments for sewer, water or electrical facilities. In New York, where agricultural districts are established, regulation which unreasonably restricts or regulates farm structures or practices is prohibited. Oregon has similar provisions for farmland in exclusive farm use zones. New York also requires the Commissioner of Environmental Conservation to review the local exercise of the power of eminent domain to acquire land in agricultural districts and to determine whether there are any satisfactory alternatives. Finally, some states, such as New York, Oregon and Michigan, exempt eligible farmland from assessments by special sewer and water districts until the farmland owners want to use the improvements.

The above examination shows the methods used by various states to expand or contract the amount of farmland which is eligible for tax benefits under the concept of preferential assessment and to increase or decrease the magnitude of the tax benefits to which eligible owners become entitled. Clearly, subsidiary objectives, such as excluding speculators, or tying in preferential treatment to planning and zoning policies, serve to limit the achievement of the overriding goal of providing tax relief to farmers. There are as many variations on the theme as there are state programs and few data by which to evaluate the actual effects of the provisions on the achievement of that goal.

2. Deferred Taxation

Twenty-eight states (including three restrictive agreement states),with a total of 32 different differential assessment programs, have included provisions designed to recapture some or all of the taxes which farmers and other owners of undeveloped land were excused from

paying pursuant to the programs. These convert what, under pure preferrential assessment, is a tax abatement program into a full or partial tax deferral program. This creates an overhanging contingent liability for back taxes in the statutorily mandated amount which becomes a legal obligation when the land is converted to non-eligible uses, or, in some states, such as Oregon, when the owner initiates a rezoning to residential, commercial or industrial uses. Some states, such as Washington, impose an additional penalty in the form of a percentage of the taxes due, if the owner converts prematurely or without giving appropriate notice. A few states, such as Connecticut and New Hampshire, impose a conveyance tax at the time of sale which has a similar economic effect but is calculated without reference to taxes foregone. Massachusetts has both a rollback tax and a conveyance tax. The above examination of eligibility criteria and methods of assessment under preferential assessment apply with equal force to programs with a deferred taxation feature. The new element, a rollback or conveyance tax, is analyzed in more detail below.

The methods of computing these deferred, or rollback taxes are different for each state. The smallest rollback is found in five states which require a payment of two years' back taxes on untaxed development value without interest. Thirteen programs require rollbacks of from 3 to 5 years, with varying amounts of annual interest charges on taxes due. Five of the remaining programs recapture 7 years' worth of back taxes and two, ten years' worth. Hawaii, under its dedication program, requires 10 or 20 years' rollback, depending on which term of dedication is chosen. Since in most cases the average effective property tax rate on farmland is in the 1% to 2% range, a five year rollback of taxes would amount to at most 10% of the development value of the land (or the difference between fair market value and the current use value determined by assessors). In addition, rollback taxes are due only for those years during which the property received differential assessment, so that land enrolled for less than the rollback period would not be liable for the full amount.

It can be stated that as a general rule, deferred taxes will constitute between 2% and 15% of the fair market value of the land at the time of conversion depending on effective tax rates, rollback term, market value and

current use value. (See Chapter IV.) Since these payments are, in most cases, classified as taxes rather than penalties, they are deductible for Federal income tax purposes (and also are not treated as capital expenses, which would require them to be treated only as reductions to cost basis for capital gains purposes).

A few states have enacted provisions imposing a conveyance tax on lands which have been enrolled in a differential assessment program and then converted to a non-eligible use. New Hampshire, for instance, requires payment of a tax equal to 10% of the assessed value at the time of conversion. Connecticut has a declining conveyance tax on lands withdrawn from the program within the first ten years of classification or ownership, whichever is earlier. The tax liability starts at 10% of sale price in the first year and declines 1% annually to 1% in the tenth year, and none thereafter. By including ownership as well as classification in counting the years, the act effectively exempts most of the land under the program from the tax. Only the short-term owner, often presumably a speculator or developer, would be liable. Massachusetts requires the payment of an amount computed in exactly the same way as Connecticut's conveyance tax or a four year rollback of deferred taxes, whichever is greater.

These deferred taxation and conveyance tax provisions have two principal objectives. First, they are designed to capture some of the tax revenues lost because of the differential assessment program. The proportion of tax benefits captured of course depends on the length of the rollback term and the interest rates charged on the taxes deferred. The impact which the payment of deferred taxes would have on tax revenues and (as will be examined in the section on equity in Chapter V) tax expenditures within a local taxing jurisdiction may well be significant, especially in an urbanizing county with a substantial amount of development pressure. At any rate, a deferred taxation provision makes a differential assessment program more acceptable politically to non-farm taxpayers and voters because it permits farmers to continue current use and receive tax benefits, but then taxes them retroactively when their land is not in eligible uses.

Effectiveness for Providing Tax Benefits

The second objective is to provide a deterrent which will make owners of land which has received tax benefits at least think twice before converting their land. Whether or not it has such an effect will be considered more fully in the next major chapter of this report.

Suffice it to say here, with reference to the goal of providing tax benefits to farmers, that the inclusion of deferred tax liability or conveyance taxes conflicts with that goal. First, it will deter some farmers from entering the program because the mere deferral of taxes may not be a sufficient inducement to enroll, especially if the owner will have to pay interest on these amounts at rates as high as 10%, as in Washington. This will be especially true when there is currently de facto preferential taxation. Second, farmers who do enroll and later develop their land will obviously derive lower tax benefits from the program than they would from pure preferential assessment, although for the long-term farmer, the difference may not be important.

3. Restrictive Agreements

Of the five programs which have been classified as bona fide restrictive agreement programs, only California's has been used extensively and long enough to warrant analysis. Florida's relates only to recreational and park land. Michigan's, enacted in 1974, is too new. New Hampshire's is new, having been enacted in 1973, and relates only to open space land, and Vermont's, while it covers farmland, is a special case in that it authorizes land owners to contract with town governments to set assessed values and tax rates for a period not to exceed ten years.

The above examination of eligibility criteria, methods of assessment, and in three programs, deferred taxes, applies equally here. The new element is the legally enforceable and enforced agreement. Under California's Williamson Act, an owner of eligible land may enter into a contract with the county or city in which the land is located, under which he agrees to maintain the land in eligible uses. The contract is for a period of ten years and is automatically renewed each year for an additional year according to a complex statutory formula which is de-

scribed in the case study on California in Part Two of this report. In the first year after non-renewal, taxes generally are at the level of approximately two-thirds what they would be if the land were assessed on the basis of fair market value. Each year for the rest of the run-out period they increase gradually until, at the end of ten years, they are at market value rates. The owner may also attempt to cancel the contract, but to do this he must obtain the approval of the city or county and pay a cancellation fee equal to 12.5% of the fair market value of the land. It is possible to have the cancellation fee waived, but to do this, he must secure the approval of the Secretary of the State Resources Agency.

The essential feature of a restrictive agreement approach which distinguishes it from other types of differential assessment programs is that the owner is reasonably certain that he will not be able to develop his land until the end of the run-out period.

A farmer contemplating enrolling in this type of restrictive agreement program will be faced with the question of whether he wants to tie up his land for at least ten years, realizing that if he decides to convert, he will be forced to pay taxes during the run-out period totaling at least 50% of what he would otherwise pay. The clear evidence in California is that only those owners who are certain that they will not convert their land within ten or fifteen years have signed up under the Williamson Act.

Thus, the restrictive agreement approach is clearly inconsistent with the general goal of providing tax benefits to farmers. Those farmers who are most in need of tax relief, because their land is located in urbanizing areas with rising fair market values and tax rates, will be precisely the ones least likely, for economic reasons, to tie up their land for a number of years. Those who are in rural areas with the least development pressure will be the ones who enroll. The intended major beneficiaries of a differential assessment program, farmers in the rural-urban fringe, would not receive its benefits.

C. CONCLUSIONS

Differential assessment is a generally effective means for conferring tax benefits on participating landowners. The amount of the taxes saved by individual farmers will vary substantially, however, depending on a number of factors. The greater the development value (exclusive of farm use value) of the land, the greater the reduction in assessment. In suburbanizing areas, a reduction of over 90% is possible; in areas with little development pressure the reduction may be minimal. But in order to make up for the reduced total assessment in the taxing district, the general tax rate must be increased. This increase will be small if there is a large amount of non-participating property to share the burden of the loss in assessment. Therefore, the smaller the proportion of the total tax base (before differential assessment) accounted for by land in the program, the larger the savings to a participating land owner. Thus, the few remaining farms in a generally built-up township will receive the highest tax savings: if the tax base was made up predominantly of participating land, tax savings would be small.

If, however, the value of an individual participating property includes a large proportion of non-eligible buildings and land, tax savings for that owner will be small, and in some situations such an owner may even pay more than before the differential assessment program. This is because the increase in tax rate which is applied to non-eligible property (and also the differentially assessed land)is not significantly offset by a reduction in assessment of his eligible land. Also, if de facto differential assessment existed before the program, assessment itself might change little because of the program, and could even increase.

To these market and basic tax factors must be added specific program considerations. A differential assessment law whose sole purpose was to maximize tax benefits for farmers would contain the following provisions:

1. All farmers would qualify. The only eligibility conditions would be that the owner is engaged primarily in agriculture for profit and the particular tract is being used for agricultural purposes, broadly defined.

Effectiveness for Providing Tax Benefits

2. Eligibility would be determined and granted automatically and with no expense or effort on the part of the farmer.

3. Assessment procedures would be designated to produce a low assessed value; that is, they would maximize the reduction in assessed value resulting from the program.

The various types of differential assessment programs can be arranged in a very rough spectrum with respect to their effectiveness in making tax benefits available and attractive to land owners. Pure preferential assessment programs with few eligibility conditions and methods of assessment which produce a low assessed value based on current, agricultural use value, are most effective. They are easy for owners to enter and award full abatement of taxes on the development value of land. As eligibility criteria are multiplied and tightened, fewer will enroll and thereby receive tax benefits.

Deferred or rollback tax payments reduce the economic attractiveness of the program for some farmers and thus deter some from enrolling their land. The longer the rollback and the higher the interest rate, the less incentive there is for the farmer to enter his land in the program.

The restrictive agreement approach is least effective for achieving the goal of awarding tax benefits to owners of eligible land, because the prospect of being locked in, unable to develop their land but paying near market-value property taxes will deter many owners from putting their land under contract. Only those who are living in essentially rural areas or are wholly committed to agricultural activity, and who do not expect to develop their land within the period of the contract, will be likely to enroll their land. The economic benefits of differential assessment are not likely to compensate for the costs resulting from the forced postponement of conversion.

Chapter IV

EFFECTIVENESS: ACHIEVING LAND USE OBJECTIVES

A. INTRODUCTION

A major objective of differential assessment legislation in many states has been to keep farm and other rural land in its current use, or at least to reduce its rate of conversion to urban uses. Primarily for this reason, such legislation has generally been supported by conservation groups, and these bills have been given popular names such as the Open Spaces Act (Connecticut), Greenbelting Laws (Florida and New Mexico), and the Clean and Green Bill (Pennsylvania).

Planners and conservationists have argued that a significant percentage of sales of farmland for development occurred because of the profit squeeze felt by the farmers, especially in rural-urban fringe areas. They reasoned that a program which would lower or put a ceiling on one of the farmer's major cost components, the real property tax, would lessen the squeeze and therefore reduce the number of forced sales. In this chapter, we will evaluate the validity of this line of reasoning. We will explore the effectiveness of differential assessment legislation with respect to the primary goals of maintaining current, open use, and the subsidiary and the closely related goals of protecting scenic resources, securing recreational lands, and controlling urban development.

In Chapter III, the various provisions of preferential assessment, deferred taxation, and restrictive agreements were evaluated in terms of their effectiveness for making tax benefits both available to and economically attractive for owners of eligible land. That evaluation is directly related to the question of the extent to which differential assessment laws are effective tools for maintaining current use of undeveloped land. Whether or not they are effective for that purpose depends on how many farmers who are considering conversion will enroll, and on how large an economic incentive they will receive if they refrain from converting. We will now analyze the factors involved in the decision to sell or develop and then examine whether the various forms of differential assessment attract a significant portion of the

target population of land owners, and whether the tax incentives and ancillary inducements are strong enough to have a major impact on maintaining current use.

Before beginning the more detailed analysis, we should note that differential assessment can influence the rate of conversion of farm and other open land in two principal ways. First, by reducing a farmer's property taxes substantially, the farmer's total costs of production may be lessened significantly and his land made more profitable. This effect, which is often viewed as an attempt to lessen the income squeeze which farmers in the rural-urban fringe experience, has been the principal focus of legislators when they speak of preventing forced conversions. The reduction in taxes may be especially significant in metropolitan areas or areas with a large potential for second home development, since in such places the differences between current use value and fair market value may be large. In these areas, fair market value may be as much as 15 or 20 times current use value. In such cases, assuming no de facto differential assessment, the establishment of a differential assessment program could mean that a landowner could enjoy reductions in taxes on his land of as high as 90%. Because property taxes consume an average of 10.4% of farmers' net income,[1] it is reasonable to suppose that tax reductions, or at least deferrals, of this magnitude will enable some farmers to continue farming over the short term.

The second way in which differential assessment could serve the goal of maintaining current use is by making it possible for people wishing to buy land for farming to reduce their potential carrying cost sufficiently (by reducing taxes) so that they could pay more for the land and bid it away from potential developers. Unless the price farmers can afford to pay is close to that which developers can afford to pay, it is not a question of whether a property will be converted to more profitable uses, but when.

[1]Average for 1969-1973, Economic Research Service, "Revised Estimates of Taxes Levied on Farm Real Property, 1960-73." Statistical Bulletin No. 538, Washington: U. S. Department of Agriculture, 1975.

B. SUPPLY AND DEMAND AND THE DECISION TO SELL

1. Introduction

As outlined above, differential assessment changes the carrying costs of land for farmers. Therefore, farmers would be under less financial pressure to sell their existing farms and farmers wishing to acquire land could afford to pay more in competition with a developer who cannot take advantage of differential assessment. Whether such changes result in slowing down or stopping the rate at which land is converted to urban uses is another question.

In order to help answer that question, we will examine the decision-making process which a farmer goes through when faced with a chance to sell his farm, giving special emphasis to the role which real property taxes play in that process. The purpose of this examination is to determine the extent to which, under varying conditions, a reduction in these taxes can be expected to induce him not to sell.

Decisions to sell and convert are affected by both supply and demand considerations. The supply of farmland for conversion purposes is affected by the price offered for land, the farmer's costs of production including property taxes, his cash receipts, a number of demographic and personal factors, and possible externalities generated by other nearby activities. In addition, government programs and policies may indirectly contribute to a farmer's decision to sell. Estate and inheritance taxes may, for example, induce sale and conversion in some instances.

The demand for farmland for conversion results from individuals or groups of people desiring to convert the land to such nonagricultural uses as suburban homes or businesses, second homes, strip mines, or even timber production. The relative strength of the demand for farmland and the economic, demographic, personal and other factors affecting the supply of farmland for conversion will determine how much agricultural land disappears in any locality.

It is important to keep in mind that reduction of agricultural property taxes is aimed primarily at one part of the supply of agricultural land for conversion, but that the effectiveness of such a reduction depends upon many other supply factors and upon demand factors of conversion as well.

2. Supply Factors and the Farmer's Decision to Sell

In order to supply land for conversion to urban use, the farmer must sell his land to a developer or speculator, or convert it himself.

On the basis of interviews with farmers and county agents and drawing upon previous research by others, we have identified four major classes of factors in the farmer's decision to sell. These four factors are "economic," "demographic," "secondary or indirect" (such as externalities from nearby nonfarm activities), and "transitional," (such as a desire for change in either type of work or place of work). Moreover, these four factors are, in general, all functions of the price of the land in the land market.

We can imagine a farmer contemplating the reasons for selling his farmland in terms of these four factors according to the flow chart of Figure 3. Of course, no one really decides in such a sequential manner and, more important, it should not be inferred from a literal reading of the chart that the decision to sell is always based on just one factor. For example, a farmer may be convinced that the best decision is to attempt to sell his farm because of a combination of economic, transitional, and secondary factors, even though one of these factors by itself is insufficient to induce him to sell.

The demographic factor in the decision to sell is one of the most important. It is concerned with the farmer's stage of life cycle and the desire of any children to take over the farm. As a farmer nears the age of retirement, he is likely to consider selling his farm to a family member or, if there is no member of the family willing to take over the farm, he may be able to sell it to a neighbor who, by acquiring more land, can enlarge his farm. But if no such buyer exists, the farmer may put the farm up for sale in the impersonal land market. Whether or not the land then remains in agriculture depends on the demand for alternative uses, as we shall discuss later. Should the farmer die before the land can be transferred, the estate may be forced to liquidate its holdings in order to pay estate taxes or the heirs may wish to sell all or part of the farm.

Economic factors are also among the most central in the farmer's decision to sell. These factors fall into two general groups: first, the price offered for the land may be so high

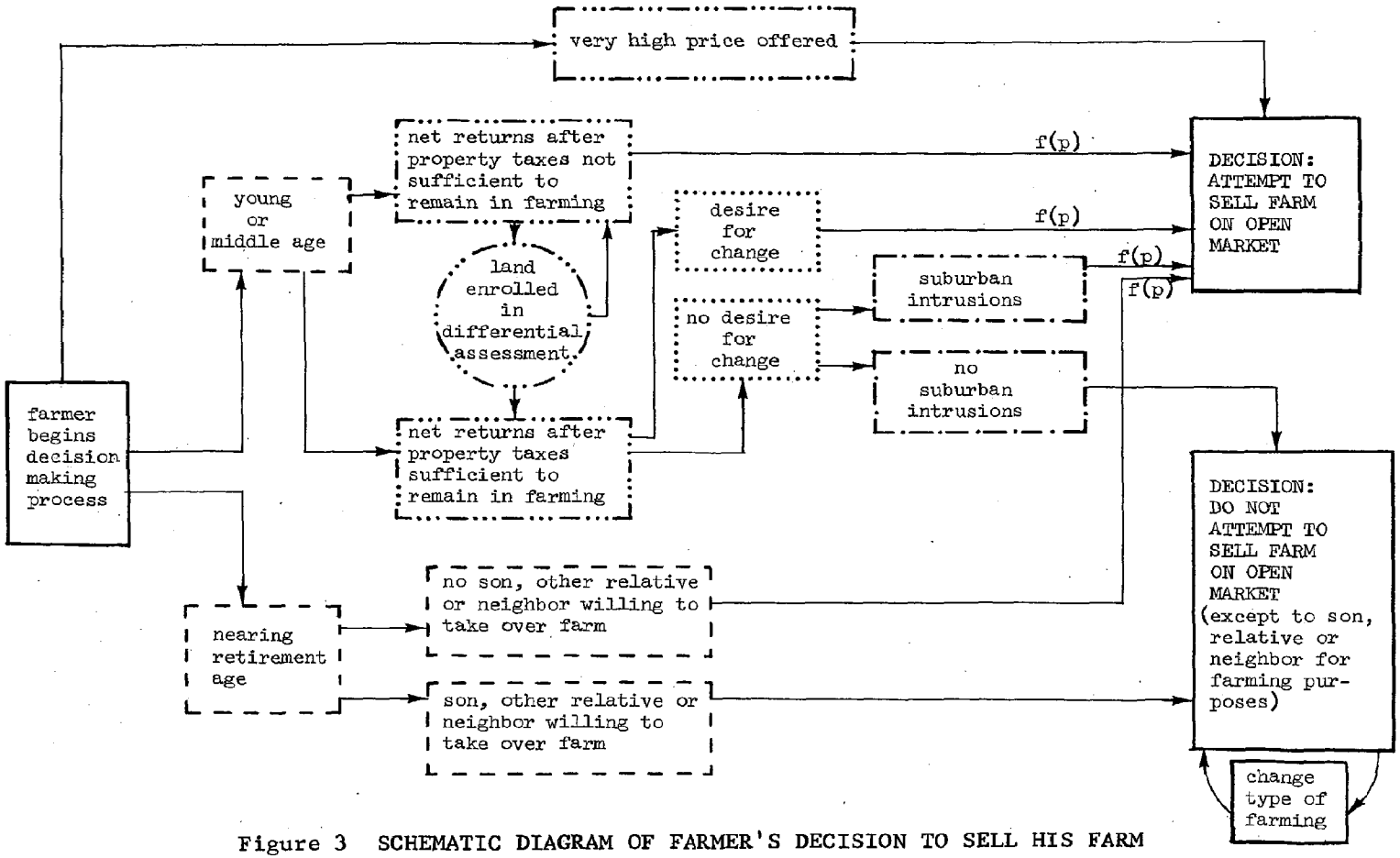

Figure 3 SCHEMATIC DIAGRAM OF FARMER'S DECISION TO SELL HIS FARM

Largely demographic factor — — — —
Largely economic factor — ··· —
Largely transitional factor ·····
Largely secondary factor — · — · —

that it is most difficult not to sell. Second, the net returns to the agricultural operation of the farm may be insufficient over the long run to warrant continued farming. Poor net returns may be due to low prices for farm output, low yields of crops or livestock products, high transport costs to the market for agricultural products, high costs of seeds, fertilizer, fuel, machinery and equipment, maintenance, labor, and so on, and burdensome property taxes and other taxes. The spatial pattern of low net returns may be quite spotty if most farmers are doing quite well, but it may dominate an area as large as several counties where only a few large scale commercial farmers are making sufficient profits, or it may even characterize a large region which has lost its competitive advantage due to low yields, high transport costs, and possibly locally high costs of inputs into production.

Transitional and secondary factors are the remaining two major classes of factors influencing the supply of farmland for conversion. The transitional factor includes desire for a different kind of work or a different place of residence, whether on a farm elsewhere or off the farm altogether. Under the term "secondary factors" we have lumped the externalities generated by nearby nonagricultural activities which cause the farmer to sell. Among these are: 1) complaints about the restrictions on spreading fertilizer, use of pesticides, and on other noxious farm activities; 2) acid mine drainage or subsidence caused by nearby strip or subsurface mining activities; 3) air pollution from nearby industrial processors which damages crops; and 4) increased traffic on farm roads, and inadvertent or willful damage to crops by nearby urbanites.

In general, each of the four major classes of factors influencing the decision to sell is a function of the market price of the land--the higher the price, the more likely the farmer is to sell. Hence, in Figure 3, the notation f(p) is shown on all the arrows leading to the decision-to-sell box, indicating that the decision is a function of price, p. This function of price is meant to imply an increasing desire to sell as the price offered for farmland increases, and conversely, a decreasing desire to sell as the price offered decreases.

Finally, we have included a box in the flow chart labeled "change type of farming" to indicate that changes in nearby land uses, farm prices, costs of farm inputs, or the price of

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land, may induce a farmer to shift crops or livestock. One of the most noticeable shifts in farming activity occurs as one nears urban areas: field crops give way to dairying, nurseries, greenhouses, and vegetable growing even if soil and climate conditions remain constant. The consequence of this may be that policies for preservation of metropolitan agricultural land end up preserving nurseries and greenhouses instead of more aesthetically pleasing field crops or dairy farms.

Within this universe of general factors affecting the farmer's decision to sell, property taxes are one component of the economic factors. If a reduction of agricultural property taxes is to cause fewer farmers to sell out, it will do so by shifting some farmers from insufficient net returns to sufficient net returns as shown in Figure 3. Whether this shift can occur or not also depends on long run trends of the other costs of production and on the prices of agricultural output. It should be apparent that, except for interdependencies among the reasons for selling, reduction of the agricultural property tax will have little or no impact on the demographic, transitional, and secondary factors in the decision to sell.

To conclude this overview of supply factors, we reiterate the warning above that the decision to sell will not, in most instances, be predicated on only one factor. A combination of factors may be required to induce a farmer to sell his land, whereas if only one of these factors were present the farmer might very well not feel the need to sell.

3. Research on Supply Factors

The influence of the property tax on the farmer's decision to sell has, rather surprisingly, received only infrequent empirical attention even though forty-two states have differential assessment laws of one type or another. Unfortunately, from the limited number of studies available, it is not possible to draw any strong general conclusions about the effect of property taxes on the sale, conversion, or abandonment of farmland, since these studies present only a partially complete picture of the noneconomic factors on the supply side and of variation in the pressures for conversion on the demand side. Several studies, however, are particularly noteworthy.

Effectiveness: Achieving Land Use Objectives

In a study of 40 sales of farmland in three New Jersey townships from 1966 to 1970, the following distribution of reasons given for selling was found:[1]

	% of All Reasons Given*
Economic Considerations	
Taxes were too high	28.6%
Land can no longer be rented at a profit	4.1%
The price was right	18.4%
Demographic Considerations	
Retirement	22.4%
Transitional Considerations	
Desire to move to another area	6.1%
Miscellaneous Considerations	
Decrease the size of current farm operation	10.2%
Other	10.2%

*Respondents could give more than one reason and several did so. The four supply-factor classifications were added by RSRI.

Retirement, taxes, and price offered appear to have dominated the respondents' thinking. It is of interest to note that of the 14 sellers mentioning higher taxes as a reason for sale, nine were from urbanizing areas, five from urbanized areas, and none from rural areas.

Data from a study of land sales in Baltimore County, Maryland,[2] underscore the importance of life cycle considerations in the decision to sell. Death or retirement accounted for 42 percent of all sales, title change within family for 11 percent, and moving to another area for an additional 13 percent. Economic considerations (including

[1] Nagel, George R., Jr., and Donn A. Derr, A Preliminary Analysis of the Data on Participants in the New Jersey Farm Real Estate Market, 1966-1970, New Jersey Agricultural Experiment Station, New Brunswick, Rutgers University, February 1972.

[2] Peterson, George E., "Tax Policy and Land Conversion at the Urban Fringe," Land Use Center Working Paper 0875-04, Washington: The Urban Institute, December 1974.

good price, unavailability of farm labor, and unproductive farmland) totaled 31%. Land which was subsequently developed for residential use was especially likely to have been made available through life cycle reasons. Eighty-five percent of such land was sold because of death or retirement. This study also points out that use-value assessment laws enable farmland owners to avail themselves of the private timing incentives that are built into the Federal estate and capital gains tax structure, thus reinforcing the importance of life-cycle considerations in the decision to sell.

An earlier study conducted in the Philadelphia metropolitan area found that in a sample of 50 parcels sold in urban-fringe Chester County in 1962, seven percent of the sellers responded that real property taxes were a major financial burden leading to their decision to sell.[1]

When asked directly about the effect of the New Jersey Farmland Assessment Act on their decisions, 56% of the buyers and 59% of the sellers questioned in the New Jersey study cited above said it had no influence. In an earlier New Jersey study,[2] 60% of participants questioned stated that the Farmland Assessment Act would not influence their decision to sell, while 40% stated that the Act had been a positive force in enabling them to continue to farm. A 1973 questionnaire survey of several hundred applicants for Washington's open space taxation program produced similar findings.[3] One conclusion from this study was that most "...applicants do not feel that participation in the program and the associated penalties would have any effect upon their deciding to sell the land or change the land use." (p. 1). When asked if they would have to change land use within the next 5 years if denied current use assessment, only 14% of the respondents said 'yes'. The majority said 'no' (p. 11). However, the authors caution that few participants understood the penalties for withdrawal from the program or the rollback penalties.

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[1]Strong, Ann L. "Factors Affecting Land Tenure in the Urban Fringe," Philadelphia: Institute for Environmental Studies, University of Pennsylvania, 1968, p. 17.

[2]Koch, A. Robert, Harriet M. Morrill, and Arthur Hausamann, "Implementation and Early Effects of the New Jersey Farmland Assessment Act," Rutgers Experiment Station Bulletin 830, 1967.

[3]Barron, James C. and James W. Thompson, "Impacts of Open Space Taxation in Washington," Bulletin 772, Washington Agricultural Experiment Station, College of Agriculture, Washington State University, Pullman, Washington, March 1973.

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The importance of the property tax burden and the desire of the farmer to reduce it are not in doubt, but it seems that, for the Washington sample, this burden is by itself a critical factor in the decision to sell in only a few cases. The landowner's decision to sell seems to be based primarily on other considerations.

As part of the original research done for this project, a survey was carried out of farmers attending the 1975 Pennsylvania Farm Show. The results are summarized here. A more complete account of the study may be found in Part Two of this report.

A questionnaire administered to 71 farmers yielded 69 usable responses. The questionnaire included a list of 11 reasons for selling one's farm that were to be rated on a scale of 0 to 100 to indicate the relative degree of importance of that reason. In addition, a series of other questions concerning farming, taxes, and demographic and socioeconomic variables were asked. It should be noted that the farmers attending the exposition were primarily men and women commited to farming who were interested in new equipment, new methods, prize animals, and seeing old friends and were not marginal farmers who might be more likely to sell.

The typical respondent was in his forties, has a farm slightly under 200 acres and liked farming, preferring it to another kind of work, even one which paid more. His farm's major products included corn, beef cattle, dairy products, or feed for dairy cattle. He intended to apply under the newly-passed differential assessment law, but thought it would have little affect on his decision to sell his farm. If he were to sell within the next few years, economic considerations in operating the farm would be the most compelling reasons.

By analyzing the relative weights assigned to the 11 reasons for selling, we have identified four underlying factors which describe most of the variation in the answers. These underlying factors are familiar to the reader as those identified in Figure 3: economic, demographic, secondary, and transitional. Economic reasons are most important, secondary and demographic reasons are of about equal importance and rank second, and transitional reasons are least important.

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A number of statistically significant relationships were noted between the respondents' scores on each of the four underlying factors and their responses to other questions. Two are particularly important here: 1) People placing greater importance on the economic reasons for selling tend to say that a 50% drop in property taxes would make it less likely that they would sell their farms, and conversely, people not placing much importance on the economic reasons for selling tend to say that a 50% drop in property taxes would have little affect on their decision to sell. 2) Farmers placing relatively greater importance on the demographic reasons for selling tend to say that a 50% reduction in property taxes would have little affect on their decision to sell their farms. Conversely, farmers placing relatively little importance on the demographic reasons for selling tend to say that a 50% reduction in property taxes would make it less likely that they would sell their farms.

A third finding is that farmers living inside a metropolitan county tend to place less emphasis on desire for change as a reason for selling than do farmers living outside a metropolitan area. Perhaps this reflects the fact that those desiring another way of life have already sold out to urban uses or else to more dedicated farmers.

People whose decision to stay in farming is strongly influenced by economic reasons are the ones most likely to be affected by a preferential tax program. But a satisfactory income is influenced by more than property taxes: 68% of the respondents gave a rating of 50 or more (on a 0 to 100 scale) to "value of farm products too low," 61% gave a rating of 50 or more to "property taxes too high," and 75% gave 50 or more to "costs of operation too high" as possible reasons for selling their farms. Very generally, then, we can expect a reduction in property taxes to be able to reduce the aggregate supply of farmland for conversion in at least some localities, but this shift is likely to be small.

4. The Effect of Differential Assessment on the Agricultural Use Value of Land

Having looked at the factors which affect the supply of farmland for conversion, it is appropriate to look in more

detail at how tax savings due to differential assessment will change the amount which a farmer can afford to pay for land, and still make a reasonable profit from farming it.

The effect which a reduction in property taxes will have on current use value depends on the following considerations. The real property tax is a basic expense which a farmer must pay from his gross income before determining his net return per acre. Thus, reducing it would increase his profits and, therefore, the profitability of his land. In principle, this increased profitability would be capitalized at the relevant rate of capitalization and his farm would be worth more if he and subsequent owners were assured of continued lower taxes. In turn, a purchaser could pay more for a farm which is preferentially assessed than for one which is not, and still get the same net return. Figure 4 shows how these variables would interact, based on computations using the formula given on page 23.

$$V = \frac{S}{C + R}$$

where V = current use value

C = the capitalization rate applicable to return on land after property taxes

S = annual agricultural surplus

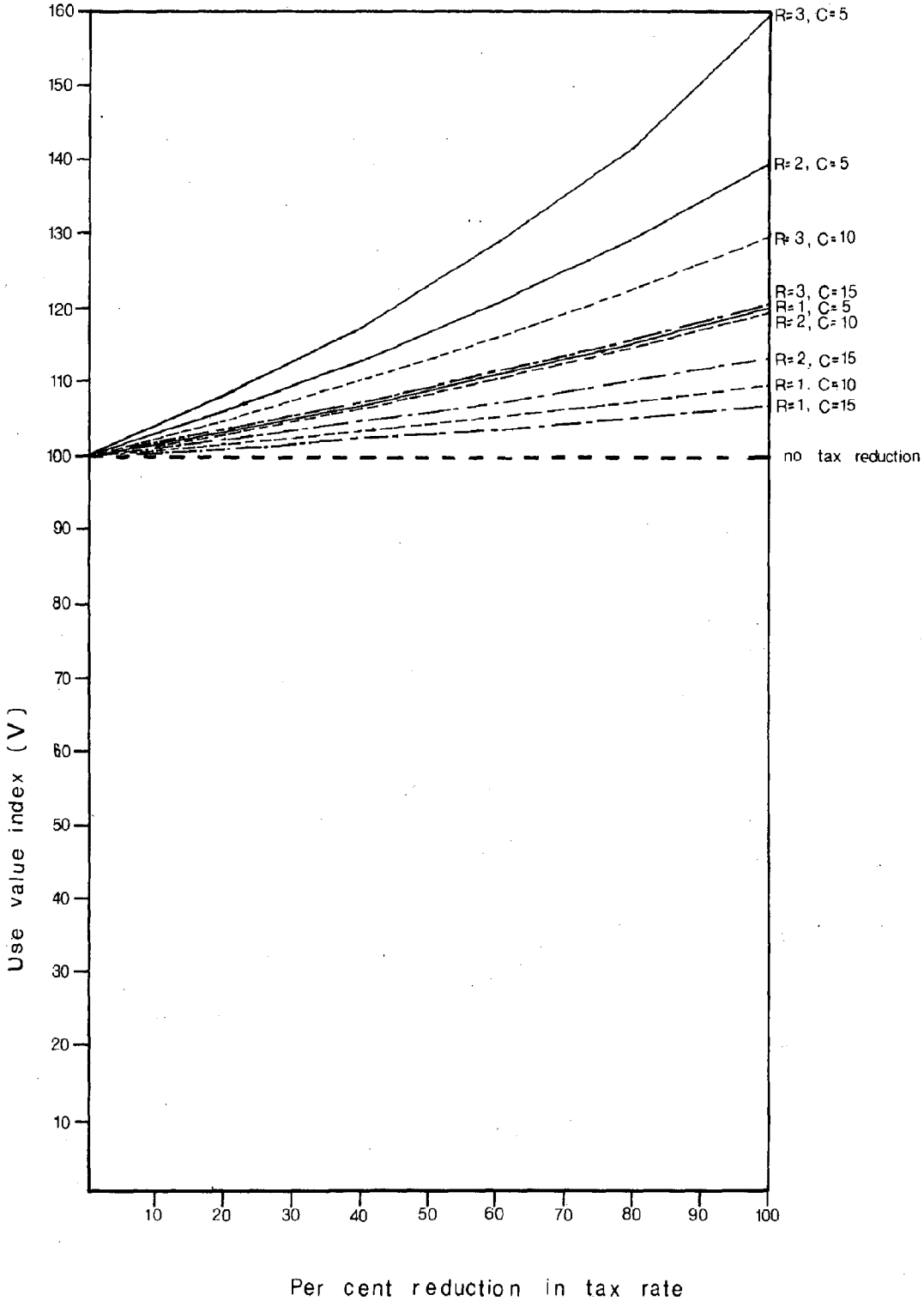
R = effective property tax rate.

Tax rates of 1, 2 and 3 percent are used in Figure 4 as representative of the range actually encountered. The average effective tax rate for agricultural farmland for the United States as a whole in 1972 was 1.15%, with state averages as high as 2.8%, 2.3% and 2.3% reported in California, Massachusetts, and New York, respectively. Tax rates in rural-urban fringe areas can be expected to be higher, so that a tax rate of 3% or more would be found in many such areas. Capitalization rates for farmland must be imputed from data on income and land value. Since the rates can be expected to vary over a considerable range, we have shown rates of 5, 10, and 15% on Figure 4. A rate of 5% would appear to be typical of many rural-urban fringe areas.

Note on the graph that an 80% reduction in the tax rate on a property originally taxed at 3% and with a capitalization

Figure 4
INCREASES IN USE VALUE RESULTING
FROM REDUCTION IN TAXES

(for various capitalization rates
and initial tax rates)



rate of 5%, would make it possible to pay 42% more for the property. If the original tax rate were lower, the potential increase in use value per acre would be less; if the capitalization rate were lower, the increase in use value would be greater.

In order to examine an extreme case, assume the tax rate is 4%, and the capitalization rate is 4%. Without preferential assessment, use value would be 12.25 times the annual agricultural surplus; with a tax saving of 90%, use value would be 22.73 times agricultural surplus. Thus, a farmer taking advantage of a preferential assessment law would be able to pay 1.86 times as much (i.e., $\frac{22.73}{12.25}$) for the land. In such an extreme case, a farmer would be relatively competitive with a prospective buyer who could not take advantage of preferential assessment. However, most cases are not so extreme, and generally prospective developers can keep land in agricultural production and qualify for preferential assessment until they are ready to develop. Thus, the prospective farmer rarely enjoys any advantage over a developer when bidding for land.

5. Joint Effect of Supply and Demand Factors on the Conversion of Farmland

The relative strength of aggregate supply factors, discussed in the previous sections, and demand factors--such as people desiring land for suburban houses, vacation houses, strip mining, etc.--will determine how much farmland will actually be converted to non-farm uses. No empirical studies were found which explored the joint effect of supply and demand factors. A major part of this project, therefore, was an effort to find appropriate data and to carry out such an analysis of supply and demand effects. The principal findings are summarized here, and a more complete account can be found in Part Two of this report.

To ascertain this joint effect of supply and demand factors, data for a sample of Ohio counties were assembled and analyzed. The object of the statistical analysis was to determine how percent change in land in farms between 1969 and 1973 is explained by a number of independent variables. These included a demand-related variable (increase in population density between 1960 and 1970 in each county) and supply-related variables (agricultural property tax per acre

in 1973, gross cash receipts per acre in 1973, and per cent of farmers over 65 years of age in 1969).

The counties were classified by predominant type of agriculture: a highly profitable soybean-cornbelt complex, a dairying complex where farming is not very profitable, and an urban complex, where nurseries, greenhouses and truck farming predominate.

In the urban counties, higher taxes and higher increases in population density are associated with greater losses of farmland. This is summarized in Figure 5, where each line refers to a given percent loss in farmland over the period 1969-1973. As the figure indicates, a reduction in property taxes is likely to reduce the rate at which farmland is lost, but no matter how large this reduction in taxes is, it will not stop the loss of farmland. Pressure from increasing suburbanization will always cause some farmland to be lost. Thus, in rapidly growing metropolitan areas adjustment of taxes is likely to be effective in preserving farmland only over the very short run, and then only slightly.

In the dairy counties, the impact of reducing property taxes appears to be the greatest. In these counties demand pressure is primarily for second home development and strip mining with some spotty urbanization demand. The demand pressures for conversion are generally weaker than in the urban counties, but supply pressures for conversion, such as low farm income and a relatively low percent of younger men undertaking farming, are quite strong here. The statistical analysis indicates that a reduction in taxes would decrease the loss rate of farmland. However, if younger men are not induced to stay in farming here, the long run effect of reduced taxes may be quite small.

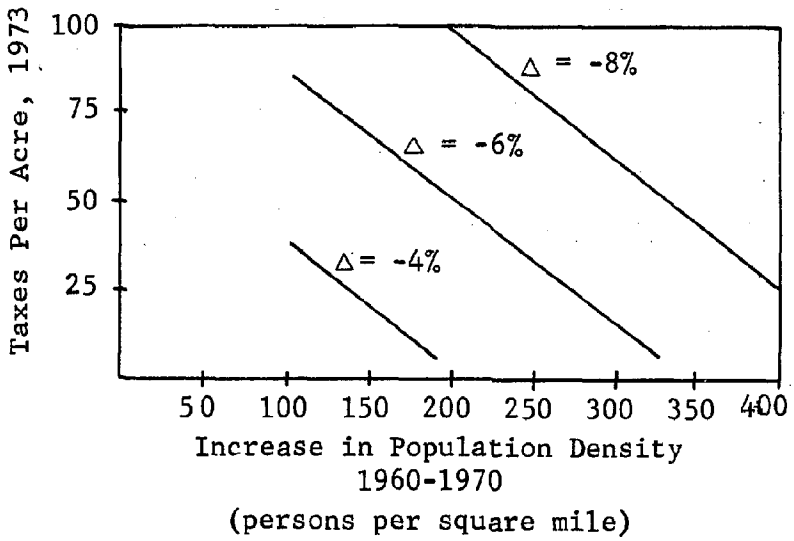
In contrast to the economically marginal dairy counties, the cornbelt-soybean counties were prosperous during the period 1969 to 1973 and experienced net gains in farmland. The analysis shows that, while increasing urban population may squeeze some corn and soybean farmers off the land, the high gross income of this type of farming counteracts this effect in locations farther from the major cities. In such prosperous agricultural counties, away from urban pressures, the impact of agricultural property taxes on the percent change in farmland is not significant.[1]

[1]It is important to note a qualification on these results: temporal variations in net farm income can have important effects on the loss rate of farmland in all farming regions.

Figure 5

PERCENT CHANGE IN LAND IN FARMS AS A FUNCTION OF PROPERTY TAXES ON AGRICULTURAL LAND AND BUILDINGS AND INCREASE IN POPULATION DENSITY

(Urban Counties in Ohio)



Δ - refers to percent change in land in farms, 1969-1973.

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By way of general conclusions from our analysis of Ohio data, the impact of the property tax on the loss of farmland appears to be greatest in areas of marginal farmland where the demand pressure for conversion is relatively weak. As demand pressure increases, as around growing cities, the impact of taxes on the loss rate of farmland becomes relatively smaller. However, it is dangerous to attempt to infer the relative importance of specific supply and demand factors on the change in land in farms: these numbers are likely to be unstable over time, our sample is rather limited, and some variables, such as net farm income, could not be specified.

Table 7 summarizes these conclusions in a crude way regarding only economic variables. It should be noted that strong demand pressures will usually be accompanied by secondary effects, and the percent of farmers over 65 (i.e., near retirement age) is influenced by the economic conditions of farming--younger men will tend not to go into uneconomical farming.

Table 7

SUMMARY OF THE EFFECT OF A PROPERTY TAX REDUCTION GIVEN THE STRENGTH OF DEMAND FOR CONVERSION AND ECONOMIC CONDITIONS IN FARMING

Strength of Demand for Conversion	Economic Conditions In Farming	Effect of Property Tax Reduction on Conversion of Farmland
strong	good	weak
strong	poor	weak
weak	good	weak
weak	poor	moderate

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Our general conclusion that differential assessment, by itself, is likely to be an ineffective deterrent to conversion of farmland is shared by other analysts.[1]

If preservation of agricultural activities is a legitimate social goal, intervention in both supply and demand processes must be undertaken. Preferential assessment addresses only a small part of the supply process. To be more effective, a comprehensive program should be designed to ameliorate economic and secondary disincentives to farming on the supply side and to channelize urban expansion to nonagricultural land on the rural-urban fringe on the demand side.

6. An Estimate of the Percent of Sellers of Farmland Who Might be Affected by Differential Assessment Programs

Bearing in mind the detailed considerations of supply and demand factors, we now turn to making a rough estimate of the number of potential sellers of farmland who might be affected by differential programs. The purpose of making these estimates is to gain an overall perspective. They should not be applied to any particular locality with its particular types of farming, age distribution of farmers, and pressures for urban growth. However, they do provide an order-of-magnitude estimate of the target population of farmers who might be enabled to maintain agricultural use of their land by participating in a differential assessment program.

If differential assessment of farmland has any efficacy in achieving the goal of maintaining current use. it is because the tax reductions resulting from it serve to decrease the number of farms which are sold for purposes other than farming, forest and mineral use, recreation, or rural residence.

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[1]House, Peter W., Farmland and Farmland Owners on the Edge of a Growing City, with Special Emphasis on Tax Problems--A Case Study of Rochester, New York, unpublished Ph.D. dissertation, Ithaca: Cornell University, 1968.

Wisner, Kenneth E., Effects of Agricultural Use-Value Assessments in Washington County, Maryland, unpublished M.S. Thesis, University of Maryland, 1971.

Kolesar, John and Jaye Scholl, Misplaced Hopes, Misspent Millions: A Report on Farmland Assessment in New Jersey, Princeton, N. J.: Center for Analysis of Public Issues, 1972; and Saving Farmland, 1975.

Effectiveness: Achieving Land Use Objectives

In 1974, title was transferred on 6,900 farms, representing approximately 5.5% of all farms in the Northeast,[1] and some 892,000 acres. Two recent studies of sales of farmland in New Jersey and Baltimore County, Maryland, reported that between 55% and 60% of the sales took place between retirement and death or as a part of an estate settlement.[2] In such cases, the farmer has decided to sell for what can be called demographic or life-cycle reasons, reasons which will not be appreciably influenced by the economic benefits offered by differential assessment. If we assume that 60% of the sales are for life-cycle reasons, at most 40% remain which may be influenced by economic incentives.

The Economic Research Service's data reveal that in the Northeast in 1974, 88% of the sales of farmland were to buyers whose probable use of the property for the next five years would be for agricultural, forest, mineral, recreation or rural residence purposes. Thus, only 12% were in fact converted to subdivision, commercial, industrial or other uses. Therefore, of the 40% of sales which could be influenced by differential assessment, only 12%, or approximately 5% of total annual sales, constituted conversions. The same

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[1]It is appropriate for this analysis to consider the Northeast Region, rather than the nation as a whole, which covers large amounts of strictly rural land where little development pressure is felt. The Northeast Region includes New England, the Middle Atlantic States, Delaware, and Maryland. This area is characterized by some of the highest average values per acre for farmland, reflecting the pressures of urbanization on land value.

Data are from Farm Real Estate Market Development (CD 79), Economic Research Service, U.S.D.A. (Washington, D. C.: U.S. Govt. Printing Office, 1974), Tables 13 and 14. The sales reported for Delaware were abnormally low in comparison to the 5.8% and 6.2% rates of 1972 and 1973, and were, therefore, disregarded in computing the percentage.

[2]See Nagle, George E., Jr., and Donn A. Derr, A Preliminary Analysis of the Data on Participants in the New Jersey Farm Real Estate Market, 1966-1970 (New Brunswick, N. J.: Rutgers University, 1972) and Peterson, George E., Tax Policy and Land Conversion at the Urban Fringe (Washington, D. C.: The Urban Institute, 1975).

line of reasoning applies to other regions, with the qualification that the final percentage would be smaller, because a smaller percentage of sales resulted in conversions. The percentages of sales resulting in conversions are shown below:

Lake States	3%
Corn Belt	3%
Northern Plains	2%
Appalachian	10%
Southeast	8%
Delta States	3%
Southern Plains	7%
Mountain	7%
Pacific	4%

An alternative rough computation results in a similar percent of sellers who might be affected by differential assessment: the Economic Research Service of the U. S. Department of Agriculture reports that the percentage which estate settlements (i.e., sales due to the life-cycle reason, death) constituted of all title transfers in the years 1960-1974, ranged from 14% in 1974 to 22% in 1962. If we take a median percentage of 18% and assume that at least another 18% were sold after retirement, but before death, then 36% of sales would be attributable to life cycle considerations, and 64% to other reasons. If only 12% of these constituted conversions (as in the Northeast), then only 8% of the total sales would be both for imminent conversion and non-life cycle reasons. Given the tentative nature of this line of reasoning, we estimate the target population for differential assessment as being no more than 10% of those selling farms in any particular year. This is in the order of 1% of all existing farms.

These estimates provide some perspective on the proportion of sales which might be affected by differential assessment. The actual percentage, however, will vary considerably since relevant considerations include not only the economic motivations of potential sellers, but the demand expressed by potential buyers.

The central finding which emerges is that, while the cost of a differential assessment program in a state is measured in terms of tax expenditures to the great number of participating owners, the effectiveness with respect to maintaining current use is measured only in terms of the small number of

farmers who are contemplating sale in a given year and who are potentially susceptible to being influenced in their decision to sell by a reduction of their property taxes. Even these will be induced only to postpone sale until a time which fits more appropriately into their own life plans.

C. AN EVALUATION OF ALTERNATIVE TYPES OF DIFFERENTIAL ASSESSMENT WITH RESPECT TO MAINTAINING CURRENT USE

1. Preferential Assessment

Sufficient data are not available from states with pure preferential assessment, such as Indiana, to make possible a direct empirical analysis of the extent to which pure preferential taxation programs have been effective in slowing the loss of farm and other eligible land to urban development. Based on the analysis of the preceding section, however, we feel safe in concluding the following.

If an owner wants to keep his land in open uses, but finds this is financially difficult, the savings from preferential assessment may prove critical in enabling him to attain his desire.

If the owner is indifferent, or actively looking for an opportunity to sell to a developer the tax savings from preferential assessment will not have much effect in deterring him from selling.

If the owner has made his living by farming the land, he may wish to sell when he grows older so that he will be able to retire. Future tax savings then will be of little consideration to him. Also when the owner dies, and does not have an heir who wants to continue the property in its current use, it will probably be sold on the market to the highest bidder.

Whenever land is sold on the open market, the type of buyer will be determined primarily by the potential of the land for development and its suitability for agricultural production (and in more specialized instances its potential for strip or other mining). Urban uses nearly always can outbid agricultural uses, no matter how efficient and productive. Tax savings will not be enough to make a difference.

The ability to continue farming could also be hampered by other factors, such as encroachment of urban activity.

Therefore, preferential assessment is likely to make a difference in the rate of conversion to urban use primarily for land that is in the hands of relatively young owners who are either:

1) farmers who want to continue to farm, and are in a location where farming is not impeded by urban neighbors, or

2) people who want to maintain a country home.

For these people, the tax saving may be large enough to play a significant role in their decision to sell.

Preferential assessment has its principal effect on the supply of land which is put on the market in that it reduces the carrying cost of land. It has no effect on the major factor which determines demand: accessibility to growing urban centers. But it does affect demand in that a potential buyer can bid more in the realization that for as long as he keeps the land in approved open space uses, he, too, will enjoy lower carrying costs. In most cases, this additional amount will not be enough to enable the farmer to outbid the developer. In addition, if the developer can take advantage of the preferential assessment law, as he can do in several states, the farmer's advantage will be nullified, and the result will be that the price of land is bid up and perhaps more land will be purchased by potential developers taking advantage of lower carrying costs.

Pure preferential assessment, because it invokes no sanctions against participants who leave the program, should attract the maximum number of participants. However, the mere fact that more participate probably will have little effect on the rate of conversion to other uses. Only those owners who have a strong incentive--in addition to the tax savings--to maintain their land in its current use are likely to use the tax saving to make it possible to maintain that use. Most of these would probably participate even in a program with strong sanctions. The others will enjoy the financial advantages of the tax reduction and then sell when it is economically advantageous.

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Thus, except for certain circumstances, we conclude that preferential assessment is not very effective in maintaining current use in urban fringe areas even in the short run. In the long run, where death and retirement and the demand for land for other uses play the major roles in the decision process, it is of very little significance indeed.

2. Deferred Taxation

a. General

Provisions for deferred taxation in addition to pure preferential assessment provide some deterrent to changing use. The purpose of this section of the report is to evaluate how great a deterrent they can be expected to be.

Deferred taxation or conveyance tax requirements are found in the 32 differential taxation programs of 28 states. The rollback requirements in 14 programs simply require the payment of the difference between taxes under preferential assessment and what taxes would have been under market assessment for the number of years stated in the rollback provision. In the remaining 14 programs, interest is also charged on the back taxes. In addition, several states have a conveyance tax which is determined by market value at time of sale.

The rollback period is typically about five years, but is as short as two years in a number of states and as long as 15 years for certain types of land in Maine (see Table 8). Stipulated interest rates are typically 6%, but are as high as 10% in the states of Washington and Hawaii. A number of states do not have any rollback provisions. These are nearly all predominantly rural states.

b. Rollback without Interest

The penalty imposed by rollback without interest charge is very minor. In fact, it simply allows an owner to postpone paying certain taxes (in excess of those based on agricultural value) until his land is developed. This is equivalent to an interest-free loan to the owner.

Even the total amount of the rollback is not large in proportion to market value. Tax rates are generally in the range of 1 to 3 percent of market value, and the rollback

Table 8

PROVISIONS FOR SANCTIONS ON CONVERSION CONTAINED IN CURRENT STATE LAWS

Rollback and Interest	No. Years	Interest Rate	
Hawaii 1 (dedication)	Indef.	10%	
Florida 2	Indef.	6%	(applicable to park and recreation lands only)
Hawaii 2 (deferral)	10	6, 10%	(golf courses - 6%; other uses - 10%)
Maine	10, 15	8%	(10 yrs. for farmland and 15 yrs. for open space land)
Oregon	10	6%	(total amt. limited to difference between farm value and market value in year of sale)
Washington	7	10%	(plus additional penalty for change in use during first 7 years)
Alaska	7	6%	
Nevada	7	6%	
Pennsylvania 2	7	6%	
Pennsylvania 1	5	5%	
North Carolina	5	9%	
Virginia	5	6%	
Nebraska	5	6%	
Illinois	3	5%	

Rollback, but No Interest	No. Years	
Minnesota 2	7	(open space)
New York 1	5	
South Carolina	5	
Utah	5	
Massachusetts	4	(or declining conveyance tax, whichever is greater)
Montana	4	
Ohio	4	
Minnesota 1	3	(farmland)
Texas	3	
Rhode Island	2	
Kentucky	2	
Maryland	2	
New Jersey	2	
Rhode Island	2	

Sanction based on Market Value in Year of Conversion

Connecticut	(declining conveyance tax)
New Hampshire 1	(10% of assessed value in year of conversion)
New Hampshire 2	(12% of assessed value is breached in first half of agreement term, and 6% if breached in second half)
California	(12% of market value when early withdrawal is granted)

Other Penalties

New York 2	(twice the market-value taxes in year of conversion)
California	(phased increase in assessment during 10-year runout period after notification of non-renewal)
Michigan	

No Sanctions

Arizona	Iowa
Arkansas	Missouri
Colorado	New Mexico
Delaware	North Dakota
Florida 1	Oklahoma
Idaho	South Dakota
Indiana	Wyoming

Table 9
POTENTIAL TAX OBLIGATION AS PERCENT OF MARKET VALUE OF LAND, ASSUMING NO INTEREST CHARGE

Land Value Appreciation Rate	Year	Farm Value = 80% Market Value at Start		Farm Value = 50% Market Value at Start		Farm Value = 30% Market Value at Start	
		Tax rate of:		Tax rate of:		Tax rate of:	
		1%	3%	1%	3%	1%	3%
2%	3	.66	1.98	1.51	4.53	2.07	6.21
	5	1.18	3.54	2.54	7.62	3.44	10.32
	7	1.74	5.22	3.57	10.71	4.79	14.37
	10	2.63	7.89	5.09	15.27	6.73	20.19
5%	3	.79	2.37	1.58	4.74	2.02	6.06
	5	1.41	4.23	2.59	7.77	3.29	9.87
	7	2.13	6.39	3.63	10.89	4.55	13.65
	10	3.38	10.14	5.03	15.09	6.20	18.60
10%	3	.90	2.70	1.58	7.74	2.03	6.09
	5	1.68	5.04	2.61	7.83	3.23	9.69
	7	2.47	7.41	3.55	10.65	4.27	12.81
	10	3.67	11.01	4.83	14.49	5.56	16.68
15%	3	1.05	3.15	1.65	4.95	1.97	5.91
	5	1.89	5.67	2.64	7.92	3.09	9.27
	7	2.67	8.01	3.46	10.38	3.99	11.97
	10	3.82	11.46	4.54	13.92	5.03	15.09

taxes are computed only on the difference between farm value and market value. Therefore, even Oregon's ten-year rollback would amount to no more than 30% of the difference between assessed and market value. Table 9 shows rollback taxes as a percent of market value for various land value appreciation rates, percentages of agricultural use value to market value at the start of the program, and tax rates. No interest charge is included in the computations of Table 9.

Even at the end of a ten-year rollback period, with a tax rate of 2%, cumulative taxes payable would amount to only about 5-8% of market value for land whose farm value was 80% of market value at the start, and between 10 and 13% for land whose farm value was 30% of market value at the start. Tax bills of such small proportions would not seem to constitute a major psychological barrier to selling for development.

c. Rollback with Interest Charge

The requirement of an interest charge could create a true penalty, but only to the extent that the interest rate charged is higher than that which a land owner would have to pay were he to borrow from a commercial lending institution. Thus, the interest rate provisions in force have not constituted a true penalty for conversion over the past several years in any state, except possibly Washington or Hawaii with their stipulated 10% charges.

The tax rollback and interest charge, however, can constitute a substantial payment and, therefore, could have some psychological effect on the decision to develop, even if on strictly economic terms, it is of no consequence. Therefore, it is of interest to examine the size of rollback charges including interest in relation both to total market value and to increase in market value since the beginning of the rollback period. (Note that rollback plus interest would be (1) paid by the original owner if he developed his land or otherwise changed its use from the approved use, or (2) paid by the buyer of the land when he changed the use. In this case, the buyer would probably take this obligation into account in determining his bid for the land.)

First, let us look at rollback taxes plus interest as a percent of total market value. Table 10 shows this percentage for a variety of different appreciation rates, tax

Table 10

ROLLBACK AS PERCENT OF TOTAL LAND VALUE
(Farm Value = 50% of Market Value at Year 0)

		Interest @ 2%		Interest @ 5%		Interest @ 10%		Interest @ 15%	
Appreciation Rate	Year	Taxes 1%	Taxes 3%	Taxes 1%	Taxes 3%	Taxes 1%	Taxes 3%	Taxes 1%	Taxes 3%
2%	3	1.6	4.7	1.6	4.8	1.7	5.0	1.7	5.2
	5	2.6	7.9	2.8	8.4	3.0	9.1	3.3	9.8
	7	3.7	11.2	4.0	12.1	4.5	13.5	5.0	15.0
	10	5.5	16.5	6.1	18.4	7.2	21.5	8.2	24.7
5%	3	1.6	4.8	1.6	4.9	1.7	5.1	1.8	5.4
	5	2.7	8.0	2.8	8.4	3.0	9.0	3.2	9.7
	7	3.8	11.3	4.1	12.2	4.5	13.6	5.0	15.0
	10	5.4	16.3	6.0	18.0	7.0	20.9	7.9	23.8
10%	3	1.6	4.9	1.7	5.0	1.8	5.3	1.8	5.5
	5	2.7	8.1	2.8	8.5	3.0	9.1	3.5	10.4
	7	3.7	11.1	3.9	11.8	4.3	12.9	4.7	14.0
	10	5.2	15.5	5.7	16.9	6.5	19.4	7.3	21.9
15%	3	1.7	5.0	1.5	5.1	1.8	5.5	1.8	5.5
	5	2.7	8.1	2.8	8.5	2.9	8.7	3.2	9.7
	7	3.6	10.9	3.9	11.6	4.2	12.7	4.3	12.8
	10	4.8	14.5	5.3	15.8	6.0	17.8	6.7	20.0

rates, interest rates, and periods over which the rollback is applied. All figures in Table 10 refer to land whose use value was 50% of market value at the start of the rollback period. Therefore, they may be compared directly with the middle columns of Table 9, which show results for 0% interest on land with use value 50% of market value. The payments range from 1.6% of market value for a three-year rollback with taxes at 1%, interest at 2%, and land appreciation at 2% per year to as much as 24.7% of market value for a ten-year rollback with taxes at 3%, interest at 15%, and land appreciation at 2% per year.[1] At typical rates of interest and rollback periods, the total rollback and interest amounts to less than 10-12% of market value. This would not appear to constitute a major psychological impediment to selling or developing.[2]

Studies by other researchers have also concluded that rollback even with interest cannot offset the increased capital gain which is usually realized when land is converted to urban uses.[3]

Another way of looking at the decision situation is to say that the owner views his rollback costs not against total market value but against the appreciation in value of his property during the period the rollback covers. He might argue (other things being equal) that it was not advantageous to him to sell at the beginning of the period. He will consider selling or developing, therefore, only if the appreciation in value during the period exceeds the total bill he will have to pay for rollback taxes and interest.

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[1]For higher rates of interest, the total value of land appreciates faster than total interest. This is because much of the interest refers to taxes owed for earlier years when total value was substantially less, and because appreciation was computed using a compound growth rate, whereas interest costs were determined using a simple interest computation.

[2]If use value at the start was less than the 50% of market value shown in Table 10, then the tax saving under the program would have been greater and the rollback payment greater in total and relative to market value.

[3]See Holland, David M. "An Economic Analysis of Washington's Differential Taxation Program," Circular 578, College of Agriculture Research Center, Washington State University, Pullman, Washington, December 1974, and Gloudemans, Robert J., Use-Value Assessment: Theory, Practice, and Impact, Chicago: International Association of Assessing Officers, 1974.

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Table 11 presents total rollback payments (taxes plus interest) as a percent of increase in market value for various situations, all assuming that use value is 50% of market value in year 0. It is evident from Table 11 that such an owner should not be dissuaded from selling or developing in most situations. Only if the appreciation rate is 2% or less, the rollback period five years or more, the interest rate 5% or more, and the tax rate 3% or more would the payback exceed the appreciation in value. This is a very unlikely combination of circumstances. In most situations, the payback constitutes a relatively small percentage of the appreciation in value. The most significant variable affecting this percentage is the appreciation rate, since it determines the increase in value directly.

Note that the percentage drops with increase in the rate of appreciation of land value. Thus, rollback including interest is less of a deterrent to selling in areas where the demand for land is growing rapidly. One may conclude, therefore, that the rollback is less effective in precisely the areas where a deterrent to selling for development is desired.

In areas of little or no growth, the rollback is a larger percent of total market value and of increase in value. In such areas the demand for development is low and the rollback constitutes a relatively important deterrent to sale for development. This combination of circumstances should limit the probability of development, which may be desired. It could even "lock-in" land owners to a given agricultural or forestry use, which, with changing economic conditions, could be undesirable.

Finally, some landowners may be deterred from entering a deferred taxation program even if it might be in their economic interest to do so. For them the prospect of being required to pay a large amount of back taxes, possibly with interest, and the time and expense required to enroll their land, more than offset the advantages of a reduced assessment. A deferred taxation program will not be effective in influencing the decision of a landowner who has refrained from entering into it.

Table 11

ROLLBACK AS PERCENT OF INCREASE IN MARKET VALUE OF LAND
FOR VARIOUS RATES OF INTEREST, TAX, AND APPRECIATION OF VALUE
(Farm Value = 50% of Market Value at Start)

		Interest at 2%		Interest at 5%		Interest at 10%		Interest at 15%	
Appreciation Rate	Year	Taxes 1%	Taxes 3%	Taxes 1%	Taxes 3%	Taxes 1%	Taxes 3%	Taxes 1%	Taxes 3%
2%	3	27	81	29	83	29	87	30	90
	5	28	84	30	89	32	97	35	104
	7	29	87	31	93	35	104	38	115
	10	31	92	34	102	40	120	46	137
5%	3	12	35	12	36	12	38	13	39
	5	12	37	13	39	14	42	15	45
	7	13	39	14	42	16	47	17	52
	10	14	42	16	47	18	54	21	62
10%	3	7	20	7	20	7	21	7	22
	5	7	21	7	22	8	24	9	27
	7	8	23	8	24	8	26	10	29
	10	8	25	9	28	11	32	12	36
15%	3	5	15	5	15	5	16	5	16
	5	5	16	6	17	6	17	6	19
	7	6	17	6	19	7	20	7	20
	10	6	19	7	21	8	24	9	26

d. Conclusions

Based on the above reasoning and computations, it is probably safe to conclude that rollback requirements, even with substantial interest payments, are not likely to be an effective deterrent to development. This is particularly so in areas where development demand is strong and land values are increasing rapidly.

Although rollback provisions would not seem to add greatly to the effectiveness of preferential assessment in preventing the conversion of land to urban uses, nonetheless, a sanction such as rollback is a necessary provision from the standpoint of equity.

Without a rollback provision, preferential assessment laws provide a free ride for the speculator, at the cost of others whose taxes are increased to make up for the loss in revenue. It is only fair that this lost revenue be made up to the public when conversion occurs. In the interest of fairness, interest should be charged and at a rate equal to the rate which other taxpayers would have had to pay in order to provide the lost revenues.

3. Restrictive Agreements

Restrictive agreements (under which an owner agrees not to develop his land for, say, ten years, knowing that the agreement will be enforced by a state or local agency) have considerable potential as a means of maintaining current use, at least over the term of the contract. They have not been particularly effective in maintaining current use in California primarily because they are voluntary, and an owner of eligible land may choose not to enroll his land. As is reported in the case study on California (in Part Two of this report) while some 30% of privately-owned land in the state is under contract, almost all of it is rural land not subject to near-term development pressure.

The consensus of the literature and of those interviewed is that only owners who are committed to agriculture and have no expectations of developing their land within the next ten or 15 years will put their land under contract. Those whose land is ripe for development, or who expect that it will be within ten years have, by and large, declined to enter the California program. This should not be surprising. As we have seen, the tax savings arising from differential taxation are small relative to other costs of farming and to the

potential capital gains to be derived from the sale of land on the rural-urban fringe. During the ten year work-out period after notice of non-renewal, the owner cannot develop, but he must pay roughly 65 to 100% of the taxes he would pay if he were not under contract.

One aspect of California's program may have a noticeable effect on conversion rates. The program creates agricultural districts within which contracts may be written. Participants have standing to protest cancellation. By creating a legal structure aimed at preserving agricultural use and vesting owners with an interest in maintaining the integrity of the district, the Act creates a new institution with a certain inertia which operates to retard change. This effect may be more significant for the preservation of current agricultural use than the simple economic incentive of preferential assessment.

The potential usefulness of restrictive agreements, coupled with differential assessment, lies in their use as a mandatory device which is part of an overall conservation and development policy for metropolitan areas. This approach in transitional areas, together with acquisition of less-than-fee interests in lands designated for open space use and subject to heavy development pressure, on the one hand, and simple police power regulation of land not subject to heavy pressure, on the other, would provide a flexibility which is much needed. As it is, the usefulness of the restrictive agreement approach for maintenance of current use is effectively limited by its voluntary nature.

D. CONCLUSIONS CONCERNING THE ACHIEVEMENT OF LAND USE OBJECTIVES

Except for a few specific situations, which account for a small fraction of potential sales of farmland, differential assessment is not likely to be effective in achieving land use objectives. Whether or not a particular farm is sold and converted to a non-open use depends on three sets of considerations: supply factors, demand factors, and governmental approval of the proposed development. Differential assessment operates primarily on one of the supply factors, by reducing the income squeeze which farmers in rural-urban fringe areas experience as a result of rising real property taxes. It has a secondary impact on the demand side because it permits farmer-buyers, speculators and developers either

to offer somewhat more for the land or to buy more land at the same price because their carrying costs are reduced. This latter effect is difficult to appraise, but is likely to be marginal because the buyer will normally be simply exchanging tax costs on the land for interest costs on the money he has to borrow either to pay the higher price or to buy additional land.

It is clear, however, that all forms of differential assessment help to insulate the farmer from market pressures to sell which come to bear on him in the form of higher property taxes based on rising property values. They make it easier for him to schedule the sale of his land at a time, such as retirement, which fits into his estate planning.

One of the central issues raised by differential assessment with respect to the goal of maintaining current use is which of the systems for timing the sale and conversion is best:

1. a system which keys the conversion of open land into the personal life cycle and estate planning considerations of individual farmers;

2. a system which relies on the push of rising property taxes and the pull of high offers to ease land into development; or

3. a system which relies more heavily on governmental resource and development planning to specify which land should be developed when.

Numerous studies, of which the Real Estate Research Corporation's The Costs of Sprawl[1] is the best known, have documented the additional economic, environmental and energy costs which are associated with low density, leap-frogging development, precisely the kind which Peterson found in his study of differential assessment in Maryland referred to above. We find this study persuasive and conclude that differential assessment programs which are not part of a comprehensive land development regulation system are counterproductive in terms of the broader goals of urban development.

[1]Washington, D. C.: U. S. Government Printing Office, 1974.

The benefits which they provide for individual farmers and by way of short-term postponement of some conversions are more than counterbalanced by the disadvantages they entail in creating special tax shelters in which owners of developable land may thrive until their personal economic plans coincide with those of the market generally. Such programs should either be amended or made a part of a larger system of resource management and development regulation. Such a system would entail the designation of agricultural and development districts, staging of capital facilities and development, compensation, and differential assessment.

Chapter V

EQUITY, EASE OF ADMINISTRATION AND POLITICAL FEASIBILITY

In the preceding two chapters, differential assessment has been evaluated with respect to its effectiveness for achieving its two principal goals: conferring tax benefits on eligible owners and maintaining current use of undeveloped land. In this chapter, other dimensions of the programs will be examined. First, the programs will be evaluated in light of their impacts on the tax base and the redistribution of tax incidence which results from them. Second, the various approaches will be assessed for their ease of administration and their political feasilibity.

A. EQUITY

1. Introduction

One of the major rationales for differential assessment arises out of the view that farmers pay an unfair share of the property tax.[1] The fairness of a property tax is usually judged according to one of three criteria: consistency among assessed value fair market value ratios for all classes of properties which constitute the tax base, ability to pay based on economic use of the land, and benefits received.

The first criterion -- that assessment of all kinds of property should be in the same proportion to market value -- appears to be a basic and reasonable requirement. However, it is often not met in practice, even when the criterion is agreed to in principle. First, while fair market value is usually the nominal standard, different methods of assessment, such as comparable sales and capitalization of income, can produce varying estimates of it. Second, the real property tax laws are filled with exemptions, exclusions, deductions, deferrals and credits which effectively reduce the share which various classes of property pay of total taxes,

[1] See, e.g., Hady, Thomas F. and Ann Gordon Sibold, State Programs for the Differential Assessment of Farmland, Washington, D.C.: Economic Research Service, U.S.D.A., 1974, pp. 6-7.

Equity, Ease of Administration and Political Feasibility

If farmers are shown to have a higher percentage of total adjusted assessed value than of total value based on fair market value, they are paying an unfair share based on the first criterion. It is virtually impossible, however, to determine whether the complex system of exclusions, exemptions, deferrals, tax credits, and varied assessment practices produces inequities in the effective tax rates which farmers pay. The data needed to make this evaluation are not available or are hidden in the assessment practices of local assessors.

Even if the farmers' share is equitable by the fair market value standard, it may not be equitable on the basis of the second criterion, the ability to pay. It can be argued with plausibility that real property taxes based on fair market values impose an unfair burden on the farmer, since as compared with other economic activities, the net income of farming is low in relation to total value of assets, and the subject of the property tax, land, is often the major component of a farm's assets. The property tax burden is greatly increased when taxes are based on inflated values of land for urban development instead of on a value based on the agricultural use of the land. Differential assessment insulates the farmer from tax increases resulting from apppreciation in the value of the land, at least until he is ready to convert.[1]

With respect to the third criterion, benefits received, a farm receives many fewer services per acre than a land intensive use like a subdivision yet, because the property

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[1]It has been argued that the farmer's ability to pay taxes based on market value of his land would be increased sufficiently if it was made easier for him to obtain credit based on the appreciation value of his land. (See Frederick Stocker's remarks delivered at the Property Tax Forum of International Association of Assessing Officers, June 1975, and Henry J. Aaron, "Who Pays the Property Tax?," Washington: The Brookings Foundation, 1975, pp. 85-87). Such an approach to the farmer's ability-to-pay problem, assuming it is economically effective, seeks a solution for this equity problem in the conversion value of the land. The build-up of debt it implies would undoubtedly increase the probability of eventual sale for non-farm use.

tax is assessed on the basis of acreage and the concept of market value is applied to both farm and subdivision, he pays a relatively high tax. Differential assessment permits a farmer to be treated much like the owner of rental property, because the methods of assessment derive assessed value from income from present, agricultural use and not from potential development value. Thus, it increases the probability that the farmer's taxes will be more closely related to the municipal services he actually uses.

In summary, a major motivation for differential assessment programs is that they correct inequities which the farmer is believed to be burdened with. The result of such programs is to reduce that inequity by reducing the farmer's taxes, and shifting the tax burden to other classes of property. The magnitude of the tax shift from the prior pattern can be estimated. It is more diffiult to judge the extent to which the shift results in a reduction of inequity to the farmer and a correspondingly more fair sharing of the tax load by owners of other types of property, and to what extent it shifts the tax burden unfairly from farm owners to other property owners.

In the analysis which follows, we will look first, at the tax shift impacts which occur upon the establishment of a differential assessment program before the real estate market adjusts to the new ground rules created by the program, and second, at the long-term impacts, which are likely to occur once the adjustments have been made. In examining these two sets of phenomena, we will discuss first the effects which preferential assessment will have on tax incidence. Then we will analyze the ways in which deferred taxation and restrictive agreements will modify or muffle the principal impacts.

2. Estimating the Tax Shift

Since the real property tax is usually administered on a taxing jurisdiction by taxing jurisdiction basis, with local governments and districts setting tax rates annually, the primary impact of the introduction of differential assessment is to shift tax incidence within participating municipalities. State-wide impacts, which are important if the state has legislated to make up some or all of the

losses in tax revenues, can often be estimated by aggregating the shifts experienced by every taxing jurisdiction.

As a prelude to describing the methods of measuring tax shifts, it is appropriate to review the procedures used to set the property tax or millage rates in a taxing jurisdiction. The tax base is the total assessed value of taxable property in the jurisdiction (AV). The taxing authority determines what tax revenues (T) will be needed for the following year and then sets the tax rate (R_1) at the level which will yield the necessary revenues. In other words,

$$(1) \qquad R_1 = \frac{T}{AV}$$

If the assessed value of one type of property is lowered because of preferential assessment, the total tax base will be lowered by the same amount. We will assume here and throughout the discussion which follows that the taxing jurisdiction does not cut back on the services it provides because of a reduction in part of its tax base.[1] The tax revenues needed, T, will thus remain the same, and since AV is smaller, the tax rate after differential assessment, R_2, will be larger. Thus,

$$(2) \qquad R_2 = \frac{T}{AV-p},$$ where p = the reduction in assessment due to differential assessment

Since T continues at the same level,

$$R_2 \ (AV-p) = R_1 \ (AV)$$

[1] It is, of course, possible that jurisdictions will cut back on services rather than raise tax rates. In that event, all taxpayers would suffer the cost in the form of a reduction of services, rather than in the form of less spendable income. For the purposes of this paper, it seems sufficient, and certainly simpler, to measure costs in the form of increased taxes.

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$$(3) \qquad R_2 = R_1 \frac{AV}{AV-p}$$

Because tax rates are computed in this manner, and assuming that budgets are not cut, a tax benefit program based on preferential assessment does not reduce total tax revenues, but rather shifts the incidence of the tax away from the favored class of property to all the rest. This is a form of "tax expenditure:" the tax bills of some taxpayers are increased so as to confer a benefit on others by reducing their taxes.

Let us consider a simple example to illustrate how the property tax bills of farmers and non-farmers are affected by a simple preferential assessment program in a particular taxing jurisdiction. First, we will separate taxable property into two classes: farm property (land and improvements) and non-farm property (all the rest). Let us assume that the assessed value of farm property based on fair market value of land and improvements is $10 million, that the assessed value of non-farm property (also based on fair market value) is $90 million, and that the municipality needs $10 million in tax revenue. The tax rate will be determined as follows:

$$R_1 \ (AV) = T$$

$$R_1 \ (\$10{,}000{,}000 + \$90{,}000{,}000) = \$10{,}000{,}000$$

$$R_1 = .1$$

Farmers will pay $1 million in taxes, part of which will be on their land and part on their buildings and other taxable improvements. Non-farmers will pay $9 million.

Now, let us assume that a preferential assessment program is adopted, and all farmland is enrolled. Let us assume that land constituted 80% of the assessed value of farm property, or $8 million, and that as a result of preferential assessment, its assessed value is reduced 50% to $4 million. Assuming that the municipality needs the same revenue and that the assessed value of non-farm property remains the same, the new tax rate, R_2, can be computed as follows:

$$R_2 \ (\$6{,}000{,}000 + \$90{,}000{,}000) = \$10{,}000{,}000$$

$$R_2 = \frac{10}{96} = .104$$

Taxes on non-farm property will now be .104 x $90,000,000 or $9,375,000,and those on farm property will be $625,000. Non-farmers pay $375,000 or 4.17% more, and farmers pay $375,000 or 37.5% less.

Parenthetically, this example reveals one reason why differential assessment programs have been popular with politicians. One interest group can obtain a sizeable tax benefit at a cost which is spread thinly among all other groups.

The tax shift computation can be expressed somewhat more formally as follows:

Without preferential assessment:

(4) R_1 (Farm AV_1) + R_1 (Non-Farm AV) = T

With preferential assessment (assuming 100% participation):

(5) R_2(Farm AV_2) + R_2 (Non-Farm AV) = T

Note that total assessment has gone down, and as a result it is necessary to increase the tax rate in order to obtain the same amount of revenue.

The tax shift or the tax expenditure, E, resulting from preferential assessment of farmland is defined in either of two equivalent ways, as an increase of tax payments by non-farm owners:

(6) $E = (R_2 - R_1)$(Non-Farm AV), or as a decrease of tax payments by farm owners:

(7) $E = R_1$ (Farm AV_1) - R_2 (Farm AV_2).

If we substitute for R_1 and R_2, in equation (6), then

$$(8) \quad E = T\left[\frac{\text{Non-Farm AV}}{\text{Farm AV}_2 + \text{Non-Farm AV}} - \frac{\text{Non-Farm AV}}{\text{Farm AV}_1 + \text{Non-Farm AV}}\right]$$

Note that the term AV_2 includes preferentially assessed farmland and the nonpreferentially assessed farm buildings and other taxable assets on farms participating in the preferential assessment program. In addition, if less than 100% of farmland is enrolled, the tax expenditures would, of course, be less.

Another approach to estimating tax expenditure, and the one most frequently used because of the relatively greater availability of data, is to determine the difference between the assessed value of farmland in the program, based on fair market value, and the assessed value based on farm use value, and to multiply this difference (which represents, theoretically, the development value) by the applicable tax rate. This gives a rough estimate of the tax expenditure in a taxing jurisdiction but fails to take into account the fact that if the development value were included in the tax base, the tax rate would be lower. It also fails to account for the taxes attributable to farm improvements which would be taxed at a lower rate too. Finally, since historically, most farmland has been given some form of de facto preferential assessment, actual taxing jurisdiction data on pre-program farmland assessed values already reflect a reduction from fair market value. As a result, the establishment of de jure preferential assessment will not produce a reduction in taxes which accurately reflects the full extent of tax expenditure resulting from the establishment of preferential assessment.

It is also not possible to measure tax expenditure directly by comparing the taxes which farmers and non-farmers pay in the year before the establishment of differential assessment and in the year in which it is established. Such a measurement would be difficult because, first, tax rates in the second year will, in all probability, be set for a somewhat different level of municipal services from that of the first year. Second, tax rates reflect changes in the level of non-farm assessed values, which are likely to be disproportionate to changes in farm assessed values. The

only reliable way to estimate tax expenditure is by using the equations presented above.

It can be seen from equation (8) that the greater the reduction in the farm assessed value resulting from differential assessment, the greater the tax expenditure of the jurisdiction. In addition, the ratio between non-farm assessed value and farm assessed value before differential assessment also affects the size of the tax expenditure in a complex and somewhat unexpected way. Figure 6 shows how total tax expenditures (as a percent of total revenues) are affected by variation in the percent of original tax base in farm property (both land and improvements) and by the percent reduction in farm property assessments due to differential assessment.

As the portion of the tax base which is to be assessed differentially increases, the compensating across-the-board tax rate increase also increases in size. Correspondingly, the remaining portion of the tax base, which is not assessed differentially, decreases. The tax shift, which is the product of the increase in tax rate times the non-preferentially-assessed value, rises to a maximum and then declines.

This figure shows that if there is a 25% reduction in farm assessed value, the greatest tax expenditure, some 7.2% of tax revenues, will occur in jurisdictions in which 55% of the original total assessed value was in farm use. Similarly, if there is a 50% reduction in assessed value, there will be a maximum tax expenditure of 17.1% of tax revenues where 60% of the total assessed value is in farm properties. For a 75% reduction, the peak expenditure is 33.3%.

The question of equity comes into sharper focus when one looks at the tax burden on non-participating property. Although the total tax expenditure peaks as shown in Figure 6 and then decreases for communities with larger percents of their original tax base in participating property, the tax burden on non-participating property continues to increase the greater the proportion of the original tax base in participating property. The reason for this is that reductions in assessment for one class of property owners must be made up for by an increase in the overall tax rate. For participating property owners, the increased tax rate is offset by the reduced assessments, but it must be borne

Figure 6

TAX EXPENDITURES AS A PERCENT OF TAX REVENUES BY PERCENT REDUCTION OF FARM ASSESSMENTS AND PERCENT OF ORIGINAL TAX BASE IN FARM PROPERTY

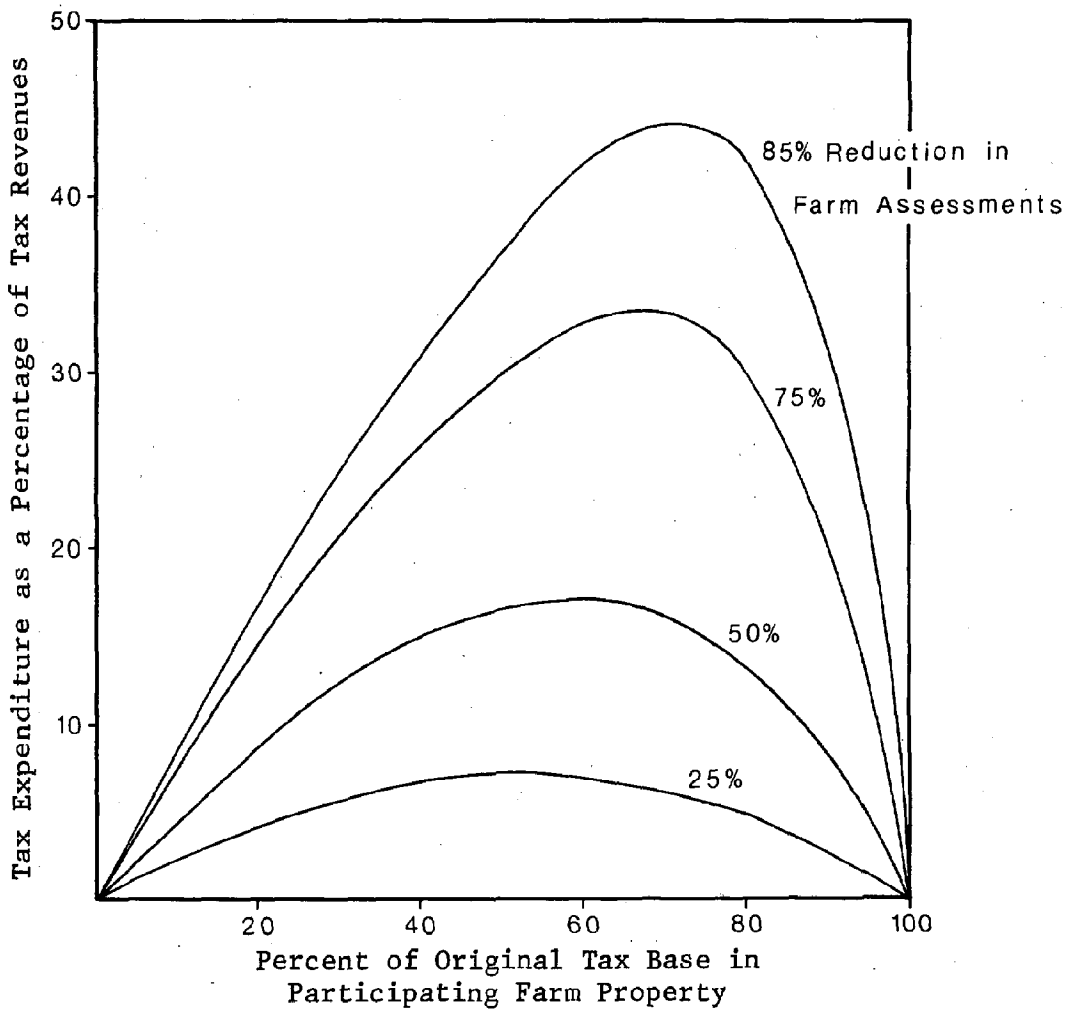
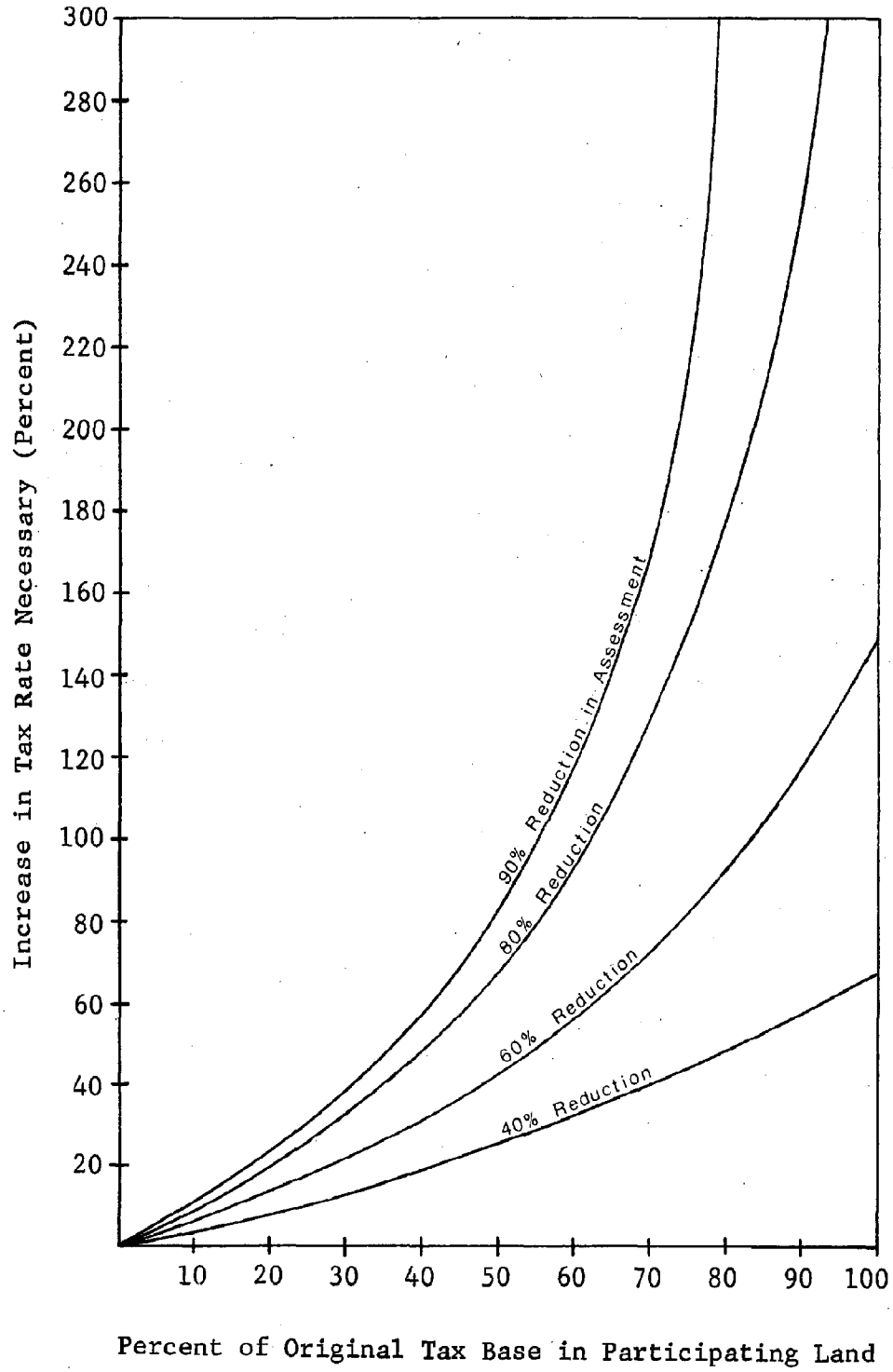


Figure 7

INCREASE IN TAX RATE NECESSARY TO COMPENSATE FOR LOSS IN REVENUE DUE TO DIFFERENTIAL ASSESMENT



without any compensating adjustment by non-participating owners. For them the increase in tax rate is equivalent to the same percentage increase in their tax bills.

The increase in tax rate necessary to collect the same revenue with differential assessment as without it can be seen in Figure 7. For most possible situations, the increases are substantial; for some situations they are astounding. Some combinations of conditions, however, are more likely than others. For example, jurisdictions with a large percent of their tax base in participating land are, by definition, largely undeveloped average market value is not much above farm value, and therefore, the percent reduction in farm assessments is likely to be small. On the other hand, in developing communities farmland is likely to be a relatively small percentage of original tax base and market values are likely to be much higher than farm values, so percent reduction in assessment because of the differential program is likely to be great. Thus, the situations most likely to be encountered are those toward the bottom and toward the left side of Figure 7.

The tax shifts of Figure 6 and the necessary percent increases in tax rates (and in actual taxes for non-participating property) are real but are not always easily identifiable in an actual situation. The reasons are many: often the total tax base includes tax sources other than property and these may change in amount with business conditions, the property tax base may be growing as a result of new development, Federal and state aid varies from year to year, and the local government may choose to reduce revenues and services rather than compensate fully for the tax expenditures. But whether it is met by a reduction of services for some or all taxpayers or by an increase in tax payments by non-participants, the tax expenditures are real and are resolved by a change in the equity accorded different classes of taxpayers.

3. Estimates of Actual Tax Shifts

The major barrier to making an accurate estimate of the impact of preferential assessment on a taxing-jurisdiction by taxing-jurisdiction basis is the absence of the necessary data. First, most states have adopted preferential assessment fairly recently. Only 18 programs are more than five years old. Second, implementation has been gradual,

so that impacts in any particular state are difficult to separate out from other annual changes. Third, few states systematically collect information on the fair-market assessed value and current-use assessed value of farm property for their taxing jurisdictions.

We have been able to obtain the necessary data to do a county-level estimate of tax shift in the State of Florida, which has had preferential assessment of agricultural lands since 1959. Data are regularly published by the Florida Department of Revenue on market value as well as use value of differentially assessed land. With these data and the total assessed valuation of each county for tax purposes, it is possible to compute the total assessed valuation of each county at market value. With this information and the reported total taxes levied for county-wide purposes, the tax shift computation can be performed. The results are given in Table 12.

Although in more than half of the counties the computed increase in tax rate was less than two mills, a number of counties experienced substantially higher rate increases to offset revenue losses due to differential assessment (part A of Table 12). A non-farm population of about 1,190,000 bore increases of 2 or more mills without any compensating reduced assessment; over 140,000 were faced with rate increases of over 5 mills. Tax savings went to the farmers. Seventy-eight percent of all farmers were in counties where the rate increase was less than 3 mills. Counties which experienced a rate increase of 3-4 mills, however, had the largest proportion of farmers.

Tax rate increases as a percent of 1973 tax rates can be computed for only 39 of the 69 Florida counties, since the 1973 tax rates of the other counties include debt service, or special district levies, and therefore are not strictly comparable. The computations for these 39 counties (Part B of Table 12) indicate that a 0-2 percent increase is typical, and a 2-8 percent increase is not uncommon. For one county, a 27% increase was computed. A non-farm population of over 500,000 (20% of all non-farm population in this sample) was faced with increases in property tax rate of over 4%. Farmers were most heavily concentrated, as a proportion of total population, in counties which experienced 6-10% increases in tax rate.

Table 12

TAX EXPENDITURES BY COUNTY GOVERNMENTS IN FLORIDA
BECAUSE OF DIFFERENTIAL ASSESSMENT

A. Increase in County Tax Rate[a]

Increase in County Tax Rate (Mills)	Number Counties	Non-Farm Population	Farm Population Number	Farm Population % of Total Population
0 - .999	18	3,921,363	17,455	.4
1 - 1.999	13	1,418,164	14,901	1.0
2 - 2.999	14	457,073	20,712	4.3
3 - 3.999	6	48,229	6,574	12.0
4 - 4.999	2	542,163	1,540	0.3
5 - 5.999	4	59,772	4,718	7.3
6 - 9.999	2	72,629	2,845	3.8
10.0+	1	9,995	101	1.0
TOTALS	60	6,529,388	68,846	

[a]for 60 out of Florida's 67 counties. All data not available for others.

B. Per Cent Increase in Tax Rate[b]

Percent Increase in Tax Rate	Number Counties	Non-Farm Population	Farm Population Number	Farm Population % of Total Population
0 - 2%	13	2,506,767	9,906	0.4
2 - 4%	8	657,905	11,754	1.8
4 - 6%	9	424,321	13,846	3.2
6 - 8%	4	46,419	5,896	11.3
8 - 10%	2	10,506	7,571	41.9
10 - 25%	2	14,129	1,281	8.3
25 - 50%	1	9,995	101	1.0
50+%	0	0	0	
TOTALS	39	3,670,042	50,355	

[b]for only 39 out of Florida's 67 counties.

C. Tax Shift Per Capita[c]

Tax Shift Per Capita ($)	Number Counties	Non-Farm Population	Farm Population Number	Farm Population % of Total Population
0 - 4.99	15	3,536,294	13,777	0.4
5.00 - 9.99	12	1,686,303	17,670	1.0
10.00 - 14.99	7	245,655	10,320	4.0
15.00 - 19.99	13	329,295	17,187	5.0
20.00 - 24.99	4	581,026	4,675	0.8
25.00 - 29.99	2	17,004	1,504	8.0
30.00 - 40.00	4	108,004	3,111	2.8
40.00+	3	25,807	602	2.3
TOTALS	60	6,529,388	68,846	

[c]for 60 out of 67 counties.

A third way of looking at the tax shift is on a per capita basis (Part C of Table 12). For most people the additional tax payment is less than $10 apiece. However, over 1,300,000 non-farmers are faced with tax increases of over $10.

The necessary data are, also, available to make possible an estimate of tax shift at the county level for California. As is described in the California Case Study in Part Two of this report, we estimate that as a result of that state's Williamson Act, Kings and Tulare Counties experienced a revenue loss of 21% and 11% respectively, six others lost between 3% and 9%, and the remaining 38 counties lost below 3%, before receipt of state subventions.

Estimates of tax shift at the municipal level, expressed as percent increase in tax rate, have been published for a sample of 151 New Jersey municipalities.[1]

Increase in Tax Rate	Number of Municipalities
0 - 9.9%	48
10 - 19.9%	30
20 - 29.9%	35
30 - 39.9%	20
40 - 49.9%	11
50% and above	7

These municipal estimates for New Jersey are substantially higher than our estimates on a county-wide basis for Florida. A difference of this sort (though not necessarily of this magnitude) is to be expected, since a county is likely to have more non-farmers to spread the tax expenditure among than are many rural townships where differentially assessed property could make up a large part of the tax base.

It is evident from the above estimates that even though tax shifts often result in only a small increase of the tax rate in most jurisdictions, in a few taxing jurisdictions the burden can be great on owners of property which is not differentially assessed. The burden can be

[1] Kolesar, John and Jaye Scholl, Saving Farmland, Princeton: The Center for Analysis of Public Issues, Inc., March 1975.

substantial even for those who own some participating land in addition to other non-eligible property (see Table 6 in Chapter III). Owners with no participating land must bear the increased tax rates with no offsetting reduction in assessment. These owners are often low and moderate income residents of rural towns.

4. Sanctions Reduce the Tax Shift

The preceding analysis has dealt solely with the question of the impacts on the tax base of the establishment of a pure preferential assessment program which provides for abatement of property taxes on the development value of land.

Thirty-two states have added deferred taxation or conveyance tax provisions of one form or another which impose an economic sanction of varying severity upon the conversion of preferentially assessed farmland to non-eligible uses. One purpose of those economic sanctions is to offset the increased tax burden placed on non-farmers by differential assessment of farmland. By collecting some or all of the unpaid taxes on farmland at the time of conversion, a more equitable apportioning of property taxes falling on farmers and non-farmers can be achieved. With the conversion of farmland to non-farm uses, any public benefit of the differential assessment presumably evaporates.

Any payments of deferred taxes or other sanctions by owners of hitherto preferentially assessed land go into the municipal till and serve to reduce the amount of tax expenditures occasioned by preferential assessment. In recent years, deferred tax payments do not seem to have been major sources of local revenue. In Oregon, $750,557, or about one-tenth of one percent of total state property taxes for the year, were paid in 1973-74. During the first ten years of Hawaii's differential assessment program, deferred taxes paid were also insignificant in relation to total tax revenues; however, few landowners participated in that early program.

One would anticipate that as time goes on and the farmers who took advantage of differential assessment programs approach retirement, there would be an accele-

rating rate of conversion, and therefore, of payment of deferred taxes. Since, in many states, taxes due are rolled back for three, four, or five years, the payment of back taxes could add up to a significant total, especially as urban development pressures mount and more land owners sell for development.

The inclusion of rollback penalties for conversion to non-eligible uses is likely to dissuade some owners from enrolling. The stronger sanctions included in restrictive agreement programs will limit enrollment drastically. If enrollment is reduced, tax expenditures will be correspondingly reduced and issues of equity become less severe.

5. Long Term Adjustments Reduce the Tax Shift

In principle, at least, the adoption of a differential assessment program changes significantly some of the basic ground rules which guide farmers and other investors in undeveloped real estate. One of the basic costs of holding land, the property tax, is reduced, and this reduction is capitalized into higher current use and fair market values. This effect was discussed in Chapter IV, where the percent increase in property values was displayed in Figure 4.

The same processes would be operating in the non-preferentially assessed sectors of the tax base, except in the opposite direction. Higher taxes would be capitalized into lower market values, everything else being equal. Assessments of the non-farm and farm improvements sectors would presumably reflect this reduction in value, and therefore negate some of the tax shifting which occurred in the early years of the program.

Deferred taxation would not influence current use value of preferentially assessed land. The deferred taxes would, however, affect the value of the land for development purposes.

6. Subventions and State Tax Credits Compensate for Tax Shifts

The burden of the tax shift is borne by owners of non-participating property, both farm and non-farm, in each

taxing jurisdiction. The benefits of providing tax savings to farmers and of keeping land in agriculture and out of development, arguably, accrue to a wider public. Therefore, at least in states where the state requires local governments to participate in the program, the wider public should be required to compensate affected governments for the lost taxes.

California's Williamson Act has such a requirement, by which the state must make payments to counties to replace part of the tax revenues lost because of the Act. The Department of Conservation reported that tax revenues for the 1974-75 year were reduced by $18.5 million. Informed officials estimate that this substantially understates the tax expenditures involved. In 1973, Ronald Welch, Assistant Executive Secretary of the State Board of Equalization, estimated the tax shift at $45 to $50 million, or approximately three times the subventions paid in that year. Extrapolating, we estimate that the current figure would be in the neighborhood of $60 million, or approximately 6/10 of 1% of real property tax revenues in 1974-75.

Starting in 1972-73, the amounts actually paid by the state to local agencies were as follows:

Local Agency	1972-73	1973-74	1974-75 (estimated)	1975-76 (estimated)
School Districts	7,171,452	7,719,269	4,000,000	5,000,000
Counties and Cities	5,828,548	9,683,840	11,000,000	11,000,000
	13,000,000	17,403,109	15,000,000	16,000,00

Such subventions, of course, reduce the tax shift within a taxing jurisdiction and also make part of the burden statewide rather than local. They raise the significant policy question of whether the interests of the state government are being advanced enough by a differential assessment program which is conditioned on a county decision to participate to warrant state expenditures of this magnitude. The California Legislative Analyst has taken the position that they are not, and in 1975 unsuccessfully recommended repeal of the subvention program.

It is also interesting to note that the existence of a state subvention program tied to tax shifts based on development value may induce local assessors to overestimate fair market value so as to increase the amount of development value and, thereby, the size of the subvention. This further muddies up the ascertainment of tax expenditures.

Although California is the only state which has actually appropriated state monies to local governments to compensate for lost taxes, other states have similar legislative provisions. The New York state government is mandated to provide financial assistance to each taxing jurisdiction in an amount equal to one-half the tax loss that results from agricultural value assessment in agricultural districts established by the state. Alaska's statute provides for full reimbursement by the state of tax losses suffered by municipalities as a result of differential assessment.

Michigan permits eligible land owners to credit any property taxes in excess of 7% of their income against the state income tax. This has the effect of shifting the tax impact of the differential assessment program to the state level.

No other states have subvention requirements. It is useful, however, to examine the potential magnitude of the state obligations which would be incurred if complete compensation were to be required from state treasuries. Available data have made it possible to make rough estimates for Oregon, Washington, and New Jersey.

Based on data which assessors in Oregon were required to keep on both market value and farm use value until 1971, we estimate that the loss in assessment in 1974-75 was about $1.13 billion. Applying the median average county tax rate of 2.17% yields a tax expenditure of $24.9 million. This does not, of course take into account the fact that in many counties tax rates are higher than they would have been without differential assessment, so the figure is on the high side. The $24.9 million represented about 3.6% of the total gross ad valorem levy of $686,872,409 for 1974-75.

In Washington, which enacted differential assessment in 1970, $265.5 million would be added to the tax rolls in

1974-75 if lands were not accorded differential taxation under the open space taxation program. The taxes attributable to this amount are estimated at $2.7 million or approximately ½ of 1% of property tax revenues.

In New Jersey, data are not available for a precise determination of tax expenditures. However, a rough estimate can be computed as follows: In 1974, 1,049,560 acres of land received farm value assessment. The average farm value assessment for land only (set at 100% of current use value) was $221 per acre.[1] The Economic Research Service, U.S.D.A., reported that the average value per acre of farm real estate in New Jersey was $2,099 in 1974.[2] Thus, assessed values for the 1 million acres would be raised an average of $1,880 per acre if they were assessed at fair market value. Based on these data, there was a tax shift of at least $40 million as a result of the Farmland Assessment Act,[3] or approximately 1.5% of total 1973 property tax revenues of $2,549,631,000.

7. Conclusions

The tax shift resulting from differential assessment will vary from local jurisdiction to local jurisdiction. Within some jurisdictions substantial tax shifts will occur. The burden of these shifts typically falls on residents of rural towns.

Most differential assessment programs are state mandated, and therefore, local governments are not in a position to decide whether or not to grant tax preferences of this sort. The policy issue which state governments must face is whether a differential assessment program is sufficiently effective in achieving the desired goals to warrant the imposition by local governments of a tax shift of this magnitude on non-farm property owners.

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[1] "Sixth Report of Data from FA-1 Forms for the 1974 Tax Year" N.J. Division of Taxation, and "New Jersey Agricultural Statistics-September 1974."

[2] Farm Real Estate Market Developments, CD 79 (Economic Research, U.S.D.A., July 1974).

[3] Kolesar, John and Jaye Scholl, Saving Farmland (Princeton: The Center for Analysis of Public Issues, Inc., 1975).

Deferred taxation and restrictive agreements of the California Williamson Act-type tend to reduce tax shifts as compared with those under preferential assessment.

It seems clear that different public policies are being served by pure preferential assessment, deferred taxation, and restrictive agreements. Pure preferential assessment must be viewed primarily as a program of tax abatement for the farmer and other eligible owners. Programs with a deferred taxation or conversion fee attempt to recoup some of the tax expenditures made earlier. They reflect a somewhat more refined approach, which seeks to design the program to achieve tax reduction without shifting all the resulting tax expenditures to non-eligible properties.

B. EASE OF ADMINISTRATION

1. Goals

Any differential tax program should have the same two administrative goals: good records and good communications. Both are essential to efficient operation of a differential tax program and to an understanding of the program's overall impact. Regrettably, a number of programs have been launched with minimal thought for administrative design; while some may be cheap to operate in the short run, they promise to be inefficient and troublesome over a longer perspective.

The goal of good records requires establishment of a system which can speedily yield information about a single tract or about the program's operation statewide. Consideration of what information will be needed as output must precede the specification of inputs. Such an observation is elementary, yet few states have designed a record system with desired outputs in mind.

The goal of good communications is closely linked to that of good records, since the availability and accuracy of inputs is determined in large part by public agency data sources which are external to the department administering the tax program. Willingness to share data is likely to be fostered if there is comprehension of the objectives of differential taxation in relation to other government objectives. Good communications also includes achievement of a high level of understanding of the objec-

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tives of the program by the general public and awareness of its provisions among those eligible for participation. Realization of this goal varies widely among the states. Some administrators have recognized these needs and moved vigorously to set up good communication links with other government agencies and with the public at large; others appear to have concluded that the less knowledge there is abroad about their programs, the easier their task will be.

2. Good Records

Whatever the real objectives underlying enactment of a differential tax law, a state's legislative and administrative branches can be expected to want to know whether the law in fact advances those objectives.

If the real objectives differ from the legislatively stated objectives, there may well be less enthusiasm for widespread distribution of evidence of the law's impact. Most typically, the purposes stated are preservation of farmland, open space, forests, and recreation areas, yet, in many states, legislators who voted for these laws and administrators who drafted them acknowledge freely that the real objective is to give tax relief to farmers. If the effect of a law is to lower significantly the real property tax paid by participating farmers while not impeding farmland conversion to any notable degree, proponents of the law might well prefer not to have this outcome generally known. Since this is the widely predicted effect of all types of differential taxation, there doubtless are many whose interests are best served if good records are not kept. However, it is probable that lack of administrative forethought rather than governmental deviousness underlies the widespread inadequacy of record-keeping.

Record keeping considerations for the three basic variants of differential assessment legislations are outlined below.

i. Preferential Assessment

Whatever the intent or nature of the program, it will be important to know, over time, how many farmers are participating, how big the farms are, where they are located in relation to development, what the farmland capa-

bility and yield is, whether the land is being farmed, and how the program affects the farmers' real property tax. With a pure preferential assessment program, like that in Indiana, and even with the limited agenda of providing a tax break to farmers, it is necessary to look at the trends which can be derived from these data in order to decide whether the tax differential provided is sufficient.

In a pure preferential tax state a dual set of records showing farm and market value is not normally kept. Therefore, calculation of the effect of the program on the farmers' real property tax can be arrived at only by approximation.

In order to make a differential assessment, however, farm value must be established and the valuation updated. Comparable sales and capitalization of income are the methods commonly used; both present administrative as well as technical problems. From an administrative perspective only, both require considerable data and a means of sorting the data so that they are relevant to the properties being valued.

Comparable sales: It is necessary to be able to determine in what locations, if any, sales occur at farm use value only, what array of factors must be considered in treating such sales as comparable, and what systems must be set up to collect and record the sales information. If comparable sales are used to fix farm value, it is not necessary to know what type of farming is actually done by a farmer receiving preferential assessment.

Capitalization of income: A substantial amount of information is needed for applying the capitalization of income method. Physical factors needed, including soil suitability, location, and climate, are largely stable so that the data, once collected, need little revision. Economic factors, particularly the cost of producing various farm goods and the price paid for them, will vary substantially over time, so that there must be a schedule for revising these factors. If the program specifies actual yield rather than highest potential yield it is necessary to check each property annually. Capitalization and real property tax rates also change but can be obtained readily by the differential tax administrator.

Equity, Ease of Administration and Political Feasibility

Eligibility requirements: If the preferential assessment program has any eligibility requirements, such as conformity with plans or minimum farm income, someone must check data pertinent to those requirements. Rather than undertake to collect these data directly, most administrators rely on others to certify with them as to compliance of a particular property. Although some of the requirements are quite complex, they do not appear to be administratively onerous in practice, largely because the tax program personnel tend not to accept primary responsibility for them.

ii. Deferred Taxation

Deferral programs, with or without penalties, require a much larger administrative commitment than pure preferential assessment programs.

Most deferral programs require the administrator to calculate and record market value, as well as farm value, annually for each property in the program. As a basis for market value, there generally are comparable sales, but nonetheless, sales information must be transmitted to the administrator and a program developed to convert those sales so that they are helpful in making the market valuations for participating farmland. A large-scale operation, such as Hawaii's statewide programs, could do this efficiently and with a high level of automation. For a local government with one staff person, it is a burdensome task.

One alternative has been used in Maryland and Oregon and recommended by the Washington assessors, namely switching to a system commonly used in forest taxation. Under that system, market value is calculated only in the year of sale, as is the difference in tax based on market and farm-use values. The difference then is multiplied by the number of years of tax deferral. Indisputably, this approach is simpler, but it has its shortcomings. The farm owner or a prospective purchaser has no way of estimating the accumulated deferred taxes before agreeing on a sales price, unless there is a record of market as well as farm use assessed value. The state or subsidiary tax district cannot calculate accurately the taxes foregone in order to determine either the savings enjoyed by participating farmers or the shift and redistribution of the tax burden. If there is a state payment to subsidize local tax dis-

tricts, as there has been in California, this calculation of taxes foregone is essential information. Elsewhere, it is highly desirable. In addition, of course, this simplified method may not be a good approximation of the actual year-by-year method. Depending on the sequence of the rate of increase in market value of land, this method may benefit either the taxpayer or the government.

A tax deferral system calls for cancellation of the deferral when the owner ceases to use the land for the purposes authorized. Unless the program administrator inspects the land regularly there is no way of knowing whether there is a violation of the terms of the deferral. This inspection can and generally does occur as part of the farm use valuation; both should be annual events.

Termination of the deferral, whether by cancellation, timely notice, or other means provided in the law, carries its administrative burden of record keeping. In California, where taxes rise each year following notice of withdrawal, the tax increase must be calculated. On cancellation, deferred taxes and penalties, if any, must be determined. All of this work should be highly automated to be carried out efficiently but, as noted before, this demands a large-scale operation.

iii. Restrictive Agreements

Programs of restrictive agreements add other administrative requirements to those of deferred taxation. Governments must prepare and negotiate contracts with each eligible owner and insure that he complies with their provisions.

If an administrator decides to seek to enforce farm use contracts, it is probable that the farm owner can be enjoined from converting to more intensive use. However, it is highly doubtful that specific performance of the contract can be obtained, that is,that the farmer can be required to keep on farming. If the farmer already has breached, the the administrator has an action at law for damages. Whatever the remedy, enforcement will require legal action, or the threat of legal action -- another administrative load.

3. Good Communications

i. Inter-agency

Effective administration calls for minimal duplication of activities between government agencies and for continued pooling of information and resources. If this is to occur, either between state and local governments or among different agencies at the same level of government, there must be a sense of shared objectives. A state policy favoring farmers or owners of open space, or a policy calculated to keep land in farm use will be easier to administer if other government officials understand the relation of the policy to other policies and priorities of state government. In Hawaii, for instance, the absence of a stated priority between provision for urban growth and preservation of prime farmland has made both the dedication program and state agricultural zoning less effective than they might be. While it is possible for the Department of Planning and Economic Development to comment on agricultural dedication applications from the perspective of alternate uses for land, there has not been a means of resolving conflicts. In Hawaii, at least, this is likely to change in the near future, with a resolution favoring preservation of much prime agricultural land.

If local government officials foresee political trouble from shifts in the tax base or onerous new administrative chores or both, they will resist participation in a program enacted by a state but delegated to local government for administration. This occurred in Washington until a combination of legislative pressure and improved communication by state administrators brought the hold-out counties into the program. The Pennsylvania program was stalled for some years for similar reasons.

Locally-administered programs can benefit greatly from a well-coordinated state assistance program covering such matters as farm use valuation, capitalization of income, data storage and retrieval, and calculation of back taxes. The state stands to gain from insisting on use of a common system of administration; only through such a system is it possible to aggregate local data for analysis.

Equity, Ease of Administration and Political Feasibility

Either at the state or local level, agencies with different functions have a great deal to contribute to one another to ease administrative burdens. Use of common base maps, common systems of classifying land for agricultural suitability, and common key systems to locate properties seem the most basic of ideas, yet they frequently are not acted upon. In Pennsylvania, for instance, the Office of State Planning and Development, working on an agriculture plan, cannot find out from other agencies where prime agricultural land is being converted to urban use.

Inter-agency contributions can take a number of forms. In many states the Department of Agriculture provides the Department of Taxation with information on agricultural capability as an input to determining probable income from given farm uses. Offices for the recording of conveyances can arrange to transmit, either to local assessors or state Department of Taxation, selected data on sales. State conservation and economic development agencies may be invited to comment on agricultural classification proposals. When a state or local tax agency has some discretion over what land will be eligible for differential tax programs, inviting such outside participation should lead to continued more effective communication with the related agencies.

ii. Public Information

Some states have done an outstanding job of publicizing their programs, both to the general public and to potential participants. Although the immediate impact of widespread public information may be a deluge of inquiries, over the long run a well-informed public, and well-informed participants in particular, should contribute to the smooth operation of programs. This is especially true of deferral programs. Farmers who do not understand the bargain that they have made may well balk when mailed a deferred tax bill.

For those whose land is subject to tax deferral, there should be at least a written agreement specifying the terms of the deferral, public recording of the deferral, annual notice on the tax bill of both farm use and market value, and notice if and when eligibility provisions change. If the deferral is a matter of public record, the potential purchasers of farmland will receive notices through a title search. All of this adds to the administrative costs but is warranted as a matter of fairness and good public relations.

4. Administrative Costs

Costs turn upon the volume of participation, the type of program, the level of record-keeping and public information, and the division of responsibility between state and local government.

It would seem reasonable to set application fees so that they approximate administrative costs, but, to our knowledge, this has not been done. In California, for instance, it is estimated that it costs approximately $150 to process an application, yet many counties charge application fees of as little as $25. Furthermore, in such states as California and Washington, the application fee is part of general revenues, not earmarked for the assessor's office. The result of this has been an increased work load without an accompanying increase in staff.

There is no doubt that a pure preferential assessment program is cheaper and easier to administer than a tax deferral or a restrictive agreement program. Whether that makes it more desirable depends on the objectives sought; if those objectives only include preservation of farmland, it is questionable whether any form of deferred tax program has a sufficiently greater impact on keeping land in farming than preferential assessment so as to warrant the greater administrative cost. However, although achieving equity among taxpayers is not a specific objective of differential assessment programs, it is an important argument in favor of deferred taxation programs despite its greater administrative costs.

C. POLITICAL FEASIBILITY

1. General

Differential assessment shares with other forms of tax expenditure a basic political appeal: once enacted it is invisible and, except for those few states with some form of subvention, it is not subject to annual budgetary review. In addition, the potential revenue losses implied by differential assessment are felt at the local level rather than at the state level. This fact probably also helps account for the large numbers of state legislatures which have agreed to such legislation.

Equity, Ease of Administration and Political Feasibility

It would seem evident that farmers, speculators, or other owners of eligible land would favor programs with the fewest sanctions. Other taxpayers who must make up the potential loss in taxes, can be expected to favor sanctions which reduce the tax expenditure. Conservationists and others interested in open space preservation will tend to favor provisions which will discourage conversion of land: rollbacks with interest, enforceable restrictive agreements, and planning and zoning requirements.

There are no clear-cut generalizations which one can make as to how state legislatures have weighed the desires of the various interest groups and chosen to enact either preferential assessment, deferred taxation, restrictive agreements, or no differential program at all.

2. Political Issues

It is difficult to predict precisely what kind of differential assessment law a particular state legislature will enact. The kind of law enacted is generally the product of compromise, however. In New York, for example, the agricultural districting law, which enables farmers in and out of agricultural districts to apply for differential assessment, arose in the middle ground between unsuccessful alternative proposals.[1] The Office of Planning Coordination (now Office of Planning Services) proposed zoning for critical areas including agricultural areas, using the police power at the state level if lower level governments did not act. This concept met with strong opposition and was never even voted upon in the legislature. In contrast, farm-value assessment bills were proposed and passed by the legislature but vetoed by the governor. As Conklin and Bryant describe, the agricultural districts law which eventually emerged incorporated some features of both of these opposite approaches. This law is described more fully in the case study of New York in Part Two.

In Pennsylvania, some differences between rural, suburban and urban attitudes emerged in several votes during

[1] Conklin, Howard and William Bryant, "Agricultural Districts: A Compromise Approach to Agricultural Preservation," American Journal of Agricultural Economics, Vol. 56, August 1974, pp. 607-613.

the 1974 session of the legislature on a bill[1] to amend the state's deferral law.[2] The House passed the bill with a 10-year rollback at six percent interest and a 10-acre per year split-off provision by a vote of 154-31. The opposition came almost exclusively from the Philadelphia and Pittsburgh metropolitan areas and was directed to the split-off provision which allowed a farmer to sell off a small amount of land each year without disqualifying himself from the program. In those areas 64 percent of the legislators voted against the bill. An earlier version of the bill with even more generous split-off rights had squeaked by with a vote of 98-86 and then the House voted 96-85 to reconsider this provision. The version finally accepted was proposed by a coalition of 40 conservation groups, organized by the Pennsylvania Environmental Council.

The bill then went to the Senate where it was amended to cut the rollback to seven years and to reduce the split-off to a maximum of two acres per year and a total over time of 10 acres or 10 percent of the tract, whichever is less. This version passed the Senate 48-0 and was subsequently accepted by the House.

The conservation organizations were opposed to any form of split-off, believing that this would lead to both roadside development incompatible with farming and loss of rural amenities. The Pennsylvania Grange sided with them. On the other side were the home builders, individual farmers, and the Pennsylvania Farmers Association, all interested in minimal impediments to real estate transfer. The final vote in the House by the Representatives from the four suburban Philadelphia counties, where development pressures on farmland are strongest, reflects a rather close split in opinion on this question. For the four counties, the vote was 12 in favor of the split-off and 19 opposed.

Many differential assessment laws have undergone some revision or clarification since their original enactment.

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[1] H. B. 1056 (Act 319).

[2] See Harnwell, Hugh T. "The Politics of Preferential Assessment," unpublished paper, (Department of City and Regional Planning, University of Pennsylvania, Philadelphia, 1975).

These updatings have resulted from experience in administration and have, for the most part, been designed to improve efficiency rather than respond to political presures. There are a few instances of changes or proposed changes which arose from difficulties between state and local governments. In Washington, there were some counties in which the assessors refused to accept or process dedication applications. The law was amended to assure any applicant a fair consideration. Currently there is some problem with use of the prescribed capitalization of income method. In addition, property owners in tax districts with substantial shifts in the tax burden are complaining vociferously. California is considering repeal of the state subsidy to local governments for a portion of their tax expenditures because some local governments have been inflating these expenditures.

The redistributional effect of preferential assessment caused some Connecticut assessors to refuse to accept some applications covered by the law until the courts made it clear that they must be accepted.[1] Estates in Fairfield County, consisting partly of woods and partly of farmland, showed a drop of up to 95 percent in assessed value when granted preferential assessment. Since the county has much estate land, the assessor resisted granting preferential assessments and shifting the tax burden to other real property until ordered to do so.

Also in Connecticut, an effort by the legislature to strengthen the penalty provisions of the law met with stiff opposition and defeat. In the 1974 legislative session, there was a hearing on Bill 445, which would have relinquished the declining conveyance tax for a rollback tax calculated as a percent of the uncollected tax for the previous ten years. Over 500 people appeared at the hearing to protest vociferously against any modification which would increase the penalty. Farmers, sportsmen, and other land owners were the principal interest groups represented.

Finally, in Hawaii, the 1973 revision in the dedication law to permit 20-year dedication with the tax base set at 50 percent of farm value and the creation of a deferral

[1] Conversation with Peter Marsele, Assessor, Town of Bloomfield, Connecticut.

program with the initiative lodged with the Department of Taxation reflects an increasingly strong executive and legislative commitment to preservation of agriculture. The 1974 legislative establishment of policy guidelines for the Land Use Commission which emphasize protection of farmland is another illustration of this commitment.

Generally speaking, differential taxation of farmland by one means or another has received widespread political support both prior to enactment and once in force. Some of those endorsing differential taxation because they favor preservation of farmland might view its tax consequences with less equanimity, however, if they were aware of the small deterrent to conversion the programs actually provide.

3. More Extensive Efforts to Preserve Agricultural Land

Some states have had enough experience with differential assessment to conclude that it is an inadequate tool for preserving farmland. These are predominantly urban states which, from the start, were committed to preserving farmland as well as to giving farmers a tax break. Now they are looking to additional tools such as public purchase of development rights, public purchase of farmland with a lease-back to farmers, transfer of development rights schemes, agricultural districting as in New York, and possibly even agricultural zoning.

The nation's first large-scale program to acquire development rights to preserve farmland may be initiated in Suffolk County, Long Island, New York, in the fall of 1975 after the publication of this study. The County has undertaken an extensive planning study to determine both what lands it would be desirable to retain in farming and what procedures for acquisition of development rights would be fair for the county and the land owners.

In 1974, the 18-member county legislature voted 45 million dollars for a program under which it was hoped that development rights to 13,000 of the county's 65,000 acres of agricultural land could be acquired. By resolution[1] of the county legislature, the County executive was authorized

[1]Resolution No. 573-1974, adopting local law No. 19-1974, signed June 25, 1974.

to invite bids from farmland owners to sell development rights to the County. These bids were opened in February of 1975. In June, the County sent letters to some of the bidders requesting a 60-day option for a price of $100. The County must hold a public hearing concerning acceptance of the bids and, within 30 days of the hearing the County legislature must reach a decision. As of August 1975, less than a majority of the County legislature favored exercising the options.

The Connecticut legislature considered a bill similar to that of Suffolk County, but for the moment, limited itself to passage of a law calling for a Department of Agriculture survey of acreage suited to development rights acquisition. After this survey is submitted, prior to the January 1976 session of the legislature, it is expected that a bill will be drafted calling for a state bond issue to cover the cost of purchase of development rights.

The New Jersey legislature has before it a bill to increase the real property transfer tax, with the proceeds earmarked for development rights acquisition. The bill has passed the Assembly; its fate in the Senate is uncertain. If enacted, it will tax conveyances, though not necessarily all conversions, in order to finance permanent preservation of agricultural land.

Many in California feel that the Williamson Act has proven inadequate to the task of keeping prime land in farming, but no additional state measure has been adopted. The farmers and cattlemen, the prime beneficiaries of the Act, generally disagree with this viewpoint.

A 1974 report to the Maryland Department of Agriculture recommended continuation of the farmland assessment law plus modification of Federal and state estate tax laws to permit valuation of farms at farm use value so long as farming continues. The report also recommended consideration of state legislation to permit farmers to form agricultural districts and to sell agricultural easements to the state. The Committee on Preservation of Agricultural Land, which prepared this report, held six hearings throughout the state and polled the 440 people attending as to their views. Of the 205 answers received, almost all of which were from farmers, a majority supported anactment of additional measures. However, only 37 percent favored voluntary agriculture districts and only 35 percent supported voluntary agriculture districts plus state purchase of easements. While

this is a very small sample of farmer opinion, it suggests that the recommendations of the Committee may not meet with total support from the farm community.

Transfer of development rights is receiving more and more attention as a means of preserving farmland on the rural-urban fringe. In May 1975 the New Jersey legislature passed legislation enabling municipalities to establish such a method. The Senate, however, has yet to report the bill out of committee. Virginia and Maryland have also shown interest in creating a private market in which development rights could be transferred from farmland to other land.[1]

There is a continuing difference in concerns between those committed to preservation of agricultural land and those -- principally farmers -- committed to protection of their options to do as they choose with the land. In contemplating changes in differential tax laws or enactment of other measures to affect use of agricultural land, this difference should be faced rather than masked, as was often the case when the present laws were passed.

[1] Woodbury, Steven, "Transfer of Development Rights: A New Tool for Planning," Journal of the American Institute of Planners, Vol. 41, January 1975, pp. 3-14.

Chapter VI

CONCLUSIONS AND RECOMMENDATIONS

A. CONCLUSIONS

1. Introduction

Differential assessment laws have been passed for the purpose of achieving two major objectives: tax relief for farmers and other owners of open land, and the preservation of open space. The provisions and approaches embodied in these laws vary significantly from state to state since no one statute has served as a principal model for the rest. The findings of this study concerning the various forms of differential assessment and the evaluation of its effectiveness have been organized with reference to these two principal goals.

2. Effectiveness in Providing Tax Savings

Essentially, differential assessment laws authorize assessors to assess certain types of land on the basis of their value for farming, forestry, or some other approved use, instead of market value, which is affected by the land's potential for development, at least near growing urban centers.

The tax saving to the owner of eligible land is measured by the difference between the taxes he would pay on his land and improvements if he did not participate in the program and those he would pay as a participant. This difference, in turn, depends on several factors:

a. the percentage which the development value of the land is of the fair market value. The larger it is, the larger his benefits will be.

b. the percentage which the assessed value of participating agricultural land (based on fair market value) is of the total assessed value tax base in the taxing jurisdiction. The smaller this percentage, the greater the tax benefits to the individual, everything else being equal.

c. the precentage which the value of ineligible improvements to the individual's land (such as barns) is to the total value of his property. The lower this is the greater the tax benefits. For him to benefit at all, this percentage must be less than the percentage of the tax base which is in participating land.

d. the methods of assessment used to derive assessed value. Some produce a lower assessed value than others.

e. the rate at which deferred taxes and conveyance taxes are incurred and paid by others because of land conversion to ineligible use. These payments reduce the amount which must be raised through the usual taxes. The greater these payments, the lower the tax rate, and the greater the tax saving to both participating and non-participating property owners.

f. whether or not his eligible land not in the program is already assessed preferentially, de facto. If it is, his benefits will be smaller.

The programs adopted by forty-two states differ from one another in many ways, but can be classified as pure preferential assessment, deferred taxation, and restrictive agreement programs. Pure preferential assessment programs simply provide for differential assessment. Deferred taxation programs require a payback or "rollback" of some or all tax savings, and many also charge interest on these back taxes. Restrictive agreement programs require the participating owner to commit himself to use his land only for eligible, non-urban uses for a stated period of years; these agreements are subject to public enforcement. Each type of program may have more or less restrictive eligibility requirements, and may employ assessment methods which result in relatively low or high use values.

Pure preferential assessment programs with few eligibility conditions and methods of assessment which produce low assessed use values provide tax benefits for more farmers than other programs. As eligibility criteria are increased and tightened, fewer will enroll to receive tax benefits. Deferred taxation (rollbacks with or without

interest charges) will reduce the economic attractiveness of the program and thus deter some farm owners from enrolling their land. However, because fewer are enrolled, the average benefit to the smaller number enrolled may be greater than under pure preferential assessment. A restrictive agreement program is least effective for achieving the goal of awarding tax savings to large numbers of owners of eligible land, because the prospect of being locked in and unable to develop their land deters many owners from putting their land under contract. The only ones likely to enroll are those in essentially rural areas or who are wholly committed to agricultural activity and do not expect to develop their land within the period of the contract.

3. Effectiveness in Maintaining Current Land Use

With respect to the goal of retarding the conversion of farm and other open land, differential assessment is marginally effective and its cost in terms of tax expenditures is high, in most cases so high as to render it an undesirable tool for achieving this goal. It has its principal effect on the supply of land which is put on the market by reducing the farmer's costs of production and thus increasing the profitability of farming. It has no effect on the decision to sell for non-economic reasons, such as retirement or death. It also has no effect on the major component of the demand for conversion of land--accessibility to growing urban centers. It may even cause effective demand to increase, since developers will be willing to bid more for land, realizing that as long as they deep it in approved uses, their carrying costs will be lower.

Taking these points in more detail, we note that if an owner wants to keep his land in open uses, but finds this is financially difficult, the savings from differential taxation may prove critical in enabling him to attain his goal.

But if the owner is indifferent, is influenced in his decision to sell by non-economic factors, or is actively looking for an opportunity to sell to a developer, the tax savings from differential assessment will not have much effect in deterring him from selling.

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Moreover, if the owner has made his living by farming the land, he may wish to sell when he grows older so that he will be able to retire. Future tax savings then will be of little consideration to him. Also when the owner dies, and does not have an heir who wants to continue the property in its current use, it will probably be sold on the market to the highest bidder.

Whenever land is sold on the open market, the type of buyer will be determined primarily by the potential of the land for development and for agricultural production (and in more specialized instances its potential for strip or other mining). Except in strongly rural areas, urban uses can almost always outbid agricultural uses, no matter how efficient and productive. Tax savings will not be enough to make a difference. In addition, the ability to continue farming in the face of expanding urbanization could also be hampered by other factors, such as encroachment of urban activity.

Therefore, preferential assessment is likely to make a difference in the rate of conversion to urban use primarily for land that is in the hands of owners who either want to maintain a country home, or those relatively young farmers who want to continue to farm, and are in a location where farming is not impeded by urban neighbors.

For these people the tax savings may be large enough to enable them to maintain their land in an eligible use. Such people in such situations constitute a small portion of all those who are likely to sell their land. Since, in addition, a small percent of all farm sales result in conversion to urban uses anyway, we must conclude that differential assessment will change the outcome in a small number of cases -- certainly no higher than 10% of all potential sales.

Thus, except in certain circumstances, we conclude that differential assessment is not very effective in maintaining current use in urban areas, even in the short run. In the long run, death and retirement will bring almost all properties on the open market, and, as a rule, the demand for land for urban uses will increase. In this longer run perspective, differential assessment is of little significance in maintaining farm or other open uses.

Conclusions and Recommendations

Pure preferential assessment should attract the largest number of participants, but will have little effect on the rate of conversion of land to other uses. Only those who have a strong incentive--in addition to the tax savings--will use that saving to maintain their land in its current use.

A rollback without interest charges allows an owner to avoid paying certain taxes until his land is developed. This is equivalent to an interest-free loan to the owner. Even if rollback is required over a large number of years, the total amount of deferred taxes is often not large in proportion to market value.

The requirement of an interest charge constitutes a true penalty only to the extent that the interest rate charged is higher than what a land owner would have to pay were he to borrow from a commercial lending institution. Thus, the interest rate provisions in force have not constituted a true penalty for conversion over the past several years in any state, except possibly Hawaii and Washington with their stipulated 10% charges.

Rollback requirements, even with substantial interest payments, are not likely to be an effective deterrent to development. This is particularly so in areas where development demand is strong and land values are increasing rapidly.

Restrictive agreement programs would appear to be relatively effective, but only to the extent that owners enroll in them. The prospect of being locked in for the agreement period, and under statutes like that of California, the additional prospect of paying increasing taxes during the run-out period after notice of non-renewal, limit participation. Owners such as these would not develop even in the absence of legislation. If restrictive agreement programs are to affect the rate of conversion of farmland, participation in them must be made mandatory.

Differential assessment emerges from this analysis as essentially an estate planning measure for farmers whose land is under development pressure. It makes it easier for a small number of them to postpone the sale of their land until a time which suits their needs. Because it is volun-

tary, only those who see in it a significant positive economic benefit will enroll. While it may make it easier for those who want to farm to do so, it will not deter significantly those who have concluded that they want to sell as a result of other reasons such as a good offer, economic obsolescence of the farm, imminent retirement, or the encroachment of suburbia.

Thus, one of the central issues raised by differential assessment is whether a system for influencing the sale and conversion of open land which is keyed into the personal life cycle and estate planning considerations of individual landowners is better than systems which rely either on the push of rising taxes and the pull of high offers to ease land into development or on government resource and development planning to specify which land should be developed when. We conclude that the development of new neighborhoods is too important a process to be left to the vagaries of the estate plans of individual owners and that greater government regulation of the land development process is desirable. Furthermore, we find that even if the marginal effectiveness of differential assessment were considered to be sufficient as a short-term holding action, its expense in tax expenditures is so high as to render it an inefficient means for achieving such retardation of land conversion as it does.

4. Equity

Tax shifts resulting from differential assessment raise the major issues concerning equity. Whether or not farmers are paying excessive property taxes is initially a political issue and, in any event, a factual question on which the evidence is not clear. It is evident, however, that differential assessment programs work by shifting some of the burden of the real property tax in a particular taxing jurisdiction from farmers and other owners of eligible land to all other taxpayers.

The amount of this shift, or the tax expenditure, ranges from a very small percentage of total tax revenues where a small percent of the fair market value tax base is in eligible farmland, to a peak where about 60% of the tax base is in eligible farmland, and then declines to a small amount where virtually all the tax base is in farmland. The magnitude of the tax expenditure also depends on the percentage of reduction in farm assessments re-

sulting from the program. If they fall by 25%, tax expenditures will be at most about 7% of total revenues. If they fall by 50%, tax expenditures will be at most about 17% of total revenues.

If public services are not to be reduced, these tax expenditures must be compensated for by raising the tax rate. If, for example, assessment on participating land is reduced by 50% and participating land made up 50% of the tax base (when assessed at market value) then the tax rate would have to be raised by 33%. All taxpayers would face this increase, but for owners of participating land it would be offset by the reduction in assessment. The full increase of 33% would be faced by non-participating landowners, typically townspeople, businesses, and industries.

Analysis of data for 39 of Florida's counties showed that over half (21) experienced a tax rate increase of less than 4%, and all but 3 had an increase of less than 10%. A study of 151 rural New Jersey townships revealed that over half had tax rate increases of under 20%, while another 40% had increases of 20% to 50%. Analysis of California data showed that of the 46 counties under the Williamson Act, 38 or 82% experienced revenue losses of less than 3%, six, of 3% to 9% and only two, of more than 10%.

The tax rollback or conveyance tax provisions which thirty-two states have enacted serve to mitigate the tax shifts discussed above, at least when farmers start selling participating land for conversion to ineligible uses.

These data indicate that, as would be expected, the tax shift in a small rural township may be quite significant, whereas, in a large county with a significant nonfarm tax base, it will normally be a much smaller percentage. On a state-wide basis, summing up the individual taxing jurisdiction tax expenditures, we found that in four of the states studied, the tax expenditures constituted less than 3.5% of total tax revenues.

Four states have adopted provisions which seek to lessen the tax shift in municipalities. Under California's Williamson Act, the state has made so-called "subvention" payments to participating county and city governments which, according to informed estimates, amounted to about one-third of tax expenditures, statewide. New York's law provides for

state reimbursement of one half of the tax losses resulting if the state creates an agricultural district. Michigan shifts the tax expenditure burden to the state level by allowing eligible land owners to credit any property taxes in excess of 7% of their income against the state income tax. Alaska has legislative authorization for full state reimbursement of local tax losses.

5. Ease of Administration

There is a pervasive need for more and better information about the operations of differential assessment. Most states have simply failed to establish data recording, collection and dissemination systems adequate to the job. And yet, as differential assessment programs mature, they involve a major reallocation of tax burden, and those who are paying higher tax bills have a right to accurate information about the magnitude of the tax expenditure and the efficacy of the program for achieving legitimate public objectives.

Preferential assessment programs are the simplest to administer because assessors need only compute current use value and police their jurisdictions to see that enrolled land remains in eligible use. Deferred taxation programs usually require assessors to determine both current use value and fair market value each year so that the deferred taxes may be computed. At the time of conversion, back taxes must be determined and collected. On a per-farm basis, restrictive agreement programs require most attention because of the work involved in preparing the contract, and if the program is like California's, in determining the taxes due during the run-out period. This will be somewhat compensated for, because a smaller percentage of landowners will enroll their land than in the other types of programs.

Costs can be reduced by state assistance covering such matters as assessment procedures, data storage and retrievval and calculation of back taxes. Many of the programs examined charge application fees of sufficient magnitude to cover costs of processing, so that most, if not all, of the expenses are passed on to the beneficiaries of the program. Generally, expenses at the state level were minimal.

6. Political Feasibility

Differential assessment shares with other forms of tax expenditure a basic political appeal: once enacted, it is invisible and is not subject to annual budgetary review, except, of course, in the few states which have some form of subvention.

There is no clear pattern among the states with differential assessment laws which would explain why some adopted one approach and others, a different one.

The growing recognition that differential assessment is ineffective for preserving open space has led legislators in a growing number of states to consider stronger devices such as public purchase of development rights or privately transferable development rights. Bills to this effect have been introduced in Suffolk County, New York, (public purchase of development rights) and in New Jersey and Maryland (transferable development rights). The political climate has not yet been favorable for their passage.

B. RECOMMENDATIONS

1. Existing differential legislation should be amended (and new legislation should be written) so as to contain the following provisions:

a. All differential assessment statutes should provide for deferred taxation in order to achieve greater equity among all taxpayers. The rollback period should be at least 10 years, and, preferably, the entire period during which tax savings were enjoyed. Interest should be charged on the deferred tax benefits at rates at least as high as those charged by commercial lending institutions.

b. States which mandate differential assessment by units of local government should provide at least partial compensation for the tax expenditures which result. The reason for this is that the benefits in preserving agriculture and open space which may result from differential assessment are enjoyed far beyond the boundaries of the local taxing jurisdiction in which the differentially assessed land is located. Therefore, the costs should be

shared broadly, not borne solely by the non-eligible taxpayers of the local jurisdiction.

This can be done either by a state subvention, as in California, or through the use of a state income tax credit as in Michigan. In any case, uniform assessment procedures should be set up and enforced by the state so that each taxing jurisdiction is treated equally.

c. A statewide data system should be established and made part of the basic legislation. It should be designed to provide the following data:

(1) an inventory of farm, forest, open space and other potentially eligible land

(2) a record of participating lands

(3) measures of current use value and fair market value of enrolled land, by taxing jurisdiction

(4) information on the fair market value and assessed value of improvements located on enrolled land

(5) annual records of enrollment and removal of differentially assessed land, by taxing jurisdiction

(6) tax rates and changes in tax rates by jurisdiction

(7) information on deferred taxes paid where relevant

(8) data on sales of farm and other eligible land, both enrolled and not enrolled, on conversions of such land to non-eligible uses; and the reasons for such sales and conversions

(9) data which show to what extent farmland actually bears an unfair tax burden at any particular time.

If such information were available, it would be possible to assess the tax expenditures involved in the differential assessment programs and to determine more accurately the extent to which the program had any appreciable effect on rates on sale and conversion. This information would also be useful for general planning purposes.

d. Application fees should be set at a level which is high enough to cover administrative costs and should be payable to the assessor's office.

2. By itself, differential assessment is an inadequate tool for achieving the goal of maintaining current use. It is, however, a useful component of a broader approach which should have the following characteristics:

a. Eligible land should be designated specifically following studies of its capability for agriculture, the need for farmland and land in other open uses, and the projected demand for land for urban development, vacation houses, strip mining, etc. It is especially important that the agricultural districts designated be large enough to be functionally and economically viable and located so that they will be relatively free from intrusion of urban and suburban activity. The designation of these areas will determine large scale land use patterns. Therefore, designation should be made by state, regional, or possibly by county government, rather than by local government.

b. Strict controls should be placed on the development of designated land. If these controls exceed the limits of police power regulation, compensation should be paid to the owners, by such techniques as public purchase of development rights or the transfer of development rights. Funds for the public purchase of rights should be raised by the level of government which designates the eligible land, the major part of the funding coming from special levies on other land when it is developed. A capital gains tax covering at least a 15-year period would be one such levy.

Conclusions and Recommendations

The foregoing measures should prove sufficient to keep specified land out of development, but they will not necessarily be sufficient to keep it in agricultural use. To do that, additional policies would have to be enacted, perhaps including special incentives and subsidies. The detailing of such policies, however, lies far beyond the scope of this report.

PART TWO

I.A.1 PURE PREFERENTIAL ASSESSMENT: INDIANA

I. USE VALUE ASSESSMENT OF FARMLAND

Indiana is one of the major agricultural states in the nation with 17.5 million acres, or about 75% of its total area, in farmland in 1972. It ranks eighth in the nation in cash receipts from farming. In 1972, 3.4% of the work force was in agriculture. Its 1973 ranking in the production of major crops is indicated below.[1]

Soybeans	-	3rd
Hogs	-	3rd
Corn	-	4th
Eggs	-	7th
Tomatoes	-	5th

In 1963, the Indiana Legislature passed legislation directing assessors to assess land devoted to agricultural use as agricultural land, so long as such use continues.[2] The Act also mandated the appointment of a five-person County Land Advisory Committee in each county, two of whose members were to be farmers, who were to advise assessors on values to be used in reassessing land used for agriculture.[3] Public Law 43, enacted in 1973, provided, among other things, that United States Department of Agriculture Soil Survey Data shall be used as a guideline to determine "true cash value" of farmlands. These data consist of soil maps and interpretation thereof to identify soil associations and their capability for producing crops. At the date of writing soil surveys for the state had not been completed. In 1975, the General Assembly passed Public Law 75 which provided that agricultural lands platted or subdivided into lots shall not be reassessed until ownership of a particular lot changes. There are no other legislative provisions of significance relating to the program, such as those relating to methods of assessment, deferred taxes, planning requirements and so forth. As a result, the full burden of implementing it has been shifted to the State Board of Tax Commissioners (hereafter referred to as the Board) and locally elected assessors.

Members of the Board take an ambiguous position about the program. They argue that Indiana does not have a preferential assessment program because the value of farmland is set by use as farmland and farmland is accordingly assessed on the basis of current use value until it is converted.[4] And yet, residential, commercial and industrial lands are assessed on the basis of fair market value as reflected by comparable sales, which reflect potential as well as current use values. As a result of this ambiguity, and the fact that recorded sales price data are not available in the state, it is extremely difficult to evaluate the impact of use value assessment there.

A. Eligible Land

The basic guide to use value assessment is the Indiana Real Estate Property Appraisal Manual (hereafter referred to as the Appraisal Manual or the Manual) which was adopted as Regulation 17 by the Board on February 29, 1968. In it, agricultural land is defined as being "an area in open country used for producing

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[1] Farm Income Situation (Sept. 1974), Economic Research Service, USDA), FIS 224 (Supplement) Table 1.

[2] Burns 64-711b

[3] Burns 64-712

[4] The principal source of information on the operations of agricultural assessment in Indiana is the Board of Tax Commissioners and their staff who generously devoted a morning to an interview in connection with this study.

crops and raising livestock and whose principal value arises out of such use." The local assessor makes the initial determination of eligibility and has wide discretion which can be overcome only through the appeals process.

Woodlots are normally included in the agricultural category, although timber is expressly exempt from taxation. Parenthetically, the Board serves primarily in an advisory capacity to local assessors. It issues and interprets the Manual. It can also correct abuses in cases which are appealed to it. All land which is classified agricultural receives use value assessment.

B. Method of Assessment

Comparable sales are not used for assessment purposes. The Manual speaks of both the income approach, based on capitalization of net rental to a non-operating owner, and the "productivity approach," which ties value of the land loosely to the amount of crops that can be grown on it. The basic guideline used by local assessors, apparently with considerable latitude, is the Table of Grades and Suggested Values per Acre of Farmland, found on page F5 of the Manual. This Table is reproduced below.

The true cash values (i.e., appraised value based on current use) were arrived at after considerable discussion and consultation with representatives of agricultural interests, assessors and academic experts in the field. They were derived from 1964 U.S. Census of agriculture values for farmland in Indiana. The objective which was mentioned most often by the Board members was uniformity across the state within productivity classes of farmland, rather than careful estimation of the value of a particular tract. This table serves that objective well.

It should be added here, that Indiana is on an eight-year schedule for reassessment. Thus, the Manual established values for the 1968-69 reassessment. Reassessment was completed between January, 1968 and April, 1969, and farm assessment will not be changed again until the next reassessment which will take place in 1976. Thus, while average values per acre for farmland in Indiana have risen from $304 in 1964 to $710 in 1974, [1] there is less of a preference for farmers than might otherwise be the case, because most other unimproved land is similarly underassessed when compared to rising land values. Even in the case of improvements, assessors are required to relate current assessed values back to 1967-68 prices, a process which challenges their ingenuity.

The principal source of preference in assessing agricultural land lies in excluding elements of development value from true cash value. As one of the Board members said, fair market value is really irrelevant in determining true cash value. First, Indiana law prohibits the recording of the price paid for real property so that good data on market values are often not available. Second, the Board and staff expressed the belief that recent sales of farmland for investment or development purposes are not appropriate comparisions for use in appraising farmland. At the same time, the Manual spells out in some detail how the comparable sales approach is to be used for valuing residential and commercial land.

The appraiser appraises farmland according to its productivity, and farm improvements at depreciated replacement cost, arriving at true cash value. The assessed value is then set at 33-1/3% of true cash value. In 1973, farmland and buildings were assessed at $1,796,386,139 or 14.4% of the total real and personal

[1] Indiana Farm Real Estate, Feb. 3, 1975, Indiana Crop and Livestock Reporting Service, Lafayette, Indiana.

Table 1

SOIL PRODUCTIVITY RATING TABLE PRESCRIBED BY INDIANA

GRADES AND SUGGESTED VALUES PER ACRE OF FARM LAND TABLE

Kind of Land and Grade Crop Land	Capable of Producing	Productivity Rating Average = 100*	Estimated** True Cash Value		Recommended True Cash Value
			Low	High	
A Excellent	Over 75 bu. of corn or over 35 bu. of wheat or their equivalent	130	375	565 & up	420
B Good	60 to 75 bu. corn or 30-35 bu. wheat or their equivalent	105	315	375	320
C Average	45 to 60 bu. corn or 22 to 30 bu. wheat or their equivalent	75	190	315	210
D Fair	20 to 45 bu. corn or 10 to 22 bu. wheat or their equivalent	45	115	190	120
E Poor	Below 20 bu. corn or below 10 bu. wheat or their equivalent	20	40	115	75
Permanent Pasture					
A Excellent		45	90	190	150
B Good		35	65	90	85
C Average		25	50	65	60
D Fair		15	25	50	45
E Poor		5	15	25	20
Woods					
A Excellent	Large saw timber	13		150 & up	150
B Good	Medium saw timber	10	100	150	110
C Average	Medium to small saw timber	7	65	100	75
D Fair	Small second growth	5	25	65	55
E Poor	Badly eroded and cut over land	2	15	25	20

*Productivity factor of 100 represents a national standard for agricultural productivity of an average year and under average farm management practice of 50 bu. of corn per acre, 25 bu. of wheat per acre, 25 bu. of soybeans per acre, 2 tons of mixed hay per acre, or their equivalents.

**Estimated true cash value and average cash values are at 100% Assessed values will be at 33⅓% of above.

Source: Indiana Real Estate Property Appraisal Manual, State Board of Tax Commissioners, Regulation 17, (1968).

tax base.[1] The full cash value equivalent was three times the sum, or $5,389,000,000. The Economic Research Service reported that total farm real property values for Indiana in 1973 were $9,049,000,000.[2] This would indicate that full cash values were about 40% below fair market value. However, we have no way of determining whether a preference exists or if it does, its extent, because we do not know whether other classes of property are similarly under-assessed.

In fact, in the contemplation of Indiana assessors, true cash value is not synonymous with fair market value,[3] but represents a construct which is produced by the assessing procedures used in the state.

II. EVALUATION OF INDIANA'S PREFERENTIAL ASSESSMENT PROGRAM

Eligibility criteria are few and exclude no farmland, and since differential assessment is automatic, 100% of farms participate. There are no sanctions for conversion. No records are kept of the fair market value of differentially assessed land, so it is impossible to estimate the tax expenditures which result from the program or the magnitude of the benefits which individual farmers receive.

Other than studies to determine assessed value/fair market value ratios for residential, agricultural, commercial and industrial property in each school district for state tax equalization purposes, none of the several people interviewed knew of any prior studies of differential assessment in Indiana or of any attempts to measure its effectiveness with respect to the goal of maintaining current use. Because of the lack of data on the magnitude of tax benefits or on rates of conversion before and after the enactment of the program, no such evaluation is possible in this study.

It thus appears accurate to conclude that Indiana's differential assessment program is designed solely to provide a tax benefit for farmers and that it is administered in a highly decentralized way with large discretion vested in the local assessor so as to accomplish this goal with as little fanfare as possible. There is no question but that it is highly successful.

III. DIFFERENTIAL ASSESSMENT OF FORESTRY LANDS

A. Eligibility

Land classified as "forest plantations" or "native forest lands" is eligible for special classification. "Forest plantation" means any piece of cleared land which has growing on it timber-producing trees as that concept is understood by competent foresters.[4] Land classified as "native forests" must contain at least 40 square feet of basal area per acre, or 1,000 timber-producing trees per acre.[5] No grazing is permitted. The state forester determines eligibility.

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[1] Table of Total Assessed Values 1973, supplied by State Board of six commissioners.

[2] Farm Real Estate Market Developments (CD79, Economic Research Service, U.S.D.A. 1974) Table 7.

[3] Interview with Wayne Pruett, April 29, 1975.

[4] Burns §§32-301, 32-302.

[5] Ibid

B. Method of Assessment

All qualifying lands are assessed at the rate of $1 per acre.[1] Since real property is assessed at one-third of fair market value, this has the effect of taxing participating land on the basis of a fair market value of $3 per acre. Trees are exempt from the real property tax except for nursery stock and Christmas trees.[2]

C. Procedures

The landowner must apply for classification. As part of the application, his land must be surveyed and platted. The land is appraised at fair market value by the county appraiser, at the county's expense, and if the application is approved by the State Forester, it is recorded in the county.[3]

D. Sanctions

Participating lands can be withdrawn at any time provided the landowner pays the lesser of either (1) an increment tax which is equal to the difference between its appraised fair market value at the time of withdrawal and its appraised value at the time of enrollment, less any increase in the last appraisal caused by the construction of any ditch or levee affecting the land, or (2) an amount equal to the real property taxes which would have been assessed on such land during the period in which it was so classified, if it had not been so classified, up to a maximum of 10 years, plus 5% interest per annum.

IV. EVALUATION OF FOREST CLASSIFICATION LAW

The State Forester reported that 265,000 acres were enrolled in the program in 1975,[4] mostly in the southern part of the state. This comprised only 6½% of the four million acres of forest land, on which some 15% of the state's timber was harvested. The State Forester was enthusiastic about the law because it encourages sound timber management practices and encourages the conservation of timberlands and watershed areas. The amount of enrolled land is increasing at a net rate of two to three thousand acres per year.

The land is appraised for roll-back purposes according to the productivity index and current use value approach used for agricultural land, usually at $45-$100/acre. Thus, development value is not taken into account. On occasion, a county has appraised land being withdrawn at the same value at which it was appraised upon entry, thus saving the owner from paying roll-back taxes. The State Forester, backed by the Tax Board, has refused to permit this and has required the county to use current use value.

When asked why such a small percentage of eligible land was enrolled, in light of the very low assessed values which would be available, the State Forester gave three reasons: first, many owners were leery of government regulations; second, the taxes currently being paid are so low that the program is not sufficiently attractive; and, finally, many owners may not know about it.

[1] Burns § 32-303.

[2] Burns §32-306.

[3] Burns §§32-304, 32-306.

[4] Interview with John Datena, April 28, 1975.

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I. INTRODUCTION

Maryland was the first state in the nation to enact a statute calling for preferential assessment of farmland. This law was passed and vetoed by Governor McKeldin in 1955 and enacted over the veto in 1956.[1] It was repealed and re-enacted in a somewhat amplified form in 1957,[2] but then held unconstitutional in 1960.[3] In the same year the state constitution was amended to permit current use assessment of agricultural land[4] and the preferential assessment was repealed and re-enacted.[4] Thus, preferential assessment in Maryland was not fully underway until 1961.

II. THE PROGRAMS

As of February 1975, Maryland had six separate programs in which differential assessment was the primary means of inducing certain types of action by landowners for the purpose of keeping land in non-urban uses. The programs involved preferential assessment of 1. farmlands; 2. woodlands; 3. country clubs; 4. planned development lands; 5. lands over which a conservation easement has been given to the Maryland Agricultural Land Preservation Foundation; and 6. lands over which a conservation easement has been given to a unit of state, local or Federal government. A brief discussion of each of these follows:

A. Preferential Assessment of Farmland

The current version of Maryland's differential assessment of farmland statute[5] provides as follows:

Eligible Land: In order to qualify for differential assessment a tract of land must meet the following criteria:

1. be actively devoted to farm or agricultural use (the bona-fide farm criterion).

2. not have been zoned for industrial, commercial or multifamily residential use as of July 1, 1972 as a result of action by the owner or his predecessor in interest.

3. not have been rezoned after July 1, 1972 to a more intensive use than that permitted on that date, as a result of actions of the owner.

4. not have been subdivided after July 1, 1972 (either by recorded plot or known unrecorded plot), except where the subdivision is for the purpose of conveying a single lot to a member of the immediate family of the owner for his residential purposes, or of dedicating land for public school or park purposes.

[1] 1956 Laws of Maryland, Ch. 9

[2] Chapter 680, Acts of 1959

[3] State Tax Comm. v. Gales, 222 Md. 543, 161 A.2d. 676 (1960)

[4] Chapter 52, Acts of 1960

[5] Ann. Code of Md., Art. 81 §19b

In 1967, pursuant to the statute, the State Department of Assessments and Taxation adopted Regulation 9 which contained the following criteria for determining whether lands which appear to be actively devoted to farm or agricultural use are in fact bona-fide farms:

1. Zoning applicable to the land.
2. Applications for, and grants of, zoning reclassification in the area.
3. General character of the neighborhood.
4. Use of adjacent properties.
5. Proximity of subject property to metropolitan area and services.
6. Submission of subdivision plan for subject or adjacent property.
7. Present and past use of the land.
8. Business activity of owner on and off the subject property.
9. Principal domicile of owner and family.
10. Date of acquisition.
11. Purchase price.
12. Whether farming operation is conducted by the owner or by another for owner.
13. If conducted by another for owner, the provisions of the arrangement, written or oral, including, but not limited to, the term, area let, consideration and provisions for termination.
14. Farming experience of owner or person conducting farming operations for owner.
15. Participation in governmental or private agricultural programs or activities.
16. Productivity of the land.
17. Acreage of crop land.
18. Acreage of other lands (wooded, idle).
19. Number of livestock or poultry (by type).
20. Acreage of each crop planted.
21. Amount of fertilizer and lime used.
22. Amount of last harvest of each crop.
23. Gross sales last year from crops, livestock and livestock products.
24. Amount of feed purchased last year.
25. Months of hired labor.
26. Uses, other than farming operation, of the land.
27. Ratio of farm or agricultural use as against other uses of land.
28. Inventory of buildings, and condition of same.
29. Inventory of machinery and equipment, and condition of same.

The Department never developed a method of weighting the various criteria but the general approach was rendered futile when the state supreme court held that land owned by a retired contractor, rented to one neighboring farmer as a pasture and kept up by another, qualified under the act.[1] As a consequence, it is easy for an owner of open land used for farming to qualify for differential assessment.

Method of Assessment

Most, if not all, eligible farmland in Maryland would sell for more than current use value. As a result, the comparable sales method of appraisal is not appropriate. Instead, the State Department of Assessments and Taxation, in cooperation with the U.S. Soil Conservation Service and the University of Maryland's School of Agriculture, developed a method which relies on a six-fold classification of soil types according to their productivity capability ratings for growing corn. Tax maps are over-layed with soil productivity maps and the number of acres

[1] Supervisor of Assessments v. Alsop Md. 192 A. 2d. 484 (19)

in each category for each farm is measured by planimeter. Income for each category is estimated using both net income from corn and typical rental values as reference points. The income is then capitalized at 5 per cent. The assessed value is set at 50% of the appraised value, in accordance with general state policy. The Guide which describes this process is set forth below:

GUIDE TO VALUATING AND ASSESSING LANDS DEVOTED TO FARM AND AGRICULTURAL USE

"Value ranges for land devoted to agricultural use; based upon soil productivity capability ratings.

Class	Full Value	Assessment Value	Use Capability
A	$300-320	$150-160	Soil with high productivity rating capable of producing, under average management, 50-70 bushels of corn per acre.
B	$240-260	$120-130	Soils with medium productivity rating capable of producing, under average management, 30-50 bushels of corn per acre.
C	$190-210	$ 95-105	Soils with low productivity rating capable of producing, under average management, 20-35 bushels of corn per acre.
D	$ 90-120	$ 45-60	Soils with severe limitations for cultivated crops; may be used for pastureland.
E	$ 20-50	$ 10-30	Borrow pits, scrub land, marsh, spent quarries, stony land. (SPECIFY).
Woodland	$ 50-70	$ 25-35	Varies according to suitability for different species of trees.

Above full value ranges are the result of considering rentals paid for the use of the land, opinions of experienced farmers and capitalizing the net return attributable to land for the sale of corn. Experience of farm management experts indicate the net return to be sixteen to twenty percent of the cash received, which is capitalized at six percent.[1] Generally, prices per bushel for corn are averaged for several years. Where market value according to sales indicates the value of land devoted to agricultural use is less than the values developed above, the market values will be the basis for appraisal and assessment. In cases where market value is greater than agricultural use value, the appraisal and assessment will be according to the use value figures above."

[1]William Riley, Director of the Maryland Department of Assessment and Taxation advised the writer that 5% is the current rate of capitalization.

Land which is not used for agricultural purposes is assessed at full cash value. Some commentators have suggested that the approach fails to take into account many of the factors which affect farm value, such as location and suitability for crops which are more profitable than corn, and topography.[1] Maryland assessment officials report that the method is preferable because it provides a uniform tool for appraising farm values across the state and that corn is a satisfactory proxy for most other crops.[2]

Sanctions for Conversion

The original law contained no sanctions against converting differential assessed land. In 1969, however, a three-year roll-back provision was enacted pertaining to land that was rezoned to a more intensive use at the insistence of the owner, or subdivided. In such a case, the assessor would enter agricultural use value and full cash value on the assessment record. At the time the land was converted to a non-eligible use, the owner was liable for the difference between the tax actually paid (based on use value assessment), and the tax which would have been due if the land had been assessed on the basis of full cash value for the three years prior to conversion, subject to the limitation that the deferred tax could not exceed five percent of the full cash value assessment (which was set at 50% of full cash value) in effect at the time of the conversation. Since the 1970-71 tax rates per $100 assessed value for urbanizing counties such as Baltimore, Howard, Prince Georges, Frederick and Montgomery were all over $2.50[3] this provided in effect a two year roll-back of taxes.

In 1972, the roll-back provisions were amended, so that presently, if land is converted to non-agricultural use within three years of preferential assessment, its owner must pay an amount equal to "two times the difference between the tax applicable to the land if assessed on its full value in the year development is to commence, and the tax applicable to the land if assessed on the basis of the most recent agricultural use assessment."[4] No building permit, other than for residential use by the owner or his immediate family can be issued without a certification by the Tax Department that the payment has been made. This Amendment simplifies the administration of the roll-back by rendering it unnecessary to keep dual records of use and full cash values. In practical effect, it imposes a two-year roll-back.

Administration and Availability of Data

Before 1974, the preferential assessment program was run on a county basis. As of 1974, however, the county assessors' offices became part of the State Department of Assessments and Taxation. Thanks, in part, to this reorganization and to the computerization of records over the last few years, the state has, for all intents and purposes, annual assessments. One third of the properties are inspected each year and the rest are re-assessed after an analysis of comparable sales, building cost indices and other relevant data.

Largely because of the historical fact that assessment was a county responsibility until recently, there is a paucity of the kinds of data that would be useful in evaluating the operations and effectiveness of preferential assessment.

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[1] See, e.g., House, Peter, Differential Assessment of Farmland Near Cities (Washington, D.C.: U.S.G.P.O. 1967), pp. 27-29.

[2] Interview with William H. Riley, Director, State Department of Assessment and Taxation, February 11, 1975.

[3] Table of Maryland tax rates for 1970-71 supplied by Department of Assessment and Taxation.

[4] Ann. Code of Md. Cert. 81, 19(b) (2) (b) (i).

There is no record of the total number of acres of farmland in each county, so that the participation rate can not be determined. Each county does have a record of the number of acres of farmland which are differentially assessed, but this has not been aggregated for the state. No separate record of conversions or withdrawals from the program is kept.

The county assessors maintain a record of the differential assessment for each farm and have tax maps showing the full cash value of land in different parts of their counties, but the number of acres are not aggregated for the state and no record is kept of the full cash value of each farm. It is not possible to determine the ratio between current use value and full cash value for each farm, for each county or for the state as a whole. Consequently, it is not possible to evaluate the "tax loss" occasioned by the program, the financial benefit derived by participating landowners, the magnitude of development value which a prospective purchaser would have to pay, or the total "tax expenditure" which is entailed in the program over the whole state. There is no information on the percentage of farmers in the state who participate or their location.

B. Preferential Assessment of Country Clubs

Maryland has adopted a somewhat different approach in its differential assessment of country club property. The statute provides that eligible country clubs must enter into a restrictive agreement if they want to derive the benefits of lower taxation.[1]

Eligible Land

In order to qualify for differential assessment a country club must:

1. have an area of not less than 50 acres.

2. maintain on the land a regular golf course of 9 holes or more and a golf house.

3. have a dues-paying membership of at least 100 persons who pay average dues of at least $50 per member, with the use of the club being restricted primarily to members.

4. not practice discrimination in the granting of membership or guest privileges on the basis of race, color, creed, sex or national origin; except that if the Attorney General finds that the club's primary purpose is to benefit the members of a particular sex, it may qualify.

Terms of Agreement

The agreement must be for at least ten years and can be extended from time to time.

Method of Assessment

The property is to be assessed on the basis of its use as a country club.

Sanctions for Conversion

If the country club ceases to qualify under the act, if the land is sold to an owner who does not assume the obligations of the restrictive agreement, or if

[1] See Ann. Code of Md., Art. 81, §19(e).

the land is converted to another use, all back taxes are due. During the term of the agreement, the assessor is required to record annually both the full cash value and the preferentially assessed value of the land, so it is a simple matter to compute the taxes which would have been owed but for the preferential assessment. The maximum roll-back period is 10 years. If within 10 years of the expiration of a restrictive agreement, the property is converted, the owner must pay whatever taxes were saved as a result of the agreement within the 10 year period. If there is a partial conversion, and the country club still qualifies, only those unpaid taxes attributable to the converted portion of the tract are due.

Availability of Data

In response to a request for data on acreage involved, use value assessment and market value assessment, several counties supplied such information but not enough to permit any conclusions to be drawn on the state-wide impact of the program.

C. Planned Development Lands

A third type of preferential assessment program is available to large scale developers to facilitate orderly and staged development pursuant to government plans, and to avoid premature or leap-frogging land conversion.

Eligible Land

In order to qualify for preferential assessment under the planned development lands provision of the Act,[1] land must:

1. be situated in an area shown on a current master plan, a general or regional plan, or otherwise designated as a new town, city or satellite city, adopted by the governmental authority having planning or zoning jurisdiction, and

2. be zoned in a zoning classification (i) permitting development only in compliance with plans referred to in sub-paragraph (2)-A above, (ii) requiring a land use plan, and a comprehensive site development or subdivision plan, both of which shall consider land use, utility requirements, highway needs, water and sewers, industrial use, economic and job opportunities, recreation and civic life and be approved prior to development by a governmental agency exercising planning functions, and (iii) requiring the owner or owners thereof to pay for or provide streets, roads, walkways, open spaces, parks, school sites, and other property needed for public use which facilities are normally paid for or provided by the political subdivision or an agency thereof under other zoning classifications and,

3. consist of a tract of contiguous (except for intervening rights-of way, easements, or grants for public or quasi-public uses) tracts of land comprising not less than five hundred (500 acres, in one or more ownerships, and

4. be primarily undeveloped at the time said land is placed in the said zoning classification.

Method of Assessment

Upon application by the owner and determination of eligibility, the property is assessed at full cash value and as a special assessment at a rate equal to that applicable to lands actively devoted to agricultural use, whether or not it would qualify for such agricultural use settlement. Both assessments are recorded.

[1] See Ann. Code of Md. Art. 81, §19 (b)

Sanctions for Conversion

Whenever a portion of the land is subdivided by recording a subdivision plat, or improved with buildings, the special assessment is terminated and that part of the property is assessed on the basis of full cash value. The rest continues to receive preferential assessment if it is still eligible, even though its area may be less than 500 acres. There is no roll-back under these circumstances.

If however, the property is rezoned at the insistence of the owner to a zoning classification which does not meet the statutory criteria, the special assessment terminates, and the owner must pay the taxes which would have been due if the property had been assessed at full cash value, subject to the limitation that the roll-back cannot exceed 10% of the full cash value. Assessments are by directive set at approximately 50% of full cash value, which results in a maximum roll-back equal to 5% of full cash value.

Availability of Data

Only a few counties have planned developments and not all of them supplied data requested concerning acreage, special assessment and market value assessment. Montgomery County provided the following information:

PLANNED DEVELOPMENT LAND (Undeveloped Portion)

Year	Total Acres	Special Assessment	Market Value Assessment
		Germantown	
1975	1,213	$182,000	$4,550,000
		Montgomery Village	
1975	643	81,240	11,670,300

This reveals that in 1975, one new town developer received a reduction in land value assessment of 96%, and the other, 99.3%

D. Forest Conservation and Management

Still another form of differential assessment is available to owners of land which is appropriate for development as productive woodland.

Eligible Land

In order to qualify, land must comprise five or more contiguous acres and the owner must agree to place it in the program of forest conservation and management of the Department of Natural Resources.[1]

Method of Assessment

Land is taken into the program at its current assessed value. While under agreement, its valuation may not be increased. Buildings and improvements are not covered by the section of the Act. At the end of the period of the contract (which is not limited in the statute), or when part or all of the timber is harvested, the tract affected will be reassessed, based on full cash value.

[1] Ann. Code of Md., Natural Resources Code, §§5-301 to 5-308, and Ann. Code of Maryland, Art 81, §19 (d).

Sanctions for Conversion

If the new assessment at the end of the contract period is greater than the original assessment, the difference is to be divided by the number of years between the two and the tax due is computed by applying the tax rates applicable for each year of the contract period. The result is a full roll-back of all taxes not paid because of the freezing of the assessment level.

Administration

The Department of Natural Resources is responsible for determining eligibility for the program and must advise the county supervisor of assessments whenever land is placed under restrictive agreement. The program has been little used as of February 1975,[1] and no separate data are available for it.

E. Open Space Easements

A fifth approach to preserving farm and other open space land is embodied in two other statutes.[2] Under the first, land on which an easement has been conveyed to the Nature Conservancy or to a governmental agency which limits the land so as to preserve open space shall be valued at its value as so restricted. Under the second, land is to be assessed in the same manner. In addition, the county in which the land is located may grant tax credits up to 100%, of the local taxes which would otherwise be imposed on it.

These provisions have not been used extensively and will not be discussed further in this memorandum. The Maryland Environmental Trust has prepared an attractive, informative booklet, Conservation Easements, which explains how landowners may take advantage of the first of the two programs described above.

F. Recent Developments

In January 1975, House Bill 18 was introduced, which would authorize the creation of Agricultural Districts in which the state could buy easements which would limit the uses of subject property. The money used to purchase these easements would be raised by a 1.5% real estate transfer tax.

III. EVALUATION OF MARYLAND'S PREFERENTIAL ASSESSMENT PROGRAM

A. Effectiveness in Maintaining Current Use

1. Findings of Prior Studies

Peter House, in his study, Differential Assessment of Farmland Near Cities,[3] did not attempt to evaluate the effectiveness of differential assessment as a means of maintaining farmland in farm use, noting only that it is extremely difficult, if not impossible, to measure how much of the farmland is retained as farmland as a direct consequence of granting the owners a use-value assessment.

[1] Conversation with William H. Riley, February 11, 1975.

[2] Ann. Code of Md. Art 91, §19 (a) (8) and 1974 Laws of Maryland, Ch. 642. See also Art. 81, §§12E and 12E-1.

[3] Washington, D.C.: U.S. Government Printing Office, 1967.

Kenneth Wisner, in his unpublished M.S. thesis, "Effects of Agricultural Use Value Assessments in Washington County," Maryland (University of Maryland, (1971), concluded that it was doubtful that the differential assessment law restricted net conversion to more intensive use in the county. He found further that non-farmer purchasers, who were buying approximately 70% of the farm land being transferred at the time of the study, were offering prices which were higher than a farmer would be willing to pay because the carrying costs were reduced by differential assessment.

Dr. Sidney Ishee, of the University of Maryland, a longtime student of differential assessment in the state is of the opinion that its principal effect is a temporary postponement of conversion in some instances. He finds that tax benefits are simply not strong enough to deter farmers from selling out at prices which may range up to 8 or 10 times the farm use value of their land. William Riley believes that it has been effective in allowing some existing farmers to keep farming but that a farmer often simply cannot refuse an offer to buy land which is at high, development value price levels.

2. Findings of This Study

In an attempt to measure the magnitude of the tax benefits which farmers receive from differential assessment, Tax Supervisors in each county were asked to supply the following information:

For farm land, by year:

1. number of property accounts
2. number of acres preferentially assessed
3. farm value assessment
4. the assessor's informed opinion of the average fair market value of farm land in his county.

Only three counties supplied information on both the number of acres of farm land assessed at farm use value, and its assessed value.

For 1974, the data are as follows:

County	Acres	Assessed Value of Land	Average Assessed Value per Acre
Carroll	202,400	$28,958,950	$140
Montgomery	143,429	$18,962,720	$132
Talbot	119,000	$21,613,960	$200

Since assessed values were roughly 50% of current use appraised values, we see that the current use values in the three counties averaged $280, $264 and $400 respectively.

In Montgomery County, the only county supplying fair market value estimates, the Tax Supervisor estimated that the average fair market value of farmland was about $3,000 per acre, with a wide range around that average. Thus, in Montgomery County, farmers received an average reduction of approximately 90% in the assessed value of their farmland.

In the absence of data from other counties, we can only observe that, under values promulgated by the State Department of Assessments and Taxation, the maximum full value per acre for preferentially assessed farmlands is $320, so that

the owners of land in the fringes of Washington, D.C., Baltimore and other urban centers, where land values are in the thousands of dollars per acre, enjoy significant tax benefits.

Such benefits may allow farmers who are close to the margin of profitability and wish to continue farming to do so.

B. Equity

Data do not exist which enable us to determine how many acres of eligible farmland are not preferentially assessed or how much of a tax shift has occurred. Mr. Riley's opinion was that in Montgomery County, there would have been a 2% reduction in the county tax rate if farmland there had been assessed based on its fair market value. This would amount to five cents less per $100 of assessed value.

C. Ease of Administration

No separate records are kept for extra work done in connection with preferential assessment. It should be noted however, that the burden of maintaining dual records of preferential assessments and fair market value assessment was sufficient to cause the amendment of the act in 1972 to make it no longer necessary.

D. Political Feasibility

There have been perennial efforts to have the preferential assessment program repealed, but they have had little support. At the other extreme the Committee on the Preservation of Agricultural Land reported to the Secretary of Agriculture that stronger steps were needed,[1] and proposed a program for acquisition of farm easements along the lines embodied in H.B. 18 referred to above.

[1] See Final Report, submitted August 12, 1974.

I.B.2. DEFERRED TAXATION -- SHORT ROLLBACK: NEW JERSEY

I. INTRODUCTION

A. Background on New Jersey

By the simple measure of persons per acre, New Jersey is the most densely populated state in the Union. Its 953 persons per square mile in 1970 compares with 905 for Rhode Island, the second most heavily populated state, and an average of 300 for the Northeastern States, and 57 for the United States as a whole. Of the state's population, 88.9% lived in urban places as compared with 80.5% for the Northeastern States and 73.5 for the U.S. as a whole. Much of the state is suburban to the great metropolitan centers of New York and Philadelphia.

New Jersey's population increased between 1960 and 1970 at 18.2%, a rate much faster than the average of 9.8% for the Northeastern States and somewhat faster than the average of 13.3% for the nation as a whole. Growth pressures were felt widely during the 1960's: only five counties grew less than 10% in population, and three of these were highly urbanized counties in the core of the greater New York metropolitan area.

Despite this picture of intense urbanization, much of southern New Jersey is very lightly settled. Nine of New Jersey's 20 counties had less than 400 people per square mile in 1970, and 6 had less than 250 people per square mile. Of the state's total land area, 67% is in non-urban uses,[1] and 24% is in farming.[2] The two most extensively farmed counties are Hunterdon County with 51.2% of its land in farms, and Salem County with 49.0%.[2]

New Jersey is known as the Garden State, in recognition of its many truck farms which have served and to a lesser extent continue to serve the needs of neighboring large metropolitan centers. It appeared during the 50's and 60's that the function of the State as the vegetable garden of New York and Philadelphia would soon be drastically curtailed. Between 1954 and 1964, 400,000 acres (or 24% of the 1954 total) went out of agriculture; between 1964 and 1974 an additional 265,000 acres were retired from agriculture.[3]

Along with urbanization pressures, the tax pressures on agriculture in New Jersey have been extreme. New Jersey has always relied heavily on the property tax. Proposals to change the tax structure to include some form of state income tax have been a prime item on the legislative agenda for a number of years, but to date, no tax proposal has been found acceptable. As a result, taxes per acre on farm real estate have been higher in New Jersey over the past 20 years than in any other state.[4] In 1972 they averaged $22.77 per acre, as compared with an average of $16.12 for the next highest state, Massachusetts.

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[1] Economic Research Service, U.S. Department of Agriculture, Major Uses of Land in the United States, Summary for 1969, Agricultural Economic Report No. 247.

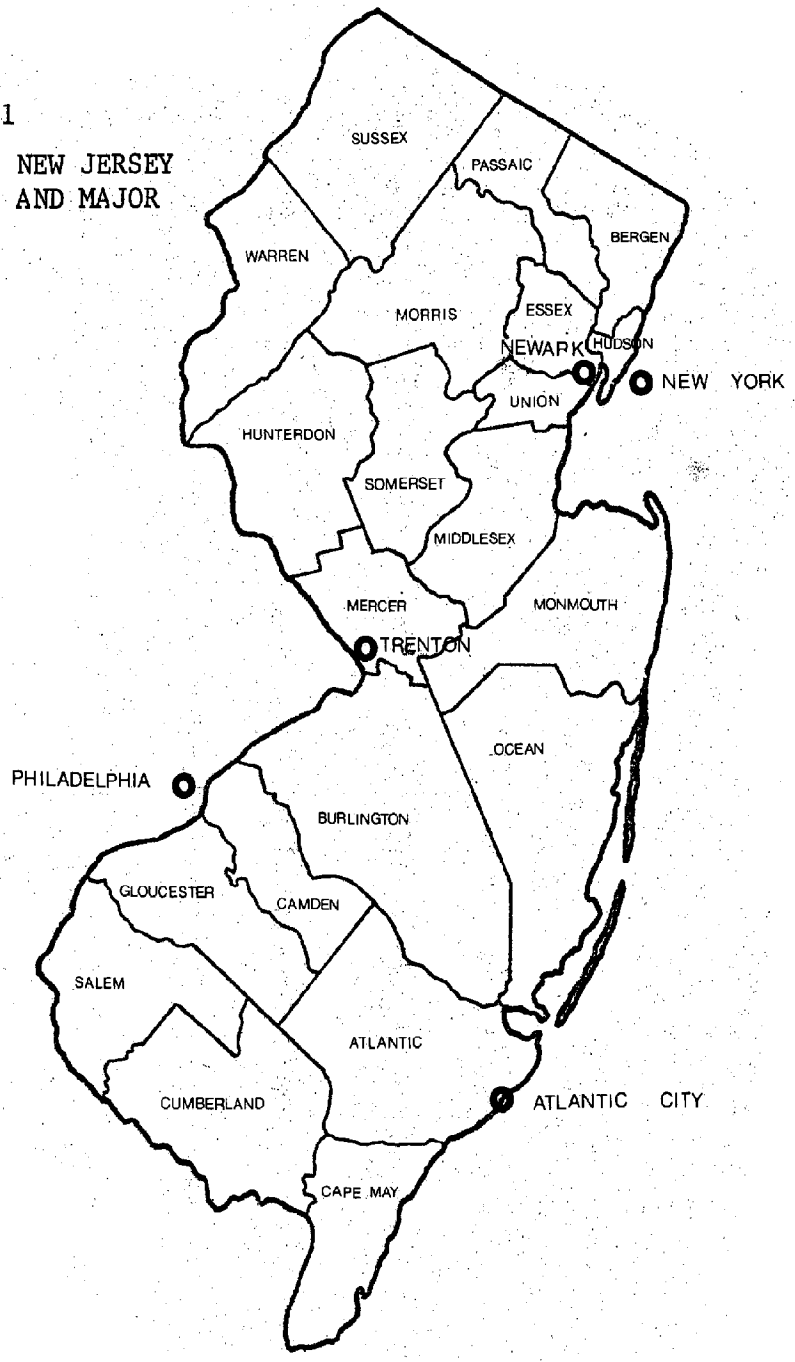
[2] Schneider, L.D., V. Kasper and D. A. Derr, Estimates of Land in Farms by Municipality and County, New Jersey, 1971. Bulletin 840, Department of Agricultural Economics and Marketing, New Jersey Agricultural Experiment Station, College of Agriculture and Environmental Science, Rutgers, New Brunswick.

[3] New Jersey Agricultural Statistics, September 1974, Trenton: New Jersey Dept. of Agriculture - U.S. Dept. of Agriculture.

[4] Economic Research Service, Farm Real Estate Taxes, Recent Trends and Developments, U.S. Dept. of Agriculture, March 1974.

Figure 1

REFERENCE MAP OF NEW JERSEY SHOWING COUNTIES AND MAJOR CITIES



Real estate taxes as percent of both gross and net income in New Jersey have been among the highest in the nation. In 1972 they were the highest: 10.2% of gross income (compared with 8.6% for both Massachusetts and California, the next highest states) and 55.9% of net income (compared with 50% for Rhode Island, the second highest). Measured by real estate taxes per $100 of full value New Jersey fared somewhat better, being exceeded by six states.

Figure 2, showing property taxes as percent of gross income from agriculture, indicates the generally high tax level, and the particularly high level in counties between New York City and Trenton.

The tax structure of the state is summarized in Table 1. The importance of the property tax is evident.

Table 1

PERCENTAGE DISTRIBUTION OF STATE AND LOCAL GENERAL REVENUE, 1971

Source	New Jersey	All States
Federal Aid	15.0	18.0
Charges & Misc.	13.2	16.4
Taxes	71.8	65.5
Property	39.3	26.1
Individual Income	0.4	8.2
Corporation Income	2.2	2.4
General Sales	10.3	12.3
Selective Sales	13.3	10.6
Other	6.3	5.9

Source: Table 19, Advisory Commission on Intergovernmental Relations, Federal-State-Local Finances: Significant Features of Fiscal Federalism, M-79, Washington: GPO, 1974.

During the 10 years since 1964 when New Jersey's Farmland Assessment law went into effect, the loss of farmland in the state slowed somewhat (Figure 3). According to estimates given by the New Jersey Crop Reporting Service (USDA) there has been virtually no loss for the past two or three years. This slowing in the loss of farmland is probably a result of many forces, most prominently changes in demand for developable land, changes in the price of available land, and changes in the costs of producing farm output, among which are changes in tax burden.

During the same period, the rate of loss in number of farms has also slowed, though not as much. Correspondingly, the average size of farm has risen from 108 acres in 1964 to 128 acres in 1974.

B. The Farmland Assessment Act of 1964

In 1963 the New Jersey Constitution was amended to authorize the legislature to enact laws permitting preferential assessment of lands devoted to agricultural or horticultural use (Article VIII, Section I, Paragraph 1(b)). The constitutional provision defines the land eligible and the sanctions for conversion. Specifically it states that land is eligible if it is "not less than 5 acres, and is determined by the assessing officer of the taxing jurisdiction to be actively devoted to agricultural or horticultural use and to have been so devoted for at least the two successive years immediately preceding the tax year in issue." The constitutional amendment also limits roll back tax sanctions to the current year and each of two preceding years.

Figure 2

AGRICULTURAL PROPERTY TAX AS A PERCENT OF MARKET VALUE OF AGRICULTURAL PRODUCTION: NEW JERSEY 1969

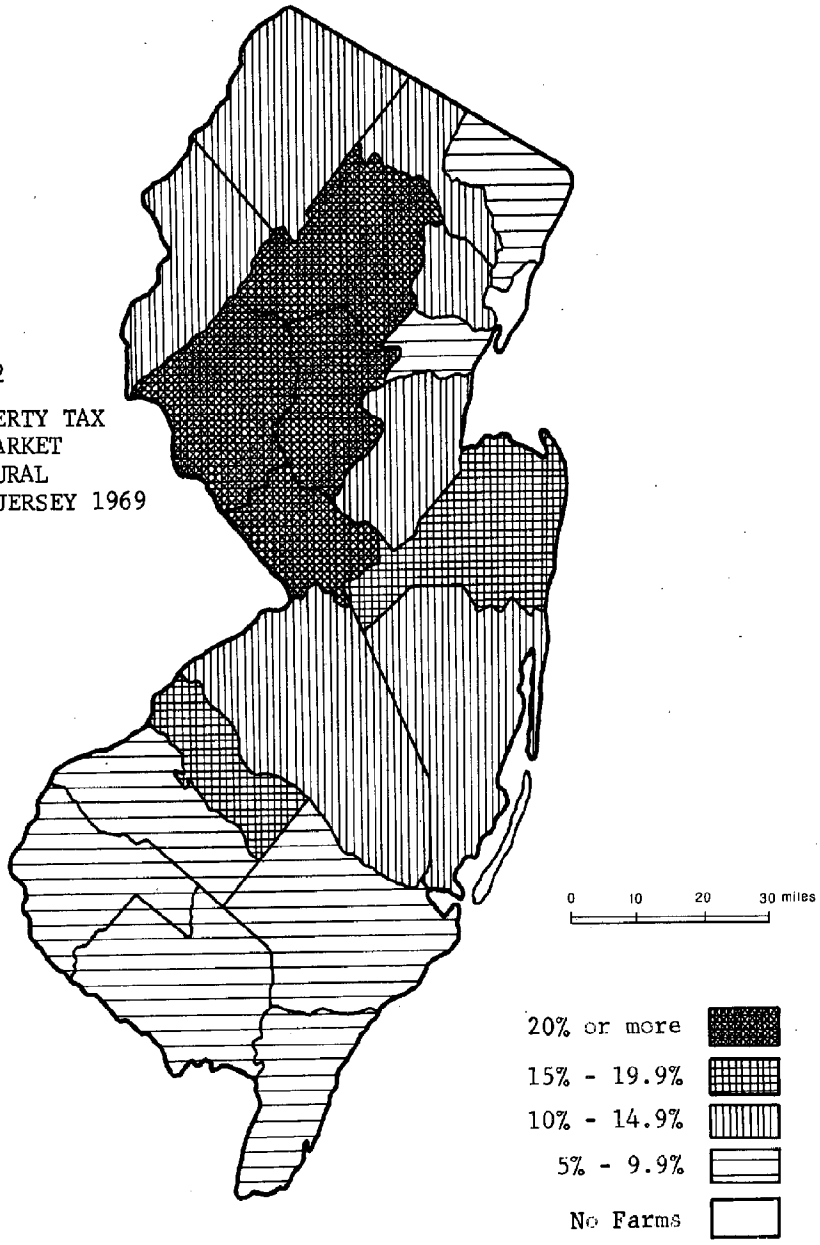
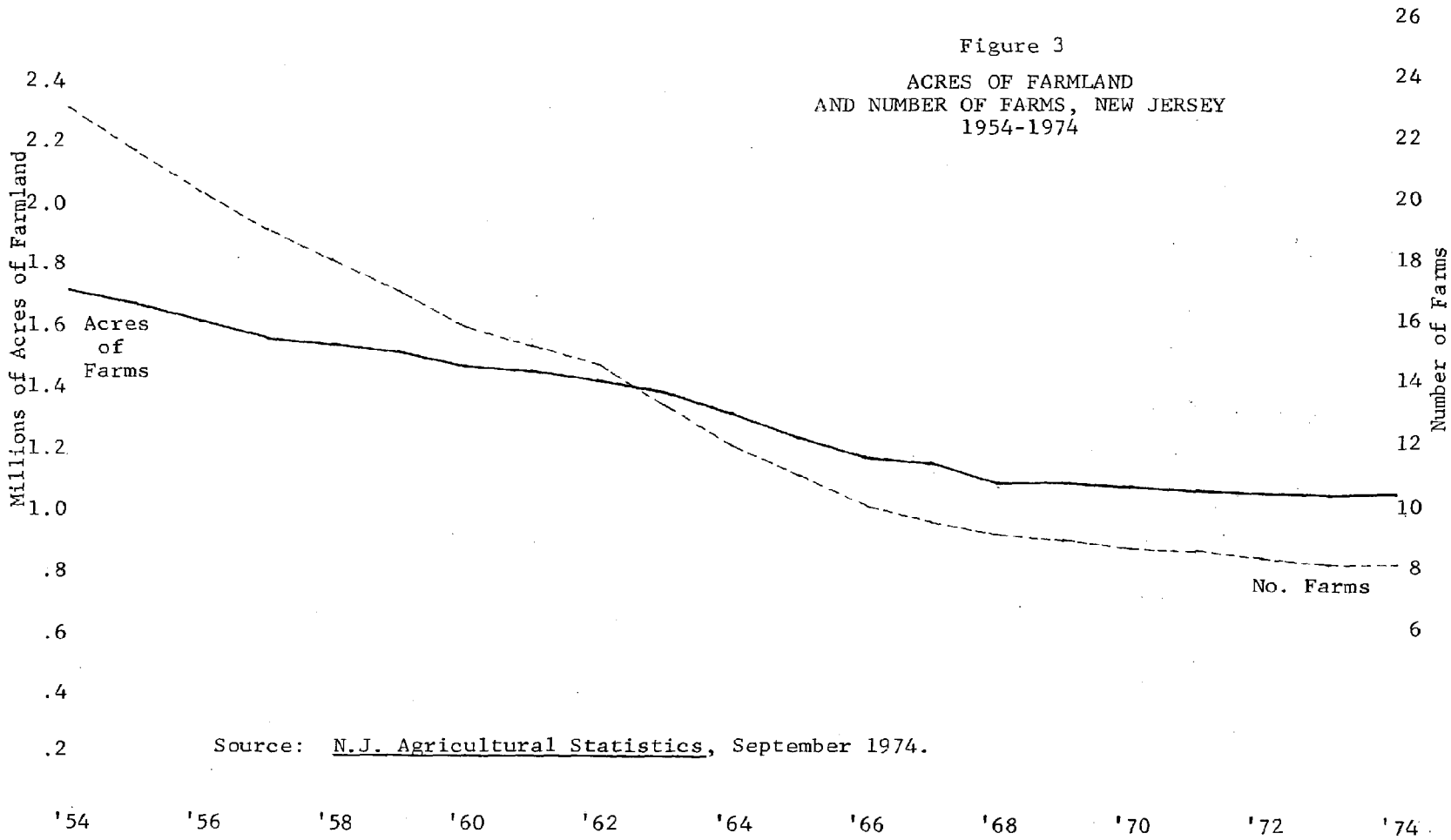


Figure 3

ACRES OF FARMLAND
AND NUMBER OF FARMS, NEW JERSEY
1954-1974



Source: N.J. Agricultural Statistics, September 1974.

In 1964, the following year, the New Jersey "Farmland Assessment Act of 1964" was enacted and became effective as Chapter 48, L. 1964. The Act has been amended several times (455 L. 1968, 237 L. 1970, 243 L. 1970, 400 L. 1971, and 99 L. 1973). The revisions, however, generally were concerned with minor technicalities concerning the time schedule and procedures for application.

Regulations concerning the Farmland Assessment Act of 1964, as amended and supplemented, have been promulgated by the State Department of the Treasury, Division of Taxation, Local Property Tax Division, and are part of the New Jersey Administrative Code (N.J.A.C. 18:15).

The Act does not contain any statement of purposes or goals. Instead, it simply states that land in agricultural or horticultural use shall be assessed at use value.

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II. ELIGIBILITY AND PARTICIPATION

A. Eligibility

In order to be eligible for assessment at farm value, an owner must file an application with the local assessor. He must show (1) that he has a minimum of 5 acres devoted to agricultural or horticultural use, and (2) that it has been devoted to such use for at least 2 years previously. The five acres is exclusive of land devoted to the farmhouse itself and land such as gardens, swimming pools, etc. used in connection with the residence. He must also show (3) that gross sales of agricultural and horticultural products produced on the farm, together with any payments received under a soil conservation program must amount to at least $500 per year for the first 5 acres as a whole, and to $5.00 per acre for additional farmland, and at least $0.50 per acre for woodland.

Qualification for preferential assessment must be established each year. The local assessor is required by law to send out an application form each year for this purpose to the owner of each property in the program.[1] Administration of these requirements is generally carried out at the local municipal level. It is up to the local assessor to decide whether a farm qualifies. In the best-run jurisdictions this is done by a twice-yearly field inspection. In Vineland, for example, the assessor tours his area in May, noting whether each farm has been plowed or not. In late August he tours again to determine whether a crop has actually been planted. If the assessor sees insufficient evidence of farm production, he will classify the land "not qualified." If, however, the owner claims that he has a bona-fide farm and can submit evidence either in the form of sales slips for produce or in the form of a sworn affidavit, his evidence will be accepted. Most farmers who have contested a "non-qualified" classification, however, have withdrawn their protest when asked to produce such evidence.

In jurisdictions with less staff, especially those which rely on part-time assessors, less systematic field checking is done, and more reliance is placed on the application forms and income statements submitted. Some counties (e.g., Hunterdon) have devised supplemental information forms to help in determining eligibility, and some individual assessors have made up their own supplemental information forms. Field checking in such jurisdictions is done on a trouble-shooting, rather than a comprehensive, basis. Keeping eligibility lists up to date is also done primarily from the applications submitted annually. Land lying fallow for a year, or in the soil bank, posed a problem since it was not earning the minimum required, but this has become less of a problem since farmers have gone to more fertilizer-intensive methods and the Federal soil bank program has been phased out.

There is a feeling expressed by those interviewed that the requirements for eligibility are minimal and that they have made it too easy for speculators and other non-farmers to take advantage of the tax savings provided by the Act. (This evidently widespread concern seems to have arisen despite the fact that the Act and the Regulations both specify use, not ownership, as the criterion for eligibility.) Particular concern was expressed about extensive tracts of woodland (rather than woodlots incidential to agriculture) which have obtained qualification even though they are not under active management.

Proposals are being discussed to tighten up the requirements:

1) increase the minimum requirement of $500 total farm-related income to $1,000, and

[1] 400 L. 1971

2) increase the required income for each additional acre from $5.00 to $25.00 per year.

A state Farmland Assessment Advisory Committee has been appointed by Secretary Glazer, Director of the Division of Taxation, to advise him on matters pertaining to the Act.

B. Participation

In the early years of the program, relatively small proportions of all farmland were assessed under the Act. A 1967 survey reported that 80 per cent of the rural assessors and 72 per cent of the assessors in transitional areas indicated that they had some qualifiable land for which the owners had not requested coverage.[1] The report stated that "Land owners did not apply for coverage especially in those districts where market value assessments and the proposed assessed values were at or near the same level. The impact on the tax bill in such cases would be negligible. Some land owners did not fully understand the Act and its roll-back feature."

Evidently, all that has changed, because, as can be seen in Table 2 between 1969 and 1974 participation has risen from 55.8 per cent of all farmland to 93.5 per cent. Total acreage covered has risen from 653,000 acres to 1,050,000 acres. Correspondingly, the per cent of total land in the state which is in the program has risen from 13.6 to 21.8; over one-fifth of the state's land area is now assessed at farm value. The high level of participation is an excellent indication of the value farm owners see in the program. It would appear that soon virtually all qualifiable farmland in the state will be assessed at farm value.

Table 2

AREA UNDER FARMLAND (PREFERENTIAL) ASSESSMENT IN NEW JERSEY: 1969-1974

	Area Qualified					
		Assessment at farm Value				Farmland
	Acres*	Total*	Per Acre*	As % of All Farm Area**	As % of ALL Land Area	As % of All Land**
1969	653,013	$141,447,815	$217	55.8	13.6	24.3
1970	760,197	178,685,124	235	66.1	15.8	23.9
1971	856,442	187,928,505	219	75.2	17.8	23.7
1972	947,107	209,383,439	221	83.6	19.7	23.5
1973	1,009,759	226,601,770	224	90.0	21.0	23.3
1974	1,049,560	232,027,386	221	93.5	21.8	23.3

* Sixth Report of Data from FA-1 Forms, for 1974 tax year, Division of Taxation

** Annual estimate farm area of New Jersey Agricultural Statistics - September 1974, adjusted to total given by Bulletin 840 for 1971 and comarably for other years.

[1] Koch, Robert, H. H. Morrill, and A. Hausamann, Implementation and Early Effects of the New Jersey Farmland Assessment Act, Rutgers Experiment Station Bulletin 830, Rutgers-The State University, 1968.

As participation in the program has increased, the proportions of different types of farmland have shifted significantly (Table 3). The percentage of woodland has increased during the 1969-1974 period, with a particularly large increase in the last year (1963-64). Over the same period the percentage accounted for by every other category has decreased. Of these, the percentage accounted for by cropland has dropped the most. (The absolute amount of cropland, however, increased.) As will be seen below, the increase in woodland covered is cited by several officials as one of the major problems of the Act at present.

Table 3

AREA UNDER FARMLAND ASSESSMENT, BY TYPE: NEW JERSEY, 1969-74
(Acres and percent of total acres)*

	Cropland Harvested	Cropland Pastured	Permanent Pasture	Woodland	Total
1969	395,045 (60)	43,132 (7)	97,000 (15)	117,836 (18)	654,013 (100)
1970	462,674 (61)	47,848 (6)	112,434 (15)	137,235 (18)	760,197 (100)
1971	502,521 (59)	51,208 (6)	121,927 (14)	180,787 (21)	856,442 (100)
1972	558,999 (59)	53,923 (6)	128,171 (14)	206,014 (22)	947,107 (100)
1973	594,079 (59)	57,903 (6)	133,880 (13)	223,898 (22)	1,009,759 (100)
1974	602,731 (57)	56,244 (5)	135,868 (13)	254,717 (24)	1,049,560 (100)

* percents given in parentheses.

Source: Sixth Report of Data from FA-1 Forms, for 1974 tax year, Division of Taxation

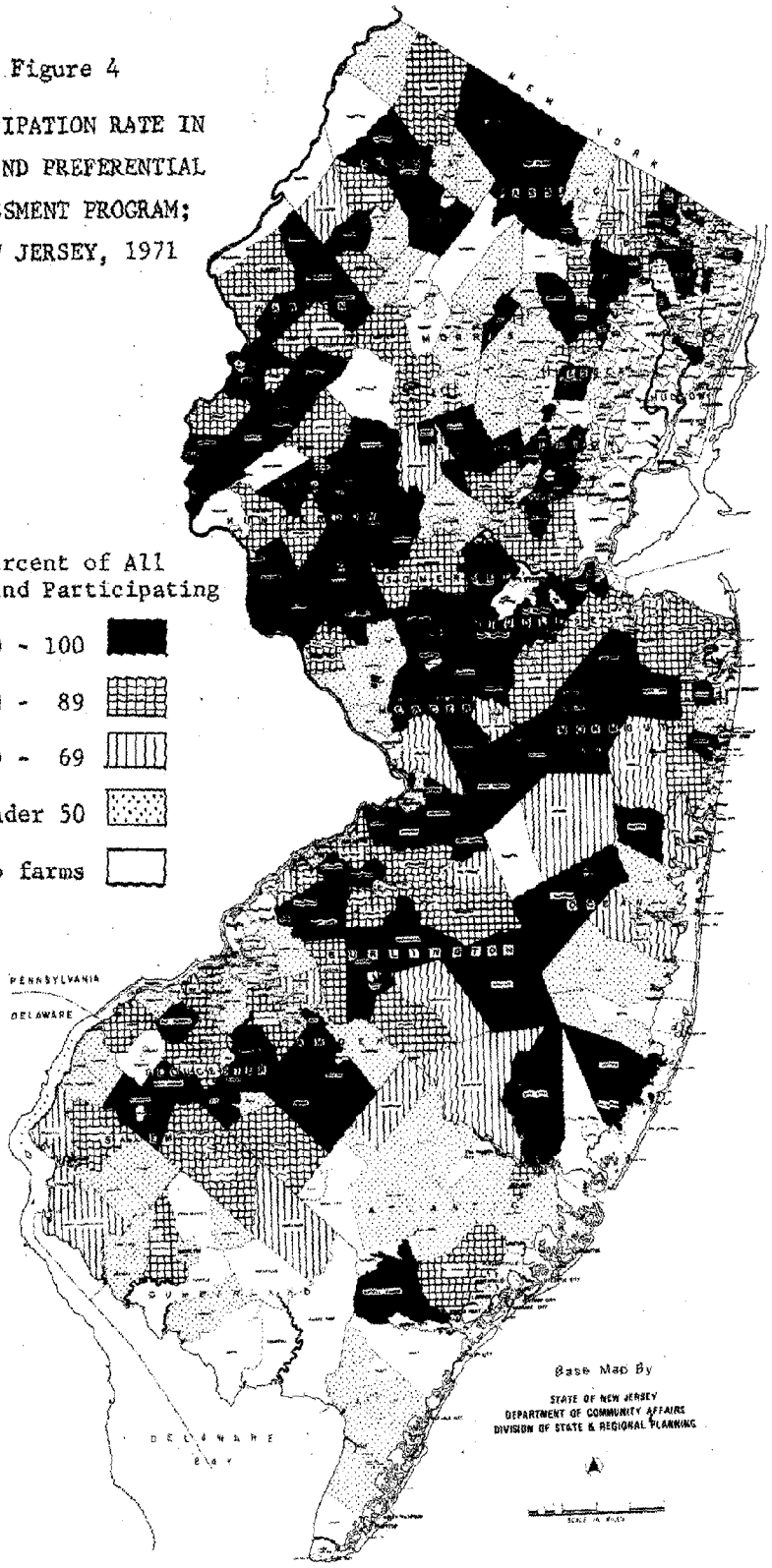
Participation in the Act varies from place to place. The participation rate by municipality can be determined only for 1973, since that is the only year for which data on total area of farmland in each municipality are available. The pattern of participation can be seen in Figure 4.

Although a high participation rate indicates that landowners find the program advantageous, it does not necessarily indicate that it is effective in slowing or halting loss of farmland. In fact, the concern expressed about woodland is that its owners are not farmers, and participate temporarily just to enjoy a tax advantage until they are ready to develop.

Data are not readily available on the rate of urban development of land in the program as opposed to land not in the program. Therefore, effectiveness cannot be studied directly.

Figure 4

PARTICIPATION RATE IN FARMLAND PREFERENTIAL ASSESSMENT PROGRAM; NEW JERSEY, 1971



A survey conducted in 1967[1] indicated that participants in the preferential assessment program were older, had larger farms, and were dependent to a greater extent on farming for their income than non-participants.

III. BENEFITS TO PARTICIPANTS

A. Methods of Assessment

Assessment is based on the most profitable agricultural use, not necessarily on the actual agricultural use. Under the Act, a State Farmland Evaluation Advisory Committee is set up. (Membership: Director, Division of Taxation; Dean of College of Agriculture and Environmental Sciences, Rutgers - The State University; and the Secretary of Agriculture). This committee prepares a report each year which estimates farm value per acre by county for each of four soil groups (ranging from "very productive farmland" to "land unsuitable for tillage") and each of four potential use classes (cropland harvested, cropland pastured, permanent pasture, and woodland).

Farm use values are computed from annual estimates of farm income per county, assuming a capitalization ratio of 10. Value per acre is assigned to each of the four land use classes using a set of productivity ratings, and to the five soil groups using a set of soil ratings. An example of the farm use value per acre determined by the Advisory Committee is given below for Salem County.[2] The values are based on the land's estimated productive capability when devoted to agricultural or horticultural uses.

Soil Group	Cropland Harvested	Cropland Pastured	Permanent Pasture	Woodland
A	$336	$168	$62	$15
B	280	140	56	14
C	196	98	45	13
D	112	56	39	11
E	28	14	34	10

Value per acre for a given soil group and type of farming can vary substantially. Given below are the 1974 values for Camden, a relatively urbanized county which had 9,600 acres farmed in 1971.

Soil Group	Cropland Harvested	Cropland Pastured	Permanent Pasture	Woodland
A	$600	$300	$110	$28
B	500	250	100	25
C	350	175	80	23
D	200	100	70	20
E	50	25	60	18

[1] Koch, A. Robert, H. H. Morrill, and A. Hausamann, Implementation and Early Effects of the New Jersey Farmland Assessment Act, Rutgers Experiment Station Bulletin 830, Rutgers-The State University, 1968.

[2] Eleventh Report of the State Farmland Evaluation Advisory Committee (1974). Trenton: Local Property and Public Utility Branch, Division of Taxation.

The local assessor is required to take these estimates into consideration in his assessment but he is not required to use them directly. However, most assessors follow the Advisory Committee's estimates closely.[1]

The assessor has to classify a particular piece of land within the four land use classes. To help in this, the applicant is required to furnish a map, using the U.S. Soil Conservation Service soil map as a base, which shows what use is being made of the land. Since pasture land is taxed at a lower level than tilled land, there have been farmers who fenced tillable land, put steers on it, and called it pasture. Such an attempt has been opposed by the assessor in at least one jurisdiction (Vineland) who argued that the land could be put to more profitable agricultural use.

According to assessors interviewed, the main problem with farm use assessment has been the need to educate local assessors in the known methods and difficulties of assessing farm value. A course has been sponsored by the Local Tax Bureau, the Tax Assessors' Association, and the College of Agriculture and Environmental Sciences, Rutgers and given at various locations around the state. The course meets one night a week for six weeks, a total of twelve hours of instruction. Although it has been taken by as many as 75% of the local assessors in some counties (e.g., Cumberland), state-wide less than 50% of the assessors concerned with farm properties have taken it. Some members of the State Farmland Assessment Advisory Committee recommend that attendance in the course be made mandatory. In addition to more education, it has been recommended by some of the assessors interviewed that assessment practices would be improved if assessors were paid more and employed full-time.

B. Relationship between Assessment at Farm Value and Assessment at Market Value

The relationship between assessment at farm value and assessment at market value, along with the proportion of the tax base in qualified farms, determines the tax saving which is enjoyed by participants in the program. Unfortunately, it is not possible to get all these important data directly. However, it is interesting to note from Table 2 that average assessment per acre of qualified farmland has remained relatively constant. During this period the average assessment of land based upon market value has undoubtedly risen substantially. As a result, the program now yields a substantially larger tax advantage to the farm owner than it did earlier. The increased participation may be a reflection of this change in tax advantage.

Tax assessors in New Jersey are required to record assessment on the basis of both farm use and market exchange for all land in the preferential assessment program. However, they are required to report only the assessment at farm value, the assessment on which the tax is based. Assessors would have to be approached individually for market value assessments, and since some officials interviewed said it is not clear that these are public information, the data probably would be difficult to obtain.

Because of the importance of the relationship between farm and market values, we have felt it necessary to estimate the relationship, given the lack of direct assessment data. The estimates are given in Table 4. Since the estimation process required data from the Census of Agriculture, the most recent year for which estimates could be made is 1969 and the most detailed areal unit is the county.

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[1] Kolesar, John and Jaye Scholl, Saving Farmland, Princeton: The Center for Analysis of Public Issues, Inc., 1975.

Table 4

ESTIMATED MARKET VALUE PER ACRE AND RELATIONSHIP TO FARM VALUE

	Farm value per acre[1]	Market value per acre		Farm Value divided by Market Value[4]	Market value minus Farm value[5]
		Incl. Bldgs.[2]	Excl. Bldgs.[3]		
	1969	1969	1969	%	
	(1)	(2)	(3)	(4)	(5)
Atlantic	$ 257	$ 756	$ 488	53	$ 231
Bergen	802	2,865	2,380	34	1,578
Burlington	227	843	720	32	493
Camden	635	1,592	1,294	49	659
Cape May	522	501	361	144	---
Cumberland	422	541	387	109	---
Essex	537	3,779	3,344	16	2,807
Gloucester	225	1,047	842	27	617
Hudson	---	$34,513	$27,847	---	---
Hunterdon	166	1,125	944	18	778
Mercer	318	1,803	1,671	19	1,353
Middlesex	340	2,291	2,108	16	1,768
Monmouth	295	1,636	1,434	21	1,139
Morris	251	1,788	1,566	16	1,315
Ocean	187	924	598	31	411
Passaic	840	5,372	4,582	18	3,742
Salem	132	527	394	34	262
Somerset	231	1,858	1,711	14	1,480
Sussex	122	836	731	17	609
Union	2,001	7,129	6,323	32	4,322
Warren	132	891	757	17	625

1) Summary of Data from FA-1 Forms for the 1969 Tax Year. (Col. 16 ÷ Col. 7)
2) 1969 Census of Agriculture, Vol. Area Reports (Part 8; New Jersey); Section 2, Table 1.
3) 1969 Census of Agriculture, ibid, less an assumed $20,000 of buildings & equipment per farm.
4) Column 1 ÷ Column 3.
5) Column 3 minus column 1.

In Table 4, col. 1, farm value per acre is computed directly from data on assessment and area for qualified farms reported in the annual report on the Farmland Assessment Act. Market value per acre (col. 2) is computed from Census of Agriculture data by dividing total value of land and buildings of all farms by the total number of acres of cropland. A second estimate (col. 3) was made after subtracting the estimated value of farm buildings from the total value of land and buildings. This estimation is open to question, since although farm houses, barns, and other structures have obvious value for operating a farm, in many cases the developer, who wants cleared land, may see them as having minimal or even negative value. Therefore, in doing the calculations, we have assumed a modest value of $20,000 per farm for buildings. The results of our calculations, given as the percent farm value is of market value assessment, and as market minus farm value are given in Figures 5 and 6.

As expected, the largest differences are found near major metropolitan centers. All the counties in the Trenton-New York area show average farm values at least $1000 per acre below market value. In several counties the difference is

Figure 5

ESTIMATED FARM VALUE AS PER CENT OF MARKET VALUE: NEW JERSEY 1969

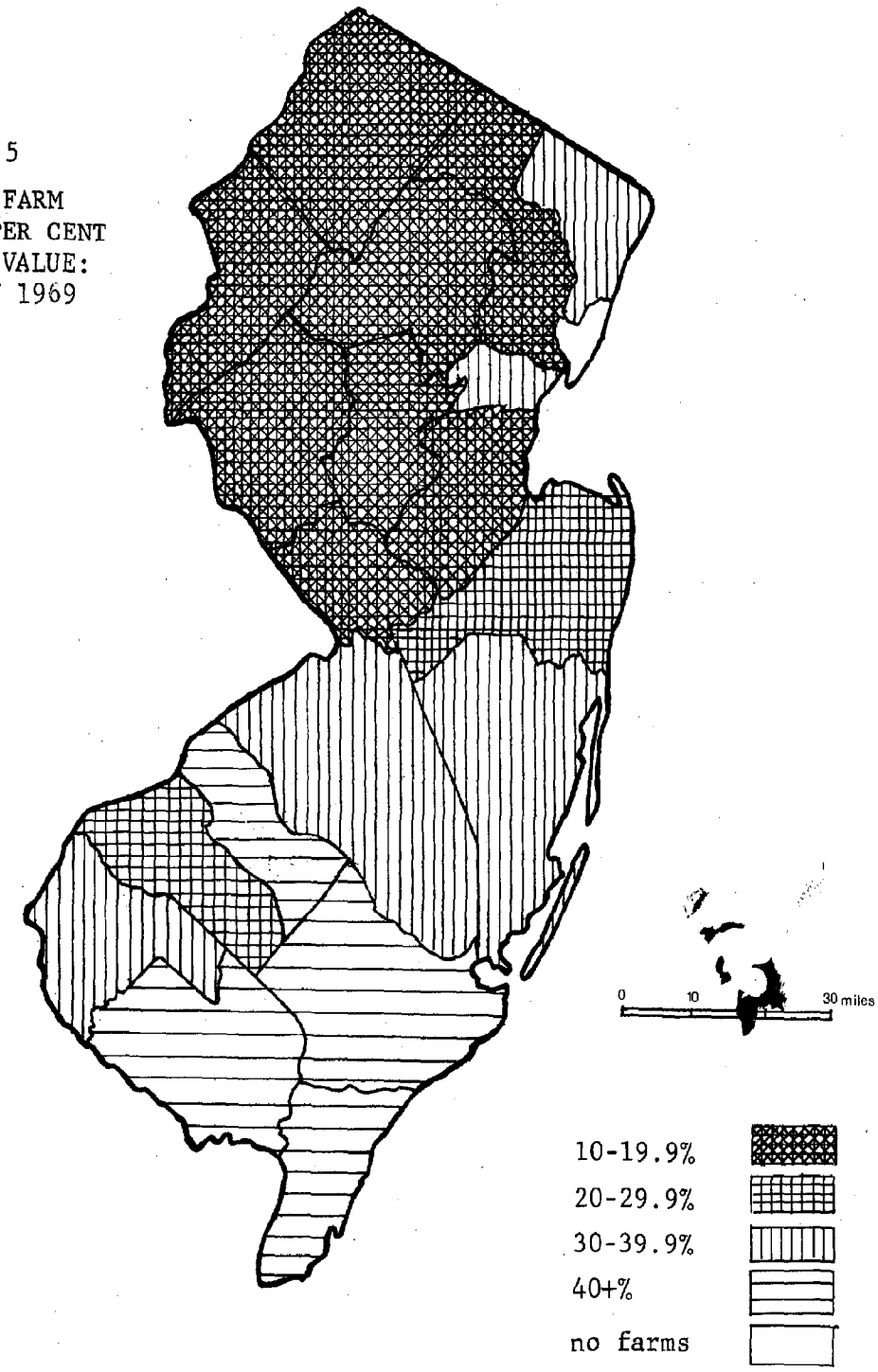
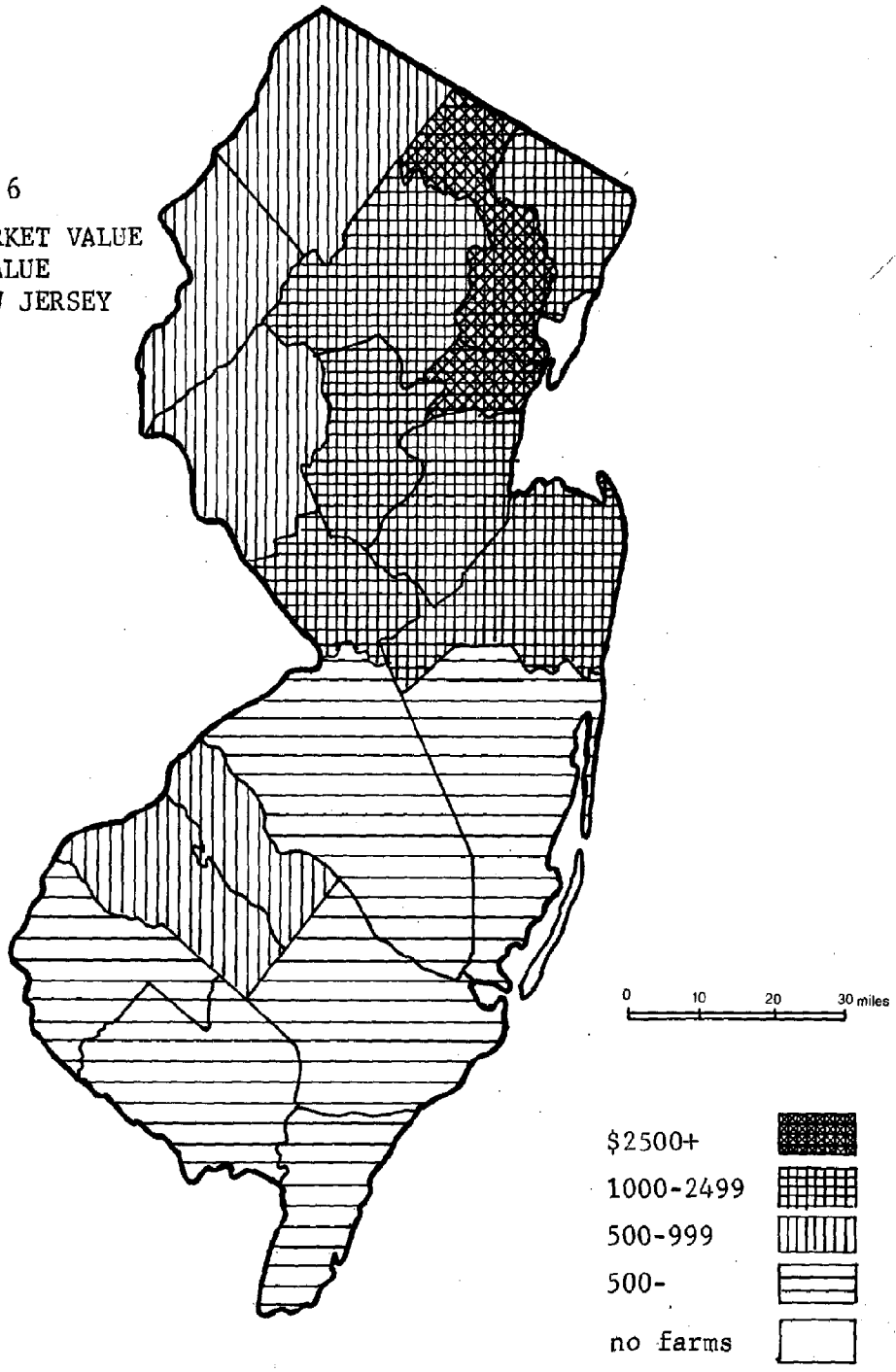


Figure 6

ESTIMATED MARKET VALUE MINUS FARM VALUE PER ACRE: NEW JERSEY 1969



well over $2500. In remote counties of southern New Jersey, such as Cumberland, farm value is roughly equal to market value. The pattern is generally similar for farm value as a percent of market value. Near the large cities farm value is a small percent of market value. In the more remote areas demand for development is low, and so farm value is a substantial proportion of market value.

C. Tax Savings

The next logical question is: what is the average tax saving enjoyed by a qualified farm in each of the counties? A proper computation cannot be made easily, because once some properties are reassessed at farm value, the tax rate must be raised. Such a computation should be made at the level of the taxing authority, the minor civil division. We have market value assessment estimates for 1969 only at the county level, and, in addition, minor civil division data are not available on assessed farm value of qualified farms for 1969. Therefore, we have made a very simple computation which does not reflect the necessary readjustment of tax rate (Table 5). This computation must be interpreted as the maximum possible tax saving to a farm owner. In jurisdictions where farms make up a large portion of the tax base, the actual saving would be less than the estimate of Table 5, once the tax rate readjustment is taken into account.

Table 5

ESTIMATES OF AVERAGE UNADJUSTED TAX SAVING PER ACRE

	Market Value minus Farm Value[1]	Tax Saving		Gross[2] Income Per Acre	Tax Saving as % of Gross Income Per Acre[3]
		High Tax (4.1%)	Medium Tax (3.4%)		
	(1)	(2)	(3)	(4)	(5)
Atlantic	231	9	8	478	2
Bergen	1,578	65	54	713	9
Burlington	493	20	17	136	1
Camden	659	27	22	309	9
Cape May	---	---	---	122	---
Cumberland	---	---	---	270	---
Essex	2,807	115	95	278	40
Gloucester	617	25	21	328	8
Hudson	---	---	---	6,166	---
Hunterdon	778	32	26	129	25
Mercer	1,353	55	46	153	36
Middlesex	1,768	72	60	372	19
Monmouth	1,139	47	39	663	7
Morris	1,315	54	45	437	12
Ocean	411	17	14	437	4
Passaic	3,742	153	127	587	26
Salem	262	11	9	201	5
Somerset	1,480	61	50	112	54
Sussex	609	25	21	117	21
Union	4,322	177	147	2,523	5
Warren	625	26	21	143	18

1) From Table 3.
2) Computed from data in Table 4, 1969 Census of Agriculture.
3) 100 x Col 2 ÷ Col 4

Unadjusted tax savings are computed for a medium tax rate (which is the median of the minor civil division rates for a sample of counties) and for a high rate (which was found for the top 10 percent of the townships in the sampled counties). Savings based on the high tax rate range from $9 per acre for Atlantic County and $11 per acre for Salem County to $153 for Passaic County and $177 for Union County. Savings based on the medium rate are proportionately lower.

We have also computed tax savings as a percent of gross income from farm products (both per acre). These data, also given in Table 5, indicate that for the median county, savings are 9 percent but for several counties, some of them important agricultural counties, the savings are significantly larger. The counties with the highest percent savings are grouped between New York and Trenton; relatively low tax savings are experienced in South Jersey. Tax savings as a percent of net income would be a more revealing figure, since costs of producing farm products vary substantially by type of crop, and the type crop grown is a function of closeness to cities and the effects that implies, such as high land values and alternate employment opportunities for the farmer. However, reliable data on net income by county are not available. Finally, it is important to remember that in reality savings must be computed over a taxing jurisdiction, such as a township, rather than over a county, and that in all jurisdictions some method must be found to compensate for the tax loss caused by a change in assessment of particular properties.

IV. SANCTIONS ON CONVERSION

If the use of land in the program is changed, the owner is subject to rollback taxes. Cessation of farming is considered a change of use and is subject to rollback taxes, but assessors do not always levy rollback taxes in such a situation. When a change to urban use occurs, however, all assessors do levy rollback taxes. The rollback provision requires that the owner pay the current year's taxes based on assessment at market exchange value, and also, for the previous two years, the differences between taxes based on farm value assessment and taxes based on market value assessment. Effectively, this is a 3-year tax rollback. If an owner sells off a few lots, but continues to farm the rest of his holding, then the rollback applies only to the land sold off.

The local assessor normally is alerted to a change in use by the local planning board when it gives preliminary approval to a subdivision plan. (Though the planning board is not required by law or regulation to pass on this information.) Notice of final approval is also sent to the assessor.

When the Act first was administered, a number of buyers were caught unaware that they were potentially liable for back taxes should they convert. Now, as part of the title search process, the tax collector is required by regulation to stamp "may be subject to rollback taxes" on reports on all properties in the program in addition to identifying the total taxes outstanding at the time of the search. Building permits are issued without noting the potential liability for rollback taxes.

The local assessor is required to assess each qualified property at both farm and market value each year and to keep a record of each. Unless a change of use occurs, however, he must report only the farm value assessment, on which the tax is to be based. He must keep the market value assessment "on his card" so that rollback taxes can be computed, should a change in use occur.

The prevalent opinion of those interviewed is that the rollback tax has little if any effect on the decision to sell. If there is a demand for land for urban expansion, the rollback tax expense is generally not an important factor in slowing sales.

V. EFFECTIVENESS

Nearly everyone interviewed stated that the preferential tax was beneficial for the farmer, and expressed a belief that without it a large proportion of farmers would have had to go out of business. Comments included "There wouldn't be a farm in New Jersey without it." (a state tax official); "It is the only law beneficial to agriculture which the legislature has passed in years" (a county agricultural extension agent); "One of the best things done for agriculture" (another county agricultural extension agent).

Although all agreed that the preferential tax law may have been critical in enabling young farmers to keep farming, by reducing costs of operation, there was a general feeling that, if demand for land were strong enough, preferential taxation would not deter a farmer from selling, and, of course, when a farmer reaches retirement age and does not have an heir to carry on, he will sell anyway. A 1967 survey indicated that 16% of the participants in the program had children planning to farm, a small percentage but slightly larger than the 13% found for nonparticipants.[1]

One township assessor stated that tax considerations were minor once a sewer was installed and land was ripe for development. One county agent said that the program "probably had a slowing effect on development, but that it is hard to measure," another that "the program was one of the major considerations in slowing development of farmland." The Kolesar report, however, states that "the law has been no more effective as a delaying mechanism than as an instrument of preservation," and that more effective mechanisms are municipal building moratoriums, Federal impoundment of sewer construction funds, and high interest rates.[2] He agrees that it may have been helpful in preserving farming, "but preserving farming is not the same as preserving farmland. If there had been no Farmland Assessment Act, New Jersey might not have as much farming going on today, but it would have just as much land available for farming as it does now." An agriculture department official summed it up by stating the program is a "tax, not an open space, measure. It provides relief to farmers."

All agricultural agents, however, agreed that the major problems forcing farmers out of business were labor difficulties and government regulation. "No one wants to work on farms, it is the bottom of the ladder" and the Government puts "unreasonable" requirements on housing for itinerant workers, and insists on "unreasonable" environmental safeguards. To many farmers (and agricultural extension agents) these government requirements appear to be "harrassment," and even when the requirement itself is not offensive, the accompanying voluminous paper work is.

Although the preferential assessment program may help keep some farmers in business, it probably has little effect in making it possible for young men to purchase land at a price at which they can afford to go into farming. It does not improve their competitive position with developers in the land market, since developers, too, can qualify for farmland assessment by renting their land for farming until they are ready to develop.

Kolesar[3] contends that the Act has encouraged speculation. He finds, on examining tax books, that "the amount of land owned by speculators far exceeded

[1] Koch, et. al, op. cit.

[2] Kolesar and Scholl, op. cit.

[3] Kolesar, op. cit., pp. 13-24.

current assumptions," that land speculation under the Act occurred in virtually every part of the state, and that the most active areas were the rural-urban fringe townships of Burlington, Camden, Hunterdon, Mercer, Monmouth, Somerset, Sussex, and Warren Counties. The fact that buyers are less likely to be full-time farmers than sellers are is documented in a 1972 report by Nagle and Derr.[1] Kolesar estimates that at a minimum one-tenth of all land under farmland assessment in the state is owned by "speculators, developers, and international conglomerates," and suggests that the proportion may be much higher. He also cites a forthcoming Cook College, Rutgers study which indicates that one half of the farms are being worked by tenant farmers. Many of these farms are owned by developers and land investors who have them farmed in order to keep their taxes low.

The preferential tax program probably has resulted in putting more land on the farmland rental market. Generally, this has meant lower rents: in one county farmland which 10 years ago rented for $100 per acre, now rents for $15-$20 per acre, and some of it is available rent-free to farmers who would farm it and thereby make it eligible for farmland assessment while it is held for future development. A similar situation was reported in another county.

VI. EQUITY

The reduction in total assessed value due to preferential assessment must be made up by a higher tax rate on all property if a jurisdiction is to maintain its public expenditure level. The increased rate results in a shift of tax burden to properties which do not enjoy the offsetting advantage of the reduced (preferential) assessment. Most of this shift occurs locally, within the municipality or school district, since most of the property tax goes to support municipal government and local school districts. A substantial shift occurs among property owners within the wider context of a county, also, since a substantial portion of property taxes supports county government. In 1973, property taxes in New Jersey were collected as follows:

School Districts	$1,518,784,000
Municipalities	526,004,000
Counties	504,843,000
	$2,549,631,000

An additional minor shift occurs at the state level. State aid for schools is apportioned on the basis of taxable assessment. Therefore, when farmland in a municipality is assessed preferentially, assessment per capita goes down and as a result school aid to the municipality goes up. Correspondingly, urban areas which do not enjoy preferential assessment pay more taxes in order to provide for this shift.

A 1972 study was made by Kolesar and Scholl of "the 151 municipalities which then experienced some measurable tax-impact from farm assessments."[2] They estimated tax rate increases resulting from preferential assessment to be as follows:

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[1] George R. Nagle and Donn A. Derr, A Preliminary Analysis of the Data on Participants in the New Jersey Farm Real Estate Market, 1966-70, New Brunswick: N.J. Agricultural Experiment Station, Rutgers - The State University of N.J., 1972.

[2] Kolesar, John and Jaye Scholl, Misplaced Hopes, Misspent Millions, Princeton: The Center for Analysis of Public Issues, 1972, p. 11.

0 - 9.9%	48	municipalities
10 - 19.9%	30	"
20 - 29.9%	35	"
30 - 39.9%	20	"
40 - 49.9%	11	"
50% and above	7	"

As a group the 151 municipalities had an effective tax rate of 3.41 percent, slightly lower than the state average, but much higher than would be expected given the rural character of the municipalities. The report concludes that if they had not lost 1.7 billion dollars in ratables to the farmland assessment law, their tax rates would have dropped to an effective average of 2.87 percent.

The 1975 Kolesar and Scholl report estimates that in 1974 non-farm owners paid a minimum of $41 million to compensate for the loss of ratables on farmland, an average of $40 for every farm acre, most of it paid by the rural non-farm property owner.

VII. COST OF ADMINISTRATION

Most of the administration of the program is carried out at the local level by the municipal assessor. The assessor mails out an application each year to each land owner already qualified under the program. When he receives the completed application, the assessor must determine whether each is qualified, and must assess each qualified property at farm value as well as in the normal manner, at market value. Determining eligibility would seem to take the most time -- the most careful assessors make two field surveys a year to determine whether each property is actually being farmed. Even though the state provides guideline figures, the estimation of farm value is time consuming for an assessor. One assessor estimated that the process added a couple of weeks work per year for him. Another, who has eight assessors under his supervision, estimated a total additional cost of $500 per year for his staff to administer the farmland assessment program. A third estimates that it takes more than twice as much time per farm to assess at both market value and at farm value as to assess at market value alone.

Little or no administrative cost is experienced at the county level.

At the state level, a farm value guideline study[1] is prepared each year for the Farmland Evaluation Advisory Committee by Rutgers, at a cost of $10,000. The State Division of Taxation also promulgates regulations from time to time, publishes an annual report of data on the program, and from time to time gives help to assessors. An additional $10,000 is estimated by a tax official for these activities. Therefore, the State's cost of administration is estimated to be in the order of $20,000 per year.

VIII. RECOMMENDATIONS FOR CHANGE

The major concern expressed about the program is that it is relatively easy for people who are not farmers (i.e., speculators, developers, large corporations) to enjoy its benefits simply by renting their land to farmers. Even though this keeps land in farming in the short run, it probably increases

[1] e.g., Eleventh Report of the State Farmland Evaluation Advisory Committee (1974). Local Property and Public Utility Branch, Division of Taxation.

the amount of land held by speculators and, therefore, increases the probability of development in the long run. The feeling was also expressed frequently that the law was meant to benefit only the farmer (a particular class of persons) as well as to keep land in agriculture.

Recommendations for change, therefore, are aimed at making it more difficult to qualify for preferential assessment. A bill now in committee (sponsored by Senator John Fay) calls for an increase in the rollback period from 2 to 5 years, and an increase in the minimum value of farm products produced. Evidently no thought has been given to charging interest on rollback taxes.

A second recommendation is to institute a conveyance tax which would be a maximum of 10% of the sales price for land held a year or less, and would be reduced by 10% for each year the land had been held. This recommendation is aimed particularly at the speculator.

Kolesar and Scholl recommend that to patch up inequities, the law should be amended to restrict its benefits to designated agricultural districts, to demand a commitment to keep land in farming for a 10-year period, and to charge large financial penalities when the land is developed.[1]

Better education of assessors and more complete guidelines from the State Division of Taxation were also mentioned as needed improvements by those interviewed. The Director of the Division of Taxation is now working on such comprehensive guidelines. He is also considering guidelines for the assessment of all land on which development restrictions may be placed in addition to land under farm assessment. Of particular concern are wetlands, over which the state exercises certain environmental regulations. In the absence of such guidelines, these are often assessed at a value based on ordinary development potential, i.e., market exchange value. Such an approach, combining controls and assessment which reflects the loss in development potential because of the controls, constitutes an alternative to preferential assessment. Since the controls remain in force after sale, it probably would be more effective than preferential assessment as now practiced in New Jersey. This alternative implies, however, that New Jersey courts would sustain agricultural zoning, a conclusion for which there is as yet no evidence.

List of Persons Interviewed

State Government

Harris Adams, Senior Field Representative, Local Property and Public Utility Branch, New Jersey Division of Taxation

James Arnold, Chief, Research Section, New Jersey Division of Taxation

Richard D. Chumney, Director, Division of Rural Resources, New Jersey Department of Agriculture

Sidney Glazer, Director, New Jersey Division of Taxation

Robert S. Johnston, Chief, Sales Ratio Section, Local Property and Public Utility Branch, New Jersey Division of Taxation

Warren Mann, Chief, Appraisal Section, Local Property and Public Utility Branch, New Jersey Division of Taxation

John Van Zandt, Coordinator of Vital Resources, Division of Rural Resources, New Jersey Department of Agriculture

[1] Kolesar and Scholl, 1975, op. cit., p. 28.

Local Assessors

Charles Grayson, Montgomery Township, Somerset County

Marriott Haynes, Vineland, Cumberland County

Fred McCoy, Morris County

Vincent McGuire, Clinton Township, Hunterdon County

County Agricultural Extension Agents

Robert Gardiner, Salem County

Robert Langloise, Gloucester County

M. Ruizzo, Camden County

Norman Smith, Cumberland County

Rutgers University

William Park, Chairman, Department of Agricultural Economics and Marketing, College of Agriculture and Environmental Science

George Luke, College of Agriculture and Environmental Science

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I.C.1. DEFERRED TAXATION -- LONG ROLLBACK: HAWAII[1]

I. SUMMARY

Hawaii is perhaps the most fascinating state to study for anyone concerned with the implementation of differential assessment in the context of a broad policy commitment to preservation of agricultural land.

It shares many common elements with other states in the vanguard of differential taxation experiments. Much of its best agricultural land lies directly in the path of strong urbanization pressures; Honolulu is one of the nation's fastest growing urban areas and shows every sign of continued, rapid expansion. Land value for agriculture, even for truck gardens, doesn't approach development value. Last, like Maryland, New Jersey, and California, among others, Hawaii recognized this conflict over a decade ago and moved to alter its tax laws in an effort to encourage farmers to stay on the land.

Hawaii did more, however. Most important, and unlike any other state, it enacted statewide zoning districts, including one district exclusively for agriculture. Winning political support for such a measure and sustaining it over the years suggests that public attitudes and the political base in Hawaii are different than elsewhere. A history of public land ownership, current land ownership and economic dominance by a handful of corporations, and concern with a too great reliance on imports all have been signifcant factors. All distinguish Hawaii from other states. Even given these differences, Hawaii's experiences since the early 1960's with both differential taxation and statewide zoning make it an essential locus for study.

Hawaii now has entered a new phase of planning and legislation which further differentiates it from the other states. The Governor has proposed that the legislature enact a growth limitation and growth direction policy, to be accompanied by a commitment to preserve agricultural lands. Since this proposal follows close upon revision of the differential taxation laws and review and revision of the state zoning district boundaries, it suggests an implicit recognition that the tax and regulatory measures in effect for the prior decade did not prove sufficient in and of themselves to achieve the state's agricultural or quality-of-life goals. The legislature has directed the state administration to submit a state plan to it for adoption in 1977, so there will be early specification of the state's position on agriculture and growth.

Given Hawaii's unique situation, it is essential to evaluate the experience with the differential tax laws in the context of local conditions, state zoning, and state growth control proposals. While the differential tax laws and state zoning are applicable throughout Hawaii, the focus of discussion will be the island of Oahu, since it is there that the conflict between agriculture and urbanization exists.

The first period of experimentation extended from 1961 to 1974. One law -- the Land Use Law of 1961 -- launched both state zoning, under the aegis of the Land Use Commission, and agricultural land dedication.

The Land Use Commission has established four zoning districts -- urban, rural, conservation, and agriculture. The urban district is supposed to include a 10-year development reserve. Regrettably the enabling act fails to provide policy

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[1]Many people cooperated in providing the information on which this case study is based. They are listed in the Appendix, and their help is gratefully acknowledged. Special thanks is due to Herbert Welder, Property Technical Office, Department of Taxation for his unstinting commitment of time, resources, and ideas.

direction to the Commission as to whether preservation of prime agricultural land should or should not be given preference over urbanization. In fact, the Commission has approved 77 percent of the redistricting requests submitted to it, and the bulk of these have been for changes to urban use. The Commission also makes district boundary revisions on its own initiative. In 1974, the amount of land zoned for agriculture statewide was 48 percent, and on Oahu 37 percent. For Oahu, this was a decline since 1964 of 3.7 percent.

Agricultural land dedication under the 1961 law was for 10 years, renewable indefinitely. Withdrawal required five years' notice. Violation of the dedication provisions led to an obligation to pay past taxes which would have been due plus a five percent penalty. Largely because farm assessments were low, except on the urban fringe, there was little incentive for farmers to dedicate land. Between 1961 and 1973, only three percent of the land zoned for agriculture was dedicated. For dedications effective through 1969, there was a reduction in the agricultural land tax base of 5.1 percent statewide and of 9.2 percent for Oahu. This reflects a concentration of dedications near the urban fringe where assessments had been raised, reflecting the market's judgment that the zoning would be changed. Farmers dedicating land enjoyed a 61.7 percent reduction in their tax liability statewide; on Oahu the figure was 36.7 percent. A study limited to Oahu showed that 10 percent of the dedications between 1963 and 1972 were cancelled, almost all on the initiative of the Department of Taxation for failure of the farmers to conform to the terms of the dedication.

In 1973, the law was amended so that there are now two preferential tax programs for agricultural land: a dedication program and a deferral program. The dedication program continues, revised to permit either a 20-year dedication in the agriculture district only with assessment at 50 percent of farm value or the pre-existing 10 year dedication with assessment at farm value. Notice of withdrawal may be given in the 19th or 9th years, respectively. Under the new deferral program, the Department of Taxation may classify land in the agriculture zone as agricultural for tax purposes and then defer taxes on land so classified which is used for farming. Under deferral, the farmer takes no initiative and may not even be aware that the land is subject to deferred taxes until successful petition to the Land Use Commission for redistricting to urban or rural or upon subdivision into lots of five acres or less. Under dedication, a farmer can withdraw after giving proper notice and not be subject to rollback and the new 10 percent penalty taxes. It is not possible to withdraw under deferral, since the farmers did not apply in the first place.

During 1973, the first year of the revised dedication program, area dedicated increased dramatically. During that year 360,625 acres were dedicated. Assuming, based on the Oahu data, that 90 percent of the land dedicated under the earlier program still is dedicated, this means that 414,355 acres, or 10 percent of the state, now is dedicated for farm use. Data on acreage for which taxes were deferred were not available.

The Department of Taxation estimates that, under both programs, between 10 and 15 million dollars of taxes were foregone in 1974, in comparison to total real property taxes for land and improvements of 129 million dollars. In the two tax districts of Oahu, which include the farming areas of Ewa and Wahiawa farmlands, the assessment for dedicated farmland dropped 95 and 94 percent respectively. While these figures would suggest that at substantial shift in the tax burden has occurred, this probably is not so in that 1974 also was the first year of new, far higher farm tax assessments. Thus, the increased share of taxes which would have been borne by agricultural land has been avoided by those farmers in either the dedication or deferral programs.

It is too soon to say what impact the two new programs will have on preservation of farmland. While raised assessments provide an incentive to dedicate land, this does not mean that the dedications will not be cancelled when development opportunities appear. Whether those opportunities in fact appear depends in large part on the Land Use Commission.

II. BACKGROUND

Hawaii's need for and problems with preservation of agricultural land are unique. Geographic isolation, limited cultivable land, rapidly growing population, and a narrow and unpredictable economic base all have combined to generate a growing desire for greater agricultural self-sufficiency. Governor George Ariyoshi has called for two related legislative commitments, one to diversify agriculture and increase self-sufficiency and the other to limit growth and direct much of it away from Oahu to the Neighbor Islands.[1] To understand better the justification for the Governor's requests, a brief review of conditions in Hawaii today follows.

A. Geography

The state of Hawaii consists of eight large islands -- Niihau, Kauai, Oahu, Molokai, Lanai, Kahoolawe, Maui, and Hawaii -- and 124 small islands. Together, these islands have a combined area of 6,425 square miles, or over four million acres. The "Big Island," Hawaii, is larger than all of the others combined.

Table 1

ACREAGE BY COUNTY[a]

	Acres	Percent
Kauai	404,936	10.0
Hawaii	2,501,132	62.0
Honolulu	381,934	9.5
Maui	747,561	18.5
All	4,035,563	100.0

[a]The county of Kauai includes the islands of Kauai and Niihau; the city and county of Honolulu includes the island of Oahu and the Northwestern Hawaiian Islands; and the county of Maui includes the islands of Maui, Kahoolawe, Lanai, and Molokai.

Since the islands are volcanic in origin, the topography is rugged. The high peaks and ridges affect precipitation so that portions of the island of Kauai, for example, have over 450 inches of rain yearly while much other land is a virtual desert. Areas of good soil on gentle to moderate slopes with adequate rainfall are limited.

The state, working with Dr. Howard Baker of the University of Hawaii, has defined and mapped five classes of agricultural land. Class A is the best land, Class E the poorest. Both Class A and B lands are described as prime agricultural land.

[1]A term used to refer to the seven major islands other than Oahu.

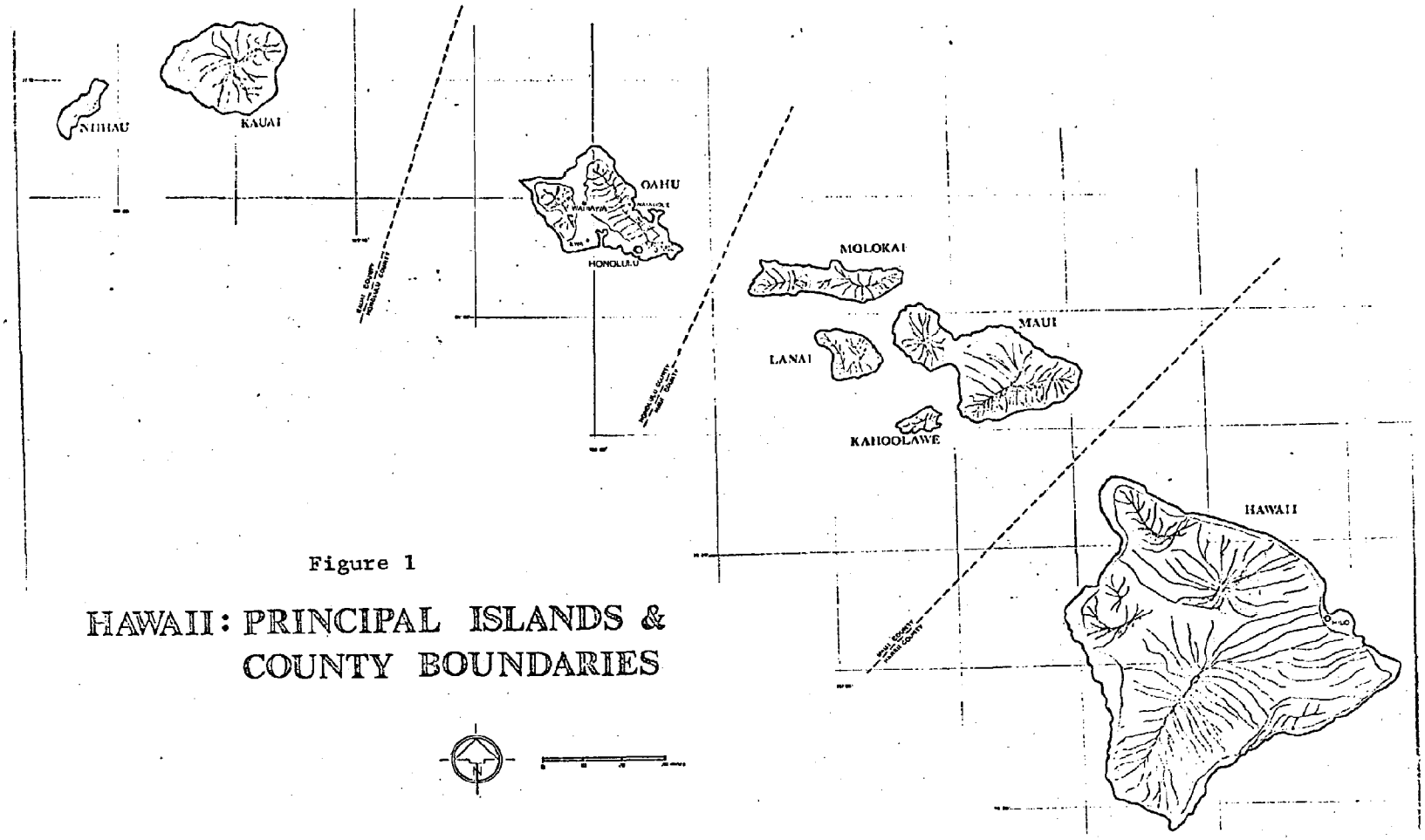

Figure 1

HAWAII: PRINCIPAL ISLANDS & COUNTY BOUNDARIES

Oahu, with 10 percent of the state's land area, has 54 percent of the Class A land and 10 percent of the Class B land. Two-thirds of the Class A land is in holdings of 5,000 acres or more. Furthermore, the Class A and B lands are concentrated in the two districts most subject to urban pressures; Ewa's 38,000 acres are 45 percent Class A and 36 percent Class B, while Waialua's 28,000 acres are 40 percent Class A and 43 percent Class B.

Hawaii, with 62 percent of the state's land area, has only one percent of the Class A land but 50 percent of the Class B land.

B. Land Use

Steep slopes and either excessive or deficient rainfall combine to limit the agricultural utility of substantial portions of the islands. For the state as a whole, vacant land, grazing land, and forest reserves are the major use categories, together constituting 70 percent of the land. While sugar and pineapples are the major agricultural products exported from Hawaii, only 6.4 percent and 1.7 percent, respectively, of the land is cultivated for these crops. Other fruit, vegetables, and specialty crops are grown on small amounts of good quality land.

Table 2

PRINCIPAL LAND USES, BY PERCENT OF ACREAGE

Land Use	Kauai	Hawaii	Honolulu	Maui	All
Agriculture					
Livestock	25.0	19.9		16.9	28.4
Sugar	20.1		10.5		
Forest Reserve	32.5	24.3	30.5	17.4	29.4
Private Vacant		33.3		27.2	12.4
Urban			14.6		
	77.6	77.5	55.6	61.5	70.2

Sources: Land Inventory Reports for Kauai, Hawaii, and Maui Counties for 1972; Data Book for Honolulu, 1968 data. Only uses in excess of 10 percent shown.

Only the island of Oahu has a substantial amount of land in urban uses and only there does competition between urban and agricultural uses exist. The next table shows the mix and amount of urban uses, by acreage, on Oahu in comparison with that on all of the Neighbor Islands.

Given approximately 100,000 acres of good agricultural land on Oahu, if urbanization there continues at a rate of between 2.5 percent and 3 percent annually, Robert Way, Director of the Department of General Planning, City and County of Honolulu, predicts that 10,000 acres of this land will be urbanized over the next 20 to 30 years.

Table 3

LAND USE, OAHU AND NEIGHBOR ISLANDS[a]

	Oahu, 1969		Neighbor Islands, 1971, 1972	
	Acres	Percent	Acres	Percent
Residential	22,676	5.9	40,814	1.1
Industrial	6,305	1.7	10,045	.2
Commercial	1,645	.4	784	---
Hotel	98	---	(category not included)	
Services	(category not included)		64,559	1.8
Public Facilities	5,226	1.4	2,711	.1
Transportation	8,495	2.2	14,570	.4
Urban Subtotal	44,445	11.6	133,483	3.6
Military	47,650	12.5	---	---
Public Open Space	7,795	2.0	89,003	2.4
Agriculture	88,740	23.2	1,144,195	31.3
Unused Open Space	193,304	50.6	2,287,079	62.6
Non-Urban Subtotal	337,489	88.3	3,520,277	96.3
TOTAL	381,934	99.9	3,653,760	99.9

[a]The "Urban" total in this table consists of some different components than those in Table 2. The forest reserve is included as part of "Unused open space" in this table. As there will be other inconsistencies in the data presented in this report, it is necessary to note that the state has no common base map and that various agencies collect, map, and classify data in various ways.

Source: "Hawaii County Land Inventory Report: 1972."

C. Land Ownership

The islands of Hawaii were brought together under a common government by King Kamehameha I in the late 18th century. The land at that time was all in possession of the Crown. Later, in the 19th century, some land was given to individuals to own privately, but the bulk continued to be held by the Crown. Many Hawaiians attribute current public support for extensive state regulation of land use to this history of public ownership of land.

The United States annexed Hawaii as a territory in 1898, and statehood was approved by Congress in 1959.

Even today, state ownership of land is high, at 38 percent, in comparison with other states. However, Federal ownership, at 9 percent, is low, particularly in comparison with the western states.

The pattern of ownership of the 53 percent of Hawaii which is in private hands contrasts sharply with that prevailing in the rest of the United States. Individuals or corporations owning 1,000 acres or more hold 47 percent of the state's land. Detailed data, only available for Kauai and Maui, show the concentration of land ownership in those counties.

Table 4

LAND OWNERSHIP BY PERCENT OF ACREAGE*

	Kauai	Hawaii	Honolulu	Maui	All
Private					
Tracts of 1000 ac. or more	61.6	52.8	68.8	68.1	53
Gay & Robinson[a]	25.4	*	*		*
Amfac	2.4	*	*		*
Grove Farm	5.6	*	*		*
Alexander & Baldwin	5.3	*	*	7.4	*
Castle & Cooke[b]		*	*	11.9	*
Molokai Ranch		*	*	9.1	*
Other private	17.9	*	*	39.7	*
State	33.2	39.2	15.4	20.7	33.8
Hawaiian Home Lands[c]	4.3		1.3	5.4	4.6
Federal	.6	8.0	14.5	5.7	8.6
County	.3	---	---	.1	---
	100.0	100.0	100.0	100.0	100.0

*Data on large private holdings not available for Hawaii or Honolulu. The state's largest private owner is the Bishop Estate, which holds nine percent of the state.

[a]Gay and Robinson owns 98.9% of the 47,217 acre island of Niihau.

[b]Castle and Cooke owns 99.5% of the 89,071-acre island of Lanai. Along with Amfac and Alexander & Baldwin, C. Brewer & Company, and Theo. H. Davies, these are the dominant sugar companies which exert tremendous economic power on Hawaii.

[c]Restricted to persons of at least 50 percent Hawaiian extraction.

Sources: Land Inventory Reports for Kauai, Hawaii, and Maui Counties, data as of 1972; "The State of Hawaii Data Book 1974," for Honolulu and the state as a whole, data as of 1968.

Farm acreage and size statistics also reveal this concentration of land holdings. Ninety-six percent of farm acreage, or nearly two million acres, is held by 202 farm operators. This is only five percent of all farms. Conversely, eighty-five percent of farms are under 50 acres, while 52 percent are under 10 acres. Thus, the overwhelming number of farmers in Hawaii have small farms, while farm acreage is almost wholly in large holdings. Trends since 1946 show a very gradual decline in farm acreage but a drop from 5,500 to 4,900 farms, with most of the decline due to small farmers selling out.

There is a great disparity in the interests of the small farmers and of the giant corporations which control most of the land. There also is a disparity in the treatment each group receives from agencies of the state. Of particular concern here is differing treatment under the tax and land use laws.

Table 5

NUMBER OF FARMS, BY SIZE, 1969

Size (Acres)	Kauai	Hawaii	Honolulu	Maui	All	%
1-9	185	1,066	555	218	2,024	52
10-49	125	832	153	171	1,281	33
50-259	47	227	32	83	389	10
260 and over	18	116	28	40	202	5
Total	375	2,241	768	512	3,896	100

Table 6

FARM ACREAGE BY TYPE OF FARM, 1969[1]
(Thousands of Acres)

Farm Type	Kauai	Hawaii	Honolulu	Maui	All	%
260 ac. and over	265	1,158	138	420	1,982	96
Harvested Cropland	29	64	31	55	179	9
Irrigated	42	9	41	53	146	7
All Acreage	273	1,203	147	435	2,058	

[1]This table shows two different types of information: farm acreage in large tracts and farm acreage in two types of farm use. For comparison total farm acreage is given. Since the categories overlap, the entries in the table sum to amounts greater than the "All Acreage" total.

Source of Tables 5 and 6: "The State of Hawaii Data Book 1974."

Although private leasing of public land, particularly for grazing and forestry, occurs frequently in other states, leasehold interests are more common in Hawaii than elsewhere. There one finds large-scale leasing of private land to private lessees, typically to sugar and pineapple growers, but also often to residential developers. In the agricultural context, leasing is an acceptable form of land tenure. However, the practice has been challenged by home owner-lessees who, in 1967, won passage of state enabling legislation authorizing state condemnation of the fee to their tracts followed by resale to them. The law has yet to be tested. Former Governor Burns was reputed to have been concerned that the courts would hold such a condemnation not to be for a public purpose. In 1975, the legislature has before it a bill appropriating funds for a test condemnation under the Act. Governor Ariyoshi has announced that the state will move in a different direction, namely to assure continuation of agricultural use on leased lands. The state plans to condemn some leasehold rights on Kauai so as to re-lease the land for agricultural use at a low rent.

Table 7

LAND TENURE BY PERCENT OF LAND

Tenure	Kauai	Hawaii	Maui
Fee simple	83.2	77.1	83.1
Private	57.0	40.8	60.0
Public	26.2	36.3	23.1
Leasehold	16.8	22.9	16.9
From Private Owners	5.0	12.1	8.2
From Public Owners	11.8	10.8	8.7
Total	100.0	100.0	100.0

Sources: Land Inventory Reports for Kauai's, Hawaii, and Maui Counties. Similar data were not available for Honolulu and for the state as a whole.

D. Population

Hawaii's salubrious climate and aloha spirit have been most responsible for the rapid growth of both resident population and tourists. Not to be ignored is the 15 percent of the population stationed there by the U.S. Department of Defense.

The 1974 population of 847,000, up from 500,000 in 1950, is concentrated on the island of Oahu, principally in the Honolulu metropolitan area. Of all the islands, only Oahu is densely populated, with 1,225 people per square mile.

Table 8

POPULATION, 1974[a]

County	Resident Population (Number)	Percent	Area (Square Mile)	Density (Square Mile)
Kauai[a]	31,600	3.8	619.1	57.8
Hawaii	72,200	8.5	4,037.0	19.3
Honolulu[b]	691,200	81.6	595.7	1,224.9
Maui[c]	51,900	6.1	1,173.6	50.2
	846,900	100.0	6,425.4	140.4

[a]Includes 240 people on Niihau.

[b]Includes 55,000 military people and 68,000 military dependents, and 51 people on the Northwestern Hawaiian Islands.

[c]Includes 2,200 people on Lanai and 5,200 on Molokai.

Source: "The Population of Hawaii, 1974."

Honolulu District, with a 1974 population of 342,300, is the only large city.[1] The largest urban concentrations on the other islands, as of 1970, were Hilo, on Hawaii, with a population of 26,353; Kahului, on Maui, with 8,280 people; and Kapaa, on Kauai with 3,794 people.

The state has been growing at a rate of 2.2 percent per year, since 1963[2] and the Honolulu suburbs have been absorbing most of that growth. Between 1970 and 1974, the city grew 5.4 percent, while the suburbs grew 14.2 percent. The Ewa District, consisting mostly of prime agricultural land, grew 19 percent. By 1974, the suburbs exceeded the city in total population.

E. Economy

Hawaii has been and continues to be heavily dependent on the rest of the United States and on foreign countries. Eighty percent of the goods and services purchased in Hawaii are imported. Exports--Federal defense spending, tourism, and crops--are the State's principal income sources. Tourism was number one in 1973, bringing in 890 million dollars. Federal defense spending was a close second at 840 million dollars. Sugar, at 222 million dollars,[3] and pineapples, at 145 million dollars,[3] were next in order of importance. Although Federal defense spending and tourism have increased rapidly in the past decade, the state administration is aware that both are sources of income beyond the control of the state. Pineapple production has been declining as pineapples produced more cheaply in Southeast Asia compete successfully for an increasing share of the market. Often it is the same companies growing pineapples in Hawaii who have bought land for pineapples on Formosa, the Phillipines, or elsewhere, and who now wish to convert their Hawaii land to other uses. The state government's response to these economic realities has been to encourage greater diversification of agriculture, both to make the islands more self-sufficient and to increase exports of other crops. This effort is meeting with some success; however, as the accompanying table shows, sugar and pineapples remain dominant. Most meat and vegetables still are imported.

Per capita income rose 106 percent from 1963 to 1973, when it reached $5,435. It is $1,500 higher on Oahu than on the Neighbor Islands.[4] During the same decade, per capita taxes rose 169 percent, to $688. Taxes, in 1973, were 13.7 percent of income, placing Hawaii ninth in the United States in this respect.

The state collects the bulk of the taxes, relying on the excise and income taxes for most of its revenues. The real property tax is a county tax, which, in 1973, accounted for 17.9 percent of state and county tax collections[5] and 51.4 percent of county tax revenues. There is no legal government other than the counties, so there are no other districts which levy and collect taxes.

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[1] The term "City and County of Honolulu" refers to the island of Oahu, while Honolulu District is the urban concentration which elsewhere would be called a city.

[2] The United States growth rate during that period was 1.1 percent.

[3] Processed value.

[4] Dinell, Tom, "Filling the Calabash: How Much Is Too Much?" Pacific Library Studies and Planning Program, University of Hawaii, Honolulu, December 1974.

[5] In 1967 and 1968, Hawaii was 49th in the percent which the property tax was of all state and county taxes. For the United States, the average was 43 percent. At that time, California derived 50 percent of state and county taxes from realty, Oregon 47 percent, and Washington 31 percent. See "Taxation As A Tool of Planning."

Table 9

VALUE OF CROPS AND LIVESTOCK, 1973
(Millions of $)

Crops & Livestock	Kauai	Hawaii	Honolulu	Maui	All
Sugar Cane	30.8	52.9	24.3	33.9	141.9
Pineapples	----	----	13.5	26.1	39.6
Vegetables & Melons	.5	2.5	4.0	2.1	9.1
Horticultural Specialities	----	2.5	3.2	.6	6.3
Other Fruits	.3	3.9	.9	.4	5.5
Other Crops	.8	4.5	.6	1.0	6.9
All Crops	32.4	66.3	46.5	64.1	209.3
Cattle	1.5	12.1	1.6	4.6	19.8
Milk		3.0[a]	13.5		16.5
Effs	1.0[b]	1.4	8.9		11.3
Hogs	.2	.7	3.0	.8	4.7
Other Livestock	----	.4[a]	2.6		3.0
All Livestock	2.7	17.6	29.6	5.4	55.3
Total	35.1	83.9	76.1	69.5	264.6

[a]Includes Kauai and Maui.

[b]Includes Maui.

Source: "Statistics of Hawaiian Agriculture, 1973."

Table 10

STATE AND COUNTY TAX COLLECTIONS, 1973

Type of Tax	Amount ($ Millions)	Percent
State General Funds		
General excise	211	35.6
Specific excise and others	49	8.4
Personal income	135	22.8
Corporate income	17	2.8
	412	
State Special Funds		
State fuel	20	3.3
Unemployment compensation and licenses	24	4.1
	44	
County Funds		
Real property	106	17.9
County fuel and motor vehicle	30	5.1
	136	

Source: "Government in Hawaii." Tax Foundation of Hawaii, 1974.

Table 11

COUNTY TAX REVENUES, 1973

County	Amount (millions)	Percent Distribution: Real Property	State Grants	Federal Grants	Other
Kauai	10	36	31	14	19
Hawaii	25	47	17	19	17
Honolulu	156	54	5	18	23
Maui	15	42	23	12	23
	206				

Source: "Government in Hawaii," Tax Foundation of Hawaii, 1974.

Real property is supposed to be assessed at 70 percent of market value. The 1973-1974 net taxable value of agricultural land was 395 million dollars[1] or 6 percent of the total net taxable value of all real property in Hawaii. Farm land accounts for 85 percent of the total net taxable value of farm land and improvements. Taxes derived from farm lands also constituted six percent of all state and county estimated tax collections.[2]

The 1974 tax rate on realty averaged $17.44 per $1,000 assessed value, ranging from $15 for Maui to $17.90 for Hawaii.

F. Growth Planning

The state's Department of Planning and Economic Development has published "State of Hawaii Growth Policies Plan: 1974-1984," which predicts that, without controls, growth is likely to be 2.8 percent per year, with the population reaching 1.1 million by 1985. The plan notes that, although state policy is supposed to be to divert growth to the Neighbor Islands, the proposed development of a second University of Hawaii campus at Ewa and the proposed construction of two more freeways on Oahu would be public investment growth generators directly in conflict with this policy. The plan recommends limiting state growth to 1 2/3 percent per year and limiting Oahu's growth to 1.4 percent per year. The Neighbor Islands would be allowed to grow between two and three percent annually. Some of the means to implement these recommendations would be: (1) reduce in-migration by publicizing "...the very real lack of jobs, cost of housing, and isolation from the mainland..."; (2) limit amount of Oahu land reclassified from agriculture to urban; (3) develop state parks and agricultural parks to block urban expansion into prime agriculture land; and (4) issue licenses for new hotel rooms.

Governor Ariyoshi asked the 1975 session of the legislature to endorse a slightly modified version of this proposal. His "Selected Growth Policies Plan" calls for an overall annual growth rate of 1.7 percent, with Oahu limited to 1.5 percent. Hotel growth on Oahu would be held to 3 percent per year, while a 9 per-

[1] "Government in Hawaii," Tax Foundation of Hawaii: $33 million for Kauai; 225 million for Hawaii, $72 million for Honolulu, and $65 million for Maui. For the 1974-1975 fiscal year, the total net taxable value of all real property rose to $8.3 billion; the net taxable value of farmland rose to $954 million. Department of Taxation data.

[2] Estimated agricultural collection, $8 million, x 85% ÷ estimated total collection, $119 million.

cent rate would be sought for the Neighbor Islands. More aid would be provided to diversified agriculture and to low and moderate income housing. Interisland water transportation would be encouraged. The legislature did not act on this proposal.

The administration also sought and received a legislative mandate[1] for a state plan to be submitted for approval to the legislature in 1977. The Director of the Department of Planning and Economic Development is responsible for the development of the plan, subject to the advice of a policy council consisting of the county planning directors and the directors or chairmen of a number of state agencies, all serving ex officio. Within two years of legislative adoption of a state plan, county plans are to be amended to conform to it.

The City and County of Honolulu has a large and competent planning staff which has devoted considerable effort to development of a general plan. As Robert Way, Chief Planning Officer, of the Department of General Planning, expresses it, while the state debates growth limitation, people keep moving to the Honolulu metropolitan area, placing more and more pressure on the limited housing stock. Until there are effective state growth controls, the county government must zone sufficient land to accommodate the newcomers. This presents a direct conflict with the goal of preserving agricultural lands. As the General Plan says,:

> "Urban uses have been competing successfully with agricultural uses. At the present time, a large portion of the lands best suited for agriculture is located in the metropolitan area. As anticipated, it is not the marginal farm lands but the best lands that are most attractive for urban development. There can be no doubt that one of the serious planning problems on Oahu today is the situation created by sprawling and scattered housing subdivisions, depleting our best agricultural lands and requiring the extension of expensive community facilities...One of the principal objectives of the General Plan is to further our agricultural economy. Not only is there a need to make Oahu self-sustaining but there is a need also to curb urban sprawl which encroaches upon agricultural lands."

Three development pattern alternatives are explored in the General Plan: (1) intensive development, which would cause no loss of agricultural lands; (2) moderate expansion, in which low and moderate income housing would be located in parts of the Ewa and Windward districts on good agricultural land; and (3) directed growth, in which there would be a high density development corridor reaching out from Honolulu past Pearl City to encompass much of Ewa. The last alternative is the one favored by the Department of General Planning, even though it would lead to considerable further encroachment on prime agricultural lands.

III. THE LAND USE COMMISSION

A discussion of the City and County of Honolulu's plans for development on Oahu leads necessarily to consideration of the policies and powers of the state Land Use Commission, since the Commission determines the ambit of the county's jurisdiction.

[1] Act 189, 1975.

A. Statutory Authorization

The law creating the Land Use Commission was enacted in 1961.[1] It provided for a nine-member commission, seven of whom are appointed by the Governor, one from each senatorial district and one at large. The two other members, who serve ex officio, are the Director of the Department of Planning and Economic Development and the Chairman of the Board of Land and Natural Resources. The Commission is located within the Department of Planning and Economic Development.

The law directed the Commission to establish three land use districts--agriculture, conservation, and urban--encompassing all lands within the state. The law was amended in 1963 to provide for a rural district, with a minimum lot size of one-half acre. The law further specified that the Department of Land and Natural Resources would regulate land use within the conservation district. While the counties may zone within the other three districts, the zoning in the agriculture and rural districts may not permit uses contrary to those specified by statute. For the agriculture district, the statute lists crops, grazing, forestry, animal husbandry, accessory uses, and open air recreation facilities as permitted uses.

Therefore, while the City and County of Honolulu may plan for all of Oahu, it has freedom to implement its plans only in those areas which the Land Use Commission has designated as urban. The county administration may, of course, attempt to persuade the Commission that its plans for Oahu should serve as a guide for Commission action in altering district boundaries. However, the Commission is equally free to reject such recommendations. There has been, and continues to be, disagreement between the Commission, and the City and County of Honolulu. Regrettably, the Land Use Law failed to provide policy guidance for the Commission as to priorities between urbanization and agriculture, either for the state as a whole or for specific locations. Therefore, the Commission has relied on its own best judgment in setting district boundaries. As Tom Dinell, Director of the University of Hawaii's Pacific Urban Studies and Planning Program, has said:

> Hawaii might well have suffered rampant urban sprawl without state land use classification and control, but it would be incorrect to conclude that state intervention has come anywhere near resolving conflicts over land use or has led to the formulation of a clear, statewide land use policy. Disputes between the Land Use Commission and the four counties have been frequent. In recent years citizen protests against proposals for reclassification and the manner in which the Land Use Commission conducts its affairs have increased vastly.[2]

One indicator of disagreement is that there are areas on Oahu restricted to agricultural or conservation use by the Commission which the General Plan of the City and County of Honolulu envisions as urban and, conversely, substantial areas in the Commission's urban district which the County has planned for agriculture. For instance, 1,700 acres shown on the Honolulu plan as agricultural was redistricted urban during the 1974 boundary review.[3] Not surprisingly, given this context, Mr. Way, the Chief Planning Officer for Honolulu, does not share Mr. Dinell's views about the Land Use Commission.

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[1] Act 187, Land Use Law, formally titled "An Act Relating to the Zoning Powers of the State and the Assessment of Real Property Based Upon Zones Established by the State..."

[2] "Filling the Calabash: How Much is Too Much?"

[3] Conversation with Robert Way.

> I believe that the Land Use Law provided some protection and guidance to the Neighbor Islands. My view is that the Land Use Commission is, and historically has been, more of a hindrance than a help on Oahu.[1]

The Commission's 1975 Rules[2] do provide criteria for setting district boundaries. The urban district is to include a reserve sufficient for ten years' growth, with lands contiguous to existing urban areas to be favored, particularly when a county or state plan shows them to be suited to urban use. The rules pertaining to the agriculture district state that:

> Lands in intensive agricultural use or lands with a high capacity for intensive agricultural use should not be taken out of this District unless the Commission finds either that: (1) such action will not substantially impair actual or potential agricultural production in the vicinity of such lands, and/or (2) such action is reasonably necessary for urban growth.

This wording suggests some preference for urban use over agriculture. A review of the Commission's actions over the past decade supports such an inference.

B. Boundary Changes

The Land Use Commission established interim district boundaries in 1962 and final boundaries in 1964. There are two ways in which changes in these boundaries occur: (1) a landowner, lessee, or government agency may petition the Commission or the Commission may initiate action, and, after a public hearing and advice from the county, the Commission may order a revision; and (2) the Commission itself is required to conduct a review every five years and make such changes as it deems advisable. The acreage and percent in each district initially, after completion of the 1969 review, and in 1974, prior to approval of the second boundary review recommendations, is shown for Oahu and the Neighbor Islands in the Table 12.

Since the state has but 410,000 acres of prime agricultural land, obviously much that is not prime also is classified agricultural. For Oahu, however, with 205,000 acres of prime agricultural land, only 144,000 acres are classified agricultural. Between 1964 and 1974, there was a 3.7 percent decline in the amount of Oahu land classified agricultural, a 1.4 percent increase in the conservation classification, and a 2.4 percent increase in the urban classification. The most significant figure to note here is the net change from agriculture to urban of 1,409 acres, most of which is located in the large, fertile valley extending from Ewa to Wahiawa.

It is said by many that the Commission has been too free with interim boundary changes, particularly in response to requests from large estate owners. Edward Tangen, Chairman of the Commission, says that this was true but that policy has changed since 1970, when he became Chairman. He notes that since 1973, the Commission has been attaching conditions to many of the interim changes.

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[1] Letter from Robert Way, dated June 18, 1975.

[2] Rules of Practice and Procedure," Land Use Commission, State of Hawaii, January 5, 1975.

Table 12
AREA IN STATE LAND USE DISTRICTS, 1964, 1969 AND 1974

	Oahu		Neighbor Islands		Total	
District	Acres	Percent	Acres	Percent	Acres	Percent
Urban						
1964	75,700	19.6	42,100	1.1	117,800	2.9
1969	82,593	21.4	57,569	1.5	140,163	3.4
1974	84,093	21.9	63,379	1.7	147,472	3.6
Rural						
1964	----	----	6,700	.2	6,700	.2
1969			6,375	.2	6,375	.2
1974	----	----	8,872	.2	8,872	.2
Agriculture						
1964	158,200	41.1	1,966,200	52.8	2,124,400	51.7
1969	145,906	37.9	1,809,969	48.6	1,955,875	48.3
1974	144,286	37.4	1,824,441	48.9	1,968,727	47.9
Conservation						
1964	151,400	39.3	1,711,200	45.9	1,862,600	45.3
1969	156,801	40.7	1,852,286	49.7	2,009,087	48.9
1974	156,921	40.7	1,829,508	49.1	1,985,429	48.3
Total	385,300	100.0	3,726,200	100.0	4,111,500	100.0

There were 21 boundary changes totalling 5,280 acres approved by the Commission for Oahu as part of the 1974 boundary review. These changes were as follows,

To a less intensive classification:

Urban to Agriculture	349.7
Urban to Conservation	339.2
	688.9

To a more intensive classification:

Agriculture to Urban	1,758.3
Conservation to Urban	23.7
	1,782.0

Retained in low intensity classification:

Agriculture to Conservation	240.0
Conservation to Agriculture	2,568.8
	2,808.8

Kem Lowry of the University of Hawaii's Pacific Urban Studies and Planning Program is studying the interim boundary decisions between 1964 and 1974. Of 257 petitions, he reports that 59.5 percent were approved in full and 17.5 percent in part for a total of 77 percent. Two hundred and fifty of the 257 requests were for more intensive use. Petitions by owners of parcels of 150 acres or more were approved 83.9 percent of the time. Lowry found no change in the rate of approvals over the decade. He also found that high agricultural productivity of land has not deterred the Commission from approving redistricting to urban uses.

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A review of the Land Use Commission's records pertaining to interim boundaries changes for Oahu shows that, between 1962 and January 1975, 52 request to redistrict from agriculture to urban were acted upon. Of these, 43, or 83 percent, were approved in whole or in part.

These data lead to the conclusion that the Land Use Law, as applied by the Land Use Commission, has been but a modest impediment to those landowners wishing to convert from agricultural to urban uses. Of course, it is possible that the existence of the Land Use Commission districts has deterred some land owners from seeking to develop.

C. Future Portents

The 1975 legislative session enacted several changes in the Land Use Law.[1] One authorizes the Commission to create agricultural parks. These would be areas for intensive cultivation surrounded by buffers to assure separation of offensive agricultural activities from nearby urban uses. The Commission already has taken the initiative to establish the first such district. Kunia consists of a 500-acre area for raising pigs, poultry, and feed grains surrounded by a 200-acre buffer.

Another change adopted is to alter the type of hearings held by the Commission to quasi-judicial adversary proceedings.

A third debate focussed on the current lack of a state plan and the resulting absence of policy guidelines for the Commission. Pending legislative adoption of a plan, likely to occur in 1977, two possibilities were considered. One would have required the Commission to conform to county plans, the other--the one adopted--sets interim state guidelines. The interim guidelines include the following provisions: "(1) Land use amendments shall be approved only as reasonably necessary to accomodate growth and development, provided there are no significant adverse effeets upon agricultural...resources...' (4) Urban districts shall be contiguous to an existing urban district or shall constitute all or a part of a self-contained urban center;... (6)...the Commission shall give consideration to the general plan of the county; (7) Insofar as practicable conservation lands shall not be reclassified as urban lands."[2] Those favoring the latter alternative, including Senator Jean King, who chairs the Committee on Ecology, Environment and Recreation, believe that tying Commission decisions to the Oahu plan would lead to too many reclassifications from agriculture to urban. Commission Chairman Tangen also opposed the county plan alternative on the ground that some of the county plans are incomplete and therefore offer inadequate guidance.

Given the present administration's commitment to agriculture and to state planning, it is highly probable that within a couple of years the Commission will receive more explicit policy directives from the legislature supporting preservation of prime agricultural lands.

[1] Act 193, 1975.

[2] Act 193, 1975, amending Ch. 205, H.R.S. by adding §205.

IV. THE 1961 DEDICATION LAW

Act 187, the Land Use Law of 1961, not only mandated state zoning but also provided for dedication of land for agricultural use. The purpose of the Act is: "...to preserve, protect and encourage the development of the lands in the State for those uses to which they are best suited for the public welfare and to create a complementary assessment basis according to the contribution of the lands in those uses to which they are best suited." This statement of purpose was amplified by dedication authorization.

The Land Use Law contains one further, hortatory provision with regard to assessments. The Department of Taxation is directed to "...give consideration to the use or uses that may be made ..." of land in a given district. Thus, presumably, if land were zoned exclusively for agricultural use, this fact would be taken into account by the Department in making assessments. If the assessor had reason to assume that the zoning would remain in force indefinitely, then the assessment should be at farm use value. Under these circumstances, there would be no incentive for farmers to dedicate their land. However, if, on the contrary, the assessor observed that the Land Use Commission readily granted petitions for redistricting, then proper assessment practice would dictate use of market value as the assessment basis. In this latter case, farmers wishing to retain their land in farm use (and obtain tax reductions) would have reason to express their commitment by dedicating their land.

Of course, the same conditions would not be expected to prevail statewide. In some locations, farm use value and market value would be the same regardless of zoning. Near urban development, the pressure for redistricting could be expected to be great and, given the directive of the Land Use Law that incremental urbanization should be preferred over spot zoning, the willingness of the Land Use Commission to redistrict might be expected to be greater there than elsewhere.

In fact, there was little use of the dedication provisions of the Land Use Law. In many parts of the state, assessments had been low, and continued to be, so few farmers dedicated land. Near urban areas, the Department of Taxation, as well as the land market, calculated that the Land Use Commission would be quite free with redistricting and therefore market value reflected development value. Even though assessments rose on the urban fringe, few farmers there dedicated land, reflecting a preference for flexibility over reduced assessments.

After the law had been in effect for seven years, dedicated land statewide was valued, prior to dedication, at 5.1 percent of the total 1969 assessed value of all farmland; for Oahu the comparable figure was 9.2 percent. Assessment at this period were supposed to be at 70 percent of highest and best use value, although there is evidence that much farm land was assessed at as low as 10 percent of highest and best use value.

A. The Statute and Amendments

Act 187 authorized landowners, or lessees with remaining lease terms of at least 10 years,[1] to dedicate land in the agricultural or conservation zones for agricultural uses for a term of 10 years. In 1963, the law was amended to authorize dedication in urban districts. The urban district provisions require that land have been in farm use for the five years immediately preceding the petition for dedication.

[1] In Hawaii, the lessee customarily pays the real property tax.

Two other dedication provisions were enacted in 1965 and 1967. Act 201 of 1965 authorized dedication in urban areas for "...landscaping, open spaces, public recreation and other similar uses." Act 296 of 1967 extended dedication rights for residential use in the urban district.

To dedicate land for agricultural use, the owner or lessee had to petition the Department of Taxation, specifying the type(s) of agricultural use intended. The Department of Planning and Research (now the Department of Planning and Economic Development) was responsible for commenting as to whether the intended use was compatible with state planning, and the (now defunct) Land Study Bureau was responsible for determining site suitability for the intended use. An appraiser from the Department of Taxation made two appraisals, one of market value, one of farm use value. If the Department of Planning and Research and the Land Study Bureau reported favorably, the Director of Taxation was required to approve the petition for dedication.

The dedication was automatically renewed indefinitely unless the farmer or the Director of Taxation gave five years' notice of an intent to cancel. However, if the Land Use Commission rezones the land to urban, the farmer and the Director of Taxation may agree to cancellation within 60 days of the change.

If the land was not used for over one year, for the purpose described in the dedication petition, the difference between taxes paid and taxes that would have been payable absent the dedication, retroactive to the time of the petition, became payable. There also was a 5 percent per annum penalty from the date of each of the retroactive taxes due.

As of 1967, portions of a tract dedicated to agricultural use could be withdrawn and retroactive taxes and a penalty paid prorated to the portion withdrawn.

B. Use of the Law

The dedication provisions of the Land Use Law were in effect for the tax years 1963-1973. During this period 1,083 petitions to dedicate were approved, covering 59,700 acres. This acreage is 1.5 percent of the total area of the state, and 3 percent of the land zoned agricultural.

Seventy-seven percent of the land dedicated was on Hawaii, where there is little urban pressure.

On Oahu, only 3,900 acres were dedicated--1 percent of that island's land area and 2.7 percent of the land zoned agricultural. Between 1963 and 1969, 214 of the 272 Oahu dedication petitions in the agriculture and conservation districts were approved. Between 1966 and 1969, 40 petitions were filed requesting dedication for agriculture in Oahu's urban district; only 16 of the petitions, covering 65.6 acres, were approved. Also between 1966 and 1969, there were 19 petitions for open space dedication in Oahu's urban district; seven petitions, covering 8.4 acres, were approved.

Department of Taxation figures on reductions in assessments and taxes following dedication are available only for the years 1963-1969. They show markedly greater percentage reductions for the state as a whole than for Oahu. The reduction in the total agricultural land tax base was 5.1 percent for the state and, for Oahu, 9.2 percent.

Table 13

ASSESSED VALUES BEFORE AND AFTER DEDICATION, 1963-1969[1]
(in thousand $)

Agriculture and Conservation Districts	Oahu	State Total
Acres dedicated	2,749	17,713
Value before dedication	$6,360	$11,703
Value after dedication	4,199	6,044
Difference in value	2,161	5,659
% Recuction in valuation	34.0	48.4
% Reduction in tax liability	36.7	61.7
Total assessed value of land in agriculture, 1969	482,199	1,389,051
Value before dedication as % of total assessed Value of land in agriculture	9.2	5.1
Urban District[a]		
Acres dedicated	54	131
Value before dedication	$686	$827
Value after dedication	196	269
Difference in value	490	558
% Reduction in valuation	71.5	67.5
% Reduction in tax liability	71.5	67.5

[a]Oahu and Maui only.

Source: "A Summary of Lands Dedicated for Agricultural Use; Assessed Land Values Before and After Dedication," Department of Taxation, State of Hawaii, 1969.

Mr. Co's doctoral dissertation will be the first detailed study of cancellations on Oahu under the dedication program for agriculture zone land. Preliminary information, generously contributed by Mr. Co for this report, shows that, of 251 dedications approved for the years 1963-1972, 26 were cancelled at some point. During this decade, a total of 3,725 acres were dedicated, 461 acres were withdrawn.

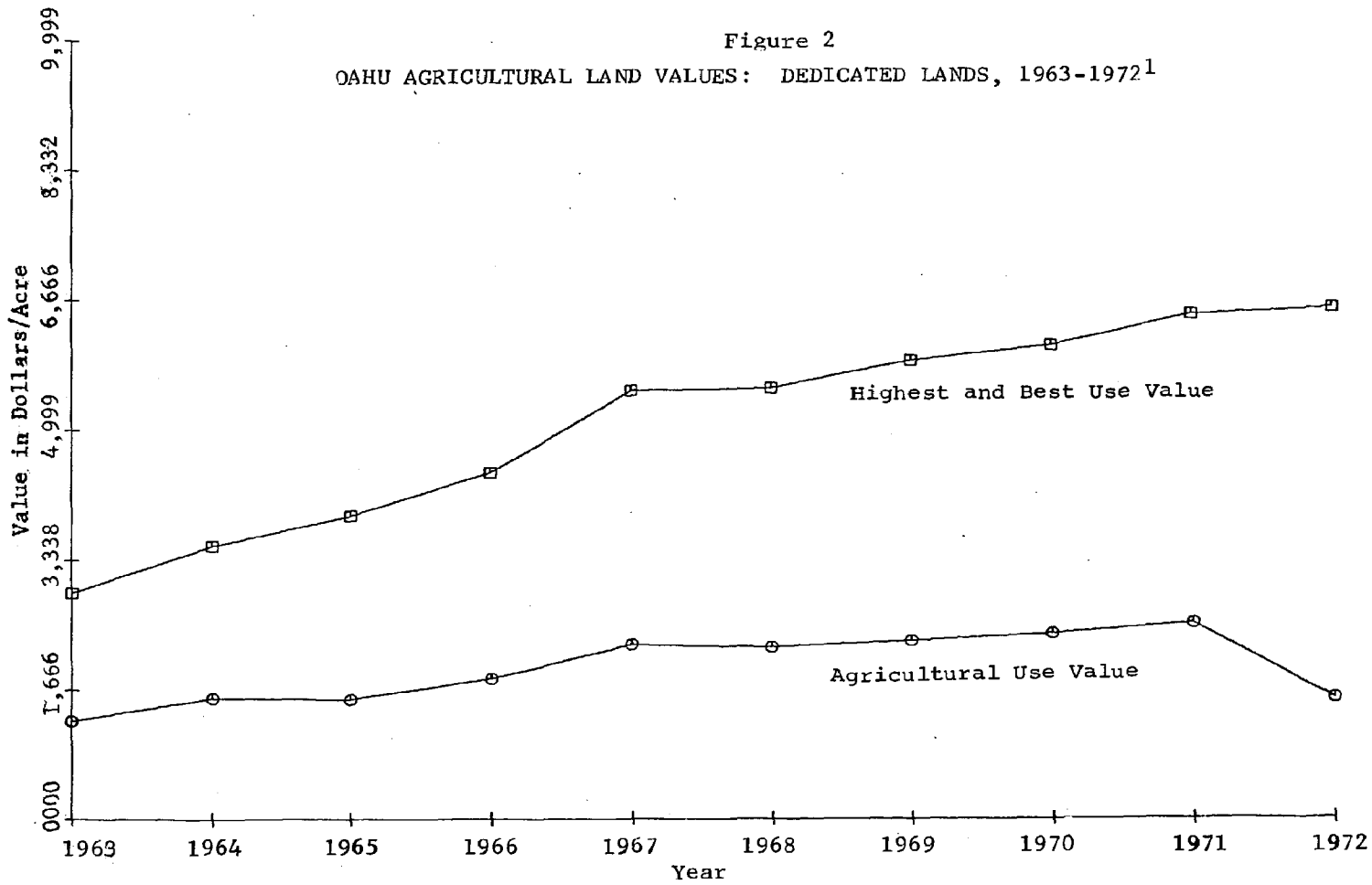
The 26 dedications cancelled had an average area of 18 acres; this was in comparison to an average area of 15 acres for the 225 dedications not cancelled. Twenty-two of the areas cancelled were under 10 acres, and only one--a tract of 197 acres--exceeded 100 acres in size.

Some applications failed to show soil productivity; all except one of those which did were concerned with either Class A or B land.

Of the cancellations, two were partial, one was a Department of Taxation cancellation without a rollback tax, and the remaining 23 were Department of Taxation cancellations with rollback tax, all but one with a 5 percent penalty as well. These last 23

Figure 2

OAHU AGRICULTURAL LAND VALUES: DEDICATED LANDS, 1963-1972[1]



1/ Graph prepared by Mr. Howard Co

cancellations all resulted from the farmer's failure for over one year to use the land for the purpose for which it was dedicated. The remaining three cancellations were due to subdivision, sale of part of the dedicated land, and change in use of part of the land.

The picture that emerges from this study of Oahu cancellations is that farmers did not enter the program unless they intended to continue farming; only two out of 251 dedications were cancelled because of sale or subdivision. Since Mr. Co's data do not cover tax year 1973, the first year in which farmers could have withdrawn after five years' notice, it is not possible to say how many participants in the program may have calculated that 10 years' participation, terminated by timely notice, would have been to their financial advantage. Participants were almost exclusively small farmers. Other information suggests that large tracts carried low assessments anyway, giving such owners or lessees little reason to dedicate.

V. DIFFERENTIAL ASSESSMENT AFTER 1973

The farm tax picture until the early 1970's has just been described: very low assessments except on the urban fringe and very small participation in the dedication program. Then, in 1972, the Department of Taxation began reconsidering its low assessment policy. The Director of the Property Technical Office, Stanley Ooka, made a review of agricultural assessments on Oahu and the Neighbor Islands and found a number of instances of assessment at 10 percent of market value. Mr. Ooka reported:

> "The present assessment of these lands indicate a sales-assessment ratio of less than 10 percent which is far less than the 60 percent ratio maintained for residential properties. And since the achievement of uniform ratio is probably the most important factor in property taxation, we should make every possible effort to equalize the assessment."[1]

Mr. Ooka's specific suggestions were for farm assessment at 70 percent of market value, or $7,000 per acre in the Pearl City, Ewa, Mililani New Town area, $5,250 per acre from Mililani New Town to Wahiawa, and $3,500 per acre in the Kahuku, Waialua, and Waianae areas. For the Neighbor Islands, he recommended assessed values of $3,500 per acre near the urban areas and $1,750 per acre elsewhere. Given a number of sales of large tracts--50 to 500 acres--in the agriculture district for prices ranging from $6,700 to $40,600 per acre, these assessment recommendations seem moderate.

The Department of Taxation did in fact raise assessments of farm land markedly, effective in 1974. Knowledge that this was about to happen led to an outcry from farmers for preferential tax treatment. There was a simulataneous concern among the state's planners and members of the Land Use Commission that land zoned for agriculture not be driven from agricultural use by high taxes. The ensuing debate led, in 1973, to two legislative actions; one was an amendement of the 1961 dedication law and the other was a new approach called deferral. These provisions became effective for tax year 1974. In that year alone, 360,625 acres were dedicated, in comparison to 59,700 acres for the years 1963-1973. No figures are available for acreage in the deferral program.

The dedication and deferral provisions combined had an impact in terms of taxes foregone in the 1974-75 fiscal year estimated by Mr. Ooka at between 10 and 15 million dollars. The total tax base for agricultural land, at 70 percent of either market or farm value, depending on tax treatment of the land, was 454 million dollars. This was

[1] Memorandum from Stanley T. Ooka to Ralph W. Kondo, Director of Taxation, dated August 11, 1972. It may be noted that, on other occasions, the Department has stated that assessments are at 70 percent of market value.

9.8 percent of the 4.6 billion dollar total tax base for all land in the state and 5.5 percent of the total real property tax base. Agricultural land and improvements were expected to yield nine million dollars in taxes, or 7 percent of the 129 million dollars to be raised from the real property tax. According to Mr. Ooka's estimate, use of the new differential tax provisions cut the agricultural land tax yield by well over 50 percent, and this in the first year of the new program.[1] Since agricultural land assessments previously had been very low, the shift in the overall split between agriculture and other uses doubtless bears no resemblance to this figure. It is farmers who did not receive deferral who have been subjected to the greatest impact.

A. Dedication

The dedication provisions of the 1961 law were altered in 1973 in the following significant ways:

(1) Dedicated land in the urban district must be used for "...the cultivation of crops such as sugar cane, pineapple, truck crops, orchard crops, ornamental crops, or the like..." This provision was added to avoid farm uses offensive to nearby urban residents. However, it is accompanied by another provision permitting livestock uses if compatible with surrounding uses.

(2) Dedicated land in the urban district must be found by the Director of Taxation to be economically feasible for the proposed use.[2] This finding is in addition to the previously required findings by the Department of Agriculture as to productivity and by the Department of Planning and Economic Development as to compatibility with the state's development plan required for all dedications.

(3) Land in an agricultural district may be dedicated either for 10 or for 20 years. If dedicated for 20 years, the tax base will be at 50 percent of farm use value.

(4) Notice of cancellation may be given in the ninth year under a 10-year dedication and in the nineteenth year under a 20-year dedication.

(5) The dedication continues in effect following changes in ownership.

(6) Failure to use the land for the dedicated purpose for one year or an overt change in use for any period cancels the dedication and causes the rollback plus a 10 percent penalty to fall due.

B. Deferral

The Director of Taxation is required to classify all land according to its highest and best use. The law provides for seven classes,[3] one of which is agricultural. In establishing its classes, the Department of Taxation is to "...give major consideration to..." the Land Use Commission's districts, county zoning, and state plans, as well as any other factors bearing upon highest and best use, but is bound by none of them.

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[1] Land and improvements together, after exemptions, were valued for tax rate purposes at 8.3 billion dollars. For agricultural use, land constituted 83 percent of the base, improvements 17 percent.

[2] See Appendix for a copy of the form used for the Report on Findings.

[3] Land in four classes--unimproved residential, hotel and apartment, commercial, and industrial--is taxed at a higher rate than buildings.

Land classified agricultural by the Department of Taxation and used for agriculture, whether dedicated or not, is to be assessed at agricultural use value and the taxes which otherwise would have been payable are deferred. Land value is determined by considering rent, productivity, actual use, location, and the opinions of people knowledgeable about land values.

If the zoning is changed from agricultural to rural (i.e., minimum lot size of 5 acres) or urban by the Land Use Commission upon petition of an owner or lessee, or if the land is subdivided into parcels of five acres or less, a rollback tax and 10 percent penalty are due retroactive to the time of the agricultural use value assessment, but in no case for a period greater than 10 years. If the rezoning or subdivision occur within five years of enactment of the law, the rollback and penalty are doubled. However, the owner may escape the rollback and penalty by dedicating the land within one year of the rezoning.

The Department of Taxation has proposed regulations[1] for implementing both the dedication and deferral provisions of the law but, as of June 1975, had not adopted them. Within the next two months, the Department proposes to hold public hearings and move toward adoption. Among the provisions proposed are the following:

(1) to be eligible for either dedication or deferral, there shall be a minimum gross sale per year per farm of $200.

(2) to be classified by the Department of Taxation as agricultural, land must be located in the Land Use Commission's agriculture district or it must have been dedicated;

(3) the assessor shall estimate annually both fair market and agricultural use value;

(4) the assessor shall show the classification and the assessed value on land appraisal cards and also shall indicate if there is a deferred assessment;

(5) income shall be capitalized at the prevailing market rate or at 6 percent in the absence of market data, to estimate agricultural use value.

C. Experience with Dedication

Farmers have flocked to dedicate land, particularly under the new 20-year dedication provisions. Approximately six times as much land was dedicated in the first year of the new program as in the entire life of the prior program.

On Oahu many big estate owners and lessees cultivating sugar and pineapple dedicated for 20 years. However, there is much prime agricultural land which has not been dedicated. The Campbell Estate, for instance, which owns 20,000 acres in the agricultural district, encouraged its lessees, Oahu Sugar and Del Monte, to dedicate 8,000 acres under the 20 year program. Another 3,000 acres will be dedicated, but not the land which the Estate hopes to have redistricted for urban use.[2] Average per acre reductions in assessed value in the tax districts which

[1] Draft No. 3, "Proposed Rules and Regulations Relating to the Assessment of Agricultural Lands and to the Imposition of a Deferred Tax," Department of Taxation, December 1974.

[2] Conservation with Fred Trotter, Trustee of the Campbell Estate, and Robert Johnson, staff member for the Estate.

TABLE 14

SUMMARY OF AGRICULTURAL LAND DEDICATION FOR TAX YEARS 1963 THRU 1974

Tax District	1963 through 1973 total		1974 Dedication					
			10-Year Dedication		20-Year Dedication		Total for 1974	
	No. Approved	Area(acres)	No. Approved	Area (acres)	No. Approved	Area (acres)	No. Approved	Area(acres)
Oahu	271	3,900	4	1,700	21	11,750	25	13,450
Maui	350	4,025	12	600	24	58,200	36	58,800
Hawaii	221	45,950	90	24,025	207	225,800	297	249,825
Kauai	241	5,825	5	50	43	38,500	48	38,550
State	1,083	59,700 Ac	111	26,375 Ac	295	334,250 Ac	406	360,625 Ac

RECAP OF TOTAL:

Year	No. Approved	Area (acres)
1963-73	1,083	59,700 Acs.
1974	406	360,625
Total	1,489	420,325 Acs.

Source:
Department of Taxation
Property Technical Office
July 29, 1974

include Ewa and Wahiawa have been considerable. In District 9, which includes Ewa, the 1973-74 agricultural use value was $431 per acre while highest and best use value was $8,621, giving a 95 percent reduction. In District 7, the reduction was 94 percent, from $7,625 to $455 per acre.

One omission in the language of the revised petition to dedicate may have been a significant factor in encouraging farmers to dedicate. The pre-1973 form included the language: "I am also aware that it is the policy of the Department of Taxation to enforce by injunction, if necessary, the continued dedicated uses of the dedicated land during the effective period of the dedication." (There is no evidence that the Department ever did.) This version was dropped in 1973, according to Mr. Ooka, so as not to discourage people from applying.

There are problems yet to be worked out. The Department of Agriculture had only one staff person to make the field visits and findings of fact as to agricultural suitability. Now, in 1975, staff has been increased, and the Department hopes to be able to make more extensive comments, including a judgment as to what would be the most productive agricultural use of a given tract. Also, the Department of Agriculture has not had sufficient staff to develop a state agriculture plan, although a start has been made.[1] Such a plan would enable the Department to respond more accurately to Department of Taxation requests for findings on dedication petitions.

There is a problem with the frequency of assessments. The 1973 amendment clearly states that assessments are to occur annually, yet the Department of Taxation is reassessing urban uses only every four years and other uses less frequently. The Concerned Taxpayers Association is challenging the assessment of all land because of the Department of Taxation's failure to conform with the statute. The frequency of reassessment will affect the amount of taxes deferred and, consequently, the amount of rollback taxes which can be collected.

The Department of Taxation dealt with the sudden influx of dedication petitions by using current assessments as farm use value, except on the urban fringe and for sites near highways and served by public utilities. In the future the Department proposes to use capitalized rent. The assessors did have to make determinations of highest and best use value for all dedications effective for the 1974 tax year; the values developed by Mr. Ooka in 1972 were used for this purpose. Using these figures, Mr. Ooka reports that the Department of Taxation has been put to very little extra work and has not increased its staff as a result of the law's new provisions.

Mr. Ooka sees no need for the Department of Taxation to undertake to inform people about the law. "We aren't beating the bush to tell people what it's all about. If farmers request a petition form, they receive one but with no accompanying information. The Farm Bureau has had a different view of the desirability of publicity; it distributes widely a leaflet prepared by the Cooperative Extension Service at the University of Hawaii. It seems likely that the past lack of interest of the Department of Taxation in publicizing its program means that many small farmers are unaware of the possibility of dedication. Currently, there is a new attitude emerging in the Department, one favoring an effort to educate the public about opportunities available under the program.

Partly due to the past failure to provide adequate information and partly due to an apparent insufficiency of staff to make yearly field visits for assessment purposes, there have been widespread inequities among small farmers. The case of

[1] Conversation with Yukio Kitagawa, Deputy Director, Department of Agriculture.

Oliver Kupau, a small farmer from Waiahole, may be illustrative of current problems.

Mr. Kupau or members of his family own several less-than-one-acre parcels of land at Waiahole, some 20 miles from downtown Honolulu on the windward side of Oahu. Most of these parcels of land are in farm use. They are located along Waiahole Valley Road, an unimproved dirt road. Some of these small tracts on either side of the road are in the urban district, some in the agriculture district. The large estate holdings surrounding them are in the agriculture district. Illustrative figures on three parcels show that assessments jumped substantially in 1974 on both the parcels in the urban and agriculture districts. Mr. Kupau believes that the assessor had no basis in fact for the new assessments.

Parcel No.	District	Size	Assessment on Land (70% of Market)		Presumed Market Value/Acre
			1970	1974-75	1974-75
4-8-8-14	U	.62A.	$6,944	$29,925	$68,950
4-12-12-16	A	.25A.	263	3,518	20,100
4-8-12-17	A	.25A.	263	5,285	30,200

Mr. Kupau, in testimony before the Finance Committee of the Hawaii House of Representatives on March 3, 1975, said concerning these assessments:

> "I find the small property owner's property has gone sky high and yet I find the big land owners, like McCandless Estate, in some areas dropping all the way down, over ONE THOUSAND percent cut, down to one dollar...We are getting slowly crushed out by these large land owners...I accuse and charge the Real Property Tax Division here in the State of Hawaii of unequal, unfair and discriminatory manner in which our real property is assessed..."

D. Experience with Deferral

To the best of our knowledge, Hawaii's deferral program is unique. It also has some serious problems, in addition to those described above, common to it and the dedication program.

It is the Department of Taxation which decides unilaterally whether or not to place farm land in the deferred category. Although the law does not so specify, the Department has decided to apply the program solely in the Land Use Commission's agricultural district and, within that district, to make its own classification of land whose highest and best use is agriculture. Given the small staff in the Department, this classification often is done without a field visit. Following classification and presuming that the land actually is in farm use, it will be placed in the deferral program. As of July, 1975, the Department has no record of how much land is classified deferred.

Since farmers do not apply for deferral, and since their annual tax notice shows only current assessed value, they receive no notice of having been placed in the program. The Department of Taxation does not record any notice of properties placed in the deferral program at the Bureau of Conveyances, so title searches cannot pick up the information. Thus, sellers and buyers both can be ignorant that taxes are being deferred on a piece of property. Further, there is no public record of the market value of property assessed at farm value. Therefore, it would be quite possible for a farmer to seek a Land Use Commission boundary change to urban, and on obtaining the rezoning, receive a bill for double the rollback taxes and 10 percent penalty, all without ever having known that the land was in the deferral program.

The law is silent as to the effect of a reclassification out of agriculture by the Department of Taxation or a change in use by the owner other than subdivision into parcels of five acres or less. The Department's view of this is that if the owner ceases to farm the land, the deferral would cease. They then would assess the land at fair market value but not impose a rollback. With this alternative, there is little incentive for any farmer in the agriculture zone to dedicate for 10 years.

The program being a new one, hopefully the Department of Taxation will undertake measures to give adequate notice to farmers of affected land. While the intent of the law is to offer the state an initiatory role in trying to keep land suited to farming in farm use, the possible advantage this leverage offers is at present outweighed by the lack of notice and resulting unfairness to farmers.

E. Equity

The equity problems of the deferral program as it affects participating farmers just have been discussed. Aside from these problems, the combined intent of the 1973 law and of the markedly increased assessments on agricultural land is to retain preferential treatment for two often overlapping groups of farmers--those whose land the state believes should be farmed and those who wish to make some commitment fo farming. This would exclude and subject to higher assessments that land judged more suited to other uses, placing pressure on its owners to convert.

The assessment at 50 percent of farm value of land dedicated for 20 years is compatible with the state's commitment to preservation of agriculture.

Unfortunately, adequate data are not available from which to calculate the shift in the tax burden from the 1961 program to the 1973 programs. It is fair to say that it is commonly believed that the large estate owners formerly received very favorable tax treatment in comparison to the small farmers and continue to do so. No assessment study was found either to substantiate or refute this.

Whatever the shift in the real property tax burden occasioned by the new programs, either as between large and small farmers or between all farmers and others, it will be broadly distributed. Since Hawaii's real property tax is distributed by the state to the counties in proportion to the amount collected from each county, and since the counties are the lowest level of government, there will be no problem of small tax district inequities.

F. Ease of Administration

Essentially the programs are not easy to administer. The fact that the Department of Taxation finds that they are suggests that the present administration is inadequate.

Assessments are to be updated annually according to the law, but they have not been. The Department of Taxation's classifications need to be checked frequently, although the law does not specify a required timetable. Field checks as to actual use to see whether land is being farmed in conformity with the dedication or deferral programs should occur annually. Some public recording to give notice of participation in the program is vital. A modern, detailed recordkeeping system is needed within the Department so that income capitalization, calculation of rollback and penalty taxes, and overall analysis of the operation of the programs can be carried out efficiently. Development of common base maps and common methods of data collection and classification with other departments of state government would be another important step forward.

The law, but for portions of the deferral provisions, is quite explicit and calls for a fairly sophisticated means of enforcement. There is evidence that the Department of Taxation has recognized the need to update its operation, now that it is obvious that there will be extensive participation in the programs and that the old, handicraft methods won't suffice.

G. Political Feasibility

There is broad political support for the preservation of agricultural land and for greater self-sufficiency in food production. There also is widespread awareness that urban and resort growth are outbidding agriculture for prime farmland. Hawaiians seek preservation of agriculture as a proper activity of state government, based on the public interest. The 1961 enactment of state level agricultural zoning, and the absence over the years of a challenge to it on taking grounds, is ample testimony to a different attitude toward public regulation of land use than that which prevails in much of the rest of the United States.

It seems likely that Hawaii will move soon to development and adoption of a state plan which emphasizes diversity and greater self-sufficiency in agriculture as well as efforts to limit and direct growth. By the time that this plan is adopted, the 1973 dedication and deferral programs whould have been in effect long enough for a judgment to be made as to their efficacy, in combination with state zoning, at maintaining farm use. If too much land or inappropriate land is being converted to urban use, one can anticipate that the legislature would be quite prepared to enact more stringent measures.

VI. APPENDIX TO HAWAII CASE STUDY

People interviewed, Honolulu, 3/10-14/75

State Officials

Governor's Office:	Edward Greaney, Press Secy.
Dept. of Taxation:	Herbert Welder, Property Technical Office;
	Stanley Ooka, Dir., Property Technical Office & Asst. Dir., Dept. of Taxation;
	Gordon Wong, Dir., Dept. of Taxation (met but no interview)
Dept. of Agriculture:	Yukio Kitagawa, Dep. Dir.
Dept. of Land & Natural Resources:	Gordon Soh, planner
Dept. of Planning & Economic Development:	Nancy Fowler, HUPIC;
Land Use Commission:	Edward Tangen, Chm;
	Tatsuo Fujimoto, Dir.,
	Sen. Jean King, Chm. Committee on Ecology, Environment & Recreation

County Official

City & County of Honolulu:	Robert way, Chief Planning Officer, Dept. of General Planning

Establishment

Oahu Development Conference:	Aaron Levine, Dir. & Bill Grant, Asst. Dir.

Estates

Estate of James Campbell:	Fred Trotter, Trustee & Robert Johnson

University

Dept. of Agricultural Economics:	Prof. Harold Baker (former Dir. of defunct Land Study Bureau);
	Howard Co , Ph.D candidate
Pacific Urban Studies & Planning Program:	Tom Dinell, Dir.;
	Kem Lowry

Land Owner, Small Farmer

	Oliver Kapau, Waiahole

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U.S. Bureau of the Census, Hawaii State Department of Health, and Hawaii State Department of Planning and Economic Development, "The Population of Hawaii, 1974," Statistical Report #106, Research and Economic Analysis Division, Department of Planning and Economic Development, State of Hawaii, 1975.

HAWAII
FORM P-41A
(REV. 1974)

DEPARTMENT OF TAXATION
STATE OF HAWAII

LAND DEDICATION – REPORT ON FINDINGS

TAX KEY				Petition No.
Z	S	Plat	Par	

Specific Agriculture or Ranching Use _____

TO: Director of Taxation

FROM: Department of Agriculture

☐ The land is reasonably well suited for the intended commercial use.
☐ Only _____ acres are reasonably well suited for the intended commercial use.
☐ The land is not reasonably well suited for the intended commercial use.
The productivity rating is _____ for _____ use.
Size of operating units _____
Tenure _____
Present use of surrounding similar lands _____

FOR URBAN LAND USE DISTRICT ONLY

Has the land been substantially and continuously used for the cultivation of crops such as sugar cane, pineapple, truck crops, orchard crops, ornamental crops, or the like for the five-year period immediately preceding the dedicated request?
Specific _____ livestock use has been in operation for _____ years.
Cultivation of _____ crop use has been in operation for _____ years.

_____ Chairman, Board of Agriculture _____ Date

(For Department of Taxation use only)

For lands in Urban districts:

☐ The intended agricultural use of petitioner's land is economically feasible.
☐ The intended agricultural use of petitioner's land is not economically feasible.
☐ Additional information is submitted as attached, including evidence, i.e. General Excise License No., on cultivation of crop or specific livestock use.

_____ District Property Assessor _____ Date

PTO Memo 2
Exhibit No. 3

HAWAII
FORM P-41A
(REV. 1974)

DEPARTMENT OF TAXATION
STATE OF HAWAII

LAND DEDICATION – REPORT ON FINDINGS

TAX KEY				Petition No.
Z	S	Plat	Par	

Specific Agriculture or Ranching Use _____

TO: Director of Taxation

FROM: Director, Department of Planning and Economic Development

Designated Land Use District by LUC _____

The intended use of petitioner's land

☐ is not in conflict; ☐ is partly in conflict; ☐ is in conflict;

with the overall development plans of the State.

☐ The specific livestock use is compatible with the surrounding urban uses.

Reason(s) for Conflict:

☐ The dedication of this land together with other similar lands proposed to be dedicated and possible future dedications adversely affects the total size of the affected Urban District with respect to the provision of the Land Use Law that requires that adequate area be designated for the foreseeable urban growth. The projected future development is estimated to be _____

☐ The use proposed is incompatible with uses normally associated within an Urban District.

☐ Other remarks

_____ Director, Department of Planning and Economic Development

_____ Date

HAWAII
FORM P-41
(REV. 1973)

STATE OF HAWAII
DEPARTMENT OF TAXATION

DO NOT WRITE HERE	
PETITION NO.	Copy No.

PETITION TO DEDICATE LAND FOR AGRICULTURAL USE

☐ Initial or ☐ Change (see over)

Prepare 4 copies of this petition (carbon copies acceptable). Copies must be signed by all parties having a legal interest in the petitioned land (for example, husband and wife). The petition may be for several land parcels except areas or parcels in urban district which shall be by separate petition. A copy of this petition shall be returned to the petitioner. Submit all petitions to the Assessor of your taxation district by March 1. A tax map or facsimile delineating area to be dedicated must accompany each copy of petition.

1. Petitioner's name and/or names:		STATE LAND USE DISTRICT: 4. Tax keys:	5. If Agricultural, complete ** Total Area:
2. Mailing address of Assessment Notice	3. Tel. no.: Res. Bus.	7. Island	6. Total area to be dedicated by this petition:
8. If only portion of parcels is to be dedicated, state intended use of the remainder: NON-DEDICATED AREA:		9. Present uses of parcels:	

10. I dedicate my land to the following agricultural uses: (Be specific—such as growing pineapple, growing vegetable crops, raising poultry, pasturing cattle, etc. If the intended dedicated use differs, in any way from the existing use, the owner shall submit a copy of the proposed plan of use or uses. Please delineate the homesite area which shall be excluded from dedication.)

ACRES PETITIONED	SPECIFIC AGRICULTURAL OR RANCHING USE OR USES:
	TOTAL AREA TO BE DEDICATED
HOMESITE:	REMARKS:

11. I hereby petition to change the dedicated use of Petition No. ____ of date ____ by:
☐ changing the existing dedicated use area to new use area.
☐ subdividing land into ____ parcels. The original Petition No. and the Tax Key(s) assigned shall be submitted to the Assessor. Each parcel shall be subject to the provisions of the original petition.
Note: Each owner of the divided parcel shall exercise, independent of any other owner, the right to petition for change in dedicated use and to give the notice of cancellation.

Items 12 thru 17 are to be filled in only if petitioner's land is leased. If it is, one copy of the lease document must be attached hereto. (Only one copy of lease document need accompany a set of the petition.)

12. Lessor's name and mailing address:		13. Lease rental schedule:
14. Term of lease (yrs)	15. Expiration date of lease:	16. Lease document is attached: (check one) ☐YES ☐NO

17. Lease is recorded at the Bureau of Conveyances:
a. Book No. ____ Page No. ____ b. Land Court Document no. ____
c. Certificate no. ____ d. Other: ____
Such lease document may be returned if satisfactory information is furnished and made available.

To facilitate statute-required investigation of this petition, I hereby grant right of entry to land described above as well as access to existing soil survey information and to interpretive data compiled from this source.

I hereby declare that my land can be best used for the foregoing purpose or change(s) and if this petition is approved I will use my land for such purpose, and in accordance with Sec. 246-12, HRS.

** As a petitioner of land(s) situated within the State's Agricultural Land Use District, I hereby petition that the period of dedication to be ten or twenty years.

DO NOT WRITE HERE		
Received: ____ (Date)	Signature of petitioner or agent*	Date
Assessor	Signature of petitioner or agent*	Date
Mark Pet. No. ** for 20 year dedication	Signature of lessor or agent*	Date
For divided parcels – add a, b, c... after Pet. No. for each parcel	Signature of lessor or agent*	Date

PTO Memo 2
Exhibit No. 1

*An agent acting on the behalf of a petitioner or lessor must submit written proof of agency status to assessor.

"Thumb Flip"

[continuation of Hawaii Form P-41]

For owners who petition to change or amend the dedicated use

1. Check ☐ change at top left. Submit tax map or facsimile showing changes.

2. Complete items 1, 2, 3, 4, 5, 7, 11.
   a. For item 11 write in the petition number and effective tax year as noted on the Notice of Approval. Check applicable block and complete appropriately.

3. All parties having legal interest shall sign and date the petition.

HAWAII
FORM P-41
(REV. 1970)

STATE OF HAWAII
DEPARTMENT OF TAXATION

DO NOT WRITE HERE	
PETITION NO.	Copy No.

PTO MEMO 2
Exhibit No. 1

PETITION TO DEDICATE LAND FOR AGRICULTURAL USE

Prepare 4 copies of this petition (carbon copies acceptable). Copies must be signed by all parties having a legal interest in the petitioned land (for example, husband and wife). The petition may be for several land parcels except areas or parcels in urban district which shall be by seperate petition. A copy of this petition shall be returned to the petitioner. Submit all petitions to the Assessor of your taxation district by March 1.

1. Petitioner's name and/or names:		STATE LAND USE DISTRICT: 4. Tax keys:	5. Total Area:
2. Mailing address of Assessment Notice	3. Tel. no.: Res. Bus.	7. Island	6. Total area to be dedicated by this petition:
8. If only portion of parcels is to be dedicated, state intended use of the remainder: NON-DEDICATED AREA:		9. Present uses of parcels:	

10. I dedicate my land to the following agricultural uses: (Be specific—such as growing pineapple, growing vegetable crops, raising poultry, grazing cattle, etc. If the intended dedicated use differs, in any way from the existing use, the owner shall submit a copy of the proposed plan of use or uses. Please delineate the homesite area which shall be excluded from dedication.)

ACREAGE	SPECIFIC AGRICULTURAL OR RANCHING USE OR USES:
TOTAL AREA TO BE DEDICATED:	
HOMESITE:	REMARKS:

11. A print or facsimile of the above tax key maps must accompany each copy of the petition. The maps must show the approximate location of the homesite and the dedicated portion, labeled as to acreage and intended uses.

Items 12 thru 17 are to be filled in only if petitioner's land is leased. If it is, one copy of the lease document must be attached hereto. (Only one copy of lease document need accompany a set of the petition.) If lessee has less than 10 years remaining on lease, but wishes to dedicate land in an urban land use district, the lessor must agree to extend the dedicated usage to 10 years and also sign this petition.

12. Lessor's name and mailing address:		13. Lease rental schedule:
14. Term of lease (yrs)	15. Expiration date of lease:	16. Lease document is attached: *(check one)* ☐YES ☐NO

17. Lease is recorded at the Bureau of Conveyances:

a. Book No._____ Page No._____ b. Land Court Document no._____

c. Certificate no._____ d. Other:_____

Such lease document may be returned if satisfactory information is furnished and made available.

To facilitate statute-required investigation of this petition, I hereby grant right of entry to land described above as well as access to existing soil survey information and to interpretive data compiled from this source.

I hereby declare that my land can be best used for the foregoing purpose and if this petition is approved I will use my land for such purpose. I am also aware that it is the policy of the Department of Taxation to enforce by injunction, if necessary, the continued dedicated uses of the dedicated land during the effective period of the dedication. I shall inform the Real Property Tax Assessor, in writing, of any changes that are made or become necessary.

DO NOT WRITE HERE		
Received:_____ (Date)	Signature of petitioner or agent*	Date
	Signature of petitioner or agent*	Date
Assessor	Signature of lessor or agent*	Date
	Signature of lessor or agent*	Date

An agent acting on the behalf of a petitioner or lessor must submit written proof of agency status to assessor.

I. DESCRIPTION OF PROGRAMS

Oregon's preferential assessment programs are of special interest for several reasons. First, the program for the deferred taxation of agricultural land has been in effect in one form or another since 1961 (although few farmers participated before 1968) and has resulted in the exemption of approximately one-half of the appraised value of farmland.[1] Second, four special tax laws apply to some 8,870,000 acres of timber and timberland which result in lower rates of taxation than if the timber and land had been taxed on a straight ad valorem basis as other non-preferred classes of property are.[2] The state also has a deferred taxation program for open space lands, and has exempted other segments such as deciduous trees and nursery stock, valued in 1973 at $398,352,000 and $47,500,000 respectively.[3] Thus, the state is a laboratory for experiments with different approaches to using tax programs to achieve broader public policy objectives.

The various programs to be analyzed below, are as follows:

1. Special Farm-Use Assessment Program
2. Special Assessment of Open-Space Lands
3. Western Oregon Ad Valorem Tax
4. Eastern Oregon Severance Tax
5. Forest Fee and Yield Tax
6. Western Oregon Small Tract Option Tax

A. The Special Farm-Use Assessment Program

The special Farm-Use Assessment Program has been in existence since 1961, during which time it has been changed substantially by the State Legislature. The details of these changes need not detain us here,[4] but suffice it to say that they appear to have reflected the tug of war between farm and urban interests in the Legislature. There are several bills now under consideration, but none would make a major change in the program.

The statute creates two variations of the program, one for zoned land and one for unzoned land, with slightly different eligibility criteria and sanctions for conversion. In 1973, about one-fifth of the land was in the zoned category, and as more counties have adopted zoning ordinances, this percentage has probably increased.

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[1] "Supplemental Report on Income and Property Exemptions and Exclusions," Legislative Interim Committee on Revenue (Dec., 1974) (Hereinafter referred to as LICR Report on Exemptions), p. 114, confirmed by Richard Munn, staff economist, Legislative Research Office, on March 14, 1975.

[2] Klemperer, W. David, "Evaluating Forest Tax Alternatives for Oregon" (Salem, Oregon: 1975) (Hereinafter referred to as The Klemperer Report), pp. 2-3.

[3] LICR Report on Exemptions, p. 102.

[4] For excellent review of the history of the Program, see Roberts, Carlisle B., "The Taxation of Farmland in Oregon," 4 Willamette L. J. 431(1967), Sullivan, Edward J., "The Greening of the Taxpayer," 9 Willamette L.J. 1 (1973), Henke, Joseph T., "Preferential Property Tax Treatment for Farmland," 53 Oreg. L. Rev. 117 (1974) and LICR Report on Exemptions, pp. 12-17.

1. Eligibility Criteria for Zoned Land

Any land other than farm home sites which is located within a qualifying farm use zone under a county zoning ordinance and which is used exclusively for farm use or one of the permitted non-farm uses[1] shall be assessed at its true cash value for farm use.[2] The zones must be consistent with the overall plan of development of the county. Farm use is defined as "the current employment of land including that portion of such lands under buildings supporting accepted farming practices for the purpose of obtaining a profit in money by raising, harvesting and selling crops," or by raising and selling of livestock, poultry, fur-bearing animals, or honeybees or for dairying, or any other agricultural or horticultural use or animal husbandry or any combination thereof, and farm woodlots up to 20 acres in size.[3] Farm use "includes the preparation and storage of the products raised on such land for man's use and animal use and disposal by marketing." It does not include growing timber or the construction and use of dwellings customarily provided in conjunction with the farm use. "Current employment" of land includes lands which are planted in orchards or other perennials and land which is fallowed for one year under regular crop rotation programs.

A variety of non-farm uses are permitted such as churches and schools, without destroying the zone, and other uses, such as commercial activities in conjunction with farm use, private parks and playgrounds and golf courses may be permitted with the approval of the county governing body. State and local governments are prohibited from enacting regulations which would unreasonably regulate farm structures or accepted farm practices because of noise, dust or odor or other airborne matter, if these conditions do not extend beyond the boundaries of the exclusive farm use zone. Land divisions of less than 10 acres must be approved by the county governing body as being in conformity with the legislative intent of the Act. Counties are authorized, but not required, to regulate larger land divisions. Zoned land is also to be valued at farm use value for state inheritance tax purposes,[5] and is exempt from levies by sanitary and water supply districts and authorities.[6]

2. Eligibility Criteria for Land not Zoned for Farming

Any land which is not within a farm use zone but which is being used, and has been used for the preceding two years, exclusively for "farm use" as defined by ORS 215.203 quoted above, is, upon application by the owner and satisfaction of the county assessor as to its eligibility, to be assessed at its true cash value for farm use.

Thus, the principal tests for eligibility are actual farm use and subjective intent to engage in that use for the purpose of making money.

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[1] ORS 215.203, 215.213

[2] ORS 308.370

[3] ORS 215.203 (2); 5B 262 (1975 Session)

[4] ORS 215.213

[5] LICR Report on Exemptions, p. 22

[6] ORS 308.401

[7] ORS 308.370 (2), 308.375

3. Method of Assessment

Qualifying farm land, whether zoned or unzoned, is to be assessed according to its farm use values according to fairly specific procedures which are set out in ORS 308.345.

First, county assessors may not use comparable sales as evidence of market value unless they are satisfied that the sales represent sales for bona fide farm use. These, in turn, are defined as those which are made under conditions which justify the purchase of such agricultural land by "a prudent investor for farm use," given accepted agricultural accounting procedures and typical agricultural practices and land use in the county. A "prudent investor for farm use" is defined as one who buys farm lands with "the reasonable expectation that he will be able to realize an average annual return on his capital not less than the current rate of interest charged by the Federal Land Bank on first mortgages of farmland in the county in which the agricultural lands are located." These interest rates are certified by the Department of Revenue each year, and have been as follows:

1968 - 6.75%	1972 - 7.75%
1969 - 7.0 %	1973 - 7.75%
1970 - 8.5 %	1974 - 8.0 %
1971 - 8.5 %	1975 - 9.0 %[1]

They run about one-half of one percent below prime rates for first mortgages. Since few farm investors in Oregon receive a return on investment of over 4%, these legislative provisions have effectively prohibited county assessors from using comparable sales,[2] and forced them to use the capitalization of income approach described below.

The Capitalization of Income Approach. Under amendments adopted in 1975, the Department of Revenue is required by ORS 308.345 (3) to determine and specify annually the "rate of interest charged by the farm credit administration and other large financial institutions regularly making loans secured by farm and agricultural lands through mortgages or similar legal instruments, averaged over the past five years, plus a component for the local tax rate." Prior to this change, when the criterion was "the typical capitalization rate used for non-agricultural commercial land in the area," the Department followed the practice of setting one rate for the entire state as of January 1, each year. These rates have been as follows:

1968 - 6.75%	1972 - 7.25%
1969 - 7.0 %	1973 - 7.25%
1970 - 7.5 %	1974 - 7.75%
1971 - 7.5 %	1975 - 8. 0%

Following the guidelines promulgated by the State Department of Revenue, county assessors must next determine the net income applicable to land for different types of farming, and then, in some cases, make adjustments for the particular tract. To do this, assessors will normally look first to rental data because it is a simpler and more easily ascertainable measure of economic rent. If these data are not available, the assessor must determine the owner-operator's net income from land.

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[1] Larry Michael, Assistant Administrator, Assessment and Appraisal Division, Dept. of Revenue, Interview March 13, 1975.

[2] LICR Report on Exemptions (1974), p. 22; Henke, Joseph T., op. cit. n.4, p. 122.

Once net income (economic rent) is determined, it is capitalized according to the following formula:

$$FUV = \frac{Y}{C + R}$$

where,

FUV = farm use value

Y = net income to land before property taxes

C = capitalization rate for commercial properties

R = tax rate for district in which the property is located

In 1974-75, the median average county tax rate was 2.17%,[1] with the range of average county rates running from 1.45% to <.76%. Thus, if we use the 1975 "cap" rate and the median county tax rate, the total capitalization divisor is 10.17% and assessed value will be approximately ten times net income. It should be noted that Oregon assesses taxable property at 100% of true cash value. A copy of the Department of Revenue's instructions is attached hereto as Appendix A. They give a complete picture of how the capitalization of income method is used.

4. Sanctions

Zoned land. When land which is zoned and used for farm use is no longer used as farm land or is removed from an exclusive farm-use zone at the request of the owner, it is no longer assessed at farm use value and must be assessed at its highest and best use market value.[2] In addition, the owner must pay a penalty equal to the total amount by which the taxes assessed against the land would have been increased if it had not been preferentially assessed during the last year prior to disqualification in which such farm use assessment was in effect, times the number of years during which farm zoning was applicable to the property, up to a maximum of ten.[3] This approximates a 10 year roll-back of deferred taxes, and obviates the necessity of keeping dual assessments for all preferentially assessed properties. No penalty is due if the land is condemned or if it is re-zoned by the county on its own initiative.

Unzoned Land. Unzoned land assessed at its farm use value becomes disqualified upon the occurrence of the following events:

1. notification of the assessor by the taxpayer to remove it.
2. sale or transfer of the land to exempt ownership such as a charity.
3. removal of the special assessment by the assessor upon discovery that the land is no longer being used as farmland.
4. platting of the land.[4]

At that time, the owner is liable for a sum equal to the amounts by which the taxes would have been increased in each of the years during which the land was

[1] Dept. of Revenue, Assessment and Appraisal Division, 1974-75 Tax Year Statistics (January 1975).

[2] ORS 308.397

[3] ORS 308.399

[4] ORS 308.390

preferentially assessed, had it been assessed at its market value (up to a maximum of 10 years), plus 6% from the respective dates on which such taxes would have been payable each year. In June 1975, the Governor vetoed HB 2478 which would have shortened the roll back to five years. If the owner converts to a non-farm use without notifying the assessor, he is liable for an additional penalty equal to 20% of the tax savings he received in the years from the time when he converted to the time of discovery of such conversion.[1] If the land is placed in an exclusive agricultural use zone, deferred taxes are cancelled up to the date of rezoning.

Deferred taxes and penalties are allocated to tax districts pro rata.

5. Administration

The responsibility for administering the program is split among the county government, the county assessor and the State Department of Revenue. The County must decide whether or not to create farm use zones and to accept a reduction in tax base. The County assessor must ascertain whether farm land is eligible and then must assess all qualifying land, zoned or unzoned, according to the statutory criteria. The Department supervises the assessment activities and has the power to order re-valuations if it finds as a result of assessed value/sales ratio studies, that the assessed values vary more than 10% from the standard which the Department considers to be controlling. It did this recently when it ordered Umatilla County in northeastern Oregon to raise its assessments by about 10%.

Data on market value of unzoned preferentially assessed land were available until 1972 when the act was amended to make this unnecessary. This was done primarily at the insistence of agricultural interests who preferred not to have the precise magnitude of their tax benefits a matter of readily accessible public record. No data are available concerning the acreage under the program or the number of conversions and amount of deferred taxes paid.

B. Open Space Use Assessment Law

In 1971, the Oregon Legislature enacted the Open Space Use Assessment Law,[2] which was modeled after similar laws passed in Connecticut and Washington.

1. Eligibility Criteria

Open space land is defined as:

i. any land area so designated by an official comprehensive land use plan adopted by a city or county, or

ii. any land area, the preservation of which in its present use would:

a. conserve and enhance natural or scenic resources
b. protect air or streams or water supply
c. promote conservation of soils, wetlands, beaches, or tidal marshes,
d. conserved landscaped areas such as public or private golf courses, which reduce air pollution and enhance the value of abutting and neighboring property,

[1] ORS 308.395

[2] ORS 308.740 - 308.790

e. enhance the value to the public of abutting or neighboring parks, forests, wildlife preserves, nature reservations or sanctuaries and other open space,
f. enhance recreation opportunities,
g. preserve historic sites
h. promote orderly urban or suburban development
i. retain in their natural state tracts of land, on such conditions as may be reasonably required by the legislative body granting the open space classification.

If the owner of such land wishes to obtain open space use assessment, he applies to his county assessor for such a classification. The application is referred to the local governing body and planning commission. The application can be approved only after notice and a public hearing. The principal beneficiaries of this statute have been golf courses, as shown in the following table:

PROPERTY RECEIVING OPEN SPACE ASSESSMENT, 1974

	Area		Value ($1000)		
Use	Acres	%	Market	Open Space	Difference
Golf course	3500.16	80.8	$10,266	$7,653	-2,613
Conservation	279.68	6.5	573	190	-383
Other Recreation	535.64	12.1	587	346	-241
Historic Site	27.04	0.6	96	7	-89
Total	4332.52	100.0	$11,521	$8,196	-3,326

2. Method of Assessment

The assessor is required to assess the value of classified open space land both at its full cash value, as if it were not so classified, and at its true cash value at its current open space use. Improvements on the land are assessed at market value. He can use the comparable sales or capitalization of income approaches. The assessor notes both values on the record and computes annually the deferred taxes due.

3. Sanctions for Conversion

The owner may seek permission to withdraw his property from open space use assessment. If he gets it, he must pay all deferred taxes plus interest at the rate of 8% per year, subject to the limitation that such amount due shall not exceed the difference between unrestricted true cash value in the year of withdrawal and restricted open space value in the last year of preferential classification. If the owner converts the land and then gives notice within 60 days, he must pay a penalty of 20% of the deferred taxes. If he converts and fails to give notice, he must pay another 20% penalty on the total due. No data are available on the number of conversions to date under this relatively new program.

C. The Western Oregon Ad Valorem Timber Tax (ORS 321.605 - 321.680)

The timber industry is the largest in Oregon, accounting in 1970 for 45% of the value added by manufacturing and 44% of the state's manufacturing employees.[1] The characteristic which distinguishes timber and forest land from most other real property with reference to the real property tax is that, while timber is

[1] The Klemperer Report, p. 11.

considered legally to be real property and therefore subject to annual taxation, it does not produce any income until it is harvested. Oregon's property tax exemptions for timber are designed to address this mismatch between tax liability and cash flow. The timber tax laws also reflect the dramatic climactic difference between the western third of the state with its rain-drenched coastal areas and west-facing slopes of the Cascade Mountains, and the eastern two-thirds, whose arid, often inhospitable lands lie to the east of the Cascades. The dividing line recognized by statute is the ridge line of the Cascandes which runs almost exactly in a north-south direction through Crater Lake about 110 to 125 miles from the Pacific Coast. The principal commercial species are Douglas fir in western Oregon and Ponderosa pine in eastern Oregon.

The Western Oregon Ad Valorem Tax applies to all eligible land and timber west of the ridge line of the Cascades (except that classified under the Forest Fee and Yield Tax and the Western Oregon Small Tract Optional Tax, to be discussed below). In 1973, it applied to 5,150,000 acres (out of a total of 28,225,000 acres of privately owned land in the state) and produced $23,965,000 in tax revenue.

1. Eligibility Criteria

Eligible land is defined as that located in Western Oregon which is being held or used for the predominant purpose of growing and harvesting trees of a marketable species. There are other minor eligibility criteria with which we need not concern ourselves here.

2. Method of Assessment

Land. If the highest and best use of the land is as forest land, it is appraised by the State Department of Revenue at its true cash value on this basis. If there is a higher and better use the owner may apply to the county assessor to have it "designated" as forest land. If the land is so designated (and about one million of the five million acres covered by this Act have been)[1] the land will be appraised by the Department on the basis of its market value as forest land.

Timber. Western Oregon timber is divided into three categories for appraisal purposes:

1. old growth (trees over 104 years old in 1975)
2. young growth (trees over 12 inches diameter breast height outside bark (dbh ob) and under 104 years old in 1975.
3. reproduction trees (trees under 12 inches dbh ob). It is usually asserted that it takes about 30 years for Douglas fir to reach this diameter.

Reproduction timber is exempt from annual taxation. Young growth timber is appraised at its "immediate harvest value" (IHV), (the apparent value which standing timber would have currently if sold for harvest) and assessed at 30% of its IHV. Old growth timber is assessed at 30% of its IHV, except that tracts having a harvest period of longer than 30 years are assessed at 25% of IHV.

At the time of harvesting, the Department of Revenue determines the timber's harvest value, and the owner must pay an additional tax based on the complement of the assessed value for annual taxation. Thus, in most cases, where the owner was

[1] Report of the Legislative Interim Committee on Revenue (December 1974) (hereafter referred to as the LICR Report), p. 27.

paying real property taxes based on 30% of IHV of the timber, in the year of harvesting, he would pay an additional tax on 70% of IHV as of January of the year in which it was harvested. all these taxes are, of course, at the same rate as the levy applied to similarly located real property in the tax district. These rates are typically about 2% of assessed value in Western Oregon.[1]

In summary, the Western Oregon Ad Valorem Timber Tax gives the following tax preferences to eligible land and timber.

a. land, if designated, will be taxed at its market value for forest use if lower than its highest and best use market value, subject to a five year roll-back of deferred taxes, to be discussed below.

b. timber is exempt from taxation until it is 12" dbh or roughly the first 30 years of its life, assessed at 30% of its IHV for the rest of its economic life, assessed at 30% of its IHV for the rest of its economic life (for all intents and purposes, because most trees will be harvested before age 104, and the 25% standard expires January 1, 1976) and then assessed at 100% of IHV in the year immediately prior to harvest.

The magnitude of the tax preference varies with many factors such as the rate of change in land value, the rate of change in timber value, tax rates, personal income tax status of owner and so on. An impression of its magnitude is given by the accompanying graph, "Douglas Fir Young Growth Even-Aged Forest Value per Acre over Time," which was prepared by Klemperer from a computer run of low management site III (intermediate quality) Douglas fir tract model, assuming stumpage price increased at a conservative rate of 2% annually, corporate income tax rates, a 2% real property tax on 60% of forest market value and 6% real return all in constant 1975 dollars.[2]

Under the Western Oregon Tax, the forest assessed value is represented by the curve a b c d. Klemperer concludes, again on the basis of reasonable assumptions which are set out at length in his report, that in 1971, property taxes on land and timber constituted 14.46% of net income before deducting real property taxes, or 17% of net income after all taxes.[3] By comparison, he finds that property taxes averaged 27% of net after-tax income from Oregon agriculture in the years 1971-73[4] (and during those years the assessed value of farmland had been reduced approximately 50% of preferential assessment.[5]

3. Sanctions

The only sanction imposed by this tax for conversion is the five year rollback of deferred taxes plus 6% per annum, on land which has been designated

[1] Klemperer Report, p. 57.

[2] Klemperer Report, pp. 28-29.

[3] Ibid, pp. 63-65.

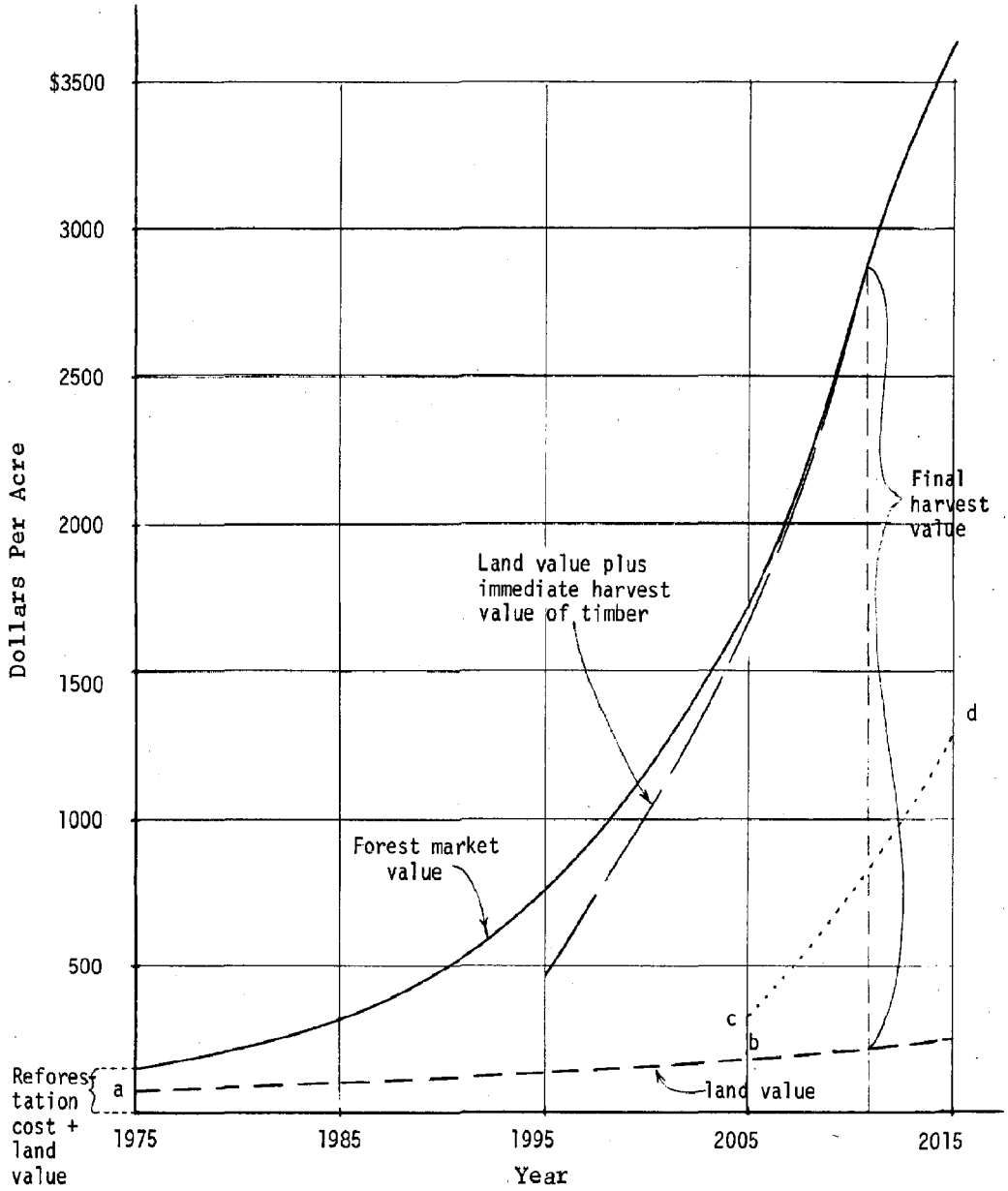
[4] Ibid, p. 59.

[5] It should be noted that timber industry consultant testified that taxes were about 33% of net income after taxes in 1971. He did not show how he derived that figure. LICR "Supplemental Report on Timber Taxation" (Salem, Oregon: 1974) pp. 120-121.

Figure 1

DOUGLAS FIR YOUNG GROWTH EVEN AGED FOREST VALUE

PER ACRE OVER TIME



Source: Klemperer, W. David, Evaluating Forest Tax Alternatives for Oregon, A Study Prepared for the Oregon Legislative Interim Committee on Revenue. January 1975.

as forest land for assessment purposes, because its market value is higher than its forest use value. Otherwise the tax embodies a straightforward preferential assessment.

D. The Eastern Oregon Severance Tax (ORS 321.405 - 321.605)

The Eastern Oregon Severance Tax applies to all eligible land and timber east of the ridge line of the Cascades (except that classified under the Forest Fee and Yield Tax Act, to be discussed below). In 1973, it applied to 2,630,000 acres and produced $1,601,474 in revenue.[1] An additional $800,000 was collected through taxes on covered forest land.[2]

1. Eligibility Criteria

Criteria for eligibility are exactly the same as for the Western Oregon Ad Valorem Tax, except that the locus must be in eastern Oregon.

2. Method of Assessment

Land. Land is assessed in the same way as it is under the Western Oregon Av Valorem Tax, and may also be designated as forest use land to secure a lower assessed value.

Timber. Timber is exempted from the tax, and a severance tax of 5% of the immediate harvest value of timber harvested is imposed each year, as determined by the Department of Revenue. The tax is paid to the Department which distributes it pro rata to eastern counties in proportion to the ratio which the value of each county's timber bore to the total value of eastern Oregon in 1964. Klemperer estimates that severance and land taxes amounted to 12.5% of after tax net income.[3]

3. Sanctions

The same five year rollback applies to designated lands which are converted.

E. The Forest Fee and Yield Tax (ORS 321.255 - 321.260)

This is an alternative tax, adopted in 1929, which applies across the entire state. It was designated to encourage reforestation and sound timber management. Almost one million acres are covered by it.

1. Eligible Land

Land must be denuded by logging, fire, insects or other cause, and have a minimum forest tree growth on it. The Department of Revenue must determine that it is suitable for reforestation and so classify it. It must issue a permit before any timber can be harvested.

2. Method of Assessment

Land. Land is not assessed in the customary way. Instead, it is subject to a flat fee of ten cents per acre in western Oregon and five cents per acre in

[1] Department of Revenue, Third Biennial Report, 1972-1974, p. 48.

[2] Klemperer Report, p. 66.

[3] Ibid.

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eastern Oregon. At the 2% levy rate which is typical in western Oregon, this represents the equivalent of an ad valorem tax on $5 of assessed value, while with a typical eastern Oregon rate of 1.5%, it represents the equivalent of a tax on $3.30 of assessed value. Klemperer indicates that in western Oregon, Douglas fir land prices range from $25 to $105 per acre depending on quality.[1]

3. Sanctions

Timber. Timber is exempt from the real property tax. At the time of harvest, forest products are subject to a 12½% yield tax on their value. Klemperer states that, under reasonable assumptions, a 1.5% to 2.0% ad valorem property tax on growing timber would be equivalent to a 30% to 40% yield tax.

F. The Western Oregon Small Tract Optional Tax (ORS 321.705 - 321.765)

1. Eligibility Criteria

This tax is of relatively minor importance and is included here only for the sake of completeness. It applies only to owners with less than 1,000 acres of total ownership. Some 91,000 acres are covered by it and it produced approximately $100,000 in revenue in 1973.

2. Methods of Assessment

The Department of Forestry classifies eligible land into one of five quality classes and the Department of Revenue establishes annually the value for each class by capitalizing profit from timber sales at the rate of 12%.

3. Sanctions

When the property ceases to qualify for this classification, the owners become liable for payment of a five-year rollback in deferred taxes, plus 6% per annum interest.

G. Tax Expenditures Relating to Timber and Timber Land

The tax expenditures relating to preferential assessment of timber and timber land are elusive. Interestingly enough, the LICR Report on Exemptions does not even mention timber preferences, even though it purports to be a complete description of all of Oregon's income and property exemptions and exclusions, and analyzes some 60 of them.

Klemperer suggests the aggregate effect of tax preferences for private timber and timberlands in western Oregon was to reduce their tax liability to about 17% of net income after taxes, or below the 27% they would have been if they had been taxed on an unmodified ad valorem basis. He estimates that eastern Oregon timber and land received an aggregate tax reduction of about 40%.[2]

[1] Klemperer Report, p. 82.

[2] Klemperer Report, pp. 59, 63-65, 66, 112.

II. EVALUATION OF THE SPECIAL FARM USE ASSESSMENT PROGRAM

The major focus of this part of the Oregon case study will be on the Special Farm Use Assessment Program. The Open Space Lands Program involves so little land (4,330 acres) and most of that is devoted to a single use, golf courses, that it is not a significant factor in the land development process. The timber taxes have been conceived of and administered as an industrial tax and very little information is available on their significance to the workings of the land market generally. They do provide an important element of the overall real property tax context within which preferential assessment of farm land must be viewed.

A. Ease of Entry

It is fairly simple and straightforward for a farmer to qualify for farm use value assessment. If this land is in an exclusive farm use zone and devoted to farm use for profit, it is automatically specially assessed. If it is not so zoned, it is eligible if it has been for the previous two years and is now being used for farming for profit.

No data were found revealing the percentage of eligible farmland actually receiving preferential assessment (although one knowledgeable appraiser estimated that 75%-90% of eligible farm acreage was covered),[1] its location or other characteristics.

B. Magnitude of Tax

Until 1971, assessors were required to keep records of both farm and full cash value of unzoned farmland which was granted preferential assessment. In that year, largely as a result of political pressures from farmers, this requirement was deleted. As a result of the deletion, no data are available on the amount and location of preferentially assessed land, and the actual level of tax expenditures resulting from farmland assessment can only be estimated by extrapolating the 1971-72 tax year data.

Working from various sources, according to the procedure outlined in the footnote,[2] the author estimated that a tax expenditure of about $24,000,000 occurred in the 1974-75 tax year in connection with the preferential assessment of farmland program. It should also be noted that in 1973, the total assessed value of land outside corporate limits was $3,892,530,467.[3] If we add to this, $1.1 billion, the amount of the exempt value, we get a total close to $5 billion. The reduction occasioned by preferential assessment thus amounts to about 22% of land values in

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[1] Robert Fielder, Department of Revenue, interview, March 13, 1975.

[2] The Department of Revenue estimated that in 1972-73, the assessed value of both zoned and unzoned preferentially taxed farmland was reduced by $800 million dollars. (LICR Report on Exemptions, p. 115), or 3.6% of the total assessed value of property in the state subject to the property tax. The total assessed value in 1974-75 was $28,274,471,804 (1974-75 Tax Year Statistics, Department of Revenue 1-30-75 mimeographed). If we apply the same percentage to it (3.6%), we estimate $1,018,000,000 in assessed values would be exempt. If we apply a more probable multiple of 4% (because more land is now preferentially assessed) we estimate that $1,131,000,000 of value is exempt. If we multiply this latter figure by the median average county tax rate of 2.171%, we get $24,400,900 in tax expenditures.

[3] Summary of the 1973 Assessment Roll, Department of Revenue (June 1974), p. 6.

areas outside incorporated cities. Finally, the Department of Revenue estimated in 1973 that the assessed value for unzoned farmland in 1971-72 was reduced about 50% by the farmland preferential assessment program.[1]

The total tax base of real, personal and utility property for the entire state in 1974-75 was $28,274,471,804. Assuming that residual assessed values did not rise as a result of diverted development pressure, the total tax base was reduced by about $3.7% from what it would have been but for the program. No information is available on a county by county basis concerning the disaggregated impact of this reduction, nor were instances discovered where tax rates were raised to compensate for significantly lower assessed values.

C. Method of Assessment

As we have indicated, the ground rules set by the Oregon Legislature for determining current use value effectively eliminate the comparable sales technique of assessment and mandate the use of the capitalization of income method. The practical effect of this is to convert the property tax from an ad valorem tax to an income tax on net income from farming. Let us illustrate.

Under the guidelines of the Department of Revenue, the assessed value for the property per acre is determined by the formula,

$$FAV = \frac{Y}{C + R}$$

where,

Y = net rent (or income from farming) per acre, before property taxes

C = the capitalization rate for commercial properties set each year for the state by the Department of Revenue

R = tax rate for district where property is located.

The tax, T, on the property is

$$T = R(FAV)$$

$$= R\,\frac{Y}{(C + R)}$$

The percentage P, which T is of Y, is,

$$P = \frac{T}{Y}$$

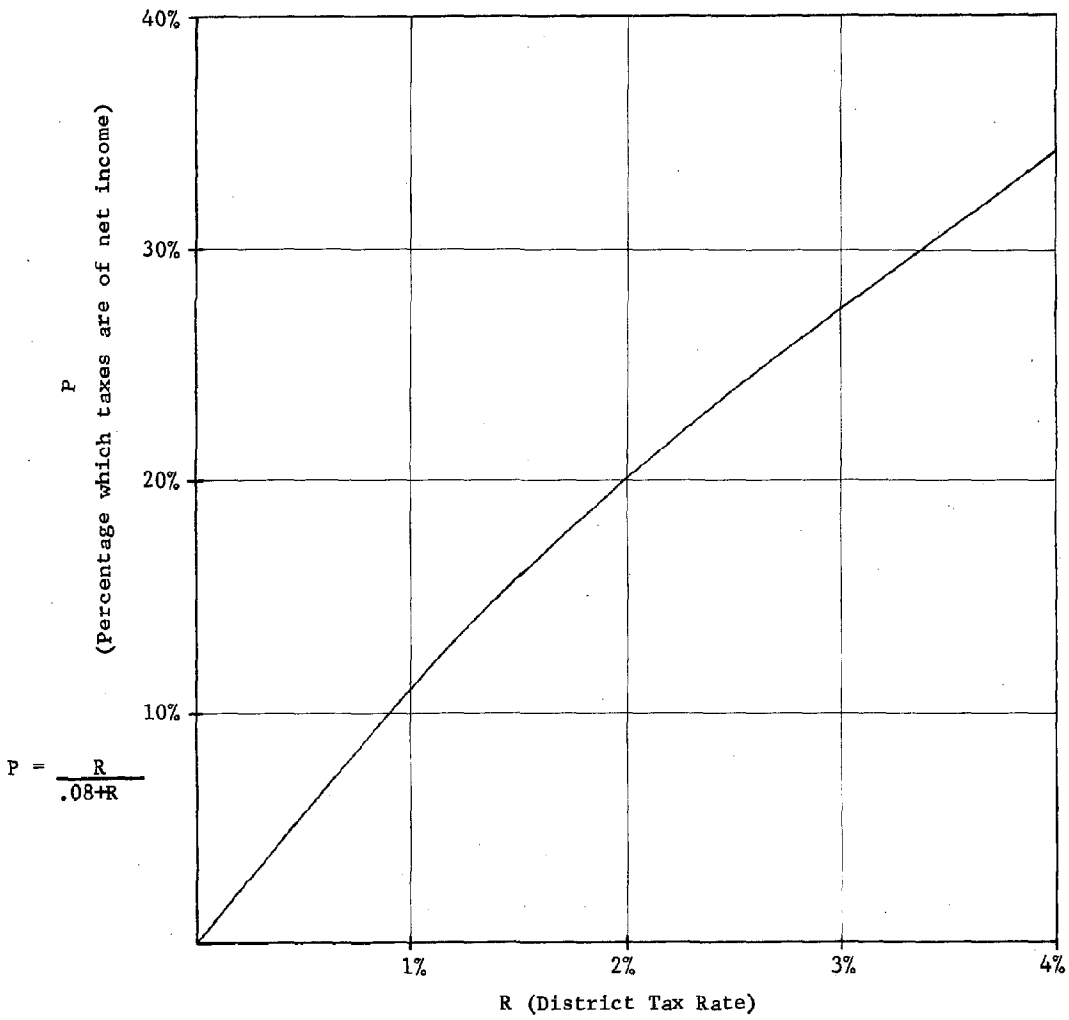
$$= \frac{R\frac{Y}{(C + R)}}{Y}$$

[1] LICR Report on Exemptions, p. 114.

Thus, for a given net rent or income from farming, the tax will be a percentage which is a function of the capitalization rate and the tax rate. For 1975, when C has been set at 8%, the percentage, P, will vary with the tax rate in a given district in accordance with the formula, see Figure 2. Since average county tax rates vary from 1.45% to 2.76% the real property tax ranges from 15.5% to 25.5% of net income.

Figure 2

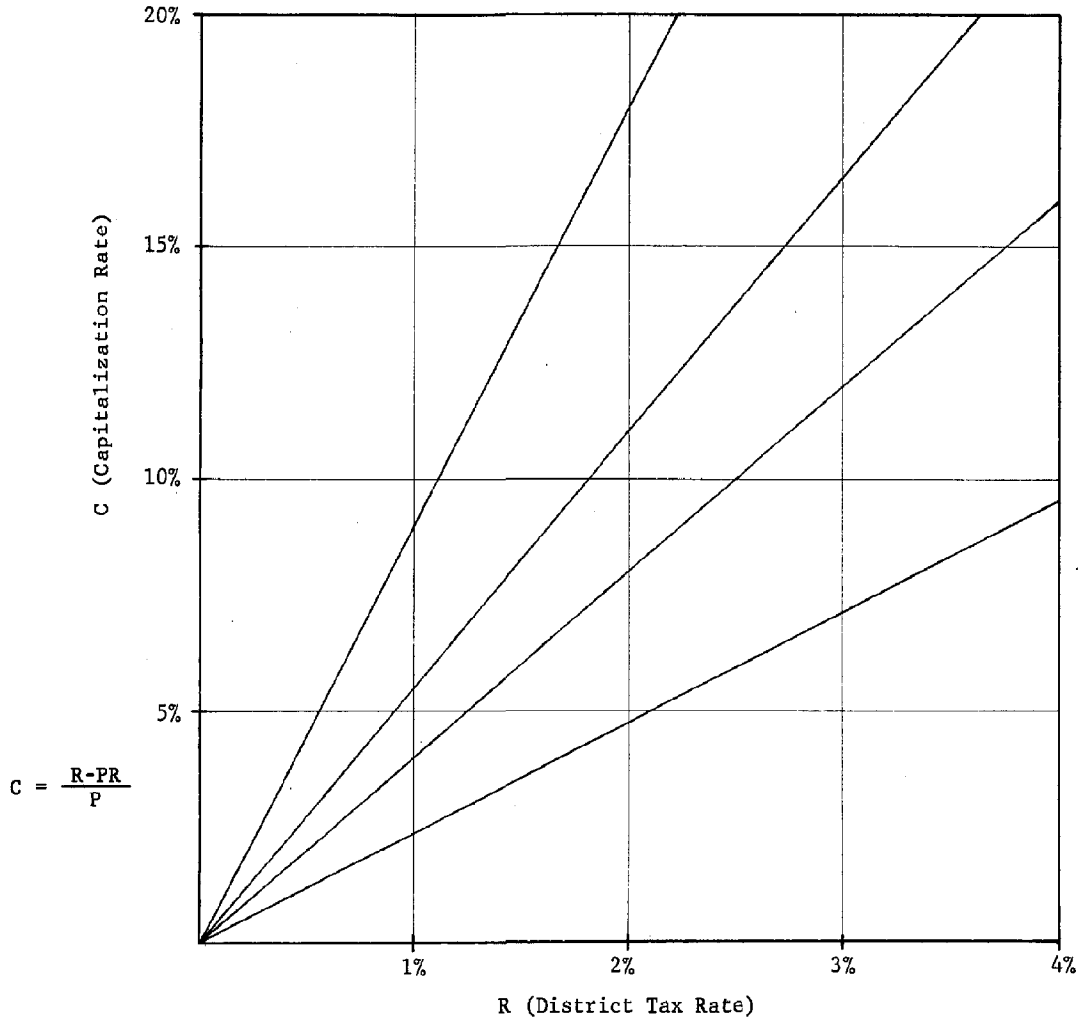
TAXES AS A PERCENTAGE OF NET RENT OR INCOME FROM FARMING - OREGON, 1975



Generalizing for differing capitalization rates, we see from Figure 3, below, the percentages of farm income which the real property tax constitutes, given different assumptions for C and R.

Figure 3

TAXES AS A PERCENTAGE OF NET RENT OR INCOME FROM FARMING



D. Costs of Conversion

In 1972-73, and 1973-74, $555,383 and $750,557[1] were collected from persons converting unzoned farmland, or about one-tenth of one percent of total levies for the year. If the statutory provisions are not amended, we would expect this figure to increase over the next few years as more land which has been enjoying deferred taxation for a longer period of time is put to non-farm uses.

E. Relationship to Land Use Planning and Controls

Zoning is a relatively recent arrival in Oregon and many counties have adopted zoning ordinances only in recent years. In 1973, 80% of preferentially assessed farmland was unzoned. The statute requires that exclusive farm use zones be consistent with the overall development plan of the county, but no specific data are available at the state level concerning the patterns and location of such zones. There are no legislative attempts to identify and protect prime agricultural land.

This situation may be changing. In 1973, the legislature approved the Land Use Act (S.B. 100)[2] which asserted the state's interest in strengthening land use controls, and created the Land Conservation and Development Commission (LCDC), and its related department. The Act is a modification of the American Law Institute's Model Land Development Code and calls for the establishment of a statewide planning process and the identification of areas of critical concern and activities of statewide significance.

The LCDC adopted Statewide Planning Goals and Guidelines, which became effective on January 1, 1975 and dealt with 14 different areas of policy concern, ranging from citizen participation to energy conservation and housing. County and city comprehensive plans and implementing ordinances must comply with the statewide goals by January 1, 1976. Goals are deemed to be regulations and the basis of all land use decisions relating to that subject, while guidelines are only suggested directions.[3]

The Goals and Guidelines for Agricultural Lands are as follows:

"Goal: To preserve and maintain agricultural lands.

"Agricultural lands shall be preserved and maintained for farm use, consistent with existing and future needs for agricultural products, forest and open space. These lands shall be inventoried and preserved by adopting exclusive farm use zones pursuant to ORS Chapter 215. Such minimum lot sizes as are utilized for any farm use zones shall be appropriate for the continuation of the existing commercial agricultural enterprise within the area. Conversion of rural agricultural land to urbanizable land shall be based upon consideration of the following factors: (1) environmental, energy, social and economic consequences; (2) demonstrated need consistent with LCDC goals; (3) unavailability of an alternative suitable location for the requested use; (4) compatibility of the proposed use with related agricultural land; and (5) the retention of Class I, II, III and IV soils in farm use.

[1] Department of Revenue, Summary of 1973 Assessment Roll and Tax Roll, p. 12.

[2] ORS Chapter 197.

[3] LCDC Statewide Planning Goals and Guidelines, p. 1.

A governing body proposing to convert rural agricultural land to urbanizable land shall follow the procedures and requirements set forth in the Land Use Planning goal (Goal 2) for goal exceptions.

"Agricultural Land - in western Oregon is land of predominantly Class I, II, III and IV soils as identified in the Soil Capability Classification System of the United States Soil Conservation Service, and other lands which are suitable for farm use taking into consideration soil fertility, suitability for grazing, climatic conditions, existing and future availability of water for farm irrigation purposes, existing land use patterns, technological and energy inputs required, or accepted farming practices. Lands in other classes which are necessary to permit farm practices to be undertaken on adjacent or nearby lands, shall be included as agricultural land in any event.

"More detailed soil data to define agricultural land may be utilized by local government if such data permits achievement of this goal.

"Farm Use - is as set forth in ORS 215.203 and includes the non-farm uses authorized by ORS 215.213.

"Guidelines:

"A. Planning

1. Urban growth should be separated from agricultural lands by buffer or transitional areas of open space.

2. Plans providing for the preservation and maintenance of farm land for farm use, should consider as a major determinant the carrying capacity of the air, land and water resources of the planning area. The land conservation and development actions provided for by such plans should not exceed the carrying capacity of such resources.

"B. Implementation

1. Non-farm uses permitted within farm use zones under ORS 215.213 (2) and (3) should be minimized to allow for maximum agricultural productivity.

2. Extension of services, such as sewer and water supplies into rural areas should be appropriate for the needs of agriculture, farm use and non-farm uses established under ORS 215.213.

3. Services that need to pass through agricultural lands should not be connected with any use that is not allowed under ORS 213.203 and 215.213, should not be assessed as part of the farm unit and should be limited in capacity to serve specific service areas and identified needs.

4. Forest and open space uses should be permitted on agricultural land that is being preserved for future agricultural growth. The interchange of such lands should not be subject to tax penalties.

"If these goals are in fact implemented as the act provides, the result could well be a slowing down of the rate of conversion of farmlands in many parts of the state. It should be noted that if a governmental

body proposes to convert rural agricultural land to urbanizable land it must follow specified procedures involving an assessment of the environmental impact of the change and a demonstration that no other locations in the area are suitable."[1]

F. Effectiveness of Preferential Assessment for Maintaining Current Use

1. Land Market Data

As has been indicated, no data exist on overall participation rates, or variations in conversion rates between preferentially assessed and non-preferentially assessed farmlands. Since the Oregon Legislature repealed the requirement that market value of preferentially assessed properties be maintained annually, we can only estimate the size of the annual tax deferral. Consequently, we were unable to obtain any data from the workings of the land market which would tend to prove or disprove the proposition that preferential assessment of farmland is effective for maintaining the current use thereof.

2. Prior Studies

Carlisle B. Roberts, former Chief Counsel to the State Tax Commission, in his lengthy study of the history of Oregon's Special Farm Use Assessment Program,[2] concluded as follows:

1. He found no studies which verified in detail the oft-repeated generalizations that tax relief for farmers is needed;
2. the state's effort to mitigate the impact of taxation in farm lands followed no overall plan and its basis as a matter of tax policy was not well-defined;
3. preferential assessment would not effectually preserve prime agricultural land from conversion to other uses and the overall impact of the statutes was uneven and inequitable.[3]

Writing seven years later, Professor Joseph T. Henke reached similar conclusions.[4] He found that the only effects of tax concessions were (1) possibly a prolonged pre-development or speculative period when the land need not be currently producing income; that is, developable land probably passes out of active agricultural use sooner under preferential assessment; and (2) a slight delay in final conversion, probably amounting to no more than one and one-half years.[5] He also noted that in many cases, non-prime land will receive more of a

[1] Goal 3, LCDC Statewide Planning Goals and Guidelines.

[2] Roberts, Carlisle B., "The Taxation of Farm Land in Oregion," 4 Willamette Law J. 431 (1967).

[3] Ibid, p. 455.

[4] Henke, Joseph T., "Preferential Property Tax Treatment for Farmland." 53 Oregon L. Rev. 117 (1974).

[5] Ibid, at p. 124, citing the Washington Center for Metropolitan Studies' Report, Taxation and Development (1968).

tax break than prime land because its current use value is a smaller percentage of its market value, with the result that preferential assessment based on current use provides less incentive for the preservation of good farmland.

3. Opinions of Persons Interviewed

Of the eight people interviewed in person or by telephone, only Howard Fujii, lobbyist for the Farm Bureau, thought that preferential assessment was effective in maintaining current use. He asserted that without it, many farmers, especially those on the urban fringe, would have been forced to sell-out by escalating property taxes.

Otherwise, the concensus[1] was that while it might delay the inevitable conversion in the case of marginal farmers, the deferral of taxes would not be enough in and of itself to inhibit a farmer who was ready to sell from completing an otherwise profitable sale. In most cases, increases in other costs such as machinery, fertilizer and fuel were more significant than tax increases as factors which influenced conversion rates. Two of those interviewed believed that preferential assessment might actually accelerate sales from farmers to speculators in the rural-urban fringe because the latter could now afford to offer more since it would be less costly to carry the land in agricultural use until it was ripe for development. Several pointed out that the poorest land often gets the greatest percentage reduction in assessed value because of its low current use value. This has the effect of pushing development toward the better land.

G. Equity

There are not enough data to evaluate with precision the various tax shifts which have occurred as a result of tax deferral in Oregon. At the aggregate level, the fact that the assessed value of farm land has decreased about 50% as a result of preferential assessment whereas the overall tax base has been reduced less than 4% would suggest that a certain amount of shifting has occurred. However, without knowing the percentage which preferentially assessed land constitutes in a particular tax district, whether tax rates have been increased or whether services have been reduced, it is not possible to assess accurately the nature of these shifts.

Furthermore, there are major barriers confronting any effort to determine whether or not farmers are paying their "fair share" of local government revenues. First, many other classes of property are fully or partially exempt such as young growth trees, deciduous plants, nursery stock, charitable and governmental properties, veterans' properties and so on, so that the benchmark should certainly be lower than the full ad valorem value of the property. Second, deferred taxes will be capitalized in lower land values than would have existed if there were no tax deferral program. Third, farmers often receive fewer municipal services per tax dollar than other classes of taxpayers. Finally, as already indicated, it is always possible that services will be reduced with falling revenues.

H. Ease of Administration

Our research and interviews did not uncover any particular problems in the administration of Oregon's Special Farm Use Assessment Act. Eligibility requirements are now simple and few in number. Assessors are required to use the

[1] Other individuals interviewed included officials at the State Department of Revenue, Governor's Counsel and a representative of the Association of Oregon Industries.

capitalization of income method which requires somewhat more time than comparable sales, but state Department of Revenue Guidelines and the development of standards for different types of farming operations have simplified and regularized these procedures.

Conversions have been so few to date that the computation of back taxes has not been a major undertaking.

I. Political Feasibility

The evolution of Oregon's preferential assessment laws has been marked--some might say, scarred-- by a series of legislative compromises in which farmers, environmentalists and urban interests have traded back and forth. The details of this history through 1972 are recounted by Edward Sullivan in his 1973 article which was referred to above in the footnote. What was initially a tax abatement program for lands in exclusive farm use zones was converted into a ten year tax deferral program for all lands in farm use. In 1973, farmers exchanged abatement for deferral in zoned areas and a longer deferral period in all areas, for protection against local regulation of farm activities, more non-farming uses in exclusive farm use zones, easier large scale subdivision and a tax break in the inheritance tax laws. At the time of writing, the 1975 Legislature had not completed action on a dozen or so bills amending the preferential assessment act.

J. Evaluation with Respect to Goals of Securing Recreation Lands, Protecting Scenic Vistas and Controlling Urban Development

These three goals are not given much emphasis in Oregon. The Open Space Lands program does make preferential taxation available to golf courses and other types of recreational land, but it has not been used widely. The larger scale programs for timber and farmlands do not embrace open space or scenic goals and have only the most tenuous relationship to land use planning and control, by virtue of the requirement that exclusive farm use zones must be consistent with the county comprehensive plan.

III. APPENDIX TO OREGON CASE STUDY

INSTRUCTIONS TO ASSESSORS FOR DETERMINING VALUE OF LANDS ELIGIBLE FOR FARM-USE ASSESSMENT *

December 1974

The special assessment provided by ORS 308.345 pertains to only two categories of farmland (1) land located in a qualifying farm-use zone and (2) unzoned farmland which is specially assessed because the owner's application for the special assessment (deferral) is approved. Both categories of farmland must be exclusively devoted to farm-use as provided by ORS 215.203 (farm-use) to qualify for the special assessment. Therefore, if a farm is not within a farm-use zone and the owner does not file an application for deferral, the appraisal, for assessment purposes, must be at market value for highest and best use as provided by ORS 308.205.

The dwelling and other buildings customarily provided in conjunction with the farm-use and the land used for the homesite shall be appraised at market value as provided by ORS 308.205.

COMPARABLE SALES APPROACH TO FARM-USE VALUE

When sufficient sales of farmland that justify the purchase of such farmland by a prudent investor are available, they shall be used to appraise such farmland at farm-use value.

A "prudent investor" as defined in ORS 308.345 is a "person who purchases agricultural lands with the reasonable expectation that he will be able to realize an average annual return on his capital not less than the current rate of interest charged by the Federal Land Bank on first mortgages of farm land in the county in which the agricultural lands are located."

The Federal Land Bank uses a single rate statewide. The rate was 8.00 percent as of January 1, 1974.

In appraising farm-use land the following steps must be taken in processing sales:

(1) The initial step consists of collecting sales of farmland and verifying the sales to determine if they are valid transactions. Property Tax Rule OAR 150-309.028-(c)(4) and the Department of Revenue supplement 602.04 will be helpful in determining if a transaction can be utilized. The sales which meet this requirement are then prepared for the "prudent investor test" required by ORS 308.345.

*Source: Oregon Department of Revenue, 1975.

(2) The second step consists of developing a gross average annual return to capital (land) for each farm sale and reducing the gross to net income by allowing typical expenses. The same income and expenses that are used to compute the farm-use values will be used in developing the net income for the "prudent investor test." After the typical net rent has been developed for the farmland, the appraiser is ready to undertake the third step in the process.

(3) The third step, which is the "prudent investor test," consists of dividing the typical net income by the sales price of the land involved in the farm sale to obtain the rate of return (interest rate). This rate expresses the percentage relationship of the typical net income to the purchase price of the land. This is the rate of return to the investment in land. The following example expresses the "prudent investor test" mathematically.

$$\frac{\text{Typical Net Rent}}{\text{Purchase Price}} = \text{Rate of Return to Capital}$$

$$\frac{\$\ 5{,}000}{\$100{,}000} = 5\% \text{ Rate of Return to Capital (land)}$$

If the rate, as in the example, is less than the Land Bank mortgage rate, the sale does not meet the "prudent investor test" and cannot be used as a comparable in arriving at a farm-use value.

If a sufficient number of sales meet the requirement of a prudent investor, they shall be used in farm-use value appraisals. Sales utilized in arriving at farm-use value shall be submitted by the county assessor to the county board of review.

BOARD OF REVIEW

ORS 308.350 provides for a board of review which is advisory in nature and restricted to the review of the sales or the income and expense factors being utilized by the assessor in the appraisal of farm-use land. The sales submitted are those the assessor has determined can be used because they have met the requirements of the "prudent investor test." Although the board's function is a very limited one, the assessor is urged, (because of the nature of the appraisal process and the limited time the board has in which to do its work,) to provide the board with all market value transactions that are being subjected to the prudent investor test requirement and all the data that he has considered in arriving at the typical income and expenses.

The board of review is subject to the "Public Meetings Law." Therefor the meetings are open to the general public and a notice of the time and place of the meetings must be given. Written minutes of all meetings must be kept and made available to the public.

INCOME APPROACH TO FARM-USE VALUE

When comparable sales cannot be utilized in arriving at farm-use values for zoned and unzoned (deferred) land by reason of an insufficient number of qualifying sales meeting the "prudent investor test," the assessor shall determine farm-use value by using the special type of "income approach" set forth in ORS 308.345.

The application of this statutory income approach requires the development of two basic components; a capitalization rate and net income. The capitalization rate is to be determined annually by the Department of Revenue and certified to the county assessor. The capitalization rate certified shall be the typical capitalization rate used for appraising nonagricultural commercial land in the area in which the agricultural land is located. The assessor has the responsibility of developing the net income of the farmland to be valued at farm-use value.

A problem in valuing farmland by the income method is how to segregate the income applicable to the farmland from that applicable to management. The accepted approach to this problem is the use of typical yields, typical commodity prices, typical rental agreements and typical expenses from the area under appraisal. For instance, better than typical crop yields may be obtained by good management whereas poor yields may be due to poor management.

In developing the farmland's net income, rental data, (either cash or crop share,) if available in sufficient quantity should be used in preference to gross income and operating expense data developed from owner-operator statements because of the difficulties in estimating all the many owner-operator expenses.

It is essential that rents be based on typical landlord - tenant arrangements. Local inquiry will usually indicate a fairly definite pattern of rental terms prevalent in most areas. The assessor shall determine if the same rental terms prevail countywide. If the rental terms and amounts are not typical countywide, the typical rent for each area will be determined.

When owner-operator statements are used, only those typical expenses required to produce the annual gross income attributed to the farmland are subtracted from the gross income from the land involved.

When utilizing the cash rent method for computing the farm-use values the typical income and expenses for the previous year will be used.

When utilizing the crop-share or owner-operator method the counties will be responsible for establishing yields of each crop grown in their county for the various land classes. The yields will need to be for a sufficient length of time to level out any variation in production due to fluctuations in the weather. The cultural practices and crop varities will need to be similar for whatever period of time selected. The income to the land will consider the typical yields, as determined above, and a commodity price, which will be the average of the previous two years. Since the commodity price is the average of the two preceding years, the expense period to use will be the average of the same two years.

The Department of Revenue will determine annually the wheat price that the counties will use for computing the gross income of wheat land, where the price of wheat is one of the factors for determining net income to the land. The wheat price determined by the Department of Revenue will be based on the two preceding August 1 through December 31 periods.

The net income before an allowance for property taxes will be used for determining the farm-use values. This net income is divided by a rate which is composed of the rate certified by the Department of Revenue and the current tax rate for the tax code in which the property is located.

SOURCES OF INFORMATION

Data in respect to land rents, commodity prices, yields, and expenses may be obtained from persons familiar with the farm operations in the county. Such individuals may be, but are not restricted to: county extension agents, bankers, appraisers, realtors, and cannery managers. The various offices of the U.S. Department of Agriculture located in the county can also be valuable sources of information. Determining farm-use value is the assessor's responsibility and therefore he must always assure himself of the reliability of any data used as the basis for such determination.

The use of a questionnaire by the assessor will help in obtaining rental data. The questionnaire shall be developed by the assessor assisted by the Department of Revenue to obtain the information needed to establish the farm-use values in his county.

The information received by the assessor from his questionnaires must be verified. These verified questionnaires will also be important in respect to the assessor's ratio study pertaining to land assessed at farm-use value. This is an additional reason why the assessor must carefully verify the rental information received from questionnaires or any other source. The primary sources of rental data are tenants and landlords.

LAND CLASSIFICATION AND APPRAISAL RECORDS

The land classification systems which most counties now have in use recognize the productivity concept of value inherent in the income approach required by ORS 308.345. To utilize the land classes the assessor needs to develop the net income to be capitalized for each of the land classes. Once this has been done, he can proceed to capitalize the net incomes to obtain the farm-use values of the various land classes. An appraisal card (A&A-A-1 or other approved card) must be completed by extending the farm-use value of each land class against the number of acres of the class in the tax lot. This procedure is the same as that followed in respect to completing market value farmland appraisal cards (A&A-A-2) in the past. The homesite value and any other land not qualifying for farm-use assessment, even though appraised at market value, should be carried on the farm-use appraisal card.

It should be noted that the recomputation of the farm-use value does not in itself meet the requirements of ORS 308.234 (six-year appraisal cycle). To be considered as a current appraisal, meeting the requirement of the six-year cycle, the property must be inspected to consider any changes that have occurred since the last physical appraisal. In addition to changes in the specially assessed portions of the property, a current market value appraisal must be made on the portions not subject to farm-use assessment. The current farm use card shall show the date the last physical appraisal of the property was made and the appraiser making the appraisal.

The assessor shall keep carefully assembled all data and the computations which he has used in developing farm-use values on a land-class basis. This shall be done annually in respect to each assessment roll.

RATIO STUDIES FOR FARMLAND

Two separate ratio studies will be required to measure the assessment level.

(1) To measure the assessment level of farms appraised at market value for highest and best use, all arms length sales will be used.

(2) To measure the assessment level of farmland appraised at farm-use value where sufficient qualified "prudent investor" sales are available, these will be used. Where insufficient qualified "prudent investor" sales are not available, net income data will be used.

EXAMPLES OF INCOME DATA USE

The following are examples of how income data can be used to estimate farm-use value for the land involved. The examples illustrate the three methods that can be used. The custom in the area and the availability of data will determine which method can best be utilized. The yields,

prices, and other data used in the examples are only for the purpose of illustrating the income technique and the development of farm-use value on the basis of the assessor's land classification.

GENERAL FARM AREA EXAMPLES

The typical rental agreement in the general farm area is a cash-rent lease. Cash rents should be used for analyzing land income in these areas. However, if you have exhausted the possibility of sufficient information for cash rental data, it may be necessary to resort to the crop-share method.

Rental data obtained may indicate a different rate based on whether the land is irrigated or not irrigated. In some instances, rent includes an amount for the irrigation system as well as for the land involved. In such cases the rent for the irrigation equipment must be extracted so not to be included as income to the bare land.

ASSESSOR'S CLASS I LAND IN WILLAMETTE VALLEY

Basic Data:

1. Assessors' Class I land typical rent is $80 per irrigated acre. Comparable Class I nonirrigated land rents for $55 per acre.

2. When irrigation equipment is furnished by the landlord an additional rent is charged per acre.

3. Rents are for bare land, therefore no deduction is required for ORS 307.320 (deciduous trees, etc.)

4. Landlord typical expenses for both irrigated and non-irrigated land are property taxes, liability insurance and management of investment (tenant manages the operations on the land.)

A. Valuation of Class I irrigated land:

Landlord Gross Income		$80.00
Landlord Expenses		
Management at 4%	$3.20	
Insurance	.50	
		3.70
Landlord Net Income to land before property taxes		76.30

598-330 O - 76 - 16

Capitalization Rate	7.75%	Certified by D. of R. (1974)
Tax Rate	2.47%	Rate for the district in which the property is located
TOTAL RATE	10.22%	

$76.30 ÷ 10.22% = $747 (Rounded $750) Farm-use value per acre for Assessor's Class I irrigated land

B. Valuation of Class I nonirrigated land:

Landlord Gross Income		$55.00
Landlord Expenses		
Management at 4%	$2.20	
Insurance	.40	
		2.60
Landlord Net Income to Land Before Property taxes		$52.40

Capitalization Rate	7.75%	Certified by D. of R. (1974)
Tax Rate	2.47%	Rate for the district in which the property is located
TOTAL RATE	10.22%	

$52.40 ÷ 10.22% = $513 (Rounded $510) Farm-use value per acre for Assessor's Class I non-irrigated land

ASSESSOR'S CLASS I LAND IN A ROW CROP AREA OF CENTRAL OREGON EXAMPLE

Basic Data:

1. Assessor's Class I irrigated land rents for different amounts depending on the crops raised. The crops grown are fitted to a rotation pattern. Two years of potatoes are followed by one year of grain and then five years of alfalfa. After alfalfa the land is put back in potatoes. In determining the typical rent consideration must be given to the crops grown. An example is:

2 years rented for potatoes at $100 per acre	=	$200
1 year rented for grain at $45 per acre	=	45
5 years rented for alfalfa hay at $40 per acre	=	200
8 years		$445

$445 ÷ 8 years = $55.62 per year typical rent

2. The land is flood irrigated with the tenent responsible for upkeep and cleaning of the ditches. If irrigation equipment is included, an extra amount is charged per acre.

3. The landlord is responsible for furnishing the alfalfa seed when the stand is established. The landlord alfalfa stand costs and allowance per year is:

Cost of seed	$15.00
Establishment Risk (1)	6.00
Interest on Stand Cost (2)	7.00
	$28.00 ÷ 8 years = $3.50 per year

(1) One out of ten seedings will fail resulting in the loss of income for one year and the additional cost of $15.00 for seed.

Loss of Income	$42.90
Seed	15.00
	$57.90 ÷ 10 years = $5.79
	say $6.00

(2) Interest on Investment of Alfalfa Stand
$21.00 Stand cost at 8 percent for average of 4 years

$21.00 x 8% = $1.68 x 4 years = $6.72 say $7.00

4. The landlord's other typical expenses include property taxes, liability insurance, management, material for upkeep of fences, and water charge. The expense for water is the operation and maintance charge (O & M), any payments for debt retirement and interest of the irrigation district is not to be deducted.

Valuation of Class I irrigated land:

Landlord Gross Income		$55.62
Landlord Expenses		
Management at 4%	$2.22	
Insurance	.50	
Fencing material	.50	
Water (O & M)	5.00	
Alfalfa stand	3.50	
		11.72

Landlord net income to land before property taxes $43.90

Capitalization Rate	7.75%	Certified by D. of R. (1974)
Tax Rate	1.93%	Rate for the district in which the property is located
	9.68%	
$43.90 ÷ 9.68% = $454	(Rounded $450) Farm-use value per acre for Assessor's Class I irrigated land.	

WHEAT AREA EXAMPLE

The crop-share rental is the usual rental agreement in the wheat counties. For many years the typical crop-share allocation was one-third to the landlord and two-thirds to the tenent. However, this allocation of the crop has been changing in recent years as leases are renewed and one will now find many variations. Some, but not necessarily all of those variations are as follows:

1. Landlord receives one-third of the crop, pays one-third of the fertilizer, 2-4-D material, and all of the real property taxes.

2. Landlord receives one-third of the crop; and the tenent pays for all of the fertilizer, 2-4-D and property taxes.

3. Landlord receives 40 percent of the crop and pays only the property taxes.

Because of variations, it is important that the rental data be obtained from the individual county as it is essential that rents be based on typical landlord - tenant arrangement for the area involved.

The government wheat program affects prices received for wheat and the number of acres that can be planted to wheat. Program controls vary from year to year and from county to county, requiring that this data be obtained from the individual county Agricultural Stabilization and Conservation Service (ASCS) office.

The present program allows the planting of wheat on all the acres and must be considered in determining the cropping program. Under the 1965 and 1970 farm programs, when a certain number of acres had to be set - aside wheat growers were paid certificate payments for the part of the crop that went for domestic consumption. The certificate payment was added to the market price the grower received for wheat to arrive at the total wheat income. The program now in effect does away with these certificate payments and is replaced by a target price for wheat. As long as the market price of wheat (five month average - July - November) is above the target price, no payments will normally be received by the grower from the government.

To insure that all the counties are using a similar base on which they compute farm-use values for wheat land, the wheat price will be determined annually by the Department of Revenue and the expense period as shown in the following example will be used.

ASSESSOR'S CLASS III DRYLAND WHEAT LAND EXAMPLE (Summer Fallow Area)

Basic Data:

1. The typical rental agreement is a crop-share rent with the landlord receiving one-third of the crop and paying one-third of the cost of fertilizer, spray material, and the fire and hail crop insurance. In addition the landlord pays all the property taxes and has liability insurance.

2. The current program for the past two years has allowed the planting of wheat on all the crop side acres and has been used as the cropping program.

3. The price of wheat determined by the Department of Revenue and issued to the assessor is $4.76 per bushel (for illustration purpose only). This price is the average of the two preceding August 1 through December 31 dates, for No. 1 soft white wheat at Portland, Oregon. The average marketing cost the past two years has been $.20 per bushel (based on tenant delivering the grain to the local elevator). $4.76 less $.20 = $4.56 net to grower.

4. The average price of fertilizer was $.20 per pound and for spray material $2.80 per acre for the past two years. One pound of fertilizer is applied for each bushel of production.

5. Crop insurance has been running $1.60 for each $100.00 of insured value. Liability insurance based on the typical operation size has been $.05 per tillable acre per year.

6. The typical wheat farm in the county is not fenced. For those that are fenced only about one-third of the landlords pay any of the fencing cost. (Tenant does not pay extra for any grazing.)

VALUATION OF CLASS III DRYLAND:

Income

32 bushels per acre yield at $4.56 = $145.92

Landlord receives 1/3 of the crop every other year from each acre

Annual landlord gross income $145.92 x 1/6 = $24.32

Expenses

Management	24.32 x 4%	$ .97	
Liability insurance		.05	
Fertilizer	32 pounds x $.20 = $6.40		
Weed spray	2.80		
Crop insurance			
$145.92 x $1.60 per $100 =	2.33		
	$11.53 x 1/6 =	1.92	
			2.94
Landlord Net Income			$21.38

Capitalization Rate	7.75%	Certified by D. of R. (1974)
Tax Rate	1.83%	Rate for the District in which the property is located
Total Rate	9.58%	

$21.38 ÷ 9.58% = $223 (Rounded $220) Farm use value per acre for Assessor's Class III Dryland

LIVESTOCK AREA EXAMPLES

The major rental data available in a livestock area will be in the form of pasture rentals. Landlords rent pasture on an animal-unit-month (AUM) basis (for this example). An animal-unit-month (AUM) is the total amount of feed needed by one mature beef cow for one month. It furnishes about 400 pounds of total digestible nutrients (TDN) and is equivalent in feed value to about 800 pounds of hay.

Types of pasture will vary in carrying capacity and in rental rates from rangeland to irrigated meadows. The rental rates may vary from county to county and may vary within a county depending on location and type of pasture available. Use the rental rate that is typical for the area and type of pasture.

It may be that rental data is too scarce on hay land to be utilized for arriving at farm-use value. In such instances it will be necessary to use the owner-operators' income. The "Enterprise Data Sheets," put out by the Cooperative Extension Service, Oregon State University, will be helpful in analyzing the income and expenses of an owner-operator property.

ASSESSOR'S CLASS VII RANGELAND EXAMPLE

Usually it requires more than one acre of rangeland to provide the forage for one animal-unit-month. The number of acres required to provide an AUM may affect the rental rate.

Basic Data:

1. Four acres required to furnish one AUM of feed.
2. An AUM rents for $4.50.
3. The landlord expenses are management, fence maintenance and liability insurance.

Valuation of Class VII Rangeland:

Landlord Gross Income		
$4.50 per AUM ÷ 4 acres per AUM		$1.12
Landlord Expenses		
Management at 4%	$0.04	
Fence maintenance	.20	
Insurance	.03	
		.27
Landlord net income before taxes		$0.85

Capitalization Rate	7.75%	Certified by D. of R. (1974)
Tax Rate	1.71%	Rate for the district in which the property is located
Total Rate	9.46%	

$.85 ÷ 9.46% = $8.99 per acre (includes ORS 307.320)

Less value of growing crop .90 (10% of value)

$8.09 ($8 Rounded) Farm use value per acre for Assessor's Class VII Rangeland

ASSESSOR'S CLASS III MEADOW HAYLAND EXAMPLE

The following is an example using an owner-operator setup. The costs are for illustration only. Local costs and cultural practices must be used. Normally this method for computation of farm-use values will be used only when there is no rental data available.

Basic Data:

1. 300 acres of flood irrigated meadow hayland on a 10,000 acre ranch.
2. Hay yield is 2.5 tons per acre and is valued at $40 per ton.
3. Two AUM per acre of aftermath grazing having a value of $5.00 per AUM.
4. The owner's labor is charged at $5.00 per hour.
5. Hired labor is charged at $3.00 per hour.
6. 50 H.P. tractor at $5.00 per hour.
7. Self-propelled swather at $15.00 per hour.
8. PTO Twine baler at $7.00 per hour.

Valuation of Class III Meadow hayland:

Income

Hay 2.5 tons at $40.00	$100.00
Aftermath grazing - 2 AUM at $5	10.00
Total Gross Income	$110.00

Expenses:

Operation	Labor Hrs.	Labor Value	Machinery	Other		Total Cost
Harrow	.2	$1.00	$1.50			$ 2.50
Fertilize				Custom	$15.00	15.00
Irrigate	2.0	6.00	2.00			8.00
Swathing	.25	1.25	3.75			5.00
Baling	.5	2.50	6.00	Twine	4.00	12.50
Stacking	1.5	4.50	4.00			8.50
Fences	.5	1.50		Material	.50	2.00
Interest on operating capital						1.50
General overhead						3.00
Management at 8% of gross (1)						8.80
Total Expense						$66.80

Gross Income	$110.00	
Total Expenses	66.80	
Net Income	$ 43.20	(Before Property Taxes)

Capitalization Rate	7.75%	Certified by D. of R. (1974)
Tax Rate	1.71%	Rate for the district in which the property is located
Total Rate	9.46%	

$43.20 ÷ 9.46 = $457 per acre (includes ORS 307.320)

46 Value of plants (@10% of value based on sales)

$411 (Rounded $410) Farm use value per acre for Assessors Class III meadow hayland

Footnote: (1) Includes management of the ranch operation and management of the investment.

I.C.3. DEFERRED TAXATION -- LONG ROLLBACK: WASHINGTON[1]

I. SUMMARY

Washington's differential assessment laws are widely used, and participating land enjoys substantial reductions in current property taxes. However, although it is too soon to make a definitive judgment, key officials do not expect the laws to deter urbanization. At the very best, a few farmers on the urban fringe who wish to continue farming may resist lucrative offers for several years more than they otherwise would have done.

Mary Ellen McCaffree, Director of the Department of Revenue and former chairperson of the House Revenue Committee, notes that, while differential taxation was promoted under the slogan, "Save our open spaces," preservation of open space was not the real concern of the farm and timber interests who were the major forces seeking legislation. She concurs with James Dolliver, Executive Assistant to Governor Daniel Evans, that open space can be retained on the urban fringe only through public purchase.

Currently, Washington's farm and timber interests are enjoying a real property tax break which results in a considerable shifting of the tax load in some tax districts. The impact statewide is modest at present. For the 1975 tax year, 9.5 percent of the eligible agricultural land in the state was classified under the Open Space Taxation Act. Acreage and percentage figures on participating open space and forest lands are not available, but together they constitute but a small percentage of participating lands. The tax reductions under this program totalled 2.7 million dollars, or roughly .5 percent of the state's yield from the real property tax. Comparable data on the impact of the Forest Taxation Act are not available. However, since both programs are quite recent, it seems reasonable to predict that participation will grow rapidly and that their joint impact will become much more substantial, both locally and statewide. Whether this outcome is what the public intended and whether there will be substantial legislative changes is too early to predict.

II. WASHINGTON BACKGROUND

Before describing the differential tax laws and their operation, a brief topographic, demographic, and fiscal picture of the state of Washington may clarify the underlying rationale of the laws.

A. Land

There are three principal land types: mountains, alluvial soils, and plateau. Proceeding from the Pacific Ocean inland, first there is the humid, densely forested Olympic range; then Puget Sound with both rich alluvial soils and intensive urbanization along its eastern borders; then the rugged, timbered Cascade range; and then the partly irrigated, partly dry eastern plateau, fringed with more mountains in the northeast and southeast corners. As in many other states, the richest farmland is also under the greatest pressure from urbanization.

Of the state's 42,605,000 acres, 53.7 percent are in forest and alpine use, 24.4 percent in open range, unirrigated, 19.3 percent in crops, and 2.6 percent in urban use.

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[1]The people interviewed are listed at the end of this case study; they were uniformly cooperative and well-informed. Particular thanks are due to Charles Roe for special help in arranging meetings with key officials and to William Parten and Trevor Thompson for their patient, detailed response to our questionnaire.

Figure 1

SELECTED PHYSIOGRAPHIC FEATURES: WASHINGTON

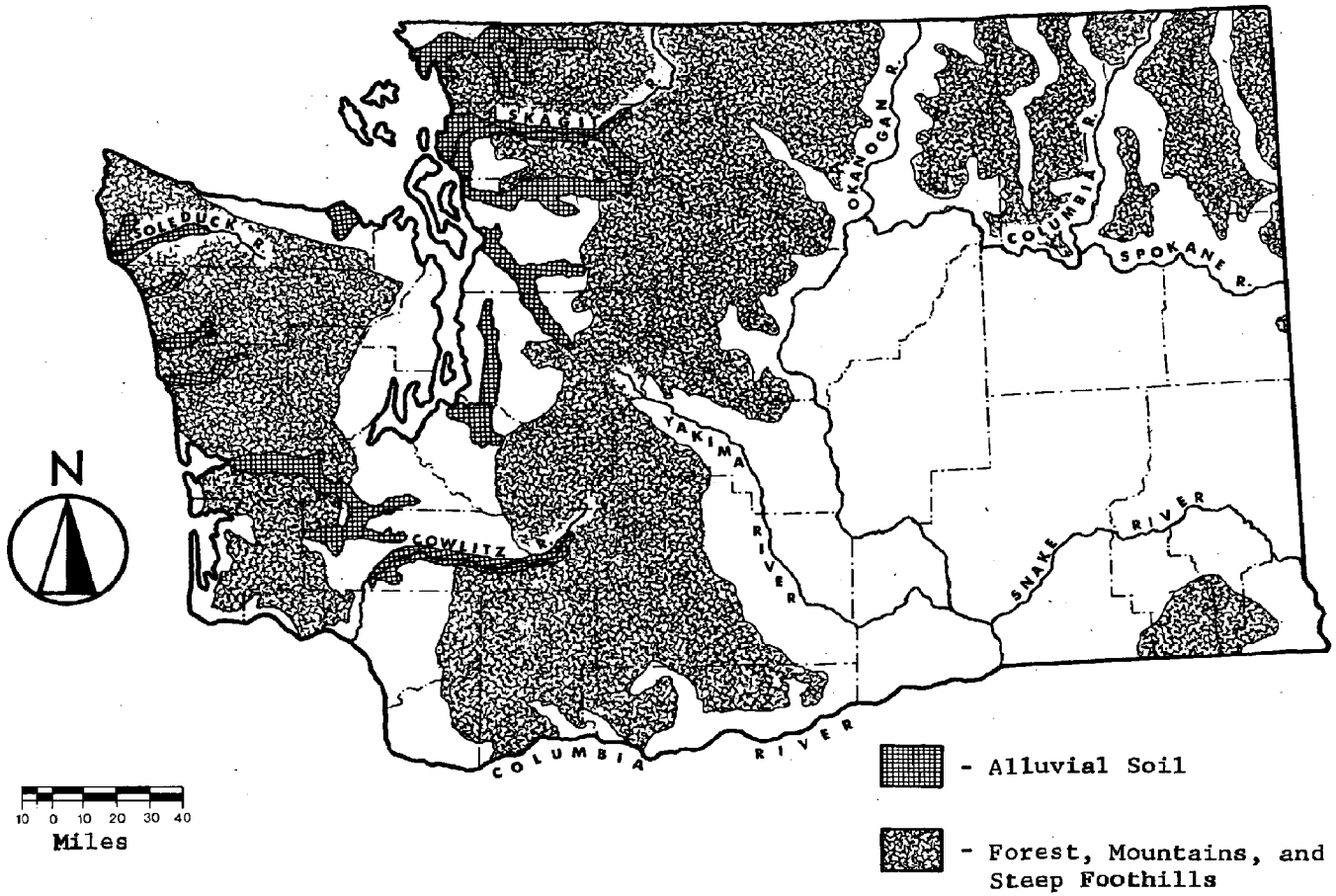
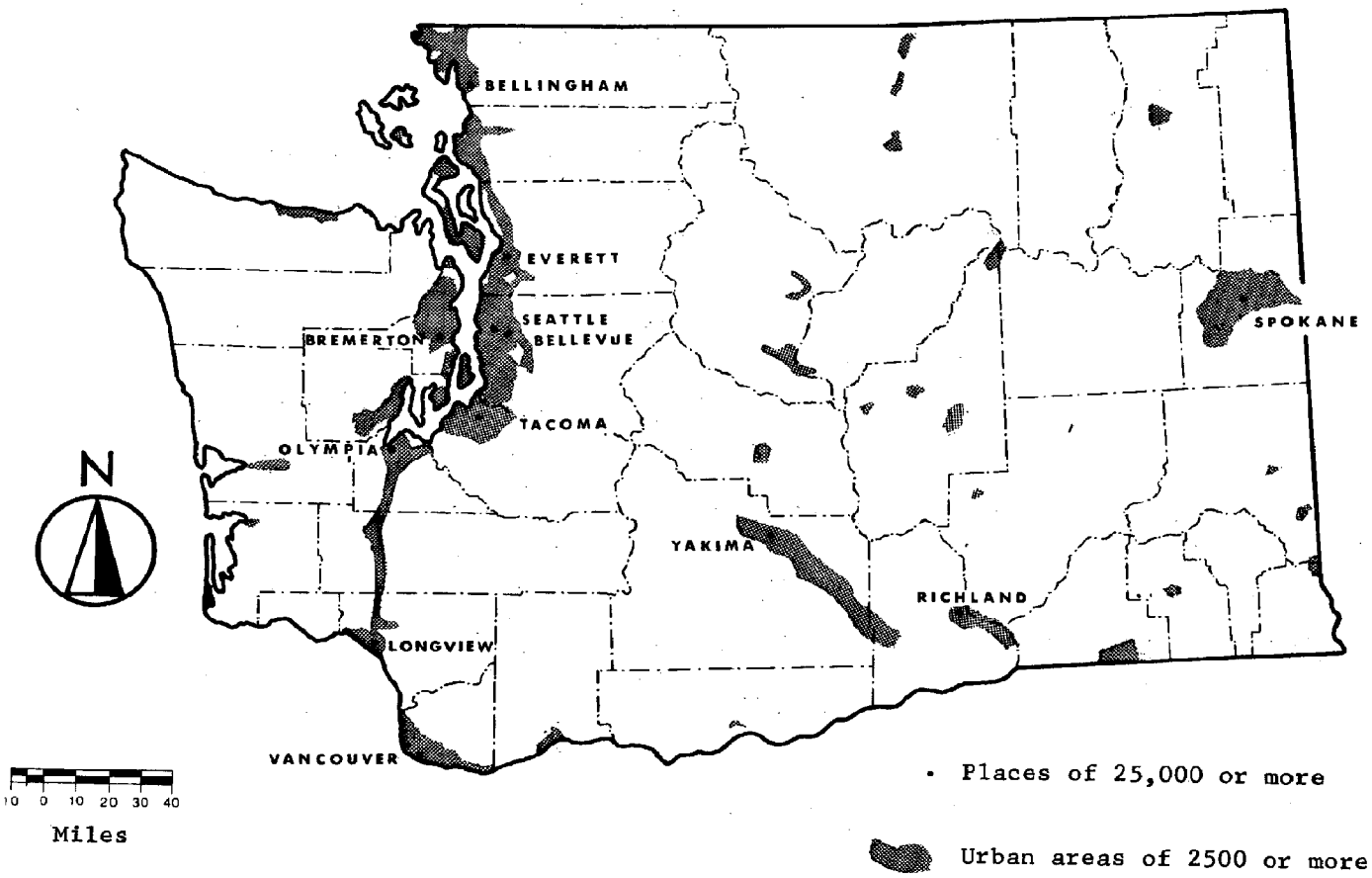


Figure 2

URBANIZED AREAS: WASHINGTON



There are extensive Federal holdings, mostly in National Forest and National Park use, which constitute 29.4 percent of the land area. The state owns 3,673,000 acres, or 9 percent, of the total land area. Sixty percent of this state land is leased for timbering, 18 percent for grazing, and 5 percent for farming. Most of the land leased for farming consists of sections 16 and 36 of each of the original townships and is land which may not be sold by the state. Income from these leases is payable to the Superintendent of Public Instruction for support of the schools.

B. People

Washington's population rose 19.6 percent between 1960 and 1970, to a total of 3.4 million. It was not increased since then, due to an early, high level of unemployment. In 1971, statewide unemployment was 10.9 percent; the rate in Seattle, the largest city, ran as high as 15 percent. King, Kitsap, Pierce, and Snohomish Counties, all located in the Puget Sound area, had 56 percent of all the population as of 1974.

Large portions of the state are unincorporated, and, in 1970, 43 percent of the population lived in unincorporated areas. Annexation is common.

There are two types of markets outbidding agriculture. Dispersed urbanization along the Vancouver, British Columbia-Seattle-Tacoma-Olympia-Vancouver, Washington corridor spreads over the alluvial valleys of Puget Sound tributaries; because these valleys are small and are separated by rather steep hills, the competition for the land is intense. In the eastern half of the state, speculation is rife. Land without water sells for two or three times its grazing value to investors who either hope for new Federal dam projects which will bring water or anticipate a handsome profit from quick subdivision and resale to smaller speculators.

C. Revenues[1]

Washington state and local governments had a combined revenue in 1973 of $3.5 billion. Of this, 57 percent or $2 billion came from taxes, 23 percent or $.8 billion from Federal grants, and 20 percent or $.7 billion from charges and miscellany.[2]

Unlike most states, Washington does not have an income tax. However, it is sales taxes rather than property taxes which compensate for this lack of a revenue source. In total state and local taxes, Washington ranks 16th at $575

Table 1

PERCENTAGE RELIANCE ON SELECTED STATE-LOCAL TAXES, 1971[3]

Tax Source	Washington	All States
Property taxes	34.7	39.8
Sale taxes	57.4	35.0
Net income taxes	---	16.2
Other taxes	7.9	9.0
Total State-Local taxes	100.0	100.0

[1] See 1975 Tax Reference Manual, Washington State Department of Revenue, Olympia, Washington, 1975, for full details.

[2] "Government Finances in 1972-73," Bureau of the Census, U.S. Dept. of Commerce.

[3] Federal-State-Local Finances, ACIR, February 1974.

per capita and 19th at $128 per $1,000 of personal income. In property taxes, Washington ranks 25th per capita and 26th per $1,000 of personal income.

The property tax base consists of real and personal property. The split in county assessments between realty and personalty is 87 percent realty, 13 percent personalty. In 1967, 57 percent of the real property base consisted of residential sites, 17 percent of farms and large tracts, 14 percent of commercial sites, 8 percent of industrial sites, and 4 percent of vacant lots and miscellaneous land. Under a 1973 law, leases of public land have been added to the real property base.[1] Property tax levies in 1973 totalled $674 million, or 34 percent of all taxes and 19 percent of all revenues.

III. THE OPEN SPACE TAXATION ACT

Three forces combined to work for enactment of differential taxation. The environmentalists, many of whom lived in the urban area bordering Puget Sound, had dual, compatible goals -- to save open space on the urban fringe and to save the prime agricultural land which also was located on the urban fringe. The farmers and the timber industry both wanted a tax break. Given the extent and quality of timber in the state of Washington, it is hardly surprising that the timber industry is one of the most powerful forces in government. For instance, in 1973, income from the forest products industry was 2.2 million dollars, in comparison to income from agriculture of 1.7 million dollars.

Since the Washington Constitution barred classification of real property for purposes of taxation, a constitutional amendment authorizing preferential assessment of farmland, timber, timber land, and open space was the first step. The legislature proposed the amendment in 1967 and the voters approved it in 1968. In 1970, the legislature enacted the Open Space Taxation Act.[2] The Act was amended in 1973, in response to problems which emerged as soon as it went into effect. Because the Act remained largely the same, the following discussion will describe the 1970 provisions and, for each of them, specific problems and 1973 amendments.

A. Scope of the Act

The purpose of the Act is to preserve open space lands for ". . . food, fiber and forest crops, and to assure the use and enjoyment of natural resources and scenic beauty for the economic and social well-being of the state and its citizens."[3] Three types of open space were eligible for classification under the act: (1) open space land, meaning land designated on an adopted county or city plan and zoned for such use, or any land whose continued open space use would enhance natural or scenic resources, protect water resources, conserve soils or marshes, enhance the public value of abutting public open space, enhance recreation opportunities, preserve historic sites, or retain in its natural character urban tracts of five or more acres open to some form of public use; (2) farm land, defined as tracts of 20 or more acres ". . . devoted primarily to agricultural uses. . .";[4] tracts of five to 20 acres with a

[1] Pier 67 v. King County, 78 Wn 2d 48, 1970 (Sup. Ct.) held leaseholds not to be exempt from the real property tax.

[2] RCW 84.34.

[3] RCW 84.34.-10.

[4] RCW 84.34.020.

gross income from agriculture of at least $100/acre for three of the five years preceding application for classification; tracts of less than five acres with a gross income from agriculture of at least $1,000/per year for three of the five years preceding application for classification; or certain woodlots, lands with related activities, and small, non-contiguous parcels; and (3) timber areas of 20 or more acres.

Essentially, almost any land could qualify as open space. The fact that little land actually had been classified as open space is a problem of political choices, not definitions. This section of the Act did not undergo modification in 1973.

One portion of the farm land section was revised. The provision concerning tracts of 20 acres or more was altered to read ". . . devoted primarily to the production of livestock or agricultural commodities for commercial purposes. . ." The intent of this change was to make it harder for land speculators to qualify. The dollar qualifying limits for the smaller tracts have worked satisfactorily.

The timber tract requirement was lowered to five or more acres. The timber industry obtained passage, in 1971, of the Forest Taxation Act, which was more attractive to timber land owners than the Open Space Taxation Act. Minimum tract size under that Act is 20 acres. By lowering the minimum under the Open Space Taxation Act to five acres, some owners of smaller tracts of timber land became eligible for classification.

B. Application and Classification

The state Department of Revenue prepared the application forms (see Appendix) and distributes them to the county assessors' offices. The Department also conducts training sessions for county personnel in administration of the Act. Whether the training programs are as effective as they could be is questioned by some observers.

Publicity about the Act is the responsibility of each county.

Under the 1970 Act, applications for all types of classification were made to the county assessor, who then forwarded them to the appropriate city or county legislative body. After discovering that assessors in a number of counties either had refused to participate in the program or had dragged their feet, the legislature launched an extensive review of the Act and changed the application procedures.

Open space and timber classification applications now are filed with and acted upon by the county legislative body. In incorporated areas, three members each from the county and city legislative bodies make the decision.

Agricultural classification applications still are made to and approved by the county assessor. However, there are new requirements so that the assessor must act on the application or find it automatically approved. Also, the applicant may appeal a denial to the county legislative body. Classification is for at least a 10 year term, automatically renewed annually.

Applications under the 1970 Act also were discouraged in some counties by setting non-refundable application fees of up to $120. The 1973 legislature terminated this practice by setting a $30 maximum fee, refundable if the application is rejected.

If land is approved for classification, the assessor's office must set up and maintain records showing a dual set of values -- use value and market value (the purported price a willing buyer pays a willing seller) -- on both the

assessment list and the tax rolls. The assessor also notifies the county treasurer who records the values in the same manner as for delinquent taxes. The information is a matter of public record and, further, each participating land owner is notified of both values placed on the land. When either value is changed, the owner again is notified.

In contrast to market value, use value for open space and timber land is market value for the particular use to which the land currently is devoted. However, no open space use value may be lower than the value which the same tract would carry for agricultural use.

Agricultural use value initially was to be determined in the same manner. To achieve greater clarity and uniformity, the Department of Revenue proposed a formula which was incorporated in the 1973 amendments. Now agricultural use value is determined by establishing productive capacity of the land. This is done in the following manner: The county commissioners appoint a five person committee, consisting of people actively engaged in farming, which works with the assessor to decide what constitutes net cash rental for characteristic land types used for typical crops, averaged over five or more years. The Department of Revenue annually sends to each county assessor a capitalization rate to be used in calculating use value. This rate is that interest charged by large institutions making farm loans, averaged over the past five years. For 1975 assessments, the rate is 8.5 percent, up .2 percent from 1974. Added to the capitalization rate is a property tax component which is a ". . . percentage equal to the estimated millage rate times the legal assessment ratio."[1] For reasons to be discussed later, there is much current debate as to whether this method of calculating use value should be retained.

C. Removal from Classification

Either the assessor or the owner may initiate action to remove land from open space classification. The most common circumstances leading to removal are the following: (1) the owner wishes to change use of the land and, at any time eight[2] or more years after classification, notifies the assessor of the desire to withdraw some or all of the land, with the withdrawal becoming effective two[1] years thereafter; (2) there is a sale of classified land and the new owner fails to notify the assessor, within 60 days of purchase, of the intent to comply with the terms of the classification; (3) the assessor discovers that the land no longer is used as classified; or (4) the owner changes use of the land so that it is no longer eligible and so notifies the assessor.

In the first instance upon removal the assessor computes the back taxes due as the difference each year for up to seven years between taxes paid and taxes which would have been payable based on market(highest and best use) valuation multiplied by the statutory interest rate on delinquent taxes from the dates on which such additional taxes would have been payable. In the other three instances, the assessor follows this procedure and then adds a 20 percent penalty.[3]

[1] Ch. 212, 1973 1st Sess., §10.

[2] Seven years and three years, respectively, in the 1970 Act.

[3] The 1970 Act included a 20 year rollback for withdrawal from timber classification and a 14 year rollback when an owner changed the use of land classified for agriculture and open space.

There is one problem with the removal provisions. New owners often do not know that they must reapply. The Department of Revenue would like to see the assessor's offices required to notify new owners and to have the 60 day period run from time of notification. It also would be desirable for the Department of Revenue to be notified of withdrawals.

IV. OTHER RELATED LEGISLATION

The early 1970's have seen enactment of several other laws which have a strong influence on the use and impact of the Open Space Taxation Act. In sum, they encourage farmers to apply and discourage timber owners from applying for classification under the Act, and they marginally reduce the local impact of shifting of the tax burden.

A. The Forest Taxation Act

Few owners of timber land ever applied for classification under the Open Space Taxation Act, because timber interests won passage in 1971 of a bill more favorable to them. This law was amended in 1973 and 1974.

Standing timber was exempt from property tax and subject instead to a yield tax at times of harvest.[1] The yield tax is administered by the Department of Revenue. The rate set by the legislature for 1974-1978 is 6.5 percent.

Land used for growing timber remains subject to the property tax; tracts of 20 or more acres are eligible for differential tax treatment. Either the county assessor may classify land as forest land or owners may apply for designation of their land. If the assessor takes the initiative, the owner may decline classification. As of 1974, 5.4 million acres had been classified and .6 million acres designated under the Forest Taxation Act.

The Department of Revenue establishes the true and fair value of forest land and publishes a schedule of values annually. The Department also sets rules by which the county assessors grade forest land to determine current use value. Factors to be included in grading are productivity of the land for timber and accessibility.

Initially, there was no rollback tax for classified forest land on change of land use; this was changed in 1973. When land so designated or classified is removed from timber use, the county assessor must compute a compensatory tax by (1) calculating the difference between the tax last levied for timber use, and a levy established by multiplying the new assessed value by the last levy rate, and (2) multiplying this figure by the number of years up to and including 10 that the land has been designated or classified for timber use.[2]

B. Assessment

During the 1950's and 1960's, assessments of real property tended to be at 20 percent of market value, and the effective tax rate under the regular levy was about one percent of full value. Reassessment occurred at eight to 10 year intervals at best.[3] Court decisions, a constitutional amendment, and new legislation have brought about several significant changes.

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[1] RCW 84.33.040.

[2] RCW 84.33.140.

[3] "Washington's Property Taxes" is the source of much of this information.

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In 1955, the legislature passed the Revaluation Act, ordering assessors to get out in the field and look at all property once every four years in order to revalue it. For some years the act was ignored in many counties. Part of the problem was that the county assessors' offices lacked the funds to hire enough staff to do the job. Recognizing this, the legislature, in 1969, began appropriating funds for grants to the counties for revaluation. Thirty-five of 39 counties cooperated with the Department of Revenue in the program and, by completion of revaluation in 1974, had raised their tax base by 57.5 percent.[1] The other principal results of the revaluation were that assessments became much more uniform and that farm land assessment rose considerably since these lands had been reassessed even less frequently than other lands. This last fact spurred farmers to participate in the Open Space Taxation Act Program.

As a result of a 1971 court decision, one-quarter of all realty must be revalued in each year of the four year cycle. Also in 1971, the legislature authorized counties to adjust values at intervals within the four year cycle provided that they have adequate data to warrant this.

A 1972 constitutional amendment set one percent of full true and fair value as the maximum regular tax levy. The legislature, in 1974, voted to express this maximum as $10 per $1,000 of true and fair value. The legislature also voted to set the regular levy limit for 1975 taxes at $9.15 per $1,000 for areas outside of cities -- $3.60 levied by the state for schools, $1.80 by the counties, $2.25 for roads, and $1.50 by junior districts for other purposes. The limit within cities is $9 plus $.15 for junior districts. Both figures are less, of course, than the $10 allowed under the Constitution. Even so, there is expected to be a slight increase over 1974 levies for schools because of yet another legislative change effective for 1975 taxes. Now the state, rather than local school districts, will levy and collect taxes for public schools. School revenues will be distributed on the basis of student enrollment, thus effecting some redistribution. The Department of Revenue sets an equalized value for county real property assessments, and this is expected to be 10 percent higher than the sum of all county assessments since counties still have not assessed at a full 100 percent of market value. In 1974, county assessments ranged from 56.5 percent of market value in Whatcom County to 94.3 percent in Asotin County, with a state average of 85.9 percent.

A 1971 law[2] set a maximum yearly increase of 6 percent in regular levy revenues for all local taxing districts except port and school districts. New assessments are outside this maximum increase. The increase is measured from a base consisting of the highest regular tax levy in the three preceding years. 1974, the first year in which this law affected collections, saw a drop of $16.5 million in revenues attributable to the 6 percent increase limitation.

C. Special Levies

There are complex procedures by which voters of tax districts can approve special levies. In districts in which the tax base is reduced significantly because of participation in the differential tax programs, special levies are the only recourse for maintaining revenue levels. Combining these levies with the regular levy, the effective tax rate for the state between 1970 and 1974 has been 1.6 percent. The national average is 1.98 percent.

[1] "Washington's Property Taxes."

[2] SHB 283.

D. Tax Relief for the Elderly

To the extent that participation in differential tax programs causes a shift in the tax burden, either within the regular levy or from regular to special levies, disabled or elderly homeowners are spared in whole or part. As of 1974, the provisions apply to retired homeowners aged 62 or older and relate to income as follows:

Income*	Regular levy	Special levy
$4,000 or less	Exempt on $5,000 of residential valuation	Exempt
over $4,000 but less than $5,000		Exempt
$5,000 to $6,000		50% exempt

*One-third of social security, federal civil service, and railroad pensions excluded.

V. IMPACT OF THE OPEN SPACE TAXATION ACT

Since the Open Space Taxation Act is but one of a panoply of laws recently enacted to change the distribution of the real property tax load in the state of Washington, it is impossible to state unequivocally what its impact has been. There are data on participation in the program since its inception in 1971. Those data, combined with interviews with knowledgeable officials, do yield an impression which should be reasonably accurate. That impression is that the Act functions as a tax relief measure for farmers which is benefitting urban fringe farmers about as anticipated but which also is shifting the tax burden in non-urban tax districts in a wholly unexpected manner.

Because of the paucity of data, it is difficult to comment on the impact of the Forest Taxation Act. Where there is information, it is included here along with information concerning the Open Space Taxation Act.

A. Fiscal Effects

For the 1975 tax year, the reduction in regular levy taxes on property classified under the Open Space Taxation Act will be $2,655,369. Property classified at current use value carried a total valuation equal to 60 percent of fair market value.

The Act got off to a slow start. The first tax year in which reductions were effective was 1972. To be eligible, people had to apply prior to December 31, 1970, for differential assessment during 1971. Twenty-one counties received a total of 1,199 applications, but only about 900 of these applications were accepted. Some counties refused to accept any applications, some failed to act on those received, and some rejected all applications.[1] Reasons for the negative response varied; they included concern over loss of revenues, opposition to giving some groups a tax break, and resentment over the added work load.

[1] "The Open Space Act: History and Impact of Current Use Assessment in Washington State" is the source of much of this information. It provides considerable detail about the impact of the Act.

Despite efforts by the Department of Revenue to stimulate interest among land owners and to promote a more receptive attitude by county assessors, 1971 saw 30 percent fewer applications than 1970. As in 1970, most of the applications were from the western part of the state.

In 1972, applications were down to 575. Even those counties which had encouraged participation had a decline in applicants.

By 1973, there was a significant turn around, attributed to two factors: amendment of the Act and revaluation of farm land. Table 2 gives a condensed picture of changing participation in the Act.

Table 2

IMPACT OF THE OPEN SPACE TAXATION ACT,
1972-1975 TAX YEARS

Tax Year	No. of Counties Partici-pating	Market in Highest and Best Use Value ($ millions)	Current Use Value ($ millions)	Difference ($ millions)	Tax Reduction ($ millions)
1972	15	-	-	10.7	.4
1973	18	57.4	23.0	34.4	1.3
1974	19	90.5	41.0	49.5	1.7
1975	35	660.4	394.9	265.5	2.7

All but four counties are participating in the program, and its impact varies enormously from county to county, as shown in Table 3 and Figure 3.

The fiscal effects turn upon the relationship between the total valuation of land in a county or tax district and the valuation of classified land. Even if a large percentage of the acreage in a district participates, if this acreage constitutes only a modest portion of the total value of real property in that district, tax reduction through classification will not result in a substantial shifting of the tax burden.

Work by the Washington State Research Council[1] provides some information about these relationships in 14 counties for the 1974 tax year. The tax shifting in these counties per $1,000 of assessed value ranged from an amount so small as to be deemed insignificant in seven counties to a high of $.84 in Skagit County. Skagit County had over 92,000 acres of high quality agricultural land, or 17 percent of the private land in the county, in the program.

The total reductions in value in King and Pierce Counties, the most highly urbanized of Washington's counties, are not surprising given their very high market values for farm land. However, many seemingly rural counties also show substantial dollar reductions in value, accompanied by large percentage reductions as well. Whitman County is the most extreme example. A brief look at the figures for both Pierce and Whitman Counties illuminates the nature of the Act's impact in two very different areas of the state.

[1] "The Open Space Act: History and Impact of Current Use Assessments In Washington State."

Figure 3

.SHINGTON: USE VALUE AS PERCENT OF MARKET VALUE,
BY COUNTY, 1975 TAX YEAR

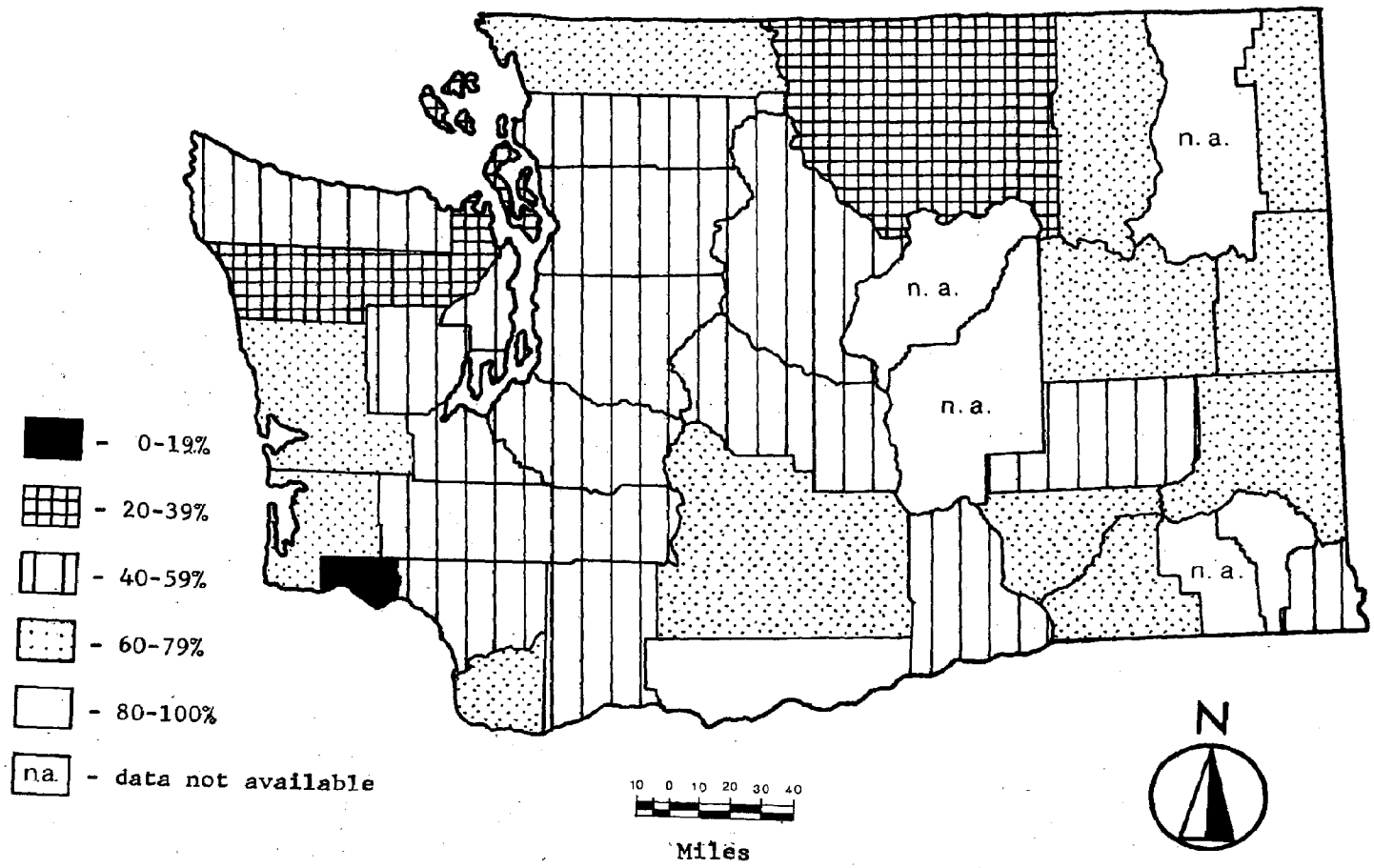


Table 3

IMPACT OF OPEN SPACE ACT, 1975 TAX YEAR 1/

County	Market or Highest and Best Use Value	Current Use Values 1974	Difference	1975 Savings	1974 Savings
Adams.....	$ 5,655,820	$ 3,062,855	$ 2,592,965	25,930	$ None
Asotin.....	337,965	163,825	174,140	1,741	None
Benton.....	14,568,330	7,045,540	7,522,790	75,228	None
Chelan.....	239,490	138,320	101,170	1,012	None
Clallam.....	4,225,450	2,083,080	2,142,370	21,424	4,947
Clark.....	22,183,245	16,470,600	5,712,645	57,126	101,095
Columbia.....	---	---	---	---	---
Cowlitz.....	5,070,010	2,599,255	2,470,755	24,708	None
Douglas.....	---	---	---	---	---
Ferry.....	481,500	335,910	145,590	1,456	128
Franklin.....	3,325,650	2,167,450	1,158,200	11,582	None
Garfield.....	52,570	42,401	10,169	102	None
Grant.....	---	---	---	---	---
Grays Harbor.....	782,296	527,868	254,428	2,544	1,263
Island.....	8,090,442	3,214,990	4,875,452	48,754	40,871
Jefferson.....	272,985	98,338	174,647	1,746	105
KING.....	33,903,376	15,641,244	18,262,132	182,621	63,493
Kitsap.....	2,876,886	1,580,996	1,295,890	12,959	2,170
Kittitas.....	3,706,060	1,951,910	1,754,150	17,541	124
Klickitat.....	2,193,820	1,854,345	339,475	3,395	None
Lewis.....	12,835,150	7,582,550	5,252,600	52,526	None
Lincoln.....	29,469,540	22,218,465	7,251,075	72,511	None
Mason.....	2,027,440	1,057,580	969,860	9,699	8,585
Okanogan.....	1,974,005	774,203	1,199,802	11,998	None
Pacific.....	3,781,010	2,985,625	795,385	7,954	3,049
Pend Oreille.....	762,337	470,434	291,903	2,919	None
Pierce.....	27,692,370	15,524,130	12,168,240	121,682	101,205
San Juan.....	4,403,650	1,128,340	3,275,310	32,753	None
Skagit.....	101,306,814	53,033,182	48,273,632	482,736	493,145
Skamania.....	562,430	227,650	334,780	3,348	None
Snohomish.....	23,651,365	13,343,140	10,308,225	103,082	86,208
Spokane.....	43,504,660	28,278,110	15,226,550	152,266	632
Stevens.....	---	---	---	---	---
Thurston.....	16,634,930	8,101,032	8,533,898	85,339	44,446
Wahkiakum.....	80,000	10,000	70,000	700	400
Walla Walla.....	1,136,224	689,655	446,569	4,466	None
Whatcom.....	1,500,610	1,176,260	324,350	3,244	3,287
Whitman.....	257,482,090	163,608,945	93,873,145	938,731	None
Yakima.....	23,631,400	15,676,840	7,954,560	79,546	35,249
TOTALS	$660,401,920	$394,865,068	$265,536,852	$2,655,369	$990,402

Savings reflect regular levy reductions only for the tax years listed

1/ "Washington's Property Taxes."

1. Pierce County: Pierce County, whose county seat is Tacoma, had a 1973 population of 404,300 and a 1973 assessed valuation of $1,782,582,777. Without the Open Space Taxation Act, assessed valuation would have been $1,787,643,042, or a difference of over $5 million, a large sum but only .003 percent of the total tax base. The tax shifting for the county, via special levy, amounted to only $.05 per $1,000 of assessed value in 1973. However, now using 1974 assessments, the shifts by school district special levies show more variation, ranging from zero to $.21 per $1,000 assessed value. These districts had from 18 to 6,817 acres classified.

Only 3.1 percent of the private land in the county was classified under the program in 1974. However, this constituted between 40 and 45 percent of the commercial agricultural land. Land participating had an average estimated market value of $1,356 per acre, while much of the non-participating prime farm land had a market value ranging between $15,000 and $30,000 per acre. While the richness of the soil makes this a key location for truck crops, the huge gap between farm and market value has dissuaded owners of much of the choice development land from applying for classification. Unless Pierce County enacts other measures to retain this farm land, its owners are unlikely to seek classification.

The Forest Taxation Act had a cumulative impact in the county of $1,028,000 over the 1973-1975 tax years. With this Act also the extent of shifting of the tax burden varies from district to district. One district--Eatonville--lost $34,000, or 7.37 percent of its base, in 1973, and $44,000 in 1974.

2. Whitman County: Whitman County, a largely undeveloped county with a 1973 population of 38,700, did not participate in the program until the 1974 assessment year. In one year, it accepted for classification 60.8 percent of all private land located outside of incorporated areas. The Washington State Research Council estimates that as much as 600,000 acres of wheat land may have been classified. Although it was widely assumed in the early 1970's that land such as this would show no difference between highest and best use value and current use value, the Whitman County figures show a reduction of 54.5 percent, or from a range of $500 - $600 per acre to $258 per acre. Various explanations of this difference in values have been offered. Some say that the statutorily mandated advisory committee of five farmers exerted undue influence on the county assessor in establishing these figures. Some say that Whitman County has a generally poor assessment record, citing high coefficients of dispersion in recent years. Others say that the Whitman County figures exemplify what can be anticipated from use of the capilatization method of establishing current use value. They claim that some development value already has settled in all farm land and that, in the arid eastern part of the state, all land can be sold for between two and three times its current use value. Purchasers include investors looking for a tax loss, people planning to subdivide for second home development, and speculators hoping that new irrigation projects will bring new value to the land.

The Whitman County assessed value for realty in 1974 was $401.5 million; without the Act it would have been $495.4 million. Therefore, the county lost 19 percent of its tax base, or $93.9 million. This will affect the state's levy of school taxes as well as the amount of the regular local levies. How much of the loss through reduction in assessed value will be picked up by special levies is not yet apparent. What is apparent is that if there is in fact a disparity throughout eastern Washington between current use and market value comparable to that claimed to exist in Whitman County, most farmers are likely to seek classification and the overall reductions under the program are likely to rocket upward.

During the 1975 legislative session, hearings are being held on the current status of the Open Space Taxation Act, particularly on the effect of use of the capitalization method prescribed in 1973. There is growing concern that potential reductions in the tax base of rural counties may be far greater than anticipated and that this may lead to an unacceptable shift in the tax burden.

A theoretical study by David Holland[1] concludes that the reduction in present value of tax revenues from classified lands over the 10 year contract period will be 55 percent. The study further shows that even assuming as low a growth rate in land values as six percent per year, a land owner intending to sell will come out ahead financially by participating in the program for eight or more years.

B. Land Use Effects

The original implications of the Act's backers were that it was only the urban fringe farmers who would benefit from the Act and that the quid pro quo of their benefit would be their commitment not to convert to a non-farm use for at least 10 years. General opinion that the farmers will enjoy the tax break and sell when a good price is offered is reinforced by the Holland study. Although this is now the sixth year in which applications for classification have been accepted, it is a bit early for statistical evidence on the impact of the Act as a conversion deterrent. Also, as of 1975, the Department of Revenue has not been collecting data statewide on land removed from classification.

Some early data on participating and landowners' stated intentions are available from an excellent survey by James Barron and James Thompson.[2] For 1970 and 1971, the first two years in which applications were accepted, 81.7 percent of the participating acreage was agricultural, 14.3 percent was timber, and 4 percent was open space. However, only 35 percent of the applicants listed their occupation as farmer or forester. Another 21 percent were retired, and the remaining 44 percent listed a range of occupations. Only one applicant out of three derived over 40 percent of income from the land. Queried about their future intentions, 69 percent said that they intended to continue their present use for more than 10 years, and 44 percent intended to continue the use for more than 20 years. Answers about participation in the Open Space Taxation Act program and its deterrent effect on conversion were discounted by the authors of the study, because they felt that respondents did not understand the rollback and penalty provisions.

As of the 1975 tax year, there were 1,772,027 acres of agricultural land classified under the Open Space Taxation Act.[3] This is 9.5 percent of all of the crop and unirrigated grazing land in the state. Data for timber and open space acreage are not available, but neither category has substantial land classified under this Act. As previously explained, timber land owners prefer the Forest Taxation Act. Open space applicants could be expected to be concentrated in the more urban parts of the state. There, particularly in King County, the counties have chosen to regulate rather strictly what lands will be accepted and to insist on some form of public access. Their concern has been to exclude wealthy gentry seeking a tax break for county estates.

Carl Hansen, of Pierce County, believes that all types of withdrawal will increase as urban pressures continue to mount. No one interviewed thought otherwise. James Dolliver, Governor Evans' Executive Assistant, believes that the law ". . . is better than nothing at all and serves some symbolic purpose." However, he thinks that most farmers are potential developers and that, if they aren't, their sons will be. Eleanor Brand, Research Analyst for the Senate Ways and Means Committee, views the law as serving solely as a holding action until planning and land use controls for agricultural lands become acceptable. Douglas Pullen of the Washington State Research Council thinks that the responses

[1]"An Economic Analysis of Washington's Differential Taxation Program."

[2]"Impacts of Open Space Taxation in Washington."

[3]The Department of Revenue had no report from three participating counties so the actual acreage is somewhat higher than this.

given by participants to the Barron Poll have been proven faulty already by the number of withdrawals when a good price has been offered. Representative Joseph Haussler, Chairman of the Local Government Committee says that there is "no way" the Act is going to keep people from selling for development. These are people who have been intimately involved with the Open Space Taxation Act; their intuition about its impact on land use should be as accurate as anyone's could be.

Pierce County: Some detailed data on participation and withdrawal are available from Pierce County.[1] The county has a total of 1,073,000 acres, 25.6 percent of which is in federal or state ownership. There are 24,000 acres of private, prime agricultural land, of which 8,000 acres already has been developed. People are concerned about further incursions; 16,000 names are on a petition seeking a development moratorium in the Puyallup River valley until a plan can be devised to save remaining farm land.

Meanwhile, much eligible farm land is classified under the Open Space Taxation Act. A total of 25,000 acres is classified, including 4,000 acres of small timber holdings and 21,000 acres of mostly farm but some open space uses. The open spaces accepted for classification include estuaries, rifle and archery clubs, private airfields, four golf courses in private ownership but open for public use, and three and one-third private golf courses with public bike trail rights of way. The explanation for the one-third golf course is that three holes in the unincorporated part of the county were accepted while the city of Puyallup never has acted on the application for the six holes in its jurisdiction.

Much more land--219,000 acres--is benefitting from the Forest Taxation Act; 159,000 acres have been classified by the county assessor and 60,000 acres have been designated by their owners.

Withdrawals in Pierce County have occurred as a result of public action, as well as through the giving of notice and by breach. Twelve parcels of prime agricultural land have been acquired under threat of eminent domain by the Port of Tacoma and the Burlington Northern Railroad. A few breaches have resulted from the failure of new owners to reregister within 60 days of their purchase, on occasion because title searches have failed to pick up the existence of the classification.

It is relevant to note that in 1973 alone there were 45 withdrawals from the Forest Taxation Act program, suggesting that its rollback is little deterrent.

C. Equity

If neither the Open Space Taxation Act nor the Forest Taxation Act significantly increases the likelihood that land will remain in open space, agriculture, or timber uses, and if use of these acts does result in a shifting of the tax burden, it seems evident that the equity of this shift is questionable. If there is a sentiment that farmers and timber producers have borne an unfair share of the tax burden, much more evidence should be adduced to support such a proposition.

D. Ease of Administration

The Department of Revenue appears to have done and be doing an admirable job in terms of formal quidelines and informal advice to the counties. The staff of the Department are thoroughly familiar with the Act and with the experience of each county in administering it. Theirs is a thoroughly professional operation, and the Act has not caused them any serious administrative problems.

[1] Interview with Carl Hansen.

Things are different at the county level and vary from county to county depending largely on the prior size and competence of staff in the county assessor's offices. It is important to realize that fees paid by applicants go to the county general fund and not the assessor's office. In Pierce County, for instance, there has in fact been a drop in staff since the Act came into effect. The cost of the program to the Pierce County's assessor's office since 1971 was estimated at around $40,000, no part of which has been paid through receipt of fees.

The increased administrative burden accounts in part for the cold shoulder the program received from some county assessors.

The statewide assessors' association recommended, in 1973, that the Open Space Taxation Act be altered to simplify their tasks. They favor use of the system of record-keeping and calculation of back taxes mandated under the Forest Taxation Act. Carl Hansen has developed an illustration to establish that the collections would not be substantially less (in the range of 20 percent) than under the current system.

The author wonders how much this would reduce the assessor's task. In heavily populated counties like Pierce, the assessor's offices are moving to computerization of their data. This will enable them to revalue annually, as in Mr. Hansen's Example No. 1, and it also will enable them to calculate the rollback and penalty instantly. It is granted that this is unlikely to be possible soon in the more rural counties. However, there is an advantage to the landowner in being notified annually not only of the current use but also of the market valuation so that it is always possible to calculate accumulated rollback and penalty taxes then due.

E. Political Feasibility

Both the Open Space Taxation Act and the Forest Taxation Act were politically acceptable because they continued the past practice of giving favorable treatment to land in farm and timber use. It is said that far more revenue will accrue to taxing authorities under the new timber provisions than under the old, which taxed timber land in eastern Washington at $2.00 per acre and timber land in western Washington at $4.00 per acre. While this may well be true, the absence of comparisons of yields under the new provisions to yields at market value tends to raise the suspicion that the gap remains substantial.

Several versions of a measure requiring local planning and plan implementation have been introduced in the legislature. Rep. Joseph Haussler's bill specifically directs local governments to designate and protect important agricultural, forest, and mineral resource lands.[1] These bills have met violent opposition from a large segment of the populace adamantly opposed to being told what to do with their land. Rep. Haussler, elected from a district where ". . . it takes five acres of grazing land to support one cow . . ." has been 100,000 acres of dry land in Okanogan County cut up into 30 acre lots and sold virtually overnight. Thousands of acres in the county valued at $3.00 per acre for farming were subdivided and sold for about $120 per acre. Rep. Haussler has been pilloried by many of his constituents for proposing local land use controls to try to keep land in farming. Neither his nor any of the several other land use bills are given any chance of passage in the current session because of this opposition. The taking issue is a hot issue, and most observers believe that the state Supreme Court would not sustain agricultural zoning.

[1]Substitute H. B. 168.

Table 4

ALTERNATIVE CALCULATIONS OF BACK TAXES

EXAMPLE: #1 TAX RATE 2%; MARKET VALUE INCREASE 6%/YEAR; ANNUAL VALUATION; CURRENT USE VALUE IS CONSTANT; COMPENSATING PERIOD 7 YEARS.[1/]

(Per Acre Computation)

ADDITIONAL TAX, PENALTY AND INTEREST COMPUTATION

No. of Years	1 Tax Year Latest Year First	2 True and Fair Value Tax	3 Current Use Tax	4 Difference Between Col.2 & 3	5 Delinq.Tax Interest On Col.4	6 Tax Difference & Interest	7 Penalty (20% of Col.6)	8 Total Tax & Penalty & Interest
1	1980	$ 24.48	$ 6.00	$ 18.48	-	$ 18.48	$ 3.70	$ 22.18
2	1979	23.40	6.00	17.40	$ 1.39	18.79	3.76	22.55
3	1978	22.32	6.00	16.32	2.61	18.93	3.79	22.72
4	1977	21.24	6.00	15.24	3.66	18.90	3.78	22.68
5	1976	20.16	6.00	14.16	4.53	18.69	3.74	22.43
6	1975	19.08	6.00	13.08	5.23	18.31	3.66	21.97
7	1974	18.00	6.00	12.00	5.76	17.76	3.55	21.31
				$106.68		$129.86		$155.84

Total amount of additional tax, penalty and interest due and payable

1/ 1% plus 1% special levy.

EXAMPLE: #2 TAX RATE 2%; MARKET VALUE INCREASE 6%/YEAR; 4 YEAR CYCLICAL UPDATE; CURRENT USE VALUE IS CONSTANT; COMPENSATING PERIOD IS 7 YEARS.

(Per Acre Computation)

ADDITIONAL TAX, PENALTY AND INTEREST COMPUTATION

No. of Years	1 Tax Year Latest Year First	2 True and Fair Value Tax	3 Current Use Tax	4 Difference Between Col.2 & 3	5 Delinq.Tax Interest On Col.4	6 Tax Difference & Interest	7 Penalty (20% of Col.6)	8 Total Tax & Penalty & Interest
1	1980	$ 21.24	$ 6.00	$ 15.24	-	$ 15.24	$ 3.05	$ 18.29
2	1979	21.24	6.00	15.24	$ 1.22	16.46	3.29	19.75
3	1978	21.24	6.00	15.24	2.44	17.68	3.54	21.22
4	1977	18.00	6.00	12.00	2.88	14.88	2.98	17.86
5	1976	18.00	6.00	12.00	3.84	15.84	3.17	19.01
6	1975	18.00	6.00	12.00	4.80	16.80	3.36	20.16
7	1974	18.00	6.00	12.00	5.76	17.76	3.55	21.31
				$ 93.72		$114.66		$137.60

Total amount of additional tax, penalty and interest due and payable

EXAMPLE: #3 COMPENSATING TAX - FOREST TAX ACT
- FORMAT (RCW 84.33)

COMP. TAX = (MARKET VALUE TAX) - (CURRENT USE TAX) X (NO. YEARS)
= ($24.48 - $6.00) X (7 YEARS)
= $18.48 X 7 YEARS
= $129.36

OR

= ($21.24 - $6.00) X (7 YEARS)
= $15.24 X 7
= $106.68

Source: Carl N. Hansen, Pierce County Assessor's Office

Mary Ellen McCaffree, Director of the Department of Revenue, believes that few people, either at the time of passage of the Open Space Taxation Act or now, are concerned about the loss of farmland. The dairy farmers, she says, are the worst speculators, selling out and resettling 50 miles away.

Her department, at the request of the administration, drafted a capital gains bill[1] modeled on the Vermont law. Under this bill sales would be subject to a capital gains tax at a rate declining from 50 percent for sales in the first year after purchase to zero in the sixth year after purchase. While the administration strongly favors the bill, informed opinion is that it may pass the House but not the Senate, a more conservative body.

It thus does not seem that bills which would have some additional deterrent effect on conversion of agriculture and timber land are politically acceptable. Probably part of the acceptance of the current legislation lies in the fact that the conversion deterrent is so minimal.

[1] H. B. 502.

BIBLIOGRAPHY

Barron, James C. and James W. Thompson, "Impacts of Open Space Taxation in Washington," Bulletin 772, Washington Agricultural Experiment Station, Washington State University, Pullman, Washington, March 1973.

Burrows, Donald R., "Washington's Property Taxes," State of Washington Department of Revenue, Olympia, Washington, October 1974.

Holland, David M., "An Economic Analysis of Washington's Differential Taxation Program," Circular 578, College of Agriculture Research Center, Washington State University, Pullman, Washington, December 1974.

Pullen, Douglas R., "The Open Space Act: History and Impact of Current Use Assessment in Washington State," Washington State Research Council, Olympia, Washington, December 1974.

Washington State Department of Revenue, 1975 Tax Reference Manual, Olympia, Washington, 1975.

WASHINGTON INTERVIEWS, MARCH 17-19, 1975

State:

Governor;s Office	James Dolliver, Exec. Asst.; Jay Fredericksen, Press Secy.
Department of Revenue:	Mary Ellen McCaffree, Dir., former chairperson, House Revenue Committee;
	Clyde Rose, Dir., Property Taxes;
	Donald Burrows, Asst. Dir., Research and Statistics;
	William Parten and Trevor Thompson, Property Taxation Division.
Department of Ecology:	Charles Roe, Jr., Senior Asst. Atty. Gen.
Senate:	Eleanor Brand, Senior Research Analyst, Senate Ways and Means Committee.
House:	Rep. Joseph Haussler, D., Omak, Chmn. Local Govt.;
	Rep. Helen Sommers, D., Revenue Committee, Seattle.
Board of Tax Appeals:	Joan Thomas, Board Member.

County:

Pierce County Assessor's Office:

Private:

Washington State Research Council:	Douglas Pullen.

APPENDIX Washington

APPLICATION FOR CLASSIFICATION AS FARM AND AGRICULTURAL LAND
FOR CURRENT USE ASSESSMENT UNDER RCW 84.34

FILE WITH THE COUNTY ASSESSOR

Name of Applicant _____ Phone _____

Address _____

Property Location _____

1. Interest in Property: Fee Owner _____ Contract Purchaser _____

Other (Describe Interest) _____

2. Legal description of land to be classified: _____

_____

_____

Assessor's Parcel or Account Numbers _____

3. Total acres in application _____

4. Total acres in cultivation _____

5. Total acres of grazing land _____

6. Is grazing land cultivated ? _____

7. Total acres in farm woodlot _____

8. List property rented to others which is not affiliated with agricultural use and show the location on the map. _____

_____

_____

9. Is land subject to lease or agreement which permits any other use than its present use? Yes _____ No _____ (If yes, attach copy of lease or agreement.)

10. Describe the present current use of each parcel of land that is the subject of this application: _____

_____

_____

_____

11. Describe the present improvements on this property (buildings, etc.) _____

_____

_____

12. Attach a map of the property or use the map on page 4 to show an outline of the current use of each area of the property such as: livestock (type), row crops, hay land, pasture, wasteland, woodlots, etc.

Include on the map, if available, the soil qualities and capabilites also indicate the location of buildings.

PTF 86 (7/73)

13. NOTE: To qualify for agricultural classification, an application on land of less than 20 acres must meet certain minimum income standards (see definition of agricultural land (b) and (c). Please supply the following or any other pertinent data to show that the land will qualify for classification.

14. What is the yield per acre for last five (5) years _____
(bushels, pounds, tons, etc.)

15. List the annual gross income per acre for the last five (5) years $_____ per acre.

16. If land is rented or leased list the annual gross rental fee for the last five (5) years.

$_____

- - -

FARM AND AGRICULTURAL LAND MEANS EITHER:

(a) Land in any contiguous ownership of twenty or more acres devoted primarily to the production of livestock or agricultural commodities for commercial purposes; or

(b) Any parcel of land five acres or more but less than twenty acres devoted primarily to agricultural uses, which has produced a gross income from agricultural uses equivalent to one hundred dollars or more per acre per year for three of the five calendar years preceding the date of application for classification under this chapter; or

(c) Any parcel of land of less than five acres devoted primarily to agricultural uses which has produced a gross income of one thousand dollars or more per year for three of the five calendar years preceding the date of application for classification under this chapter.

(d) Agricultural lands shall also include any parcel of land of one to five acres, which is not contiguous, but which otherwise constitutes an integral part of farming operations being conducted on land qualifying under this section as "farm and agricultural lands."

(e) Agricultural lands shall also include farm woodlots of less than twenty and more than five acres and the land on which appurtenances necessary to the production, preparation or sale of the agricultural products exist in conjunction with the lands producing such products.

NOTICE: The assessor may require the owners to submit pertinent data regarding the use of the classified land, productivity of typical crops, income, etc.

STATEMENT OF ADDITIONAL TAX, INTEREST AND PENALTY DUE
UPON REMOVAL FROM CLASSIFICATION UNDER RCW 84.34

1. Upon removal, an additional tax shall be imposed which shall be due and payable to the county treasurer on or before April 30 of the following year. The amount of such additional tax shall be equal to:

   (a) The difference between the property tax paid as "Farm and Agricultural Land" and the amount of property tax otherwise due and payable for the seven years last past had the land not been so classified; plus

   (b) Interest upon the amounts of the difference (a), paid at the same statutory rate charged on the delinquent property taxes.

   (c) A penalty of 20% shall be applied to the additional tax if the classified land is applied to some other use, except through compliance with the property owner's request for removal process, or except as a result of those conditions listed in (2) below.

2. The additional tax, interest and penalty specified in (1) above, shall not be imposed if the removal resulted solely from:

   (a) Transfer to a government entity in exchange for other land located within the State of Washington;

   (b) A taking through the exercise of the power of eminent domain, or sale or transfer to an entity having the power of eminent domain in anticipation of the exercise of such power;

   (c) Sale or transfer of land within two years after the death of the owner of at least a fifty percent interest in such land.

   (d) A natural disaster such as a flood, windstorm, earthquake, or other such calamity rather than by virtue of the act of the landowner changing the use of such property.

   (e) Official action by an agency of the State of Washington or by the county or city within which the land is located which disallows the present use of such land.

   (f) Transfer to a church and such land would qualify for property tax exemption pursuant to RCW 84.36.020.

AFFIRMATION

As owner(s) of the land described in this application, I hereby indicate by my signature that I am aware of the potential tax liability involved when the land ceases to be classified under the provisions of RCW 84.34.

I also declare under the penalties for false swearing that this application and any accompanying documents have been examined by me and to the best of my knowledge it is a true, correct, and complete statement.

Subscribed and sworn to before me this _____ day of _____ 19 _____.

_____

Notary Public in and for the State of

_____

Residing at _____

OWNER(S) or CONTRACT PURCHASER(S)

_____

_____

_____

_____

(All owners & purchasers must sign)

FOR ASSESSOR'S USE ONLY:

Date application received _____ By _____

Amount of fee collected $ _____

Date application approved _____ Approved in part _____ Denied _____

Owner notified on _____ Fee returned on _____

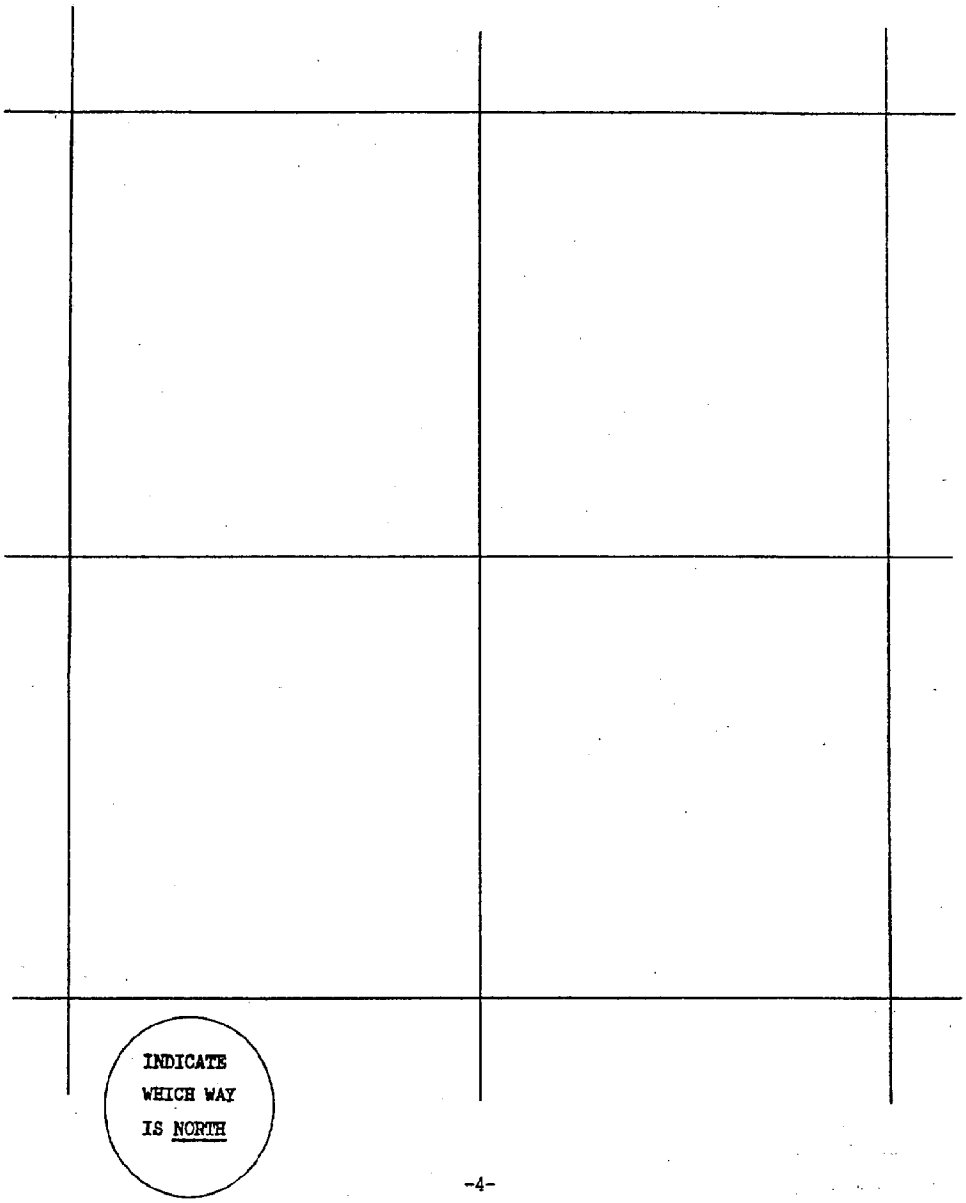
Auditor's File Number # _____

-3-

598-330 O - 76 - 18

A. Show boundary of land which application applies to <u>and outline</u> the current uses of the property.

B. Show buildings as house barn, etc. also sketch in roads and rivers.



NOTICE OF APPROVAL OR DENIAL OF APPLICATION

FOR CLASSIFICATION AS FARM AND AGRICULTURAL LAND

RCW 84.34

TO: _____

_____

_____

Your application has been

☐ Approved in whole
☐ Approved in part
☐ Denied in whole

APPROVAL: The following land has been approved for classification as farm and agricultural land.

Assessor's parcel or account number: _____

Legal description: _____

_____

_____

DENIAL: The following land has been denied classification as farm and agricultural land.

Assessor's parcel or account number: _____

Legal description: _____

_____

_____

APPEAL: A denial of an application for classification as farm and agricultural land may be appealed to the Board of County Commissioners or other county legislative authority.

ASSESSOR: In accordance with the provisions of RCW 84.34.035 "...the assessor shall submit notification of such approval to the county auditor for recording in the place and manner provided for the public recording of state tax liens on real property."

Prepare in duplicate. If denial, send original to land owner. If approval, file original with auditor and have auditor return original to land owner. Duplicate is to be retained by the assessor.

_____ Assessor or Deputy

_____ County

FORM REV 64 0020 (4/74) (Formerly PTF 88)

APPLICATION FOR CLASSIFICATION AS OPEN SPACE LAND OR TIMBER LAND
FOR CURRENT USE ASSESSMENT UNDER RCW 84.34

FILE WITH THE COUNTY LEGISLATIVE AUTHORITY

Name of Applicant _____ Phone _____

Address _____

Property Location _____

1. Interest in Property: ☐ Fee Owner ☐ Contract Purchaser ☐ Other (Describe) _____

2. Assessor's Parcel or Account Number: _____

Legal description of land to be classified: _____

3. What land classification is being applied for? ☐ Open Space ☐ Timber Land

NOTE: A single application may be made on Open Space and Timber Land but a legal description must be furnished for the area of each different classification.

4. Total acres in application: _____

5. OPEN SPACE CLASSIFICATION Number of Acres _____

6. Indicate what category of Open Space this land will qualify for: (See back for definitions)

- ☐ Open Space Zoning
- ☐ Conserve and enhance natural or scenic resources
- ☐ Protect streams or water supply
- ☐ Promote conservation of soils, wetlands, beaches or tidal marshes
- ☐ Enhance value to public of abutting or neighboring parks, forests, wildlife preserves, nature reservations or sanctuaries or other Open Space
- ☐ Preserve historic sites
- ☐ Retain in natural state tracts of five (5) or more acres in urban areas and open to public use as reasonably required by granting authority

7. TIMBER LAND CLASSIFICATION Number of Acres _____

8. Do you have a timber management plan on this property? ☐ Yes ☐ No (If yes, submit a copy of that plan with this application.)

9. If you have no timber management plan, specifically detail the use of this property to show that it "is devoted primarily to the growth and harvest of forest crops."

10. Describe the present current use of each parcel of land that is the subject of this application

11. Describe the present improvements on this property (building, etc.) _____

12. Attach a map of the property to show an outline of the current uses of the property and indicate the location of all buildings.

13. Is this land subject to a lease or agreement which permits any other use than its present use? ☐ Yes ☐ No (If yes, attach a copy of the lease or agreement.)

NOTICE: The assessor may require owners to submit pertinent data regarding the use of classified land.

OPEN SPACE LAND MEANS:

(a) Any land area so designated by an official comprehensive land use plan adopted by any city or county and zoned accordingly, or

(b) Any land area, the preservation of which in its present use would (i) conserve and enhance natural or scenic resources, or (ii) protect streams or water supply, (iii) promote conservation of soils, wetlands, beaches or tidal marshes, or (iv) enhance the value to the public of abutting or neighboring parks, forests, wildlife preserves, nature reservations or sanctuaries or other open space, or (v) enhance recreation opportunities or (vi) preserve historic sites, or (vii) retain in its natural state tracts of land not less than five acres situated in an urban area and open to public use on such conditions as may be reasonably required by the legislative body granting the open space classification.

TIMBER LAND MEANS:

Land in any contiguous ownership of five or more acres which is devoted primarily to the growth and harvest of forest crops and which is not classified as reforestation land pursuant to Chapter 84.28 RCW or as Forest Land under Chapter 84.33. Timber land means the land only.

STATEMENT OF ADDITIONAL TAX, INTEREST AND PENALTY DUE UPON REMOVAL FROM CLASSIFICATION UNDER RCW 84.34

1. Upon removal an additional tax shall be imposed which shall be due and payable to the county treasurer on or before April 30 of the following year. The amount of such additional tax shall be equal to:

   (a) The difference between the property tax paid as "Open Space Land" or "Timber Land" and the amount of property tax otherwise due and payable for the seven years last past had the land not been so classified; plus
   (b) Interest upon the amounts of the difference (a), paid at the same statutory rate charged on the delinquent property taxes.
   (c) A penalty of 20% shall be applied to the additional tax if the classified land is applied to some other use, except through compliance with the property owner's request for removal process, or except as a result of those conditions listed in (2) below.

2. The additional tax, interest and penalty specified in (1) above, shall not be imposed if the removal resulted solely from:

   (a) Transfer to a government entity in exchange for other land located within the State of Washington;
   (b) A taking through the exercise of the power of eminent domain, or sale or transfer to an entity having the power of eminent domain in anticipation of the exercise of such power:
   (c) Sale or transfer of land within two years after the death of the owner of at least a fifty percent interest in such land.
   (d) A natural disaster such as a flood, windstorm, earthquake, or other such calamity rather than by virtue of the act of the landowner changing the use of such property.
   (e) Official action by an agency of the State of Washington or by the county or city within which the land is located which disallows the present use of such land.
   (f) Transfer to a church and such land would qualify for property tax exemption pursuant to RCW 84.36.020.

AFFIRMATION

As owner(s) of the land described in this application, I hereby indicate by my signature that I am aware of the potential tax liability involved when the land ceases to be classified under the provisions of RCW 84.34.
I also delcare under the penalties for false swearing that this application and any accompanying documents have been examined by me and to the best of my knowledge it is a true, correct, and complete statement.

Subscribed and sworn to before me this _____
day of _____ 19 __ __

_____
Notary Public in and for the State of

_____

Residing at _____

OWNER(S) or CONTRACT PURCHASER(S)

_____

_____

_____

_____

_____
(All owners and purchasers must sign)

FOR LEGISLATIVE AUTHORITY'S USE ONLY:

Date application received: _____ By _____

Amount of fee collected $_____ Transmitted to _____ Date _____

FOR GRANTING AUTHORITY USE ONLY:

Date Received _____ By _____

Application Approved _____ Approved in Part _____ Denied _____

Owner Notified of Denial on _____ Date Fee Returned _____

Agreement Executed on _____ Mailed on _____

FORM REV 64-0021 (4/74) (Formerly PTF 80)

TO ALL OWNERS OF LAND CLASSIFIED UNDER THE "OPEN SPACE TAXATION ACT"

Any land that has been classified under the provisions of RCW 84.34 (Open Space Taxation Act) prior to May 1, 1973, may have their land reclassified as farm and agricultural land if it meets the definitions set forth in chapter 212, laws of 1973, 1st Extraordinary session. Those definitions are:

"Farm and Agricultural Land" means either:

(a) land in any contiguous ownership of twenty or more acres devoted primarily to the production of livestock or agricultural commodities for commercial purposes or,

(b) land of five to twenty acres devoted primarily to agricultural uses with a gross income from such uses equivalent to one hundred dollars or more per acre per year for three of the five calendar years preceding the date of application, or

(c) land of less than five acres devoted primarily to agricultural uses which has produced a gross income of one thousand dollars or more per year for three of the five calendar years preceding the date of application.

Agricultural lands shall also include farm wood lots less than twenty acres and more than five acres, land on which additions necessary to the production or sale of agricultural products exist, and land of one to five acres, which is not contiguous but which constitutes an integral part of farming operations as conducted on land qualifying as "farm and agricultural lands."

Any land that has been classified as timber land under the provisions of RCW 84.34 and meets the definition of forest land as defined in RCW 84.33 may be designated as forest land.

Any reclassification or designation must be requested by the owner on form PTF 90 and accompanied by an "Application for Classification PTF 86" or an "Application for Designation, PTF 150".

The designation or reclassification will be made without any additional fee, tax, interest or penalty.

APPLICATION FOR CHANGE OF CLASSIFICATION

For reclassification as either Farm & Agricultural Land under RCW 84.34 or Forest Land under RCW 84.33

COMPLETE & FILE ALONG WITH THE CORRESPONDING CLASSIFICATION FORM WITH THE COUNTY ASSESSOR

Name of Applicant _____ Phone _____

Address _____

Land to be reclassified (legal description) _____

_____

Assessor's Parcel or Account Numbers: _____

Current classification _____

Auditor's File No. _____

CHECK APPROPRIATE BOX:

☐ Land is currently classified timber land under the provisions of RCW 84.34 and I request reclassification as forest land as provided for under Chapter 84.33 RCW (Attach completed form - PTF 150).

☐ Land was previously classified under RCW 84.34 and meets the definition of farm & agricultural land under the provisions of RCW 84.34 as amended by Chapter 212 Laws of 1973 1st Ex. Sess. and I request reclassification as farm & agricultural land under these provisions. (Attach completed form - PTF 86).

NOTE TO ASSESSOR:	No additional tax, fee, or penalty accrues from these reclassifications under sections 15 & 19 Chapter 212 Law of 1973 1st Ex. Sess.

Date _____

_____
Applicant(s) Signature

_____

_____

Department of Revenue PTF 90 (9/73)

PROPERTY OWNER'S NOTICE OF REQUEST FOR WITHDRAWAL

FROM CLASSIFICATION UNDER RCW 84.34

TO: _____ County Assessor

I, _____ do hereby request withdrawal of my land, herein described, from the provisions of RCW 84.34. This land was classified as _____ land and filed under county auditor's record no. _____.

Legal description of land to be withdrawn from classification:

_____

_____

Assessor's Parcel or Account Numbers: _____

This request for withdrawal includes _____ (enter all or part of the land originally classified.

I declare that I am aware of the liability of withdrawal of this land from the agreement to the following extent:

1. Land under agreement for a minimum of 10 years shall pay an amount equal to the difference between the tax computed on the basisof "current use" and the tax computed on the basis of true and fair value plus interest at the same statutory rate charged on property taxes. The additional taxes and interest shall be paid for the seven years last past.

2. Land withdrawn because of a change to a non-conforming use or land withdrawn prior to the minimum 10 years period or failure to comply to two year notice of withdrawal shall be liable to pay the additional tax as shown in 1. above plus a penalty of 20% of the additional tax and interest. The additional tax, interest and penalty shall be paid for a maximum of seven years.

3. The additional tax, interest and penalty on the affected land shall not be imposed if the removal of designation resulted solely from:

   a. Transfer to a government entity in exchange for other land located within the State of Washington;
   b. A taking through the exercise of the power of eminent domain, or sale or transfer to an entity having the power of eminent domain in anticipation of the exercise of such power;
   c. Sale or transfer of land within two years after the death of the owner of at least a fifty percent interest in such land.
   d. A natural disaster such as a flood, windstorm, earthquake, or other such calamity rather than by virtue of the act of the land-owner changing the use of such property.
   e. Official action by an agency of the State of Washington or by the county or city within which the land is located which disallows the present use of such land.
   f. Transfer to a church and such land would qualify for property tax exemption pursuant to RCW 84.36.020.

NOTICE: This request for withdrawal must be made to the county assessor two years prior to the date the land is to be removed from classification by the county assessor.

NOTE: This request for withdrawal is irrevocable.

Date: _____

_____
Property Owner

_____

_____
Address

Subscribed to before me this _____ day of _____ 19___.

NOTICE: Within seven days the assessor shall transmit a copy of this request for withdrawal to the granting authority which originally approved the application.

_____
Notary Public

DEPARTMENT OF REVENUE PTF 82 (9/73)

COUNTY TREASURER'S STATEMENT OF
TAXES, PENALTY AND INTEREST DUE ON LAND
REMOVED FROM CLASSIFICATION UNDER RCW 84.34

_____ COUNTY

TO: _____
(Property Owner)

_____

_____
Address

Description of land removed from classification: _____

_____

_____

Assessor's Parcel or Account Numbers: _____

The additional taxes, penalty (if applicable) and interest extended here and applying to the land herein described, is extended in accordance with Sec. 12 Chapter 212 Laws of 1973 1st Ex. Sess. This amount shall be due and payable in full on or before April 30th of the year following the removal from classification.

Lien date _____ ; Date taxes due and payable _____

ADDITIONAL TAX, PENALTY AND INTEREST COMPUTATION

No. of Years	1 Tax Year Latest Year Fir.	2 True & Fair Value Tax	3 Current Use Tax	4 Difference Between Col. 2 & 3	5 Deling Tax Interest On Col. 4	6 Tax Difference & Interest	7 Penalty (20% of Col. 6)	8 Total Tax & Penalty & Interest
1								
2								
3								
4								
5								
6								
7								
Total amount of additional tax, penalty and interest due and payable								

The 20% penalty shall not apply if the removal is a result of one of the following:

(1) The land is withdrawn upon request of the owner and in compliance with RCW 84.34.070;

(2) The tax shall not be imposed on the land if the removal resulted solely from:

(a) Transfer to a government entity in exchange for other land located within the State of Washington;
(b) A taking through exercise of the power of eminent domain, or sale or transfer to an entity having the power of eminent domain in anticipation of the exercise of such power;
(c) Sale or transfer of land within two years after the death of the owner of at least a fifty percent interest in such land;
(d) A natural disaster such as a flood, windstorm, earthquake, or other such calamity rather than by virtue of the act of the landowner changing the use of such property.
(e) Official action by an agency of the State of Washington or by the county or city within which the land is located which disallows the present use of such land;
(f) Transfer to a church and such land would qualify for property tax exemption pursuant to RCW 84.36.020.

Date _____

_____
County Treasurer

Department of Revenue PTF 85 (9/73)

ASSESSOR'S NOTICE OF REMOVAL OR WITHDRAWAL OF

CLASSIFICATION OF "OPEN SPACE," "FARM AND AGRICULTURAL" OR "TIMBER LAND"

TO: _____
Property Owner

_____
Address

You are hereby notified that the following property: (Legal description of land to be removed from classification) _____

_____

_____

Assessor's Parcel or Account Numbers: _____

which has been previously classified as _____ land and recorded in the county auditor's office under recording no. _____, does not comply with the provisions for classification and is hereby declared null and void and no longer meets the provisions of RCW 84.34 and has been removed from classification as of

_____.
(Date or Removal)

This land has been removed from classification for the following reason:

_____

_____

Owners Request for Withdrawal Dated _____.

1. Upon removal of classification as _____ land, an additional tax shall be imposed which shall be equal to the sum of the following:

   a. The difference between the property tax paid as "open space land", "farm and agricultural land", and "timber land" and the amount of property tax otherwise due and payable for the seven years last past had the land not been so classified; plus
   b. Interest upon the amounts of such additional tax paid at the same statutory rate charged on delinquent property taxes from the dates on which such additional tax could have been paid without penalty if the land has been assessed at a value without regard to current use assessment.

2. A penalty of 20% shall be applied to the additional tax if the classified land is applied to some other use, except through compliance with the property owner's request for removal process, or except as a result of those conditions listed in 3, below.

3. The additional tax specified in 1, above shall not be imposed if the removal of classification resulted solely from:

   a. Transfer to a government entity in exchange for other land located within the state of Washington;
   b. A taking through the exercise of the power of eminent domain, or sale or transfer to an entity having the power of eminent domain in anticipation of the exercise of such power;
   c. Sale or transfer of land within two years after the death of the owner of at least a fifty percent interest in such land.
   d. A natural disaster such as a flood, windstorm, earthquake, or other such calamity rather than by virtue of the act of the landowner changing the use of such property.
   e. Official action by an agency of the state of Washington or by the county or city within which the land is located which disallows the present use of such land.
   f. Transfer to a church and such land would qualify for property tax exemption pursuant to RCW 84.36.020.

NOTE: The property owner may appeal the assessor's Removal of Classification to the next July County Board of Equalization following date of removal.

Department of Revenue PTF 87 (10/73)

OPEN SPACE TAXATION AGREEMENT

(To be used for "Open Space or "Timber Land" Classification, only)

Prepare in Triplicate with one completed copy to each of the following:
Applicant
Legislative Body
County Assessor

This Agreement between _____

_____ hereinafter called the "owner, and

(granting authority) _____

Whereas the owner of the following described real property having made application for classification of that property under the provisions of RCW 84.34.

And whereas, both the owner and legislative authority desire to limit the use of said property, recognizing that such land has substantial public value as open space and that the preservation of such land constitutes an important physical, social, esthetic and economic asset to the public, and both parties agree that the classification of the property during the life of this Agreement shall be for:

_____
(Open Space and Timber Land)

Now, therefore, the parties, in consideration of the mutual covenants and conditions set forth herein, do agree as follows:

(1) During the term of this Agreement, the land shall only be used in accordance with the preservation of its classified use.

(2) No structures shall be erected upon such land except those directly related to, and compatible with the classified use of the land.

(3) This Agreement shall be effective commencing on the date the legislative body receives the signed Agreement from the property owner, and shall remain in effect for a period of at least ten (10) years.

(4) This Agreement shall run with the land described herein and shall be binding upon the heirs, successors and assigns of the parties hereto.

(5) Withdrawal: The land owner may withdraw from this Agreement if after a period of eight years the land owner makes a withdrawal request, which request is irrevocable, to the assessor. Two years from the date of that request the assessor shall withdraw the land from the classification, and the applicable taxes and interest shall be imposed as provided in RCW 84.34.070.

(6) Breach: After land has been classified and an Agreement executed, any change of the use of the land, except through compliance with items (5) or (7) of this Agreement, shall be considered a breach of this Agreement, and subject to applicable taxes, penalties and interest as provided in Sections 9 and 12 Chapter 212 Laws of 1973 1st Ex. Sess.

(7) A breach of Agreement shall not occur and the additional tax shall not be imposed if the removal of designation resulted solely from:

(a) Transfer to a government entity in exchange for other land located within the state of Washington;
(b) A taking through the exercise of the power of eminent domain, or sale or transfer to an entity having the power of eminent domain in anticipation of the exercise of such power;
(c) Sale or transfer of land within two years after the death of the owner of at least fifty percent interest in such land.
(d) A natural disaster such as a flood, windstorm, earthquake, or other such calamity rather than by virtue of the act of the landowner changing the use of such property.

Department of Revenue PTF 81 (9/73)

(e) Official action by an agency of the state of Washington or by the county or city within which the land is located which disallows the present use of such land.

(f) Transfer to a church and such land would qualify for property tax exemption pursuant to RCW 84.36.020.

(8) The county assessor may require classified land owners to submit pertinent data regarding the use of the land, productivity of typical crops, and such similar information pertinent to continued classification and appraisal of the land.

Legal Description of Classified Land:

Assessor's Parcel or Account Numbers: _____

This Agreement shall be subject to the following conditions:

It is declared that this Agreement contains the classification and conditions as provided for in RCW 84.34 and the conditions imposed by this Granting Authority.

Dated _____

Granting Authority:

_____
City or County

By _____
Title

As owner(s) of the herein described land I (we) indicate by my (our) signature(s) that I (we) are aware of the potential tax liability and hereby accept the classification and conditions of this Agreement.

Dated _____

_____
Owner(s)

_____
(Must be signed by all Owners)

Subscribed and sworn to before me this _____ day of _____, 199__

_____
Notary Public

Date signed Agreement received by Legislative Authority _____

I. DESCRIPTION OF PROGRAMS

The differential assessment programs of California are of special interest and importance because they have been widely implemented - some 14,250,000 acres or approximately 30% of the privately owned non-urban land in the state is subject to contract under the state's Land Conservation Act of 1965 (the Williamson Act) - and because the state is one of the few to use the restrictive agreement approach under which owners are required to keep their land in eligible use for 10 years after entering into a contract or nine years after giving notice of their intent to withdraw.

The State Legislature first addressed the problem of stemming the loss of agricultural land in the 1950's with the enactment of The Scenic Easement Deed Act of 1959.[1] This was not effective and the Legislature responded by passing the Williamson Act in 1965, which sought to protect agricultural land by allowing differential taxation for eligible properties. The Constitution was amended in 1966 to permit land which was defined as open space, subject to enforceable restrictions and used for recreation, enjoyment of natural beauty, or the production of food or fiber to be assessed at current use value.[2] The Williamson Act was amended in 1969 to require, among other things, that counties have a general plan and restrict agricultural preserves by zoning or other suitable means in order for lands within their boundaries to be eligible. The amendment also added wildlife habitat, scenic highway corridors, salt ponds, managed wetlands, and submerged areas as eligible lands. It was amended again in 1970 to make recreation land eligible. In 1971, a program of subventions to participating local governments was established to reimburse them for some of the revenue lost because of preferential assessment under the Act. Further technical changes were made in 1974. The above touches only the highlights of the legislative history of the Williamson Act.[3]

In 1969, the Legislature passed an Open Space Easement Act[4] which authorized cities and counties to accept grants of open space easements of at least 20 years duration. These easements were "enforceable restrictions" within the meaning of Article XXVIII of the Constitution, so that the underlying fee could be assessed at its restricted value. The act has been used only sparingly, primarily around Point Lobos near Monterey and on Catalina Island. It was superseded by the Open Space Easement Act of 1974[5] which authorized counties and cities to accept 10 year open space easements, which are automatically renewed each year for another year unless notice of non-renewal is given by either party. The easement is an "enforceable restriction" permitting assessment of the remaining fee at its restricted value.

The Williamson Act is by far the most important differential taxation program in California, covering, as already indicated, some 30% of privately owned

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[1] Cal. Gov't Code, §§6950-6954.

[2] Cal. Const. Article XXVIII, rewritten and renumbered in 1974 as Article XIII, Sect. 8.

[3] See, "The Property Tax and Open Space Preservation in California: A Study of the Williamson Act," by the Stanford Environmental Law Society (1974).

[4] Cal. Gov't Code, §§51050-51065.

[5] Cal. Gov't Code, §§51070-51095.

non-urban lands. Its major provisions are analyzed below.[1]

A. Eligible Land

The procedures for establishing eligibility are complex. First, the county or city must have a general plan with its mandatory open space element.[2] The normal practice is to await requests for designation as an agricultural preserve from interested property owners and then refer the request to the local agency formation commission (LAFCO) and the county or city planning commission for review and comment within 30 days, hold a public hearing and, if necessary, amend the general plan. Within two years after designation, the county or city must restrict all land in the preserve under the Williamson Act, by zoning or other suitable means, to uses which are compatible with the uses to which lands under the Act are limited.[3]

In order to be eligible, land must be in an agricultural preserve and devoted to one of the following:

1. agricultural use, defined as, "use of land for the purpose of producing plant and animal products for commercial purposes."[4]

2. recreational use, defined as "the use of land by the public, with or without charge, for any of the following: walking, hiking, picnicking, camping, swimming, boating, fishing, hunting, or other outdoor games or sports for which facilities are provided for public participation."[5]

3. open space use, defined as the use or maintenance of land in a manner so as to preserve its natural characteristics, beauty or openness for the benefit or enjoyment of the public, to provide essential habitat for wildlife, or for the solar evaporation of sea water in the course of salt production for commercial purposes, if the land is within:

a. a scenic highway corridor (as defined in §51201 (i))
b. a wildlife habitat area (as defined in §51201 (j))
c. a saltpond (as defined in §51201 (k))
d. a managed wetland area (as defined in §51201 (l))
e. a submerged area (as defined in §51201 (m))

4. uses compatible with the above, as designated by a county or city and established by resolution after a public hearing.[6]

It should be noted that 30 counties (out of the total of 46 who participated in the Williamson Act Program) responded to an Assembly Task Force 1975 questionnaire that Williamson Act contracts were in effect in 1974, for the following open space uses:

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[1]The Assembly Task Force on the Preferential Assessment of Property, (hereafter referred to as the Assembly Task Force) has prepared extensive analyses and recommendations concerning the Williamson Act. See Preferential Assessment of Agriculture and Open-Space Lands, June 1975.

[2]Cal. Gov't Code, §51230. All cities and counties must have general plans. Cal. Gov't Code, §65300.

[3]Ibid.

[4]Cal. Gov't Code, §51201 (b) and (c).

[5]Cal. Gov't Code, §51201 (n).

[6]Cal. Gov't Code, §51201 (d) and (e).

	No. of Counties	No. of Contracts	Acres
Scenic Highway Corridor	1 (Monterey)	250	68,000
Wildlife Habitat Area	2	59	16,150
Saltponds	1	1	1,108
Managed Wetland Area	2	5	5,285
Submerged Area	0	0	0
Wildlife Habitat			
Managed and Wetland Areas Combined	1	65	24,734
		Total	115,277

Thus, "open space uses" comprise less than one percent of all land under the Williamson Act, and are only recognized as such by a handful of counties.

The statute provides that agricultural preserves must be at least 100 acres in area, but this minimum can be lowered by a city or county if it finds it necessary.[1] Many counties have done so.

Within the general statutory guidelines, the counties and cities have a fair amount of discretion to define eligible land by resolution, especially in the area of compatible uses. For instance, Kern County permits labor camps, breeding barns and milk processing facilities, among other uses,[2] and other counties have permitted the conduct of such things as fertilizer businesses.

B. The Contract[3]

Owners of eligible land must then enter into a contract with the county or city. The owner must agree to use the property only for the purposes set forth therein for a period of at least 10 years. Only two of the 30 counties responding to the Assembly Task Force 1975 questionnaire have contracts with initial terms of more than 10 years. The contract is automatically renewed each year for another year unless one of the parties gives notice of non-renewal. The contracts are binding on successors in interest, although if a city annexes the subject property, it has the option of terminating the contract immediately, under certain conditions.

The contracts are enforceable by either party by an action for specific performance[4] and constitute an "enforceable restriction" within Section 8 of

[1] Cal. Gov't Code, §51230.

[2] Kern County Zoning Ordinance, Art. 17.2, §7159.11.

[3] Cal. Gov't Code, §§51240-51285.

[4] i.e., the municipality would be entitled to issue an injunction against conversion of use.

Article XIII of the Constitution, so that land subject to them can be assessed at restricted use value.

At the request of the landowner only, the county or city may cancel the contract if it finds that the cancellation is in the public interest and is not inconsistent with the purposes of the Williamson Act. Two further statutory provisions are important to note. First, the mere existence of an opportunity for another use of the land involved is not sufficient reason for cancellation. Second, the county or city must make a finding that there is no proximate, noncontracted land suitable for the use to which it is proposed to put the contracted land before it approves cancellation. A public hearing must be held and notice given to all owners of land within the affected agricultural preserve and within one mile of the subject land. Recipients of notice may protest cancellation. A copy of the contract form used by Santa Clara County is attached in the Appendix to this case study.

C. Method of Assessment

The assessment procedures to be used in determining the value of land subject to contract (hereafter called restricted value) are set out in detail in the California Revenue and Taxation Code. Assessors are forbidden from using sales of comparable land to appraise the value of land subject to contract, unless they can show by convincing evidence that the restrictions will be removed or substantially modified in the predictable future because of past history of the treatment of similar restrictions in the taxing jurisdiction or because of some other similar reason.[1] As a matter of practice, comparable sales evidence is not used and assessors rely on the statutorily mandated procedure for capitalization of income. One highly respected property tax administrator with long governmental experience, Ron Welch, recently retired Assistant Executive Secretary for Property Taxes of the State Board of Equalization, believes that it is undesirable to tie the assessor's hands in this way because there are situations such as where land cannot produce income because of its barrenness, where the comparable sales approach would be appropriate.[2]

The statutory procedure, in outline, is as follows:[3]

1. determine the fair rent which can be imputed to the land based on rent actually received and typical rentals in the area for similar land in similar use, where the owner pays the property tax.

2. if sufficient rental information is not available, the income shall be that which the land can reasonably be expected to yield under prudent management and subject to applicable enforceable restrictions.

   a. revenue is the average amount of money or its equivalent which the land can be expected to yield from any use permissible under the contract including that received from growing typical crops during a typical rotation period over the past few years and the next five years. This "economic rent" can range from 0 to as much as $2,000 per acre for some vineyards, and averages around $50 to $60 per acre for row crops, although yields of up to $150 per acre have been noted. Grazing returns $4 to $10 per acre, and dry land farming, $10 to $30 per acre.[4]

[1] Cal. Rev. and Tax. Code, §423.

[2] Interview, March 6, 1975.

[3] Cal. Rev. and Tax. Code, §423.

[4] Interview with William Jackson, State Board of Equalization, March 6, 1975.

b. expenditures which can be fairly charged against the income are calculated. They do not include depletion charges, debt retirement, interest on money invested in the land, property taxes or corporation franchise and income taxes.

c. capital charges in an amount sufficient to provide a fair return on capital investments other than land, such as drainage or irrigation systems, are deducted from revenue.

d. where the land is not producing or cannot produce income, the assessor is directed to impute income to it.

3. having arrived at net income attributable to the land the assessor then determines the rate at which it is to be capitalized, the so-called "cap rate," which is comprised of the following components:

a. an interest component, which is the yield rate for long-term U.S. government bonds as most recently published by the Federal Reserve Board, rounded off to the nearest one-quarter percent as determined by the State Board of Equalization by September 1 of each year for the following year.

The rates for the past few years were:

September 1, 1974	7.25%
September 1, 1973	6.75%
September 1, 1972	5.50%
September 1, 1971	5.75%
September 1, 1970	6.75%

b. a risk component, which is determined on the basis of the location and characteristics of the land, the crops to be grown thereon and the provisions of any lease or rental agreement to which the land is subject. This varies from 1/4 of 1% to 3% and has been criticized as being excessively judgmental. Its effect on total assessed value can be seen from the following example. Assume an interest component of 7.25% (I), a tax component (to be discussed below) of 2.5% (R) and an economic rent of $200 (Y) per acre. If the risk component is 1/2 of 1% (RC), the farm use value (FUV) is:

$$FUV = \frac{Y}{I + R + RC} = \frac{200}{.0725 + .025 + .005} = \frac{200}{.1025} = \$1,951$$

If the risk component is 3%,

$$FUV = \frac{200}{.0725 + .025 + .03} = \frac{200}{.1275} = \$1570,$$

or reduction of some 20%.

c. a property tax component, which is a percentage equal to the estimated total tax rate applicable to the land for the assessment year times the assessment ratio. This is the same as the effective tax rate (the percentage which real property taxes are of fair market value). In 1974, it was 2.66% for the state as a whole, but varied considerably across counties with a significant amounts of land under preferential assessment. For instance, in Colusa County it was about 1.7% in 1974, while in Sacramento County it was 3.3%.

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d. a component for amortization of perennials, such as vines or trees, over their estimated economic life when the total income from land and perennials other than timber exceeds the yield from other typical crops in the area. The average capitalization rates used in 1971 in Ventura County are reproduced in Table 1 which follows.

Table 1

COMPONENTS OF CAPITALIZATION RATE FOR VACANT LAND IN VENTURA COUNTY

	Yield Components			Amortization
Crop	Interest	Risk	Total	Component
Row Crop & Grazing	.0575	.0025	.0600	0
Avocados	.0575	.1150	.1725	10-Yr. Life = .100
Lemons	.0575	.1150	.1725	15-Yr. Life = .067
Oranges	.0575	.0775	.1350	25-Yr. Life = .040
Grapefruit	.0575	.0850	.1425	25-Yr. Life = .040
Walnuts	.0575	.0775	.1350	50-Yr. Life = .020
Apricots	.0575	.0775	.1350	40-Yr. Life = .025

Above are average capitalization rates only. The yield rate selected must be adjusted in many areas for climate, flood hazards, etc.

The amortization rate must be adjusted to reflect variations in tree ages (in most cases, an adjustment to the amortization rate requires an adjustment to estimated production.)

Source: Ventura County Assessor's Guide (1971)

Thus, for land which does not have perennials, the capitalization rates have varied from 7.75% to 13.25% while for land with perennials, they may vary from 8% to 23.25%.

4. the appraised value is determined by dividing the economic rent by the capitalization rate.

5. the assessed value is computed by multiplying the appraised value by the ratio set out in Section 401 of the Revenue and Taxation Code which is the mandatory assessed value / appraised value ratio. This ratio is now set at 25% by statute. An example from Kern County is reproduced in Table 2 and from Santa Clara County in Table 3 which follow.

As a practical matter, county appraisers are responsible for determining assessed value, subject to guidelines from and periodic review by the State Board of Equalization. Because of the magnitude of the job, many counties have developed schedules for general use. Those of Ventura County are reproduced in Table 4 which follows.

The value of the preferential assessment, of course, depends on the percentage reduction from full cash value assessment to restricted use assessment. Because California does not keep dual records showing full cash value and current use value, these data are not available.

Table 2

EXAMPLE: DETERMINATION OF ASSESSED VALUE
OF ROW CROP LAND, KERN COUNTY

Limiting Assumptions:

1. Economic unit, 160 acres
2. Interest, tax & risk = 9%
3. Expenses of tax, pump maintenance and irrigation system to lessor
4. Gross rent for row crop land $60.00/acre

Estimation of Income:

Economic Gross Rent per acre		$ 60.00
Less: Management 5%	= 3.00	
Pump & Pipe Maintenance 5%	= 3.00	
		6.00
Effective Gross Income per acre		54.00
Less: Income per acre imputable to improvements		
Pump	= 9.50	
Irrigation System	= 6.80	
		16.30
Income per acre imputable to land		37.70

Capitalization Process:

Land in Program		
Land: $37.70 ÷ .09	= 420.00	
Pump & Irrigation System Value $30,000 ÷ 160 acres	= 180.00	
Indicated Per Acre Value	= 600.00	
Assessed Value per acre (25%)		$150
Market Value of Comparable Row Crop Land	= $1,000.00	
Assessed value per acre (25%)		$250
Loss of Assessed Value		$100

Source: Kern County Assessor's Guide

Table 3

EXAMPLES OF DETERMINATION OF ASSESSED VALUES, SANTA CLARA COUNTY

A. ROW CROPLAND

Market Value		
Average Market Value		$4000 per acre
Assessed Value (25%)		$1000 per acre
Value under Williamson Act		
Capitalization rate		
Interest component	.0675	
Tax component	.0250	
Risk component	.0075	
	.1000	
Typical rent per acre	$120	
Capitalization value	($120 ÷ .10)	$1200 per acre
Assessed value (25%)		$ 300 per acre
Tax Difference (assume 10% tax rate)		
Tax based on market value	$1000 x .10	$ 100 per acre
Tax under Williamson Act	300 x .10	$ 30 per acre
Difference		$ 70 per acre

B. RANGE LAND

Market Value		
Average Market Value		$100 per acre
Assessed Value (25%)		$ 25 per acre
Value under Williamson Act		
Capitalization rate (see above)	.10	
Typical rent per acre	$3.00	
$3.00 ÷ .10 =		
Capitalization value		$ 30.00 per acre
Assessed value (25%)		$ 7.50 per acre
Tax Difference (assume 10% tax rate)		
Tax based on market value ($25 x .10)	$2.50	
Tax under Williamson Act ($7.50 x .10)	.75	
Difference	$1.75	

Source: Santa Clara County Assessor's Guide.

Table 4

ECONOMIC RENTS - ROW CROPS
As of March 1, 1974
VENTURA COUNTY

Area	Per Acre Rent		Per Acre Rent
West Oxnard	$275	Tierra Rejada	$135
East Oxnard	250	Fillmore	135
Rio	225	Piru	125
Briggs	225	Upper Ojai	25
Guadalasca and Conejo Mountain	200	Wheller Canyon	25
Las Posas	150	Entire South One-half of County Graze Land	1.00-3.50
Santa Rosa	135	Entire South One-half of County Grain Land	10-20
Rincon	135	Cuyama Valley	
Mupu	150	Alfalfa -- Good	20
Ojai	135	Average	15
Fairview	135	Graze	.50-1.00
Moorpark	150		

The rentals are averages only, and may vary considerably in a given area. Rents are negotiated for, and in many instances the amount paid depends directly upon the rentee's bargaining ability.

Such items as soil, water, et cetera, must be analyzed prior to establishing an economic rent.

Source: Ventura County Assessor's Guide

It should perhaps be noted here that the formula used for determining subvention entitlement for counties and cities uses the assessment based on full cash value for the year immediately prior to the year the land went under contract as the amount from which its restricted value assessment is subtracted, to determine tax loss. Because many of these assessments were based on appraisals made several years before the contract year and land values had been rising at an average rate of 5% per year, this figure consistently understates the actual tax loss suffered by counties as a result of preferential assessment. It is adjusted each year by the aggregate percentage by which assessed values of land outside in municipalities in the county change. (Cal. Gov't. Code, §16152)

D. Procedures Upon Notice Non-Renewal

When an owner or county gives notice of non-renewal of the contract, a statutorily mandated procedure for adjusting the assessed value over the remaining term of the contract must be followed.[1] It applies immediately when the owner gives notice and, if the county or city gives notice, when less than six years remain until the termination of the enforceable restriction. At the time, the assessor must:

[1] Cal. Rev. and Tax. Code §426.

Step 1: Determine the full cash value of the land as if it were not subject to enforceable restriction.

Step 2: Determine the present restricted use value under the contract.

Step 3: Subtract the value determined in Step 2 from that determined in Step 1.

Step 4: Using the interest component rate set by the State Equalization Board for computing the capitalization rate, discount the amount obtained in Step 3 for the years remaining until the termination of the enforceable restriction. This produces the development value of the land.

Step 5: Determine the value of the land by adding the value determined in Step 2 and the value obtained in Step 4.

Step 6: Apply the statutorily set ratio of 25% to the appraised value derived in Step 4.

The assessed value for each year (FAV_i) is therefore computed each year according to the following equation [1]:

$$FAV_i = .25 \left[(MV - VAG_i) \frac{1}{(1 + I_r)^{T-i}} + VAG_i \right]$$

where, MV = predicted value based on full cash value at the end of the run-out period if the land were not subject to enforceable restrictions. VAG_i = the value of the land if subject to the contractual restrictions and calculated as required by the Williamson Act.

I_r = the discount rate for the run-out calculation which is the same as the interest component used for computing capitalization rate (as described above). It is set each year by the State Equalization Board.

i = number of years since commencement of the run-out period.

T = the total number of years in the contract period.

(T-i) is thus the number of years left until contract expiration.

This equation adds the present worth as of year i of the development value at the end of the run-out period to the present value for restricted uses.

An example prepared by the Santa Clara County Assessor will show how this works. Following it, is Figure 1 which shows the relationship between assessed value based on full cash value (and assuming that full cash value in the present year, i, is $3,000, somewhat lower than full cash value 10 years hence, consistent with the fact that land values in California have historically risen over the years), and assessed value based on these computations over a 9-year run-out period. It should be remembered that assessed value is pegged at 25% of appraised value. It can be seen that the landowner's benefits in the form of tax savings decrease drastically upon non-renewal.

[1] See Schwartz, S.I., Measures for Strengthening the California Land Conservation Act, a report prepared for the Assembly Select Committee on Open Space Lands (Davis, Calif. 1974) p. 44.

EXAMPLE: DETERMINATION OF ASSESSED VALUE DURING RUN-OUT PERIOD AFTER NON-RENEWAL OF CONTRACT

STATE BOARD OF EQUALIZATION APPRAISAL POLICY NO. 8 FOR R. & T. CODE SEC. 426

EXAMPLE: Land has a market value of $4000 per acre and economic rent of $120 per year per acre.

MARKET VALUE	$4000	(b)(1)	(Unrestricted)
RESTRICTED USE VALUE	-1200	(b)(2)	(Econ. Rent $120 ÷ 10% Cap. Rate)
	$2800	(b)(3)	Difference to be discounted
	x .5550	*PW for 9 years @ 6 3/4%	
	1554	(b)(4)	P.W. of Difference
	+ 1200	(b)(2)	Restricted Value
	2754	(b)(5)	Restricted Value + P.W. Difference
	x .25	Assessment Ratio Sec. 401	
	689	(b)(6)	Assessed Value

		A.V.	
Full Ten-Year Restriction	=	300	($1200 Restricted Value x 25%)
9 year factor .5550	=	689	
8 year factor .5930	=	715	
7 year factor .6330	=	743	
6 year factor .6757	=	773	
5 year factor .7214	=	805	
4 year factor .7700	=	839	
3 year factor .8220	=	875	
2 year factor .8775	=	914	
1 year factor .9368	=	931	
No further restriction	=	1000	($4000 Market Value x 25%)

*P.W. Present Worth of One Dollar Discounted

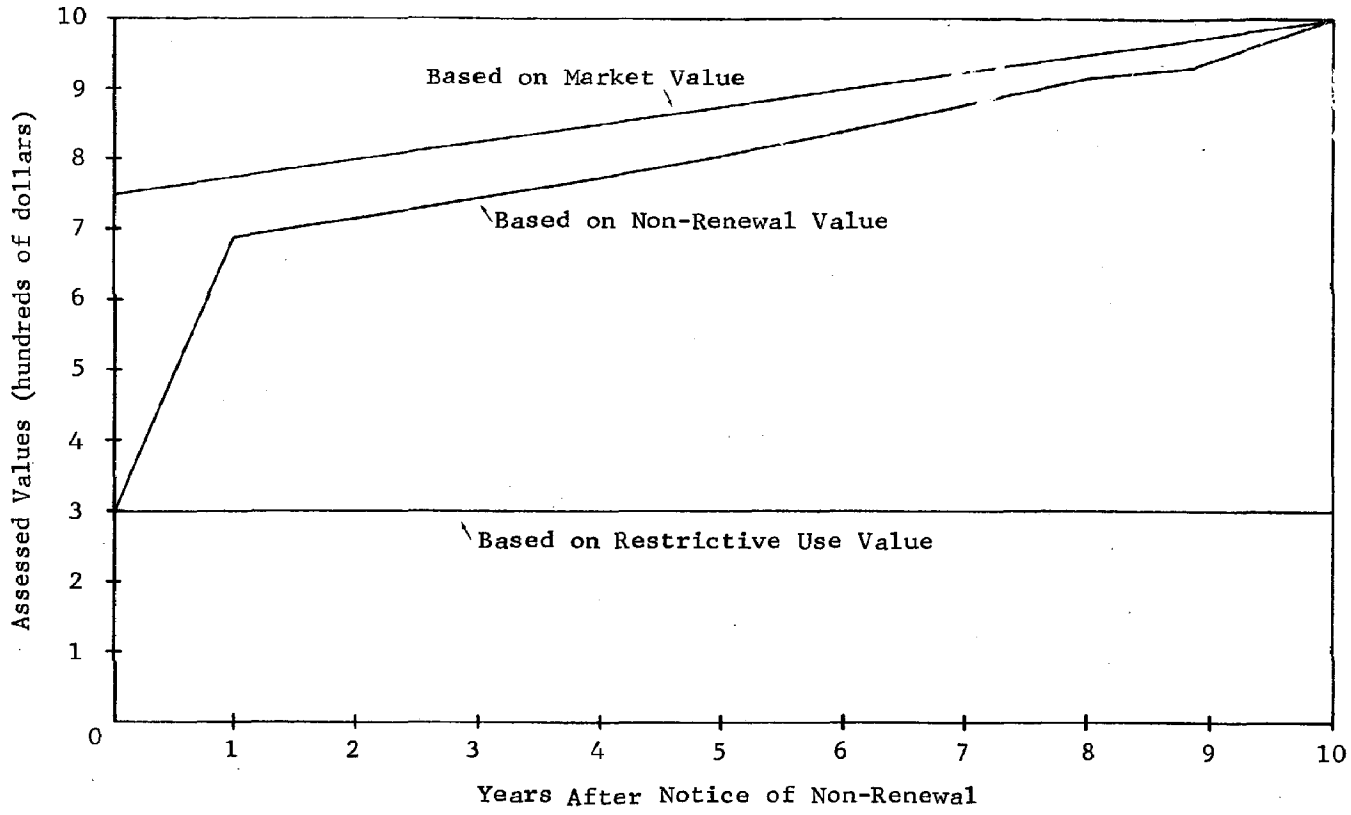
Source: Santa Clara Assessor's Guide

Professor Schwartz and his associates at the University of California, Davis have analyzed the benefits which a landowner receives during the run-out period. They found they are a function of seven parameters.[1]

[1] Schwartz, S.I., op. cit., p. 45. See also, Mix, Averill Q., "Restricted Use Assessment in California," 11 Santa Clara Lawyer 259, 268-273 (1971), reaching similar conclusions.

Figure 1

ASSESSED VALUES DURING WORK-OUT PERIOD: CALIFORNIA



1. rate of land value appreciation
2. future agricultural income
3. length of run-out period
4. property tax rate
5. income tax rate landowner
6. discount rate
7. assessment time lag.

To this should be added the imponderable of legislative amendment of the applicable statutes. Using various assumptions for these parameters, they computed the present value of different fair market values. For rice land in Sacramento County with an initial fair market (unrestricted) value of $1,017 per acre, assuming a 10 year run-out period and a combined state and federal income tax rate for the owner of 40%, they found the present value per acre of these benefits under various assumptions to be as shown in Table 5.

Table 5

PRESENT VALUE PER ACRE OF PROJECTED TAX BENEFITS DURING RUN-OUT PERIOD

Annual Price Appreciation of Land	Constant Agricultural Income	Agricultural Income increasing 3% per year
3% per year	$33.09	$32.05
6% per year	$35.20	$34.15
10% per year	$38.34	$37.29

Assumptions:

Discount rate: 8%

Run-out period: 10 years.

Initial fair market value of land: $1,017.

Property tax rate: present level (not specified) but probably approximately 10% of assessed value.

Combined state and federal income tax rate of owner over period of analysis: 40%

Assessment time lag: 3 years.

Source: Schwartz, S., op. cit., n. 20

The key finding form this analysis of a fairly typical situation is that tax benefits ranged around 3.5% of initial fair market value. Schwartz found that if various of the limiting assumptions are modified, the following consequences result, assuming no changes in other parameters:

1. The percentage savings for land with a lower initial value increases modestly. For land worth $359 per acre, tax benefits averaged around 4% of fair market value. The converse would be true for land with higher value.

2. Benefits are greater for owners with lower income tax rates (about 5% of fair market value for those with a 25% rate) and lower for those with higher tax rates (about 2.9% for those with 56% rates).

E. Sanctions

There are three types of sanctions:

1. An action for damages or specific performance to enforce the contract which may be brought by the county, city or landowner.[1]

One analyst has concluded, somewhat tentatively, that other landowners under contract in the same agricultural preserve or within one mile of the non-conforming land probably would not have the right to enforce the contract (as donee third party beneficiaries) even if the violation substantially interfered with their vested rights.[2]

2. The increased assessments which follow notice of non-renewal which have been discussed above, and, of course the 10 years run-out period itself.

3. A cancellation fee amounting to 50% of the full cash value assessment at the time of cancellation is changed. Since assessment is set at 25% of full cash value the cancellation fee amounts to 12-1/2 of full cash value.[3] The deferred taxes paid as a cancellation fee are roughly the equivalent of a five year roll-back, and are transmitted by the county to the State controller who deposits them in the general fund. Of course, if the owner is successful in having the cancellation fee waived, he gets out scot free. This can be done only with the approval of the secretary of the State Resources Agency, and of the local government after review and comment by the planning commission and a public hearing. The record shows surprisingly few non-renewals and cancellations,[4] and even fewer fee waivers.

None of the people interviewed was aware of any actions to secure specific enforcement of contracts. Alex Henson, Esq., of the State Attorney General's Office, pointed that this should not be surprising because incompatible uses would normally require a building or other type of permit and a county or city would prevent a given undesired change of land use by denying the permit rather than issuing it and then suing for specific performance.

When one considers that over 14,000,000 acres are currently under contract, the 79,686 acres involved (about half of 1%) are startingly insignificant, especially in view of the fact that many of the withdrawals, such as a 6,000 acre cancellation by the Tejon Ranch Co., were made because of mistakes, and not because more profitable development opportunities were available.

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[1] Cal. Gov't Code, §51185.

[2] See Schwartz, S.I., op. cit., p. 105 - 121, 130.

[3] Cal. Gov't Code, §51283.

[4] Schwartz, S.I., op. cit., p. 66, taken from a local Government Survey, Assembly Select Committee on Open Lands (July, 1973).

Both Averill Mix and Professor Schwartz have demonstrated that usually cancellation is much more attractive economically than non-renewal.[1] Only if the farmer expects significantly greater rates of increase in the full cash value of land than has been historically the fact does non-renewal emerge as the preferable action. There are no economic incentives for local government to enforce cancellation procedures strictly, because it produces an immediate jump in assessed value to the full cash value basis; and the Secretary of Resources has veto power only when the cancellation fee is waived. Of course, most governments are committed politically to the agricultural preserve and must face the possible opposition of other landowners in the affected area.

Table 6

SUMMARY OF WILLIAMSON ACT CONTRACT TERMINATION BY NON-RENEWAL AND CANCELLATION, 1967-1973

	Termination by Non-Renewal		Termination by Cancellation	
Year	Number of Contracts	Number of Acres	Number of Contracts	Number of Acres
1967	0	0	12	211
1968	2	2,645	0	0
1969	6	478	0	0
1970	16	5,979	7	1,331
1971	17	10,537	17	4,626
1972	112	33,776	13	6,378*
1973	21	3,576	3	49
Totals	174	56,990	52	12,595
1974**	18	7,097	13	4,004

* 6000 acres in Tejon ranch - allegedly a mistake.

** Incomplete data reported by 30 counties (out of 46 participating in the Williamson Act) to Task Force 1975. Fees were waived in three cases in 1974.

Source: Schwartz, S.I., op. cit., n. 20.

[1] Mix, op. cit., p. 21, supra, pp. 264-273.

F. Subventions

In 1971, the Williamson Act was amended to permit participating local governments to receive subventions from the state to replace some of the tax revenue which was lost as a result of restricted value assessment.[1] The subventions are calculated for each city and county as described below and then summed over the entire state. The amount due is continuously appropriated.

Each county is required to report to the state the number of acres under contract of (1) urban prime land (defined by §51201 and §16142 of the Code, to include among other specified types of land Class I and Class II farmland) which is (a) within an incorporated city, (b) within three miles of the boundaries of an incorporated city with 1,500, or more registered voters, or (c) within one mile of an incorporated city with less than 1,500 registered voters); (2) other prime land; and (3) non-prime land whether "urban" or not.[2]

The city or county is entitled to a subvention of $3.00 per acre of urban prime land, $1.50 per acre, of other prime land, and $.50 per acre of non-prime land, unless the "tax revenue difference" for the county or city is less than the above entitlement. The "tax revenue difference" is computed by determining the unrestricted assessed value for each tract under contract for the year immediately prior to the one in which the contract was signed, adjusting for the change in land values as a whole since the start of the Program, and subtracting from it the current year's restricted assessed value. All these differences are summed, multiplied by the current tax rate, and if the indicated tax revenue is less than the figure calculated above, it is the maximum amount the county can receive. Table 7 shows the computations for the 1974-75 tax year. In addition, school districts receive subventions computed by a different formula.

As has been pointed out, this method of computation insures that counties and cities will receive less than the tax revenue lost as a result of the Williamson Act. In principle, a payment of $3 per acre compensates on the average for a reduction of approximately $30/acre in assessed value, or $120 in fair market value. One official estimated in 1973 that the taxes foregone and the taxes shifted to other property totalled somewhere in the neighborhood of $45 to $50 million in the 1973 fiscal year. He pointed out that it was probably impossible to determine the actual "tax loss" for several reasons.[3] First, the method of computing restricted assessed value, especially the risk component of its capitalization rate, is so indeterminate that these values cannot be set exactly. Second, local governments would be inclined to over-estimate unrestricted full cash value so as to increase their entitlement. Third, development which does not occur on restricted land will be shifted elsewhere so that other values will increase. There would be a tax loss only if the total land value did not rise as fast as it otherwise would have, and this is more a function of demand, especially given the fact (to be discussed later) that few owners of land which was ripe for development have entered into Williamson Act contracts.[4] Thus, even if an

[1] Cal. Gov't Code, §§16100-16170.

[2] Alan Post, Legislative Analyst, estimated in 1974 that about 18% of the non-prime land was urban, and 82% non-urban. Statement to California Chamber of Commerce, Statewide Legislative Committee, Mar. 1, 1974.

[3] Ron Welch in testimony before the Assembly Select Committee on Open-space Lands, March 23, 1973.

[4] A. Allen Post, op. cit., p. 29.

Table 7

Lands Under Contract or Subject to an Open-space Easement

Resources Agency
Department of Conservation
Open Space Subvention Entitlements
1974-75 Fiscal Year

	Urban Prime Land		Other Prime Land		Nonprime Land					
County	Acres	Entitlement $3.00 per Acre	Acres	Entitlement $1.50 per Acre	Acres	Entitlement $0.50 per Acre	Total Acreage Under Contract	Acreage Entitlement	Tax Revenue Difference	Maximum Allowable Entitlement
Alameda	4,745.23	$ 14,238.69	2,039.92	$ 3,059.88	154,162.54	$ 77,081.27	160,948.69	$ 94,379.84	$ 379,327.18	$ 94,379.84
Amador	579.00	1,737.00	1,401.00	2,101.50	81,110.00	40,555.00	83,090.00	44,393.50	57,124.10	44,393.50
Butte	98.10	294.30	21,044.60	31,566.90	96,279.10	48,139.55	117,421.80	80,000.75	74,979.79	74,979.79
Calaveras	423.10	1,269.30	1,039.60	1,559.40	114,757.05	57,378.52	116,219.75	60,207.22	42,337.04	42,337.04
Colusa	-0-	-0-	-0-	-0-	188,905.00	94,452.50	188,905.00	94,452.50	-0-	-0-
Contra Costa	288.00	864.00	3,033.00	4,550.00	63,590.00	31,795.00	66,911.00	37,209.00	154,126.00	37,209.00
El Dorado	700.00	2,100.00	1,129.63	1,694.45	163,829.59	81,914.80	165,659.22	85,709.25	-0-	-0-
Fresno	86,737.00	260,211.00	827,255.00	1,240,883.00	483,540.00	241,770.00	1,397,532.00	1,742,864.00	1,845,329.35	1,742,864.00
Glenn	5,627.87	16,883.61	26,617.34	39,926.01	218,936.65	109,468.32	251,181.86	166,277.94	72,125.25	72,125.25
Humboldt	-0-	-0-	-0-	-0-	62,236.50	31,118.00	62,236.50	31,118.00	16,909.00	16,909.00
Kern	96,864.00	290,592.00	670,653.00	1,005,979.50	850,136.00	425,068.00	1,617,653.00	1,721,639.50	2,372,590.00	1,721,639.50
Kings	83,279.00	249,837.00	362,118.00	573,177.00	118,049.00	59,024.00	563,446.00	882,038.00	1,427,155.00	882,038.00
Lake	300.74	902.22	2,773.24	4,159.86	34,138.21	17,069.10	37,212.19	22,131.18	22,494.96	22,131.18
Lassen	338.00	1,014.00	1,483.79	2,225.69	14,679.93	7,339.97	16,501.72	10,579.66	-0-	-0-
Los Angeles	-0-	-0-	-0-	-0-	40,032.84	20,016.42	40,032.84	20,016.42	126,551.77	20,016.42
Madera	12,834.00	38,502.00	134,489.00	201,733.50	280,536.00	140,268.00	427,859.00	380,503.50	327,672.25	327,672.25
Marin	1,525.00	4,575.00	8,012.00	12,018.00	79,631.00	39,815.00	89,168.00	56,408.00	186,775.00	56,408.00
Mendocino	2,521.73	7,565.19	12,350.34	18,525.51	994,645.79	497,322.89	1,009,517.86	523,413.59	27,421.60	27,421.60
Monterey	3,668.00	11,004.00	43,292.00	64,938.00	559,451.00	279,725.00	606,411.00	355,667.00	35,278.00	35,278.00
Napa	2,721.29	8,163.87	3,814.13	5,721.20	55,320.43	27,660.22	61,855.85	41,545.29	19,346.49	19,346.49
Nevada	-0-	-0-	-0-	-0-	2,293.00	1,146.00	2,293.00	1,146.00	2,757.00	1,146.00
Orange	8,241.10	24,723.30	545.10	817.65	64,940.28	32,470.14	73,726.48	58,011.09	334,713.60	58,011.09
Placer	1,954.72	5,864.16	12,519.14	18,778.71	111,964.41	55,982.20	126,438.27	80,625.07	-0-	-0-
Plumas	-0-	-0-	-0-	-0-	90,104.60	45,052.30	90,104.60	45,052.30	23,828.49	23,828.49
Riverside	20,989.47	62,968.41	24,327.15	36,490.73	23,977.08	11,988.54	69,293.70	111,447.68	564,365.00	111,447.68
Sacramento	12,095.00	36,285.00	72,378.00	108,567.00	127,822.00	63,911.00	212,295.00	208,763.00	628,933.00	208,763.00
San Benito	4,622.00	13,866.00	44,392.00	66,588.00	469,797.00	234,898.00	518,811.00	315,352.00	196,541.00	196,541.00
San Bernardino	9,871.98	29,615.94	87.93	131.90	1,987.37	993.69	11,947.28	30,741.53	369,139.67	30,742.00
San Diego	2,205.00	6,615.00	13,647.00	20,470.00	90,597.00	45,299.00	106,449.00	72,384.00	298,591.00	72,384.00
San Joaquin	59,232.04	177,696.12	211,182.42	316,773.63	148,014.35	74,007.17	418,428.81	568,476.92	1,073,462.96	568,476.92
San Luis Obispo	9,069.00	27,207.00	40,327.00	60,490.50	456,313.00	228,156.50	507,709.00	316,854.00	365,209.94	316,854.00
San Mateo	659.52	1,979.00	941.86	1,412.00	42,620.27	21,310.00	44,221.45	24,701.00	106,080.00	24,701.00
Santa Barbara	20,753.22	62,259.65	29,517.70	44,276.55	402,384.18	201,192.09	452,655.10	307,728.30	1,076,462.80	307,728.30
Santa Clara	16,623.00	49,869.00	1,296.00	1,944.00	299,148.00	149,574.00	317,067.00	201,387.00	714,433.00	201,387.00
Santa Cruz	910.00	2,730.00	1,187.00	1,781.00	8,875.00	4,437.00	10,972.00	8,948.00	58,523.00	8,948.00
Shasta	457.00	1,371.00	8,625.00	12,938.00	77,267.00	38,633.00	86,349.00	52,942.00	35,767.00	35,767.00
Sierra	-0-	-0-	-0-	-0-	32,840.33	16,420.17	32,840.33	16,420.17	3,709.15	3,709.15
Siskiyou	1,021.20	3,063.60	25,370.60	38,055.90	218,073.30	109,036.65	244,465.10	150,156.15	61,078.39	61,078.39
Solano	54,190.60	162,571.80	49,036.38	73,554.57	137,580.70	68,790.35	240,807.68	304,916.72	508,401.39	304,916.72
Sonoma	8,213.00	24,639.00	6,480.00	9,720.00	222,662.00	111,331.00	237,355.00	145,690.00	259,519.45	145,690.00
Stanislaus	61,155.00	183,465.00	110,096.00	165,144.00	397,078.00	198,539.00	568,329.00	547,148.00	751,500.00	547,148.00
Tehama	6,221.61	18,664.83	20,023.95	30,035.92	517,893.83	258,946.91	544,139.39	307,647.66	111,709.50	111,709.50
Trinity	-0-	-0-	-0-	-0-	4,767.00	2,383.50	4,767.00	2,383.50	1,573.60	1,573.60
Tulare	168,224.00	504,672.00	306,099.00	459,148.50	471,197.00	235,598.50	945,520.00	1,199,419.00	2,023,166.89	1,199,419.00
Tuolumne	-0-	-0-	-0-	-0-	192,443.00	96,221.50	192,443.00	96,221.50	100,295.89	96,221.50
Ventura	26,099.96	78,299.88	7,082.29	10,623.43	76,586.04	38,293.02	109,768.29	127,216.33	758,119.66	127,216.33
Yolo	50,759.00	152,277.00	159,569.00	239,354.00	223,079.00	111,540.00	433,407.00	503,171.00	653,128.00	503,171.00
Total Counties	846,818.46	$2,540,455.88	3,287,275.91	$4,930,915.39	9,568,271.37	$4,784,132.79	13,702,365.76	$12,255,504.06	$18,268,552.18	$10,505,727.53
Total Cities	5,522.59	16,567.78	-0-	-0-	34,116.67	17,058.34	39,639.26	33,625.84	169,839.93	33,356.78
TOTAL	852,341.07	$2,557,023.66	3,287,275.91	$4,930,915.39	9,602,388.04	$4,801,191.13	13,742,005.02	$12,289,129.90	$18,438,392.11	$10,539,084.31

assessor was not attempting to qualify his county for larger subventions, the comparable sales values he would have to use for appraising unrestricted lands would have been forced up by the very operation of the Act itself, at least in counties with large-scale participation.

Despite an unfavorable recommendation by the Legislative Analyst in 1975, the legislature continued the subvention program and authorized $16,000,000 in payments under it.

II. EVALUATION OF THE LAND CONSERVATION (WILLIAMSON) ACT

A. Ease of Entry

Forty-six of California's 58 counties have implemented the Williamson Act. Of the 12 which have not, six have more than two-thirds of their land area in government ownership (Alpine - 91%; Del Norte - 75.2%; Modoc - 66%; Mono - 79.2%; Ingo - 79.5%; and Imperial 66.7%), one is urbanized (San Francisco), and one is lightly populated and the location of Yosemite National Park (Mariposa - which is 52.2% governmentally owned). Of those which are left, Los Angeles, Yuba, Merced and Sutter, only Merced and Sutter counties have rich agricultural lands. The Merced County Planner, Hal Colwell, advised the author that the principal reason the County Board has not implemented the Act is its belief that there is no need for it because none of the agricultural land in the county is in danger of being developed. In summary, then, the government of all but one of the counties with significant amounts of agricultural land have taken the first step and have implemented the Williamson Act.

The statutory definition of eligible use is broad, including agricultural use, recreational use, open space use, and a rubbery catch-all category, compatible uses. It does not appear that a significant amount was kept out for failure to meet the eligibility criteria.

Table 8, which follows, gives an idea of the extent to which owners have taken advantage of the Act by showing the percent of privately owned land in each county which is under Williamson Act contract.

In the remaining 26 counties, less than 30% of privately owned land is under contract.

The counties with very high participation rates are, by and large, located in the Central Valley, running from Yolo County in the north down to Kern County in the south and from San Benito on the west to Tuolumne on the east.

The major reason for not entering the program does not, therefore, lie in the provisions of the Act or the failure of county governments to implement it. Instead, it appears that it involves the landowner's expectations concerning the imminence of development for his land. This will be discussed below in the section on Effectiveness for Maintaining Current Use.

B. Magnitude of Tax Benefit

As we have already stated, California assessors are not required to keep annual records of full cash value for land under contract. A record is made of full cash value the year before the land comes under contract and this amount, adjusted annually for rises in county land values, is used as one of the inputs for determining eligibility for subvention payments. None of those interviewed had much confidence that the so-called "Tax Revenue Difference" reported for each county actually reflected the taxes which would have been received if Williamson Act land had been assessed at full cash value. Ron Welch estimated

in 1973 that the reported figure was about one third of the real figure, although he hedged this estimate with numerous qualifications which have been described earlier in this paper.

Table 8

LAND UNDER WILLIAMSON ACT CONTRACT
BY SELECTED COUNTIES

County	Acres Under Contract	Percent of Privately Owned Land Under Contract - 1973-74
Yolo	447,727	82.2
San Benito	535,286	79.3
Kings	583,446	69.5
Stanislaus	592,175	65.5
Tulare	945,420	63.5
Fresno	1,397,532	61.5
Kern	1,617,653	60.5
Tuolumne	192,443	60.5
Mendocino	1,009,518	54.5
Madera	458,390	54.0
San Joaquin	458,796	52.8
Solano	452,535	48.5
Santa Barbara	453,822	47.5
Tehama	641,708	46.0
Alameda	160,949	45.2
Santa Clara	317,067	44.5
Monterrey	606,411	42.5
Glenn	251,182	41.6
Sacramento	212,295	35.8
Marin	89,168	35.2
Colusa	188,905	32.7
El Dorado	166,659	30.7

Source: State Board of Equalization

The extent of tax benefits for individual landowners varies tremendously, depending on the percentage of the total appraised value of their real property which is allocated to development value, the percentage of total taxable assessed value in the municipality allocated to non-farm real property, and the role which farm improvements play in the farmer's assessed value picture. No data were available on the range of individual benefits.

On a county-wide basis, it is possible to make rough estimates of the percentage of total revenue which is lost as a result of Williamson Act enrollments. The procedure is as follows:

Starting with the reported estimated revenue loss for 1973-74, compute the percentage which this estimated revenue loss was of 1972-73 levies, the latest year available. Multiply this percentage by three to take into account the probable underestimation to tax loss embedded in the reported estimated revenue loss figures. Subtract subvention payments from estimated revenue loss and recompute the above percentages. The results are shown in Table 9.

Table 9

ESTIMATION OF PERCENT REVENUE LOSS FOR SELECTED COUNTIES

County	1973-74 Est. Rev. Loss	1972-73 Total Levies	Gross Revenue Loss as % of Total Levies: Unadjusted	Gross Revenue Loss as % of Total Levies: Adjusted % x 3	Loss Less Subvention	Net Revenue Loss as % of Total Levies: Unadjusted	Net Revenue Loss as % of Total Levies: Adjusted % x 3
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Kings	$1,218,131	$17,062,000	7.139%	21.4%	$342,237	2.0	6.0
Tulare	1,934,397	52,208,000	3.7	11.1	835,544	1.6	4.8
San Benito	168,047	5,799,000	2.9	8.7	0	-	-
Kern	2,592,682	121,033,000	2.14	6.42	1,009,194	0.8	2.4
Madera	262,281	13,009,000	2.01	6.03	0	-	-
Marin	170,050	86,539,000	1.96	5.88	114,837	0.13	0.39
Yolo	490,952	29,060,000	1.69	5.0	12,339	0.04	0.12
Fresno	1,971,947	127,005,000	1.55	4.6	249,073	0.2	0.6

In all the other counties, the estimated revenue loss was less than 1% of total levies.

The data show that, on the assumption that the reported revenue loss understates the actual loss pursuant to preferential assessment by two-thirds, only seven counties have suffered a reduction of 4% or more because of the Williamson Act, before subventions. In the rest, the loss was below 3%. This emphasizes the fact that most of the land under contract was not under development pressure. After subvention payments, only two had more than 3% reduction in net revenues.

C. Method of Assessment

In general, the approach mandated by the Williamson Act for assessing eligible land has worked satisfactorily. As has been noted elsewhere, it probably understates the current use value, because the capitalization rate of 7.25% exceeds the capitalization rate normally used by investors, which is closer to 4% and 5%.

The Assembly Task Force has proposed the following modifications which should simplify it and reduce some of its year-to-year fluctuations. First, the risk component should no longer be used. Instead, the economic rent should be adjusted to take risk into account. Second, the method of computing the interest component should be changed to reduce the year-to-year changes in assessed value which result from the present method. For instance, it may be preferable to use a three-year moving average of U.S.

bond rates rather than the rate on a particular date. Third, the general property tax rate should be used rather than the total property tax rate, because in some areas which have irrigation district levies, the tax component becomes too high.

These changes would not significantly change the capitalization rate, which would remain in the 9% to 11% range where there were no perennials on the land.

D. Costs of Conversion

The most significant aspect of California's apparently unique restrictive agreement approach is that the costs of conversion are so great that they appear to deter most owners who envision the possibility of converting their land within ten or fifteen years from enrolling. Figure 2 presents the results of a random survey conducted by Schwartz at University of California (Davis) of owners of land under Williamson Act contract in Yolo County. The total number of respondents is only 74 but they account for ownership of 25% of the land under contract.[1] The respondents were asked whether they would have accepted a Williamson Act contract if the enrollment period were 15, 20, or 25 years.

The major cost to the land owner is, of course, the carrying costs and postponed income involved in waiting 10 years while locked in under the contract. As has already been pointed out, it is possible, if county policy permits, to secure county approval for cancellation of the contract accompanied by payment of a cancellation fee equal to 12-1/2% of fair market value. In most cases, this alternative would be more profitable than nonrenewal. In fact, Schwartz calculated that the fee would have to be doubled to reduce substantially the economic incentive to cancel.[2]

The 1975 Assembly Task Force has proposed that state approval of cancellations be required, after a hearing, and that the method of calculation be reviewed so as to make it less attractive a route than cancellation.

E. Relationships with Land Use Planning and Controls

Although, by statutory requirement, the awarding of differential assessment involves planning actions, the Williamson Act has not been a significant tool in controlling land use in developing areas because of the fact that landowners there have not enrolled much land under it. The problem presented by these so-called "transitional lands" --lands between built-up areas and rural districts--has been the subject of considerable commentary and study in California. There is a recognized need for a firmer, more clearly articulated state policy which would deal concurrently with the joint problems of locating and controlling development and maintaining prime agriucltural scenic and recreational land.[3]

At the time of writing, the 1975 Assembly Task Force was developing what promised to be exceptionally perceptive, practical and comprehensive policy

[1] See Schwartz, S.I., et al, Measures for Strengthening the California Land Conservation Act, op. cit., pp. 55-60.

[2] Ibid, p. 73.

[3] This view is emphasized by John Williamson, primary sponsor and namesake for for the Act. Interview, March 11, 1975.

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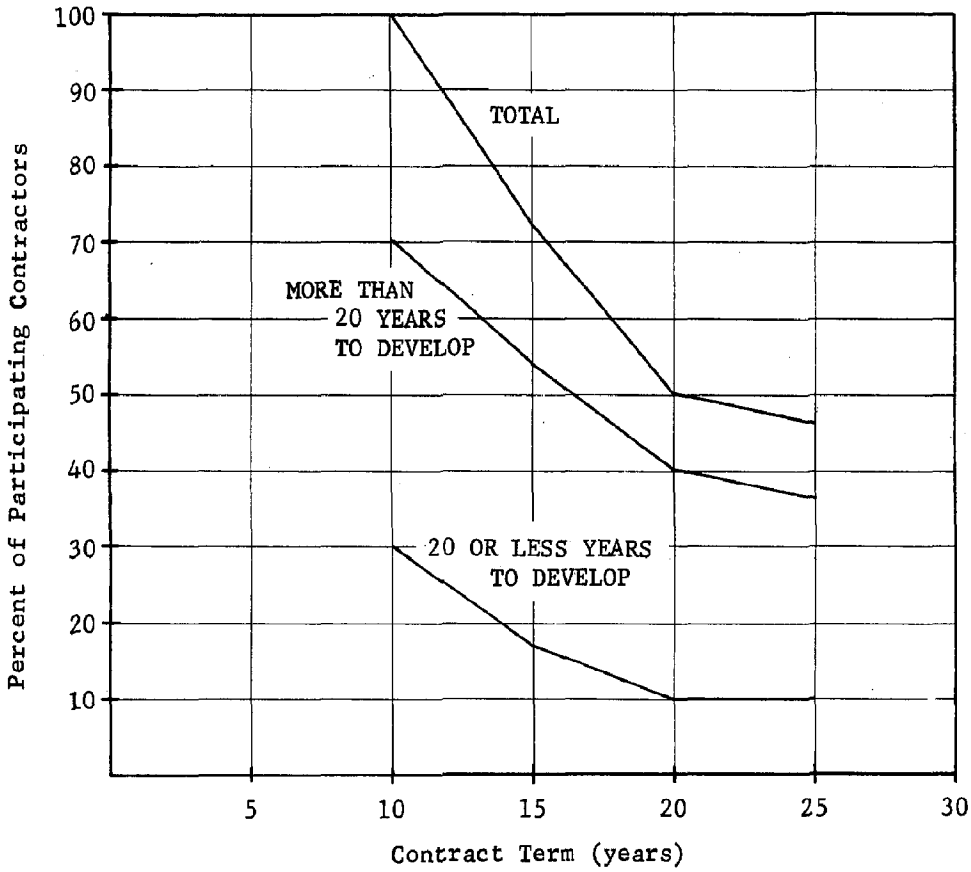
Figure 2

RATE OF PARTICIPATION AND CONTRACT TERM: CALIFORNIA



recommendations for transitional lands. While these proposals are not in final form and while they are too complex for discussion here at length it is worth noting of a few of their highlights. First, it is proposed that a clear demarcation be made between rural and urban areas, with transitional lands being classified as urban because they are urban-impacted. Second, the State should prepare and adopt comprehensive resource management and development plans which would bridge the gaps among the many single purpose functions now the responsibility of various state agencies. Such plans would identify renewable resources, such as agricultural and timber land, and non-renewable resources, such as minerals. They would attempt to balance conservation and environmental concerns with development and management of urban facilities, and would serve as a catalyst for coordinating private land and land owned by different levels of government. Fourth, the plans would relate development to carrying capacities both of the natural system and of urban infrastructure. Considerable attention would be paid to an equitable allocation of the costs, both of development and non-development, with special consideration being given to the "taking" problem.

The Task Force recommended that special attention be paid to the creative use of the powers of government to control development. Such techniques as interim development, moratoria, traditional police power techniques, and environmental impact assessment. Two proposals are of special relevance to this study. The first is the use of a contractual approach to land use restrictions which would be an elaboration of the Williamson Act restrictive agreement. This would permit land use controls and, in appropriate situations, compensation to be tailored to the specific circumstances of the tract concerned. Using this approach, a local government, the owner, and probably the state can agree as to the precise restrictions and to the nature of compensation such as the lease or short term acquisitions of development rights.

The second proposal covered the use of tax expenditures and subventions as component parts of a transitional lands policy. There is considerable support in California for the view that, while differential assessment is not a strong enough tool in and of itself to influence the maintenance of current uses, it is a legitimate part of any comprehensive land policy package. Simply put, if the policy of a municipality is to preserve a particular tract or district in agricultural or other open use it is not fair to the owners affected to tax their land on the basis of value it would have if it were to be developed.

F. Effectiveness in Maintaining Current Use

As has already been indicated, owners of land on the rural-urban fringe which was ripe for development within ten years or less have declined to enter the Williamson Act program. Large scale developers such as the Irvine Company who plan decades ahead have used the Act for land which is not scheduled for immediate development.

This general conclusion has been voiced by many commentators on the Act. In 1973, Ron Welch asserted that there was no way to tell whether less land was converted to non-agricultural uses because of the subsidies made available by the Act.[1] He speculated that the observed reduction in conversion rate was the result of such factors as higher density development and a slowing of the state's population growth.

Don Benedict, the Legislative Analyst's staff member responsible for reviewing Williamson Act amendments and appropriations, stated that the Act was not effective, for several reasons. First, tax reduction is too weak a device to control the development or non-development of land.[2] Second, this essentially

[1] Paper delivered at the Annual Conference of the Northern Regional Assessors' Association, February 5, 1973.

[2] Interview, March 11, 1975.

county and city program is not based on a careful determination of what is the best use for various tracts of land and which lands should be preserved.

This observation is also made by the Assembly Task Force, which has recommended, among many other things, that the state develop policies for agricultural land and that preservation of such land be made a part of the comprehensive planning process, together with planning for urban development. As it is now, there is little effective state or local policy for preserving "transitional lands." At the time of this writing, the Task Force's recommendations for transitional lands had not been completed.

In summary, there is little evidence that the Act has prevented conversion of any farmland, first because few owners of land which is ripe for development have enrolled it, and second because the tax abatement offered in the years before the work-out period after non-renewal is not large enough to influence owners.

G. Ease of Administration

No attempt has been made to estimate the state-wide costs of the Williamson Act in California. One official estimated that at the State level, the Resources Department spent about $30,000, the Controller, $5,000, the Board of Equalization $15,000 and the Board of Education, $5,000.[1] In 1970-71 with some 1.3 million acres under contract in the county, the Kern County Assessor estimated that his office incurred costs of $70,500 in connection with the Act. It appears that most counties charge application fees which range from $25 to over $200. The Planning Director for Yolo County has determined that it cost $162 per contract, and has set the fee at that level.[2] Owners have additional costs in the form of title reports, legal fees, securing the consents of encumbrance holders and the preparation of maps. In total these tend to be larger than the costs which the government incurs in processing the application.

In summary it appears that state government administrative costs are negligible, and that most counties recoup all or a major part of their costs through application fees.

H. Political Feasibility

The restrictive agreement approach to differential assessment is well-established in California and is supported by the California Farm Bureau. While some critics view it as a tax giveaway to large landholders,[3] and other critics, such as the Legislative Analyst, question the use of state funds in the subvention program because of the Act's failure to serve state-wide, as opposed to county interests, there is remarkably little effective opposition to the program in the Legislature. The Act creates agricultural enclaves which work to deter conversion because of the lengthy work-out periods after notice of non-renewal and the fact that owners within the agricultural district can object to cancellation.

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[1] Ron Welch, interview, March 11, 1975.

[2] Robert Peterson, interview, March 7, 1975.

[3] See, e.g. Fellmeth, Robert C., Politics of Land (New York : Grossman Publishers, 1973).

I. Evaluation with Respect to Goals of Securing Recreation Lands, Protecting Scenic Vistas, and Controlling Urban Development

The main focus of the Williamson Act has been on agricultural land. No separate data exist concerning the amount of recreational land under contract. While the Act has been used to a limited extent to protect scenic areas around Monterey and the Open Space Lands Act which relies on conservation easements have been used in Catalina Island, neither have been attractive elsewhere. As has already been indicated in many places in this study, there is general consensus that the Act is not an effective tool, by itself, for controlling urban development. As John Williamson pointed out, the primary objective of the Act was to lessen the income squeeze on agriculturalists who were seriously committed to farming, but who were in areas where some development pressures were at work. It was not conceived of originally as a way of keeping land open in suburban areas where land was ripe for development.

III APPENDIX TO CALIFORNIA CASE STUDY

LAND CONSERVATION CONTRACT

This is an agreement between the County of Santa Clara, State of California (hereinafter called "County"), and

_____

_____

(hereinafter called "Owner"). PLEASE PRINT OR TYPE NAMES.

WHEREAS, Owner possesses certain real property located within the County of Santa Clara, State of California, which is presently devoted to agricultural use and is described in Exhibit B attached hereto and made a part hereof; and

WHEREAS, the property is located in an agricultural preserve heretofore established by County; and

WHEREAS, both Owner and County desire to limit the use of the property to agricultural and compatible uses; and

WHEREAS, the parties have determined that the highest and best use for the property during the term of this contract, or any renewal thereof, shall be for agricultural purposes.

NOW, THEREFORE, County and Owner agree as follows:

1. CONTRACT SUBJECT TO CALIFORNIA LAND CONSERVATION ACT OF 1965

This contract is entered into pursuant to Chapter 7 (commencing with Section 51200) of Part 1, Division 1, Title 5 of the Government Code, which is known as the California Land Conservation Act of 1965. This contract is subject to all of the provisions of this Act including any amendments thereto which may hereafter be enacted.

2. RESTRICTION ON USE OF PROPERTY

During the term of this contract, and any and all renewals thereof, the property described in Exhibit B shall not be used by Owner, or Owner's successors in interest, for any purpose other than the production of agricultural commodities for commercial purposes and uses compatible thereto. A list of all such compatible uses is set forth in Exhibit A, attached hereto and by this reference incorporated herein. County, by uniform rule adopted by the Board of Supervisors of County, may from time

Source: Santa Clara County Board of Supervisors

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to time during the term of this contract and all renewals thereof, add to the list of compatible uses which shall be uniform throughout the agricultural preserve in which the property in Exhibit B is located; provided, however, County may not during the term of this contract or any renewal thereof, without the prior written consent of Owner, remove any of the compatible uses for the subject property which are set forth in Exhibit A. The provisions of this contract and any uniform rule supplementing the list of compatible uses are not intended to limit or supersede the planning and zoning powers of County.

3. TERM OF CONTRACT

This contract shall become effective on the date of execution and shall remain in full force and effect for an initial term of ten years. The initial term of ten years shall be measured commencing as of the first day of January next succeeding the date of execution if the date of execution is between March 2 and December 31. The initial term of ten years shall be measured commencing as of the first day of January of the year of execution if the date of execution is between January 1 and March 1. Each succeeding first day of January shall be deemed to be the annual renewal date of this contract. This contract shall be renewed on each succeeding January 1 and one additional year shall be added automatically to the initial term unless notice of nonrenewal is given as provided in Paragraph 4.

4. NOTICE OF NONRENEWAL

(a) If either party desires in any year not to renew this contract, that party shall serve written notice of nonrenewal upon the other party in advance of the annual renewal date of this contract. Unless such written notice of nonrenewal is served by Owner at least 90 days prior to the renewal date, or by County at least 60 days prior to the renewal date, this contract shall be considered renewed as provided in Paragraph 3 above.

(b) If either party serves written notice of nonrenewal in any year within the time limits of (a) above, this contract

shall remain in effect for the balance of the period remaining since the original execution or the last renewal of this contract, as the case may be.

5. NO COMPENSATION

Owner shall not receive any payment from County in consideration of the obligations imposed under this contract, it being recognized and agreed that the consideration for the execution of this contract is the substantial benefit to be derived therefrom, and the advantage that may accrue to Owner as a result of the effect upon the assessed value of the property on account of the restrictions on the use of the property contained herein.

6. SUCCESSORS IN INTEREST

This contract and the restrictions imposed hereunder shall be binding upon, and inure to the benefit of, the successors in interest of the Owner. Whenever any of the property described in Exhibit B is divided, the owner of any parcel may exercise, independent of any other owner of a portion of the divided property, any of the rights of the owner in this contract, including the right to give notice of nonrenewal and to petition for cancellation. The effect of any such action by the owner of a parcel created by the division of land described in Exhibit B shall not be imputed to the owners of the remaining parcels and shall have no effect on this contract as it applies to the remaining parcels of the divided property.

On the completion of annexation proceedings by a city of any portion of the property described in Exhibit B, the city shall succeed to all rights, duties and powers of County under this contract as to the portion being annexed. None of the territory described in Exhibit B is within one mile of an incorporated city in the County of Santa Clara on the date of execution of this contract. (The territory described in Exhibit B is within one mile of the City of_____on the date of execution of this contract. The City of_____did not protest the execution of this contract.)

7. CANCELLATION

This contract may be cancelled and a cancellation fee imposed pursuant to the provisions of the Land Conservation Act of 1965.

8. NOTICES

All notices required or permitted by this contract, including notice of a change of address, shall be in writing and given by personal delivery or sent by United States Mail addressed to the party intended to be notified. Notice shall be deemed given as of the date of delivery in person or as of the date when deposited in any post office or any post office box regularly maintained by the United States Government.

Notice to the County shall be addressed:

Clerk of the Board of Supervisors
County of Santa Clara, 70 W. Hedding St.
San Jose, California 95110

Notice to Owner shall be addressed:

Name:
Address
City and State

IN WITNESS WHEREOF the parties hereto have caused this contract to be executed: by Owner on _____ and by County on _____.

COUNTY OF SANTA CLARA

_____
Chairman, Board of Supervisors

ATTEST: DONALD M. RAINS, Clerk
Board of Supervisors

_____

_____

_____
(Owner)

Signatures must be identical to the manner in which property is vested.

EXHIBIT A

LAND CONSERVATION CONTRACT

COMPATIBLE USES

The following is a list of land uses determined to be compatible with the agricultural use of the land subject to this agreement:

1. The drying, packing or other processing of an agricultural commodity usually performed on the premises where it is produced but not including slaughter houses, fertilizer yards, bone yards or plants for the reduction of animal or vegetable matter.

2. Structures necessary and incidental to the agricultural use of the land.

3. The holding of nonproducing land for future agricultural use.

4. The holding of nonproducing mineral resource areas for future use.

5. The maintenance of land in its natural state for the purpose of preserving open space for recreation or plant or animal preserves.

6. Single family dwellings incidental to the agricultural use of the land for the residence of the owner, and the family of the owner.

Single family dwellings incidental to the agricultural use of the land for the residence of the lessee of the land and the family of the lessee.

Owner or lessee shall be construed to include:

(a) stockholders in family corporations

(b) beneficiaries of family trusts and estates

(c) owners of undivided partial interests in the fee

(d) joint tenants

7. Dwellings for persons employed by owner or lessee in the agricultural use of the land.

8. Temporary farm labor camps incidental and necessary to the gathering of the crops grown on the land.

9. The construction and maintenance of a stand or shelter for the sale of agricultural commodities produced on the land.

10. An aircraft landing strip incidental to the agricultural use of the land.

11. The erection, construction, alteration or maintenance of gas, electric, water or communication utility facilities.

12. The erection, construction, alteration or maintenance of radio, television or microwave antennas, transmitters and related facilities.

13. Public or private hunting of wildlife or fishing.

14. Public or private hunting clubs and accessory structures.

15. Public or private rifle and pistol practice range, trap or skeet field, archery range or other similar use.

16. Public or private riding or hiking trails.

17. Riding academy, stables and the boarding of horses or other livestock but not including an animal hospital or kennel.

18. Oil and gas well drilling, including the installation and use of such equipment, structure and facilities as are necessary or convenient for oil and gas drilling and producing operations customarily required or incidental to usual oil field practice, including the initial separation of oil, gas and water and the storage, handling, recycling and transportation of such oil, gas and water from the premises.

STATE OF CALIFORNIA)
) ss.
COUNTY OF SANTA CLARA)

On this ____ day of _____, before me, the undersigned, a Notary Public in and for the State of California with principal office in the County of Santa Clara, residing therein, duly commissioned and sworn, personally appeared _____ known to me to be the _____ of _____ _____, the corporation that executed the within instrument, and known to me to be the person who executed the within instrument on behalf of the corporation therein named, and acknowledged to me that such corporation executed the same pursuant to its By-Laws or a resolution of the Board of Directors.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year in this Certificate first above written.

_____
Notary Public in and for the
State of California

STATE OF CALIFORNIA)
) ss.
COUNTY OF SANTA CLARA)

On this _____ day of _____, before me, _____, a Notary Public in and for said County and State, residing therein, duly commissioned and sworn, personally appeared _____ _____ _____, known to me to be the person(s) described in and whose name(s) is/are subscribed to the attached instrument, and acknowledged to me that _____ executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal, the day and year in this certificate first above written.

_____
Notary Public in and for the
County of Santa Clara,
State of California

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I. INTRODUCTION

In 1963, a Democratic Governor's commitment to natural resources coincided with the interests of a strong Republican farm block in the state legislature to ensure passage of Connecticut's Public Act 490, the fourth use-value assessment statute in the United States.[1] An earlier version had passed in the legislature in 1957, but was vetoed by the governor when it became enmeshed in partisan politics.

While a governor's report on Connecticut's natural resources written by conservationist William H. Whyte in 1962 played a central role in passage of P.A. 490, the tax recapture provisions and the strong planning component recommended by Whyte were left out.[2] The statute, often called the "Open Space Act," was an archetypal pure preferential assessment act until 1972 when a conveyance tax on the sale of certain participating lands was enacted.[3]

For 12 years, P.A. 490 has survived opposition, primarily from local assessors, to become a firmly established element of local tax policy. As more of Connecticut's 169 towns undergo reassessment in the next few years, participation under the act and the aggregate loss of tax revenue will increase.

A. The State

Connecticut is in the heart of the Northeastern coastal megalopolis, with development concentrated in a corridor extending from the southwestern panhandle, along the coast to New Haven, then north through Hartford along Interstate 91. Several other urban concentrations have also developed. Due to an extensive highway network, no area of the state is free from urban influence either for rural-residential or recreational development.

The Connecticut population of approximately 3.0 million people has one of the highest per capita incomes and education levels of any state. These characteristics have contributed to the high demand for land for residential and recreational development over the last 15 years. In recent years, land use has been the focus of increasing interest in Connecticut state and local politics.

The fourth most densely populated state, with 629 persons per square mile, Connecticut has 62% of its 3.1 million acres in forests, 17% in farms, and 21% in urban, suburban and institutional uses.[4] The Governor's Commission on Tax Reform estimates that of the 2.1 million acres of taxable undeveloped land in the state, roughly half is eligible under P.A. 490. The other half is underassessed in aggregate by an estimated 50%.[5]

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[1]Connecticut Stat. Ann., Title 12, 55107a-e.

[2]"Connecticut Resources--A Proposal for Action," Hartford, 1962, mimeo.

[3]P.A. 152, 1972 became Conn. Stat. Ann. 504a-f, amended in 1974 by P.A. 74-343.

[4]Sherman, Roger, et al. "Open Land Policy in Connecticut," New Haven: School of Forestry and Environmental Studies, Yale University, 1974, mimeo.

[5]Connecticut, Report of the Governor's Commission on Tax Reform, Vol. 2 (Hartford, 1972) p. 113.

As in other urbanized Northeastern states, the number of active farms has declined rapidly in the last 16 years, from 8,300 in 1959 to approximately 3500-4000 at present. About 350,000 acres of open land remain in direct agricultural use.[1] From 1960 to 1970, while population increased 19.6% (by 496,983), the residential acreage increased 53% and the total built-up acres increased 63% (by 198,653). Agricultural and forest plantation areas decreased by 23%, with the greatest reductions occurring in the central valley region around Hartford.

The state Plan of Conservation and Development, drawn up by the Office of State Planning in 1973, recommended policies encouraging denser development patterns, citing the environmental and economic costs of scattered low-density development. The development of the 1960's, which was at much lower densities than in previous periods,[2] converted 6% of the state's land to urban uses.

The Plan divides the state into three categories on the basis of natural constraints on development and desirable patterns of development: 25% suited for urban development, to be served by municipal sewer and water systems; 50% suited for limited development only, including areas which can effectively and permanently be served by on-lot sewer and water systems without impairing water quality standards; and 25% for permanent open space, including areas determined "to have critical and/or unique natural resources with scenic, historical, ecological or other environmental qualities worth preserving."[3] The Plan urged that new suburban development be directed to the first category through use of the police power and the location of public improvements, such as sewer and water supply lines. Although the revised Plan became official state policy after extensive public discussion, under Executive Order No. 28 (Sept. 1974), a new administration has ordered a reconsideration of important parts of it.

B. The Tax System

Connecticut state and local governments had combined revenues in 1971-72 of $2.84 billion. Of this, 75% came form taxes, 14% from the Federal Government, and 11% from other charges and miscellaneous sources.[4] Property taxes accounted for 37% of Connecticut state and local revenues, the third highest percentage of all states.[5]

In Connecticut, the lack of a general personal income tax has led to high sales and property taxes. (see Table 1). In 1971-72, Connecticut ranked fourth both in state and local taxes per capita, $638, and in property taxes per capita, $316.[6]

From a statewide grand list of assessed values of $21.2 billion, approximately $1.04 billion in property taxes were levied in 1973. Dwelling houses and lots accounted 57% of the tax base, open land for 5.8%, commercial for 11.5%,

[1] Connecticut, Governor's Task Force on the Preservation of Agricultural Land, draft report, 1974.

[2] Ibid.

[3] Ibid., p. 10.

[4] U.S. Bureau of the Census, 1972 Census of Governments, Vol. 5, No. 4, "Compendium of Government Finances," Table 21, p. 41.

[5] Ibid.

[6] Ibid., Table 27, p. 41.

manufacturing property for 4.8%, and personal property for 20%.[1]

Table 1

PERCENT DISTRIBUTION OF TAX REVENUE OF STATE AND LOCAL GOVERNMENTS, BY TYPE OF TAX, 1971-72

	Connecticut	United States
Property	49.4%	39.1%
Sales	34.9	34.2
Income	9.3	17.9
Other	6.3	8.7

Source: U.S. Bureau of the Census, 1972 Census of Governments, Vol. 4, No. 5, "Compendium of Government Finances," Table 26.

Property tax administration in Connecticut is the responsibility of the 169 towns and cities, each with a strong New England tradition of home rule. Minimal state supervision and assistance is provided to local assessors and part time boards of assessment in a system which has "widely varying assessments due to careless procedures, extended time for physical revaluations, and the valuation complexity of many properties," according to the 1972 Governor's Commission on Tax Reform. The Commission concluded that "the state badly needs uniform procedures, improved data processing, and more professional assessors.[2]

Historically, the State Tax Department has not had the staff or the assertiveness to lead the way in improving local tax administration. Acting to correct this situation, the legislature created a State Board of Assessment Advisors within the Tax Department in 1974.[3] The Board has a mandate to improve local assessment practices, establish guidelines, and certify mass appraisal companies doing business in the state. In a compromise move, the Commission on Tax Reform's recommendation for a Board of Assessment Supervisors with full legal authority over local assessment functions was translated into a bill creating an advisory body. As part of their duties, the advisors are charged with the ongoing determination of recommended use-values for assessment under P.A. 490.

With wide variations among localities and little statewide collection of data, the decentralized nature of the property tax system has rendered statewide evaluation of P.A. 490 difficult. Aside from several small scale studies, legislators have relied on local feedback and expert opinion in their continuation and modification of the program. Data on the participation rate and extent of tax loss are incomplete and open to varied interpretation, and assumptions made by advocates and opponents are not easily tested. While available data have been employed in measuring program costs and effects, the final judgment necessarily involves value judgments based on imperfect knowledge.

[1] Connecticut, Public Document No. 48, Information Relative to the Assessment and Collection of Taxes, 1973, Hartford, 1974.

[2] Report of the Governor's Commission on Tax Reform, Vol. 2, p. 93.

[3] Public Act 74-275.

II. DESCRIPTION OF PROGRAMS

P.A. 490 and the 1913 Forest Act[1] are the only statutorily allowed deviations from the principle of market value assessment in Connecticut, although widespread de facto preferential assessment of underdeveloped lands exists.

Sec. 12-63 of the Connecticut General Statutes allows the assessment of farm, forest, and open space land as defined in Sec. 12-107a-e, on the basis of "current use without regard to neighborhood land use of a more intensive nature," provided that the valuation of open space land shall not "be less than it would be if such open space land comprised a part of a tract or tracts of land classified as farm land pursuant to Sec. 12-107c."[2]

A. The 1913 Forest Act

The 1913 Forest Act, limited to tracts over 25 acres on which the value of the land alone is under $100 per acre, provides for a freeze on the assessment at time of classification with a revaluation 50 years after initial classification. Annual taxes may not exceed 10 mills upon the true value as fixed, and any material removed is subject to a graduated yield tax of up to 7%, depending on period of classification. With cancellation of classification, a rollback tax of 5 mills per annum on the difference between the fixed assessment and market value at cancellation is collected for each year the land was classified.[3]

Wile conferring major tax benefits on some forest owners, this law has had limited application, especially near urban areas, due to the maximum allowed land value of $100 per acre. Maximum tax savings accrue to long term forest land holders in once-rural areas. Approximately 37,000 acres are classified under the act, but most of the parcels have been classified since P.A. 490 was enacted. In fiscal year 1973, 16 certificates were issued for a total increase of 1665 acres.[4] In 1971, the legislature amended the law to allow transfer to the forest land classification of P.A. 490 without penalty.[5] This report will concentrate on P.A. 490 because of the limited application of the 1913 Forest Law and the probability that its use will dwindle because of the low maximum allowable land value.

B. Public Act 490, the Open Spaces Act

The declaration of policy included in P.A. 490 clearly states the legislature's intent with regard to open land taxation:

> "It is in the public interest to prevent the forced conversion of farm land, forest land, and open space land to more intensive uses as the result of economic pressures caused by the assessment thereof for purposes of property taxation at values incompatible with their preservation as such farm land, forest land, and open space land."[6]

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[1] CGS 12-96 through 12-101

[2] CGS 12-63

[3] CGS 12-96 through 12-101

[4] Records, Connecticut Department of Environmental Protection.

[5] P.A. 71-697, 5.1

[6] CGS 12-107a

1. Eligibility

Each land use category has separate eligibility requirements which have been tested and interpreted in repeated court decisions.

a. Farm land. The term "farm land" is defined as "any tract or tracts of land, including woodland and wasteland, constituting a farm unit."[1] The assessor is directed to take into account such factors as the total acreage, the portion in actual use for farming, the productivity of the land, the gross income derived therefrom, the nature and value of equipment used in connection therewith, and the extent to which the tracts comprising the unit are contiguous.

Eligibility is automatic once a tract qualifies as a farm unit, regardless of zoning, subdivision plans, or owner's instigation of zoning changes.[2] The courts have interpreted the "farm unit" provision broadly to include any open space land (and in one decision, buildings as well) committed to agricultural use.[3] Owner's income from other sources is not a criterion[4] and nor is low productivity or intensity of use.[5] Rented land is eligible if used as part of a qualifying farm unit.[6] This unrestrictive interpretation has opened the program to virtually any land suitable for agricultural use regardless of location in a non-compatible zone or intent to develop on the part of the owner.

b. Forest land. To qualify for use-value assessment, a forest land holding must comprise at least 25 acres, though it may be in several tracts, "bearing tree growth in such quantity and so spaced as to constitute in the opinion of the state forester a forest area and maintained in the opinion of the state forester in a state of proper forest condition."[7] The owner must file an application with the state forester for the land's designation as forest land, indicating exact boundaries on appropriate maps or aerial photographs and signed by both the landowners and the local assessor. If the landowner and assessor do not agree, the landowner must employ a private forester to determine forest acreage. In this event, issuance of a certificate will be based upon the private forester's written report.[8]

c. Open space land. Open space land is defined as any area of land that enhances certain publicly defined goals such as conservation of natural and scenic resources, or preservation of historic sites.[9] Land must be designated as open space in the plan of development prepared by the local planning agency in order to qualify for classification. Any owner of land

[1] CGS 12-107b

[2] Marshall v. Town of Newington, 156 Conn. 107, 113, A 119 (1968).

[3] Halloway Bros., Inc., v. Town of Avon, 26 Conn. Sup. 160, 214 A.2d 699 (1965).

[4] Ibid. and Marshall v. Town of Newington, supra.

[5] Scheer v. Town of Berlin, Hartford Co. Court of Common Pleas (1968); and Waldron v. Town of South Windsor, Hartford Co. Court of Common Pleas (1967).

[6] Hill and Brooks v. Town of Redding, Fairfield Co. Court of Common Pleas (1969).

[7] CGS 12-107b

[8] Application procedures for forest land, Conn. Dept. of Environmental Protection.

[9] See CGS 12-107b(c) for complete categories.

so designated cannot be denied classification unless there has been a physical change "which adversely affects its essential character as an area of open space land."[1]

2. Methods of Assessment

The local assessors in Connecticut's 169 cities and towns must determine equitable use-values under P.A. 490, subject to appeal to the local Boards of Tax Review and ultimately the courts. The State Tax Department has never issued official guidelines or recommended procedures of use-value assessment to the towns, although the newly created Board of Assessment Advisors at the State level has been charged with developing uniform use-values.[2]

The most widely accepted estimates of use-value are those developed by Dr. Irving Fellows and his colleagues at the University of Connecticut. The figures were calculated by capitalizing average rents observed in a large sample survey of rental rates for various types of land. The total capitalization rate of 10% was arrived at by combining a 6% interest charge, 3% for taxes, and 1% for maintenance, such as investment in fencing. While these components as well as the observed rents have changed since the latest survey in 1969, Dr. Fellows believes the figures are still basically correct. Higher costs and interest rates have offset any rise in rents.[3]

The suggested use values per acre are:

Tillable A	$500	Untillable, Permanent Pasture	$50
Tillable B	250	Weed and Sprout	25
Tillable C	125	Swamp and Waste	10
Orchard	200		

The observed rents upon which these use values are based are given in Table 2 below.

Table 2

SURVEY OF FARM LAND RENTALS, CONNECTICUT FARMERS, FOR 1968 CROP YEAR
Weighted Average Gross Rent Paid per Acre
(State totals - 724 Respondents)

Tillable A	1,183 acres	$50.01
Tillable B	1,028 acres	28.66
Tillable C	10,684 acres	9.69
Permanent Pasture	7,371 acres	3.17

Source: Dr. Irving F. Fellows, Department of Agricultural Economics, University of Connecticut

Higher values were suggested for certain particularly fertile areas.

[1] CGS 12-107e

[2] Public Act 74-275; Conversation with Richard Prendergast, interim head of Board of Assessment Advisors, Municipal Tax Division, Connecticut State Tax Department.

[3] Conversation with Dr. Irving Fellows, Storrs, Conn.; du Pont v. Board of Tax Review of Town of Fairfield, Fairfield Co. Court of Common Pleas (1974).

Several local assessors have developed their own formulas with higher estimates of use-value, but the courts have mandated the use of the capitalized rental values as true use values: "Whether the rent is a share of the crop or a sum of money, both parties have agreed upon an amount which represents the use value of the farm for an annual period."[1] This opinion invalidated a technique of using market values scaled down by an estimated factor for urban influence.[2]

The accepted method of determining the use value of forestland, according to John Hibbard, Secretary-Forester of the Connecticut Forest and Parks Association, is to capitalize the value of the annual growth of the timber on such land.[3] While the recommended and most widely used assessment for forest land is $25 per acre ($2.50 worth of incremental growth capitalized at 10%), many assessors set the value at $50 per acre (see Table 3). At the 1972 average full value tax rate of 27 mills, the difference on tax yield per acre is $.68, or about $60 on the average classified tract of 88 acres. This small difference may account for the fact that $50 is assessed without apparent challenge. Much of the timber on land classified as forest is not grown for commercial sale in any case.

Table 3

ASSESSMENT PRACTICES UNDER P.A. 490, BY LAND TYPE

Tillable A		Tillable B		Forest Land	
No. of Towns	Use Value Per Acre	No. of Towns	Use Value Per Acre	No. of Towns	Use Value Per Acre
2	$ 100-175	4	$ 100-125	13	$ 25
3	176-250	1	150	4	30-40
2	300	5	200	9	50
1	400	17	250	1	75
20	500	3	300	7	100
1	800	3	400	2	120-123
2	1000	0	500	1	150
13	No tillable A land listed	2	1000		
		7	No tillable B land listed		

Source: Armando Carbonell, Joseph Laforte, John Breakel, Steve Scheinberg, "A Survey of P.A. 490's Application," Connecticut Department of Environmental Protection, April 1975.

[1] Bussa v. Town of Glastonbury, 28 Conn. Sup. 97, Hartford Co. Court of Common Pleas (1968).

[2] See also Hambleton v. Town of East Windsor, Hartford Co. Court of Common Pleas (1967).

[3] duPont v. Board of Tax Review of Town of Fairfield, Fairfield County Court of Common Pleas (1974).

Open space land creates problems in that many of the benefits are not evaluated in the market. The suggested values developed at the University of Connecticut have been used in most cases, but this provision has been used little outside of several towns. Assessors admit the practical difficulty of determining the "use" value of general open space unless it earns some sort of income (such as a golf course).

While strict state regulation of development involving tidal wetlands may severely reduce value, assessment criteria for these properties are up to the local assessor. A similar reduction in value could result from state mandated local management of inland wetlands. Theoretically, unless the wetlands are included as open space land in the official plan of development, the basis of assessment must be market value. It appears that assessors will not alter their current practices unless there is a clear reduction in value. Because the inland wetlands act does not prohibit development, centrally located wetlands may still be assessed at development values while remote wetlands will carry a low valuation. As a rule, the assessment of tidal wetlands has been very low anyway until they are actually filled for development.[1]

3. Sanctions for Conversion

In response to growing controversy over the lack of any recapture provisions, the Land Use Review Committee set up in 1969 to examine the effects of the act recommended a conveyance tax on lands sold out of the program. In 1972, the legislature finally enacted a special conveyance tax on lands withdrawn from the program through sale or change in use within the first ten years of classification or ownership, whichever is earlier.[2] The tax liability starts at 10% of sale price or market value in the first year and declines 1% annually to 1% in the tenth year and none thereafter. By including ownership as well as classification in counting the years, the act effectively exempts most of the land under the program from the conveyance tax, eliminating it as a deterrent to conversion in most cases. This wording served to defuse much of the opposition to the conveyance tax.

Revisions in 1974 clarify who is responsible for the conveyance tax and when it must be paid.[3] The loophole under which an owner could drop the classification in one year to avoid paying the tax on sale the next year was closed by making payment of the conveyance tax the only way a landowner could leave the program unless the 10-year period had passed. In a significant difference from other state programs, the change made it clear that "classification of land shall be deemed personal to the particular owner who requests such classification and shall not run with the land."[4] An interesting consequence is that if the new owner seeks reclassification under the act, the conveyance tax begins again at 10%. This approach discourages short term speculation more effectively than the more common roll-back tax provision used in other states.

The Commission on Tax Reform and others have recommended that the law base conveyance tax liability on years of classification alone rather than ownership, and that the decline in tax be halted in the fifth year, at 5%, to provide some minimum recapture of benefits conferred. While strongly opposed by farm groups, these provisions have a chance of being enacted within five years according to some observers. Resistance to the change stems partly from the fact that a number of farmers in more rural towns have not signed up

[1] Conversation with Peter Marsele, Assessor, Town of Bloomfield.

[2] CGS 12-504a-f (P.A. 152, 1972; amended in 1974 by P.A. 74-343.)

[3] P.A. 74-343

[4] Ibid.

for a P.A. 490 yet, due to the negligible tax advantage or possible higher taxes in some cases, while many farmers have been in the program longer than ten years. Several hundred farmers, accompanied by the sportsman's lobby, showed up for a 1974 hearing to protest a proposed stiffening of the act.

Designed to discourage short term speculation, the conveyance tax provides little disincentive to conversion even when it applies. Depending on the difference between market and use-value, the point at which the tax savings outweighs the conveyance tax could come as soon as three years after classification. A built-in failing is that as market values rise, the increase in potential tax savings undercuts the disincentive of a larger absolute conveyance tax. The landowner is free to invest the tax savings each year while the recapture is levied at a future sale date. Furthermore, depending on the market situation, the conveyance tax burden could be shifted to the purchaser.

The graduated decline in the conveyance tax due can be contrasted to the accumulating burden of a long rollback provision. There is no doubt that this provides some incentive to hold the land longer, but other factors such as the price offered are undoubtedly more important determinants of landowner decisions. The structure does indicate, however, that discouragement of conversion rather than recapture of tax benefits seems to be the goal. A rationale given for declining rollback is that the public benefit increases with the length of time the land will be held.

The reform proposals seek to provide at least a minimum recapture of the tax loss. An advantage of conveyance tax in this regard is that a lump sum of money accrues to the town when the development takes place and municipal services are needed. With the recent changes, it is relatively easy to administer.

Though some conveyance taxes have been collected, there is no statewide compilation of these. Under the reforms proposed by the Commission on Tax Reform, the tax would generate an estimated annual collection of $2.5 million by fiscal year 1977.[1]

III. EVALUATION OF P.A. 490

P.A. 490 has definitely been an important factor in preventing the forced conversion of open land due to tax pressures. The consensus of Connecticut agricultural economists is that a great many more farms would have been forced out of business if it were not for P.A. 490.[2] However, the act provides little or no control over the ultimate use of the land or the timing of development. While the act has slowed development, it is impossible to isolate the relative effect of the tax incentives.

A. Magnitude of Benefits

The act has provided dramatic reductions in valuation for participating lands in urbanizing suburbs. A 1971 study including four such towns which maintained records on both use-value and market value revealed an average reduction of from 43% to 76% (see Table 4). However, within each town there was a wide range of reductions. In one town, reductions in valuations ranged from an

[1] Report of the Governor's Commission on Tax Reform, Vol. 2, p. 6.

[2] Conversations with Dr. Irving Fellows, University of Connecticut, and Dr. Paul Waggoner, Director, Connecticut Agricultural Experiment Station, New Haven.

Table 4

VARIATIONS IN PERCENTAGE VALUATION REDUCTION FOR OUR PARTICIPATING LANDS IN FOUR TOWNS, 1971

Evolving Suburban Towns	Population Density 1970[1]	Reduction in Valuation[4]				Compensating Increase in Mil Rate[4] (1971 mil rate)[3]
		Mean %	Standard Deviation	Average, Lowest 10%	Average, Highest 10%	
Enfield	1044	70.11	20.91	27.97	93.84	2.53 (73.5)
Glastonbury	399	75.66	22.44	28.29	99.02	1.83 (55.9)
Bolton	243	60.76	23.97	28.10	87.19	0.14 (56.0)
Windham	703[2]	43.34	16.73	21.20	68.97	0.08 (43.0)

[1] Persons per square mile, U.S. Census of Population, 1970.

[2] Density is higher due to City of Willimantic.

[3] From Connecticut, Public Document No. 48, Information Relative to the Assessment and Collection of Taxes, 1971, Hartford, 1972.

[4] Data on valuation reductions from Schoeplin, Robert N. and Justine Dakin Schoeplin, "A Second Look at the Impact of Differential Assessment of Farmland and Consequent Tax Shifting: Comment," American Journal of Agricultural Economics, 54 (November 1972), p. 68.

average 28% in the lowest ten percent to 99% in the highest 10%.[1] This wide range of tax reductions indicates that some tax burden is shifted from the most valuable lands to the less valuable lands within the program. Theoretically, agricultural land in an area with low development pressure could experience a net rise in taxes due to large reductions in other areas of the same taxing jurisdiction.

These findings are supported by aggregate data from other sources. Given the U. S. Department of Agriculture reported average value of agricultural land in Connecticut, $1546 per acre in 1974, the reduction in valuation for Tillable A farmland and permanent pasture would be 68% and 97%, respectively, at the recommended use values.[2] The Connecticut Department of Agriculture has estimated the cost of development rights for Connecticut farmland at $1500 per acre based on Farm Credit System data. This would indicate a 75% reduction in valuation on Tillable A land under use-value assessment.[3]

Given a certain reduction in value, the actual tax burden will be determined by the town's assessment ratio and mill rate. An unequal distribution of tax ratables and the inequities associated with heavy reliance on the property tax to fund public education and other services produce varying pressures on open land. Distributions of tax yield per acre for given types of land were compiled from the Department of Environmental Protection survey referred to earlier. (See Figure 1). Tax yield per acre varies considerably across towns according to these data. If land rents are accepted as an indication of the income attributable to the land input (see Table 2), the average tax burden is 20-30% of this income.

The DEP survey data are comparable to the U. S. Department of Agriculture estimate of $15.21 per acre in farm real estate property taxes in Connecticut in 1973.[4] This is one of the highest rates in the nation. While this has risen from $5.91 per acre in 1960, the property taxes as a percent of gross farm income has increased from 3.0% in 1960 to 4.6% in 1972. In 1973, this dropped back to 3.5%.[5] These tax yields and percentages would be considerably higher under market value assessment in many towns.

The present statewide cost of P.A. 490 in terms of taxes shifted off of open land cannot be measured because no aggregate data are collected and the provisions do not require assessors to record both use-value and market value. The measurement of tax loss is further complicated by the fact that local assessors have rarely assessed undeveloped land on the basis of full market value. Other categories of real property, notably industrial and commercial properties, are also underassessed relative to dwelling houses and lots.[6]

[1]Schoeplin, Robert N., and Schoeplin, Justine Dakin, "A Second Look at the Impact of Differential Assessment of Farmland and Consequent Tax Shifting: Comment," American Journal of Agricultural Economics 54 (Nov 1972), pp. 679-68.

[2]U. S. Dept. of Agriculture, Economic Research Service, Farm Real Estate Market Developments, CD 79, July 1974.

[3]Conversation with Joseph Ruwet, Deputy Commissioner, Conn. Dept. of Agriculture.

[4]U. S. Dept. of Agriculture, Economic Research Service, Farm Real Estate Taxes RET-12, February 1973.

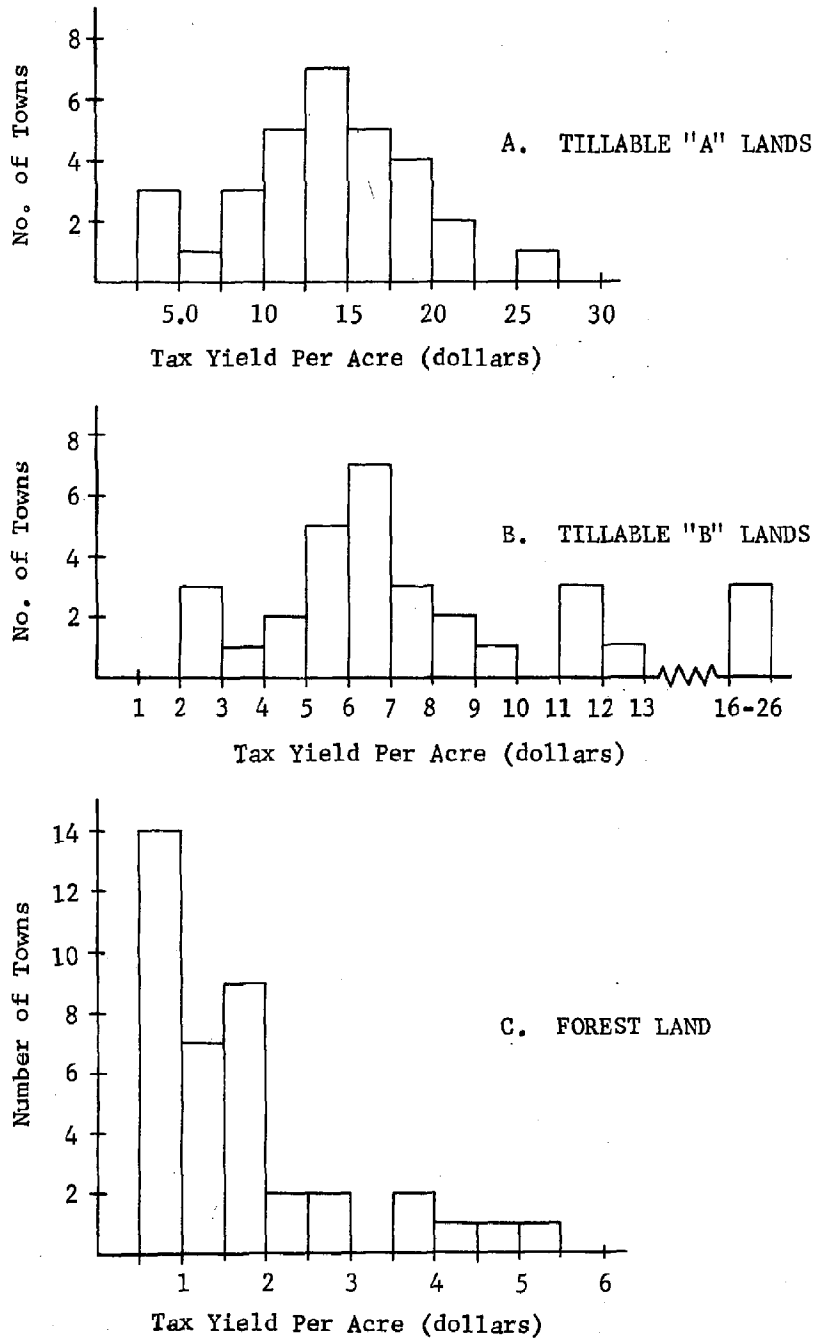
[5]Idem, Revised Estimates of Taxes Levied on Farm Real Property, 1960-73, Statistical Bulletin No. 538, April 1975.

[6]Report of the Governor's Commission on Tax Reform, Vol 2., p. 99.

Figure 1

AVERAGE TAX YIELD PER ACRE

BY NUMBER OF TOWNS



Source: Conn. Dept. of Environmental Protection Survey (1974).

Furthermore, supporters of P.A. 490 assert that if full market value is used as the benchmark in computing tax loss, a complete evaluation of the tax impact of preferential assessment must consider the tax impact of the development that would occur under full value assessment. These issues will be discussed in the section on equity.

Hypothetical calculations of tax shift can be made. The potential tax shift due to P.A. 490 under certain assumptions can be estimated very roughly from available data. Statewide, 2.1 million acres of land were listed on local grand lists with an aggregate value of $1.26 billion or an average assessment of $599 per acre.[1] This average masks wide variations among counties such as Windham and Fairfield which report average land valuations of $54 and $3268 per acre, respectively. It is not totally clear what this definition of land acreage includes because the Office of State Planning inventory of open land shows 2.64 million acres (which includes water bodies).[2] For the purposes of this calculation, the acres actually listed on the town grand lists are the most relevant.

The Governor's Commission on Tax Reform estimated that about half the 2.1 million acres on local grand lists is eligible for P.A. 490 and that the aggregate assessment would be about one half of market value.[3]

The potential amount of tax shifted from open land under P.A. 490 to other categories of real estate can be estimated as follows: If we assume that 1) all open land is reassessed at market value, 2) half the open land area is put under the act, 3) the use-value assessments average one half the market value assessments, and 4) the governmental revenue needs remain the same, the tax shifted off of P.A. 490 lands would be $27.6 million given the 1973 grand list and revenue needs. Table 5 gives the calculation in detail.

Table 5

CALCULATION OF POTENTIAL TAX SHIFT UNDER P.A. 490
(millions of dollars)

	Assessed Value	Mill Rate*
1973 Grand List	$21,242	49.0
Land Portion, 1973	1,259	
Land Portion, Uniformly Assessed	2,517	
Adjusted Grand List	22,502	46.2
Value of Land Eligible for P.A. 490	1,259	
Reduction in Valuation under P.A. 490	629	
Final Adjusted Grand List	21,873	47.5

Tax shifted off P.A.490 lands is obtained by finding the difference between Adjusted Grand List mill rate and the Final Grand List mill rate (47.5-46.2), 1.3 mills, and applying this to the Final Grand List minus the aggregate value of P.A. 490 lands.

Potential Tax Shift = .0013 (21,873 - 629)
= $27.6 million (2.6% of Grand Levy)

*Mill rate assumes constant revenue need of $1,039 million.

SOURCE: Assessment data from Connecticut Public Document No. 48, 1974, p. 43.

[1]Connecticut, Public Document No. 48, 1974, p. 85.

[2]Plan of Conservation and Development, p. 43

[3]Report, Vol. 2, p. 113.

While the sensitivity of this estimate to the assumptions listed must be examined, the tax shift would most probably fall in the $20-40 million range. The implementation of other property tax reforms aside from the uniform valuation of open land could alter this estimated range.

The tax shift associated with agricultural land alone can be estimated roughly with other data. Based on market data, the U. S. Department of Agriculture estimated the average value of Connecticut farmland to be $1316 per acre with a total statewide value of $447 million in 1973.[1] At the statewide average assessment ratio of 64%, the uniform assessed value would be $268 million. At the state average mill rate of 49.0, the tax revenue from farmland would be $14.1 million, without making the adjustments done in Table 5. If the reduction in value averaged 50%, the tax shifted off of agricultural land would be approximately $7 million, or about .7 of 1% of the statewide property tax levy. Because farmland would only be 10% of the uniformly assessed open land value in Table 5, the adjustments required there in calculating tax shift are less important for agricultural land alone.

It must be emphasized that these are very rough estimates of potential tax shifts on a statewide basis. Because these figures obscure wide local variations, the impact in a particular town cannot be determined. The intent is to give a general indication of the order of magnitude.

B. Participation Rate

The major impetus for application under P.A. 490 has been townwide revaluations bringing open land assessments up to market value. The typical pattern of a flood of applications following revaluation has been repeated throughout Fairfield County and in the Central Valley towns.[2] For example, after the 1966 revaluation in Hamden, a highly urbanized suburb, landowners applied for and received exemptions of about $1 million in assessed value.[3]

Of 169 towns, an estimated 130 have land classified under the act.[4] In many suburban and urbanized places, all eligible land has been placed under the program while on the outer edges of the urban fringe, where de facto preferential assessment is more widespread, participation drops off. As the cycle of reassessments continues and the state takes a more active role in assessment administration, participation will increase.

A 1972 survey conducted by students at the Yale School of Forestry, completed by 91 assessors (a 54% response), found that 130,207 acres of farmland, 132,207 acres of forestland, and 23,004 acres of "open space land" were classified under P.A. 490.[4] In the DEP survey cited above, 32 towns reported a total of 140,998 acres under the act, 33% of the 422,329 acres of undeveloped land on the grand lists of these towns. Ten towns had over 37% of their taxable undeveloped land under the act, and seven had over 50%.[5]

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[1] Farm Real Estate Market Developments, CD 78, July 1973.

[2] Conversation with Peter Marsele, Assessor, Town of Bloomfield.

[3] Conversation with Charles Sweeney, Assessor, Town of Hamden.

[4] Brown, Lauren, et al., "Connecticut Public Act 490: Interpretation, Application, and Effects," Yale University School of Forestry, New Haven, 1972.

[5] Carbonell, et al., op. cit.; Connecticut, Public Document No. 48, 1974.

Of the three categories of eligible land, statewide data on participation are available only for the forest land which must be certified by the State Forester prior to classification. As of March 1973, 322,408 acres of forest land, representing 3764 applications and approximately 17% of the forest land in the state, were certified by the State Forester, though landowners had not necessarily requested classification by assessors on the basis of these certificates. About 500 to 600 new applications are made each year.[1]

Roughly 500,000 acres of land are in farm units as defined under P.A. 490. Of this 163,000 acres are harvested croplands and 125,000 are in pasture.[2] Due to the decentralized administration of P.A. 490, no statewide participation figures are available. Estimates that 60 to 80 percent of all farmland is enrolled have been suggested.[3] Dr. Fellows states that almost all commercial farms are under the act.

The participation rate among agricultural landowners varies with the degree of urbanization in the town and the local assessment practices. Because of the ease of entry into and withdrawal from the program, all farmland owners who stand to benefit would enroll if they were aware of it.

Very few lands have been classified as open space for several reasons: 1) lack of open space provisions in local plans of development, 2) fear of the fiscal impact, and 3) lack of knowledge of the program. Thirty-six of forty-eight towns responding to the DEP survey in 1974 reported no land under the open space classification, five reported under 200 acres, and four had over 2000 acres.[4] The 23,004 acres reported by 18 towns in the 1972 Yale School of Forestry survey represents a small percentage of the potentially eligible land.[5] Of 13 towns in Tolland County, only one had implemented the open space provision to any degree in 1974.[6]

A growth of local interest in the open space provision has paralleled increasing concern over uncontrolled growth. In a move not intended by the act's authors, four towns have designated all undeveloped tracts exceeding a given minimum acreage as open space. Others have designated extensive areas of the town.

In 1969, the town of Durham placed under the open space provision of P.A. 490 all undeveloped land of one acre or more not eligible for forest or farmland classification. In 1971, a committee appointed by the Board of Selectmen to review this policy found that the additional tax shift due to the inclusion of this open land under the act was $64,816. This resulted from an assessment reduction of $1,246,450 covering 295 parcels of land, representing an average valuation reduction of 93% or $700 per acre.[7]

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[1]Records, Department of Environmental Protection.

[2]"Report of the Governor's Task Force on the Preservation of Agricultural Land," Draft Report, Dec. 1974, Photocopy.

[3]Conversation with George Simpson, Executive Secretary, Connecticut Farm Bureau.

[4]Carbonell *et al.*, op. cit.

[5]Brown *et al.*

[6]Correspondence with John E. Wraight, Jr.

[7]Durham Open Spaces Study Committee, "A Study of the Effect of Public Act 490 on Durham's Tax Structure and Growth Rate," Durham, Connecticut, December 1971.

The Governor's Commission on Tax Reform critized this practice for not following the intent of the law. The Commission concluded that it is detrimental to the best interests of the public because "it prevents land from being properly developed and relieves the individual property owner from a tax burden which is justifiably his."[1] Assessor Peter Marsele, a longtime advocate of P.A. 490, suggests that towns only use the open space classification for lands designated for permanent open space.[2]

A 1974 sample survey of Tolland County open land owners by John E. Wraight, Jr., of the University of Arizona produced some interesting data on land tenure patterns and participation in P.A. 490.[3] Questionnaires were mailed to 1000 randomly selected individual landholders (out of a total of 4400 landowners with holdings of greater than three acres) in the 14 towns. A total of 296 responded, creating a sample of 6.7% of all individual landowners. Of these, 26.3% had their land classified under P.A. 490.

Information was collected about the owner, the land, and the town in which it was located. A limitation in the data for present purposes is that there is no indication of what percentage of the land in the survey is, in fact, eligible for P.A. 490. These participation rates reflect the percentages of all open land owners who have been granted classification under P.A. 490. So while it is possible to derive some useful information about the characteristics of the participants and participating lands, we do not know to what degree non-participation results from ineligibility.

In regression analysis, five town characteristics were found to account for almost 95% of the variance in participation rates among towns (measured by sample landowners in the program as a percent of all sample landowners): miles to a satellite city (population greater than 20,000 but less than 100,000), percent increase in population (1960-1973), population density (1973), years since the last revaluation, and percent increase in grand levy, 1971-1974.

The owner and land variables for which there was a significant difference between participants and non-participants and these five town characteristics were analyzed through the procedure of discriminant analysis to find the variables that could predict participation with least chance of error. The four optimal predictors, producing correct classification in 80% of the cases, were: total acreage in the tract, miles to a satellite city, number of publications received which would be likely to provide information on use-value assessment, and years since the town's last revaluation.

These same factors gave an optimal prediction for the landowners owning more than 25 acres. For those owning less than 25 acres, five completely different variables, more closely related to the production characteristics of the land, were optimal predictors: amount of agricultural land, whether or not others worked the land, harvest value, income from the land, and years lived on the land. While definitive interpretation would require a more detailed knowledge of the situation in Tolland County, these data suggest that for smaller tracts, agricultural variables are more important in determining participation.

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[1]Governor's Commission on Tax Reform, Report, Vol. 2, p. 112.

[2]Conversation with Peter Marsele, Assessor, Town of Bloomfield.

[3]The following data on the use of P.A. 490 in Tolland County were collected by John E. Wraight, Jr. of the University of Arizona for his Master's Thesis and generously made available for use in the present study.

Viewed by size of landholding, the participation rate reached 65% for holdings between 50 and 100 acres and 74% for holdings over 100 acres. Fifty-nine percent of the participants held over 50 acres:

No. of Acres in Holding	No. of Respondents	% of All Respondents	% Participation in P.A. 490	% of All Participants
<10	74	26.0%	13.5%	12.8%
10-24	85	29.8	5.9	6.4
25-49	46	16.1	37.0	21.8
50-99	48	16.8	64.6	39.7
100+	32	11.2	46.9	19.2

The majority of the landholders and participants worked in white collar occupations, but the participation rate was significantly higher among farmers:

Occupation of Respondents	No. of Respondents	% of All Respondents	% Participation in P.A. 490	% of All Participants
White Collar	156	56.3%	21.8%	45.3%
Blue Collar	65	23.5	21.5	18.7
Farm	25	9.0	76.0	25.3
Service	31	11.2	25.8	10.7

Participation rates were higher among landowners with reported annual incomes below $5,000 (46%) or above $30,000 (55%), but only 20% of the respondents fell in these groups. However, when the Chi Squared test was applied, the participation rates were not found to be significantly different across income groups.

Income of Respondent	No. of Respondents	% of All Respondents	% Participation in P.A. 490	% of All Participants
< $5,000	22	8.3%	45.5%	13.5%
5,000- 9,999	44	15.5	22.0	12.2
10,000-14,999	66	25.0	25.8	23.0
15,000-19,999	48	18.2	25.0	16.2
20,000-29,999	56	21.2	16.1	12.2
30,000+	31	11.8	54.8	23.0

While 93% of respondents earned less than 10% of their income from the land (with a participation rate of 25%), 13 of the 16 owners earning greater than 10% of their income from the land were enrolled under P.A. 490.

When non-participants were asked why they were not under P.A. 490, a surprising 55% indicated that they were not aware of the 11 year old act. The percentage was high across all sizes of holding. This indicates a need for a greater effort at publicizing the programs. Nineteen percent, mostly owning smaller parcels, said they were ineligible, and for 13% the tax savings would be insignificant.

These data show that in this sample, while farmers have a higher participation rate, they make up a small portion of the beneficiaries of P.A. 490. White collar occupations were held by 45.3% of the participants, and 51.4% reported over $15,000 in annual income. Most landowners do not depend on the land for their livelihood. While this sample was carefully constructed, caution must be exercised in generalizing the results.

C. Methods of Assessment

In the absence of any statutory rules for the determination of use value, the unofficial values suggested by Dr. Fellows have gained widespread acceptance, with local variations (see Table 3, page 207). Dr. Fellows is confident that these are accurate estimates of use value as reflected in the rental market.[1] The degree of judgment involved renders any particular use value estimate an arbitrary figure, so the general attitude is that the present ones will suffice.

This unofficial, infrequent adjustment of use values contrasts with states such as New Jersey which issue annual suggested use values by county and land type. The Connecticut practice is a result of the low relative importance of open land in the tax base and the small role played by the state in property tax administration.

The acceptance of the recommended use values has reduced the burden on local assessors. The higher use values assessed on forest and open space land in some towns appear to be set arbitrarily as a way to limit the erosion of the tax base rather than to approximate a true use value. In any event, the determination of the true use value of swamp or other open space land is problematic. There is no clear way the aesthetic and recreational benefits to the landowner can be measured.

The Board of Assessment Advisors should bring more uniformity in the assessment of use values as well as more frequent adjustment of use values to reflect changes in agricultural market conditions and the use of open land.

D. Relationship to Land Use Planning and Control

Connecticut has a wide range of planning activities related to land use. While most power over land use rests with local governments, in keeping with a strong tradition of home-rule, the state government is gradually assuming a greater role in planning and regulatory activities which influence land use.[2]

State regulation of several specific functions and geographic areas has been authorized in recent years, and a statewide plan of conservation and development for land and water resources has been promulgated. Current state regulations cover flood plains, inland wetlands and water courses, tidal wetlands, and soil and water conservation districts. The Department of Environmental Protection is also engaged in coastal zone management planning.

Other state responsibilities with an impact on land use include environmental review of state actions, power facilities evaluation, regulation of noise pollution and indirect sources of air pollution, and the regulation of septic tanks and solid waste disposal.

Open space programs have not been widely implemented. Few towns use their power to purchase fee or less-than-fee interests in open land. At present the Department of Environmental Protection owns and manages 187,000 acres of

[1]Conversation with Dr. Irving Fellows, University of Connecticut.

[2]For an overview of land use laws and issues in Connecticut see: Connecticut, General Assembly, Office of Legislative Research, "Land Use: Laws and Proposals," prepared by Janis R. Latham, Hartford, December 1974.

recreational land, and has announced plans to purchase an additional 34,825 acres over the next few years as part of the 1974 Statewide Comprehensive Outdoor Recreation Plan.[1]

While the Plan of Conservation and Development cited above represents a significant step toward coordination of resource policies, its only implementation has been through executive order without the force of law. Otherwise, it remains an advisory document. The present administration is reconsidering the plan. The form of a stronger state role in land use planning is currently under debate in the legislature.

The proposals of the Governor's Task Force on the Preservation of Agricultural Land, now under consideration, have significant implications for land use in the state.[2] Similar to the proposed New Jersey plan, the proposal calls for the eventual purchase of development rights of approximately 325,000 acres of agricultural and related lands, to be funded through a bond issue financed by a 1% conveyance tax on all real estate transactions. The effect of this would be to establish a permanent agricultural land base which would complement open space goals and enable entry of new farmers into the industry. It would also constitute a most dramatic and significant act of exclusionary land development regulation.

The Department of Agriculture and many farm interests are supporting the proposals heavily. A major emphasis of the Task Force report is the importance of maintaining nearby areas of basic food production. While legislators are hesitating, because of the large cost, estimated at $500 million, the proposal has brought widespread public attention to the need for action to preserve agricultural land.

The Task Force also argued for the continued necessity of P.A. 490 as a critical force in slowing the depletion of farmland.

P.A. 490 is generally cited as an important component of the Connecticut land use planning system. While there is a recognition by planners and farm interests that P.A. 490 alone is not a land use control measure or an adequate open space program, the evolving approach in Connecticut is not toward refining property taxation as a tool. Rather it is toward: 1) increased statewide regulation in specific functional and physical areas, 2) some form of statewide input to land use planning, and 3) building local planning capacity with state assistance and minimal challenge to local autonomy.

E. Effectiveness of P.A. 490 in Maintaining Current Use

P.A. 490 was enacted to end the cycle in which rising taxes forced intensive development which would lead in turn to still higher taxes. The high participation rates and large reductions in tax burden cited above indicate that P.A. 490 has reduced the cost of holding open land considerably. While this could be the incentive needed to maintain current use in some cases, land had continued to pass into the hands of developers as farmers retire and market prices rise.

[1]Connecticut, Department of Environmental Protection, "Statewide Comprehensive Outdoor Recreation Plan, Citizens' Summary," Hartford, 1975.

[2]Governor's Task Force for the Preservation of Agricultural Land, Final Report, Hartford, December 1974.

While P.A. 490 may be necessary to maintain current use in many cases, it is not sufficient. There is widespread agreement among proponents that the benefits of P.A. 490 cannot outweigh a developer's offer when an owner is thinking of selling. As such, it is seen as providing a necessary "breathing space" during which more effective, permanent approaches can be developed.[1] This has been recognized by the Governor's Task Force for the Preservation of Agricultural Land in its proposal for state purchase of the development rights of up to 325,000 acres of farmland.

However, concern is expressed that speculators use the program to lower holding costs in waiting for development. In doing this, the program facilitates more extensive speculative investment in land. A study written for the Connecticut Citizen Action Group found that in several suburbanized towns developers own large portions of the land classified under P.A. 490. Many parcels were found to be on the market or awaiting the right price.[2] It is impossible to obtain an accurate estimate of the percentage of enrolled lands held for speculation.

Most assessors responding to the 1972 Yale Forestry School survey approved of P.A. 490, but qualified their support by citing instances of abuse by investors. Many shared the view that the act does prevent forced conversion due to tax burden, while one assessor estimated that more than half the participating lands would remain open without the act because the owners could afford to pay for the privacy and aesthetic benefits of owning land.[3]

In the 1974 sample survey of Tolland County open land owners, cited above, 74% of participants felt that P.A. 490 had helped them hold their land. This result was fairly constant across income and occupation of owner and the size of holding.[4] However, this does not necessarily mean that the respondent would not sell at the right price.

In the same survey, only 9% of respondents who had purchased their land did so for investment or speculative purposes. Of these, 30% participated in P.A. 490. Of the 17% who purchased their land for farming or timber production, possibly indicating a longer term commitment, 58% were enrolled in the program.[5]

In Durham, Connecticut, the Open Spaces Study Committee concluded that granting wholesale open space classification to all undeveloped land helped to preserve the "rural-residential character" of the town. After extensive study of land development patterns and taxation policies in the town, they decided that the increased risk of rapid and uncontrolled development under market value taxation justified the additional tax shift caused by the local open space taxation policy.[6]

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[1]Fellows, Irving, "The Impact of Public Act 490 on Agriculture and Open Space in Connecticut," in Proceedings of the Seminar on Taxation of Agricultural and Other Open Land, Lansing: Michigan State University, April 1971.

[2]Sirico, Louis, and Charles Kahn, "Public Act 490: Environmental Benefit or Property Tax Loophole?," Connecticut Citizen Action Group, Hartford, May 1974.

[3]Brown et al., op. cit.

[4]Correspondence with John E. Wraight, Jr.

[5]Ibid.

[6]Report, December 1971.

The rate of withdrawal of land from under P.A. 490 has not been great. One interpretation is that, as intended, the act has benefited those interested in maintaining the current use of their land. However, a great deal of land has only come under the act in recent years as town revaluations have been conducted.

In the 1972 survey of 91 towns, assessors in 33 towns reported withdrawals of 5289 acres, or about 2% of participating lands, an underestimate not including towns which indicated a loss but did not report a figure. This total loss represents only about 2.6% of the 204,000 acre decline in agricultural and undeveloped lands in the 1960-1970 period, indicating that much of this land was never covered by the act.[1]

Clearly, however, much of the land under the act is available for development at the right price, and some is even advertised as such. Assessors generally know their towns and the patterns of sale and ownership: in one city the assessor estimated that 46% of the 940 acres of forest land and 45% of the 1082 acres of farmland under the act were held by speculators.[2]

The extent of reported withdrawals per town were generally small:

Acres Withdrawn	No. of Towns
500	2
201-350	9
101-200	8
51-100	7
1-50	7

Data for the 11 towns reporting withdrawals of over 200 acres are given below (Table 6). The greatest withdrawals are concentrated in urbanizing suburbs.

There is no way of determining what would have happened without P.A. 490. Available evidence and informed opinion suggest that it has helped maintain current use, but that it is not a strong enough incentive to prevent conversion of land to more intensive use for other reasons than tax burden.

F. Effectiveness in Controlling Urban Development

Because only the open space classification is granted at the discretion of the towns, P.A. 490 does not exert any control over the pattern of urban development other than allowing certain land to be held off the market. This can actually increase the pressure on more remote non-eligible lands. In practice, some farm and forest land now receives tax benefits in areas which would not conform to open space goals, including industrial zones. P.A. 490 is not viewed by most observers in terms of a control measure, and it certainly cannot fulfill this goal in its present form.

As noted above, several towns have designated all undeveloped land as open space to prevent forcing any development of land not covered by farm and forest provisions. While this does place a mandatory review on any development proposal, it still provides no guarantee against development and is not a substitute for effective planning. These measures reflect a no-growth sentiment, but have exclusionary overtones. In two cases, a central rationale for the open space zoning was that residential development was felt to produce an increase in the net tax burden on the town.[3]

[1] Plan of Conservation and Development, p. 34.

[2] Brown et al., op. cit.

[3] Durham Open Spaces Study Committee, Report, op. cit.

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Table 6

LANDS REPORTED WITHDRAWN AS A PERCENT OF LANDS EVER ENROLLED IN P.A. 490, 1972

Town	Population Density	% Population Increase 196-70	Total Acres Ever Enroll.	No. Acres Withdrawn	% Withdrawn
Clinton	629.9	146.4%	1881	222	11.8%
Coventry	222.4	28.1	4485	500	11.2
Cromwell	601.6	9.1	1800	300	16.7
Danbury	1209.1	28.9	3406	207	6.1
Enfield	1043.9	46.8	7783	500	6.8
Fairfield	1895.5	22.3	1098	342	31.3
Guilford	258.2	52.1	9543	300	3.1
Madison	271.3	113.9	12224	300	2.4
Meriden	2361.1	7.9	2328	300	12.9
Newington	1972.5	47.4	567	300	52.9
Stratford	2877.2	10.6	393	270	68.7

Source: Brown, Lauren, et al., "Connecticut Public Act 490: Interpretation, Application, and Effects," Yale School of Forestry, New Haven, May 1972.

G. Provision of Recreational Opportunities

The reduction of tax pressure on open lands will ultimately contribute to increasing options for recreational use, but there is no apparent direct link of P.A. 490 with provision of recreational opportunities aside from isolated examples. In one town, one golf course is granted use-value assessment because it is on the plan of development as open space, but another one is assessed at market value because it is not. No consistent statewide trends could be detected.[1]

H. Preservation of Scenic Vistas

While P.A. 490 undoubtedly aids in this goal, and it is specifically mentioned in the statute, scenic preservation has not been a central motivation for classification except in isolated instances. A State program is underway to buy $5 million worth of scenic easements along the lower Connecticut River, but there is not an announced policy on how these lands will be taxed. Presumably much of the land is either under P.A. 490 or preferentially assessed already although assessors may have to be petitioned to reduce assessments to the land value as restricted.

[1]Conversation with Charles Sweeney, Assessor, Town of Hamden.

I. Equity

The aggregate tax shift resulting from use-value assessment is less dramatic in Connecticut than elsewhere because land comprises a smaller portion of the state's grand list (5.8%) than in many other states.[1] (At market value assessment, land might increase to 10%.) However, on the local level, the shift is significant in particular areas.

Discussions with assessors indicate that, historically, undeveloped land has been assessed considerably below market value, because this was seen as in the best interests of the community. The continuation of this practice accounts for the fact that some rural towns have no land under P.A. 490, even though market values are high enough to warrant it. While P.A. 490 legitimized this practice for certain lands, the question is whether or not tax shift should be calculated on the basis of a market value that was never used or on the basis of de facto public policy as expressed in assessment practices and condoned for decades by the State and localities. Dr. Fellows calculated the tax impact for three categories of towns, finding that use-value assessment would cause a negligible shift when compared to historical practice. He maintains that it would be dishonest to judge tax shift on the basis of a hypothetical ideal that never was achieved.[2] (See Table 7)

Table 7

PERCENT OF TOTAL TAX REVENUE DERIVED FROM EXISTING OR POTENTIAL FARM, FOREST AND OPEN-SPACE LAND

Degree of Urbanization in Sample Towns	Assessment at Existing Values	Re-evaluation at 1968 Market Values	Re-evaluation and Use-Value Application
Rural	7.0	45.0	9.1
Rurban	2.9	9.8	4.4
Urban	2.1	2.5	1.7

SOURCE: Fellows, "The Impact of Public Act 490," op. cit.

The Governor's Commission on Tax Reform called for the revaluation of all undeveloped land not eligible for P.A. 490. This would force all eligible lands into the program and theoretically shift the development pressure to the land that is of a lower preservation priority. In a detailed assessment-sales ratio study of six towns, the Commission found that the ratio for undeveloped land is about one-third the ratio for other real estate.[3]

[1] Connecticut, Public Document No. 48, 1974.

[2] Fellows, "The Impact of Public Act 490," op. cit.

[3] Report of the Governor's Commission on Tax Reform, op. cit., v. 2, p. 113.

The spatial pattern of tax shift has been debated. Based on data collected in a sample of 12 towns, Robert and Justine Schoeplin found that the tax shifted away from P.A. 490 lands and the corresponding mill rate increases were greatest in urbanizing suburbs.[1] (See Table 4 above, p. 210). Accepting these data for Enfield, an owner of a $30,000 house there would have paid an additional $24 in 1971 on top of a tax bill of $677 (this is a conservative estimate because the base tax has not been adjusted downward for the effect of a lack of P.A. 490. It could be argued that the development which would occur in the absence of P.A. 490 would increase the tax bill). The greater difference between use-value and market value in rapidly developing areas with a large supply of land would account for this larger shift. One problem with these data is that Enfield and Glastonbury have particularly large amounts of land under P.A. 490. There are also indications that remote areas with large areas of forest have been hit with revenue problems.[2]

The lack of any visible or organized public outcry has been cited as proof enough that the shift is not overly burdensome. Indeed, in towns with large open space programs, there seems to be strong support for the program. It is hard to tell whether the lack of opposition is due to a combination of ignorance of the extent of shift and overestimation of the actual guarantees provided by the program or to a knowing acceptance of the costs.

A further policy issue which the act presents is whether or not it bestows undeserved benefits on developers and speculators who have no intentions of keeping the land open. On the one hand, it can be argued that the public benefit of keeping the landopen for one year can be measured by the tax on the difference between market and use value. This approach denies the need for any recapture while eliminating concern that speculators will benefit. Although this view has been espoused by farm interests and some State level analysts, the pervasiveness of recapture provisions in state laws across the country indicates it is an unpopular principle. On the other hand, it can be argued that, in return for the tax benefits, land should be held out of development for a longer period of time. In this case, early sale should be penalized by recapture of the tax subsidy, and the need for some minimum time guarantee is suggested.

While it is probably true that the majority of landowners under the act do not intend to change the use of their land soon, glaring abuses of the law do occur, especially in more urbanized suburbs. A farmer in an industrial zone can sell off two acre portions at $15,000 per acre and still benefit from use-value on the remaining 30 acres, but Dr. Fellows and others have recommended complete termination of P.A. 490 availability in this situation.[3] Under some interpretations, forest landowners would continue to receive tax benefits even if a development plan had been filed and approved by the town, although Dr. Fellows recommended termination in this case, too.

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[1] Schoeplin and Schoeplin, op. cit.

[2] Conversation with George Simpson, Executive Secretary, Connecticut Farm Bureau.

[3] Marshall v. Town of Newington, op. cit.; Correspondence with Dr. Irving Fellows.

J. Ease and Cost of Administration

In most situations, P.A. 490 imposes little additional burden on local assessment administration.[1] The use of standard or arbitrary value guidelines, the broad court interpretation of "farm unit," and theautomatic eligibility of state-certified forestland and locally designated open space land all contribute to ease of administration. While the process involves some negotiation with landowners, this is not necessarily greater than in conventional assessment.

The dropping of the annual application requirement in 1974 cut down on the paperwork for participants and assessors but also requires increased watchfulness on the part of the assessor for violations and changes in use. Now, once lands are classified, they do not leave the program until sale or change in use. For the purposes of calculating the conveyance tax, this change has cleared up considerable uncertainty over when it applies. The land records are now marked upon initial classification rather than each year.

The conveyance tax approach to recapture obviates the necessity of dual assessments. Several towns do keep dual assessments, partly to keep politicians informed of the tax loss involved. However, the market values are never challenged because they are never used. Towns that employ consultants for revaluation generally obtain assessments for the entire town at market value, and the assessor then applies use-values to classified lands.

The burden of keeping track of change in use is theoretically no greater than in the absence of P.A. 490 though the stakes are higher. Most assessors, particularly in areas of active development, have a good idea of the status of particular tracts of land.[2]

As the number of forest land applications has grown, the burden of certification has shifted in part to the local level which is where there is self-interested incentive to be thorough. Though the state initially performed field checks on all applications, this was not required and is no longer feasible with 500 to 600 applications annually. Now the landowner andlocal assessor must agree on all technicalities, implying field checks by the assessor if necessary. The State Forestry Office has received complaints from assessors about added administrative work ever since the act was passed in 1963.[3]

K. Political Feasibility

P.A. 490 has gained widespread political acceptance over its lifetime. Aside from imposition of the conveyance tax in 1972, legislators have resisted any but minor changes in the original law. The strong opposition of certain assessors has been overcome by the courts to thepoint that they have generally accepted the law as state policy. However, some still attempt to whittle away at benefits to participating lands, in the opinion of farm groups.[4] Public opposition has not been widespread due either to a general acceptance of the use-value assessment principle or to lack of awareness of the full costs and benefits.

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[1]Conversation with Peter Marsele, Assessor, Town of Bloomfield.

[2]Ibid.

[3]Department of Environmental Protection records.

[4]Conversation with George Simpson, Executive Secretary, Connecticut Farm Bureau Fed.

Awareness of the value of preserving open lands has grown in Connecticut as elsewhere, and the legislature has felt pressure to take definitive action in land use. In this atmosphere the imputed benefits of P.A. 490 are generally held to outweigh the particular drawbacks involved.

The principle of use value taxation is firmly entrenched, and any attempts to tamper with the present law meet with strong resistance from both farm interests and sportsmen's groups, as well as some urban-oriented conservationists. The Commission on Tax Reform proposals appear to be the strongest change that could be expected, but even those have met with stiff opposition. The present compromise conveyance tax served to pacify opponents somewhat, while exempting most participating landowners by basing the penalty on time since initial classification or acquisition, whichever is first.

Although P.A. 490 is seen as imperfect, use-value assessment is considered necessary, and there seems to be a strong resistance to substantial changes in the law either to tighten up the eligibility requirements or strengthen the conveyance tax.

PERSONS INTERVIEWED

Connecticut Department of Environmental Protection

Armando Carbonell, Senior Environmental Analyst, Office of Planning and Research

Joseph Laforte, Chief Environmental Analyst, Office of Planning and Research

State Tax Department

Robert Prendergast, Interim Head, State Board of Assessment Advisors

John Tarrent, Director of Research

Department of Agriculture

Joseph Ruwet, Deputy Commissioner

Donald Tuttle, Secretary, State Board of Agriculture

Local Assessors

Peter Marsele, Assessor, Town of Bloomfield

Charles Sweeney, Assessor, Town of Hamden

Agriculture

Dr. Irving Fellows, Department of Agriculture and Natural Resources, University of Connecticut

Dr. Paul Waggoner, Director, Connecticut Agricultural Experiment Station

George Simpson, Executive Secretary, Connecticut Farm Bureau Federation

Organizations

John Hibbard, Forester, Connecticut Forest and Park Association

Katherine Preston, Connecticut Citizen Action Group

I.E.2. STATES WITH SPECIAL PROVISIONS: NEW YORK[1]

I. INTRODUCTION

Over the past 125 years, land in farms in New York State has risen to and fallen from a high of almost 24 million acres in 1880 to about 10 million acres in 1969. (See Figure 1). The number of farms has declined as well, from a high of 241,000 in 1880 to 52,000 in 1969. Much of this decline can be attributed to the retirement of marginal land which could not maintain a competitive advantage over farmland elsewhere. In addition, many farmers sought other kinds of work and still others were forced from farming near the state's cities by expanding urbanization. With regard to the process of urbanization, land speculation has caused some farmers or other land owners who rent to farmers to cease capital investments in their farms in anticipation of large profits from development which may or may not ever occur (Conklin and Dymsza, 1972). Moreover, leap-frogging and strip development leaves much farmland amidst suburban development thereby imposing difficulties on farm operations, such as ordinances restricting use of pesticides and fertilizers, or increases in property taxes, or water and sewer district taxes. As a result many farmers are forced to stop production in these areas or to sell out.

A series of state planning or zoning ideas and farm-value assessment bills were proposed in the 1960's to protect farmland primarily from urban pressures, but these failed to win approval (Conklin, 1974). A five year exemption from real property taxes on improvements in construction of farm buildings, drainage systems, and so forth has been in effect since 1968, however (Linton, and Conklin and Bryant). The law of interest in this report, the Agricultural Districts Law passed in 1971,[2] is a compromise on past proposals (conversation with Howard Conklin).

Specifically, the straight preferential assessment advocated by farmers, the executive branch's desire for zoning critical areas in order to reserve agricultural regions, and the legislature's opposition to such critical area zoning, resulted in the current agricultural districting law. The offspring of this governmental union, the "agricultural districts," are a set of regions in primarily agricultural use with legally specified boundaries in which there are certain benefits accruing to farmers actively engaged in agricultural activities and, in some cases, to owners of all land in the district. These benefits are designed to encourage continued farming for at least several years by softening or eliminating some pressures of expanding development. In Section II, the main features of this law are described in detail, and in Section III perceptions of the purposes of the law, participation rates in agricultural districts, and other aspects of effectiveness and equity are discussed.

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[1]Many helpful comments on an earlier draft were provided by William Bryant at the New York State College of Agriculture and Life Science; he is in no way responsible for any shortcomings, however.

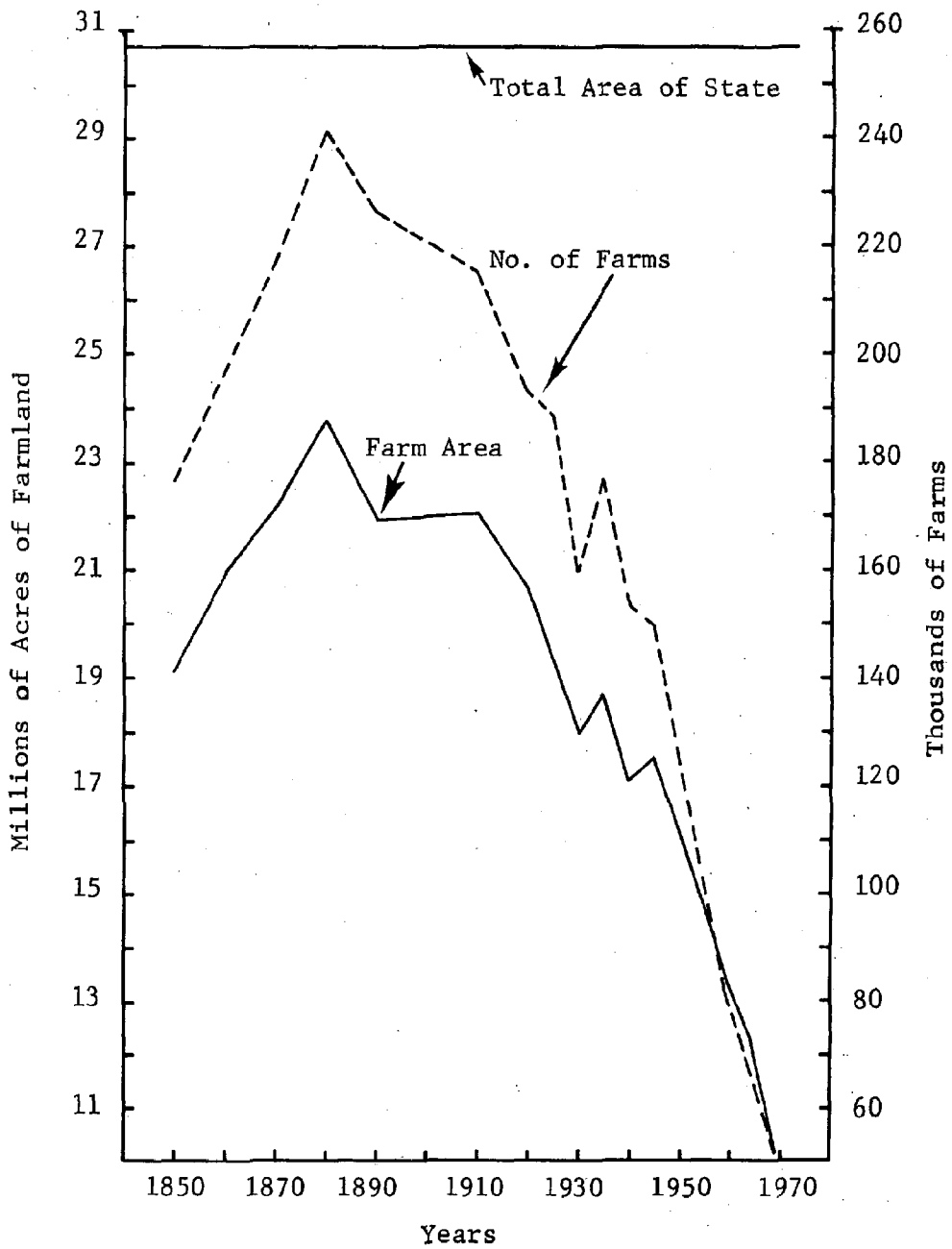
[2]Ch 479, SLNY 1971; Chs 700, 712, SLNY 1972; Chs 232, 390, SLNY 1973; and Chs 169, 552, 864, SLNY 1974; or see W. R. Bryant and H. E. Conklin, "Legislation to Permit Agricultural Districts in New York as Amended through 1974," Department of Agricultural Economics Report A. E. Ext. 74-17, New York State College of Agriculture, Cornell University, 1974.

Figure 1

NEW YORK STATE:

LAND IN FARMS AND NUMBER OF FARMS,

1850 - 1969



II. DESCRIPTION OF THE AGRICULTURAL DISTRICTING LAW[1]

A. Goals

The goals of New York's Agricultural Districts Law are to "conserve and protect and to encourage the development and improvement of (the State's) agricultural lands for the production of food and other agricultural products... (and) to conserve and protect agricultural lands as valued natural and ecological resources which provide needed open spaces for clean air sheds, as well as for aesthetic purposes." The goals of the law are especially oriented toward "viable" and "unique and irreplaceable"[2] farmland near metropolitan areas which are subject to speculation, rising farm taxes, ordinances restricting farming activities, and use of eminent domain in converting farmland to uses which serve nearby urban areas.

B. Benefits to Farmers

The law provides for two alternative sets of benefits for farmers, one for those participating in agricultural districts, the other for farmers outside agricultural districts.

For agricultural districts, the law specifies five types of benefits:

1. The option to apply for differential (i.e., agricultural use value) assessment, subject to a five year rollback penalty on land (including split-offs) that is converted to nonagricultural uses. The requirements for differential assessment, which must be applied for annually, are that the land be at least ten acres in area and have been used for the two preceding years for production and sale of a gross average of at least $10,000 of agricultural products (barring drought, flood, or other natural disasters). Calculation of the agricultural use value of farmland to farmers and soil capabilities are described in some detail below in Section II.E.

2. Prohibition of local regulation in agricultural districts "which would unreasonably restrict or regulate farm structures or farming practices...unless such restrictions or regulations bear a direct relationship to the public health or safety."

3. Encouragement of state policies oriented toward "maintenance of viable farming in agricultural districts...".

4. Review by the state Commissioner of Environmental Conservation of a) local exercise of eminent domain which would acquire land or interest in land in agricultural districts, and b) the intention to advance public funds "for the construction of dwellings, commercial or industrial facilities, (or) water or sewer facilities to serve nonfarm structures..." in agricultural districts. This does not give the Commissioner power to veto such acts; it only attempts to ensure that alternatives are fully explored.

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[1]All quotations are from the law (Amendment to the Agriculture and Markets Law, Article 25-AA) unless otherwise specified.

[2]The law defines viable agricultural land to be "land highly suitable for agricultural production and which will continue to be economically feasible for such use" if speculative tax, and other restrictive actions are limited. Unique and irreplaceable agricultural land is that which is "uniquely suited for the production of high value crops..."

5. Prohibition of assessments or taxes on land used primarily for agricultural production in agricultural districts for "...special districts for sewer, water or lights or for non-farm drainage," except on land on which a farm dwelling or nonfarm structure is located.

Thus within agricultural districts a farmer is protected from taxes due to expanding urbanization, and from some aspects of the police power and eminent domain which could be used to aid urbanization. In addition, the expansion of urbanization is discouraged to some extent by features 2, 3, 4, and 5.

Outside agricultural districts, a farmer may make an annually renewable eight-year commitment to keep his land in agriculture in return for a differential assessment. To qualify, the land must be at least ten acres in area and have had a gross average production of at least $10,000 per year over the preceding two years. The penalty for breach of commitment is payment of twice the (nondifferential) taxes on all the land committed (whether converted or not) in the year after the breach of commitment plus, of course, the regular (nondifferential) taxes on the land in the year after the breach of commitment.

There are no sanctions on conversion of land within an agricultural district to nonagricultural uses except the rollback penalty on differentially assessed land that was converted, if differential assessment was applied for and granted. (If the farmer wishes to develop his own land the hindrances on development described as benefits 2 through 5 may be considered as sanctions of a sort). Consequently, the law is far weaker than zoning for agriculture but slightly more powerful than just differential assessments in encouraging agriculture.

C. Creation of Agricultural Districts

Creation of agricultural districts can occur by two means. The first is initiated by interested farmers who must file a proposal with the county legislature complete with maps showing the boundaries of the proposed district. The minimum size of such a district is 500 acres, thus guaranteeing that most districts are continuous blocks of several farms rather than isolated farms (see Bryant). Thus, the idea is to protect districts whose area exceeds a "critical mass." The county legislature then becomes the focus of activities which usually take from six months to a year to complete before a district becomes effective. Public hearings are required, recommendations are solicited from the County Planning Board and from the Agricultural Districting Advisory Committee (consisting of four active farmers, four agribusinessmen residing in the county, and a member of the county legislature).

Certification of the plan is approved or disapproved by the Commissioner of Environmental Conservation after receiving recommendations from the State Agricultural Resources Commission and the Director of the Office of Planning Services. The process is outlined in Figure 2. It attempts to incorporate a variety of opinions on the viability of active farming within the proposed district and adjacent areas, the agricultural viability of land in the proposed district or adjacent areas not in agriculture, the extent and nature of land not in agriculture in the proposed district and adjacent areas, and county development patterns and needs.

The second process for creating agricultural districts is state-initiated. Starting in September 1975 (although this may be delayed) the Commissioner of Environmental Conservation may create agricultural districts of 2,000 or more acres if the land delineated by the Agricultural Resources Commission is predominantly unique and irreplaceable agricultural land and if agricultural use is consistent with state plans. This procedure requires recommendations from the Agricultural Resources Commission, the Office of Planning Services, the Director of the Division of the Budget, "local elected officials, planning bodies, agriculture and agribusiness interests, community leaders, and other interested groups." Public hearings are also required.

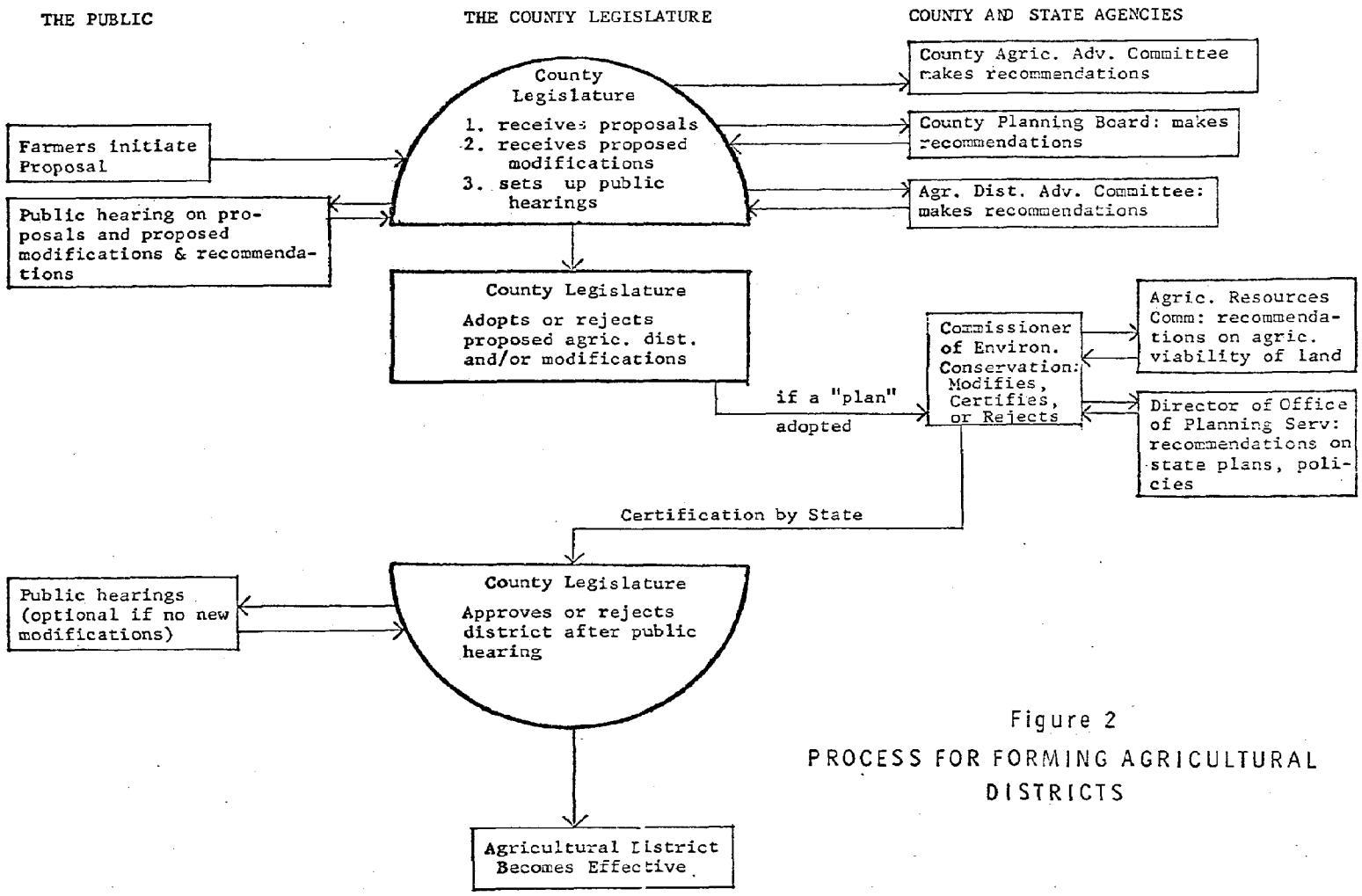

Figure 2

PROCESS FOR FORMING AGRICULTURAL DISTRICTS

Under either process of creation of agricultural districts, a review of the boundaries of the agricultural district takes place eight years after the district was created (and every eight years thereafter) and modifications can be made only at that time. For those districts formed by the first (farmer-initiated) method, the county legislature undertakes the review, asking for recommendations from the county planning board and the agricultural advisory committee and holding a public hearing. The Commissioner of Environmental Conservation may terminate a district at that time. For those districts formed by the second (state-initiated) method, the Commissioner of Environmental Conservation, in consulation with the Agricultural Resources Commission, the Office of Planning Services, and the Division of the Budget, undertakes the review. Consultation with "local elected officials, planning bodies, agricultural and agribusiness interests, community leaders, and other interested groups" is required, as is a public hearing. A more detailed discussion of the required procedures may be found in sections 303 and 304 of the law.

D. Other Features of the Law

In order to forestall possible inequities in the relative tax burden borne by nonfarmers under a preferential taxation scheme in agricultural districts created by the state-initiated method only, the state "shall provide assistance to each taxing jurisdiction in amount equal to one-half of the tax loss that results from requests for agricultural value assessment in the district." Since no state-initiated districts have been created, it is not possible to report on experience with such a state subvention.

E. Calculation of Agricultural Use Value

The State Board of Equilization and Assessment calculates agricultural use value "factors" per acre for various types of farmland, for each county. These "factors," measured in dollars per acre, are "indicative of an agricultural market value unencumbered by urban pressures."[1] They are to be used by the local assessor in computing agricultural value assessment and "are absolute to the extent that they may not be raised or lowered by the assessor."[1,2]

Agricultural use value factors are updated annually on the basis of recent sales of farmland for farm purposes and on the basis of type of agricultural activity occurring on the specific parcel of land in question. Public hearings are also held to establish the factors. No information on the exact methodology of computation of agricultural use value factors was available as of this writing.

To give an idea of the detail involved, the agricultural use value factors per acre are determined for the following kinds of farm uses:[3]

[1]"Annual Certification of Agricultural Value Factors," Memorandum, State of New York, State Board of Equilization and Assessment, April 18, 1975.

[2]There has been disagreement in interpreting just what these use value factors are. William Bryant (personal communication) has pointed out that originally they were intended to serve as ceilings below which a local assessor must operate. Later, however, the factors took on an absolute value from which local assessors could not deviate.

[3]Source: Adapted from Memorandum of April 18, 1975 from State Board of Equalization and Assessment; Subject: Annual Certification of Agricultural Value Factors.

I. Cropland

E. suited to the production of high value vegetable crops
A. suited to the production of some grains, grasses, and lower value vegetable crops
B. suited to the production of corn silage, hay, and small grains
C. "tillable pasture"

II. Orchard

A. with a yield of 550 bu. or more of apples per acre, 6 tons of cherries or more per acre, etc.
B. with a yield of 400 bu. or more of apples per acre, 4 tons of cherries or more per acre, etc.
C. with lower yields than B.

III. Vineyards

A. yielding 5 tons of grapes per acre or more
B. yielding 4-5 tons of grapes per acre
C. yielding less than 4 tons of grapes per acre

IV. Muck

A. suited for onions and lettuce; depth of muck at least 6 feet, good drainage and guaranteed irrigation
B. suited for various vegetables, depth of muck 3 feet to 6 feet, some flooding damage, and occasional lack of irrigation water
C. suited for potatoes, sweetcorn; depth of muck less than 3 feet; regular flooding.

V. Pasture

VI. Other Farmland

For 1975, "Other Farmland" is generally of the lowest value per acre in most counties (e.g., a factor of $25 per acre), whereas the factor for vineyards often exceeds $1000 per acre in value in counties where grapes are grown. Highly urbanized counties such as Suffolk on Long Island contain cropland whose agricultural use value factor exceeds $1000 per acre as well.[1] Table 1 shows the agricultural value factors as of April 18, 1975.

III. EVALUATION OF THE AGRICULTURAL DISTRICTING LAW

By way of introduction, it is helpful to summarize some of the main points concerning the purposes of the law made by several observers[2] who are familiar

[1]See Memorandum cited in previous footnote. Whether this higher value in urban areas excludes all development value is subject to debate.

[2]Specifically, Howard Conklin, Professor of Land Economics, New York State College of Agriculture at Cornell University, H. Ira Blixt, Tom Johnson, Eric Kresse, and Bill Pendergast, of the Cooperative Extension Service in Cortland County, Oswego County, Oneida County, and Orange County, respectively.

TABLE 1

AGRICULTURAL VALUE FACTORS

County	PER ACRE														
	CROPLAND				ORCHARD			VINEYARD[1]			MUCK			Pasture	Other Farm Land
	E	A	B	C-Incl. Tillable Pasture	A	B	C	A	B	C	A	B	C	P	O
Albany	450	325	175	100		450	275							60	25
Allegany		225	115	60										35	25
Broome	425	275	165	90	550	375	190							55	35
Cattaraugus	425	275	115	55				1000	725	500				35	25
Cayuga		275	175	90	475	325	200				700	500	300	55	25
Chautauqua	425	325	175	100	675	475	300	1025	750	475				45	25
Chemung	425	275	165	90										55	35
Chenango	450	300	175	90										60	25
Clinton	250	175	125	65	575	375	300							45	25
Columbia	575	375	250	150	700	525	350	1050	750	525				150	60
Cortland	450	300	175	100										60	25
Delaware	450	300	175	90										60	25
Dutchess	600	400	300	175	825	625	350	1050	750	525				150	60
Erie	950	400	225	115	675	500	325	1050	775	500				90	50
Essex		175	100	60	525	350	275							35	25
Franklin	325	175	100	60										35	25
Fulton	250	175	125	70										35	25
Genesee	450	325	200	115	525	350	175				1700	1200	300	70	25
Greene		300	175	90	525	350	175							60	25
Hamilton		175	100	60										35	25
Herkimer	425	275	165	90										55	25
Jefferson	350	225	150	70										35	25
Lewis		225	150	80										50	25
Livingston	450	300	175	100				1000	700	450	700	500	300	60	25
Madison	425	300	175	100	450	325	175				700	500	300	60	25
Monroe	450	325	175	100	725	525	350	1000	700	450				60	25
Montgomery	375	200	150	75	550	400	200							55	25

[1]Vineyard Factors as listed do not include value of trellis.

Table 1 Continued AGRICULTURAL VALUE FACTORS

County	PER ACRE														
	CROPLAND				ORCHARD			VINEYARD[1]			MUCK			Pasture P	Other Farm Land O
	E	A	B	C- Incl. Tillable Pasture	A	B	C	A	B	C	A	B	C		
Nassau	1400	1100	825	525											
Niagara	700	300	175	100	625	450	275	1000	700	450				60	25
Oneida	425	275	165	90	550	375	200				700	500	300	55	35
Onondaga	450	300	175	100	625	450	275				700	500	300	60	25
Ontario	450	300	175	100	625	450	275	1000	700	475	700	500	300	60	25
Orange	600	400	300	175	825	625	350				1000	700	300	150	60
Orleans	450	300	175	100	625	450	275				1700	1200	300	60	25
Oswego	350	225	150	80	625	450	275				1200	800	300	50	25
Otsego	425	300	175	90										60	25
Putnam	600	400	300	175	825	625	350							150	60
Rensselaer	475	300	200	125	650	475	275							70	35
Rockland	600	400	300	175	825	625	350	1050	750	525				150	60
St. Lawrence		175	125	70										35	25
Saratoga	450	300	200	125	650	475	275							70	35
Schenectady	450	325	175	100										60	25
Schoharie	575	300	175	100	625	450	275							60	25
Schuyler		275	165	90	475	275	200	1000	725	500				55	35
Seneca		225	175	90	450	275	175	1000	700	450	700	500	300	60	25
Steuben	425	275	165	90				1000	725	500	1200	800	300	55	35
Suffolk	1400	1100	825	525	1625	1275	925	1875	1475	1075					100
Sullivan		300	175	100										60	25
Tioga	425	275	165	90										55	35
Tompkins	450	300	175	90				1050	750	525				60	25
Ulster	600	400	300	175	825	625	350	1050	750	525				150	60
Warren		300	200	125										70	35
Washington	475	300	200	125	650	475	275							70	35
Wayne	450	300	175	100	725	525	350	1000	700	450	700	500	300	60	25
Westchester	600	400	300	175	825	625	350							150	60
Wyoming	450	275	175	90	675	475	275							55	35
Yates	450	300	175	100	625	450	275	1050	750	525	700	500	300	60	25

[1]Vineyard Factors as listed do not include value of trellis.

Source: Memorandum of April 18, 1975, from State Board of Equalization and Assessment: Annual Certification of Agricultural Value Factors.

Capability Ratings are defined as follows:

Cropland

E - Suited to the production of high value vegetable crops including fresh grown tomatoes, carrots, beets, broccoli, peppers, celery, strawberries, melons, spinach and lettuce. Availability of irrigation water is assured.

A - Suited to the production of corn for grain, alfalfa, wheat and lower value vegetable crops, such as cabbage, potatoes, sweetcorn, snapbeans, processing tomatoes and dry beans. Capable of yielding over 100 bushels of corn, 3 1/2 tons of alfalfa, and 50 bushels of wheat per acre. For vegetable crops, minimum yield capabilities per acre are: cabbage, 25 tons; potatoes, 300 hundred weight; sweetcorn, 6 tons; snapbeans, 3 tons; processing tomatoes, 20 tons; and dry beans, 1 ton.

B - Most commonly used for corn silage, hay and small grains, though lower value vegetable crops may be grown. Corn silage yield capability is 15 tons or more per acre; alfalfa grass mixtures yield 2 tons or more per acre. Yields for vegetable crops are below those for "A" rated cropland.

C - Most commonly used for dairying. Corn is mostly for silage and yields are under 15 tons per acre. A high proportion is hay with some grass, alfalfa and clover, and yields may fall under 2 tons per acre. Oats are sometimes grown, and oat yields are usually under 60 bushels. Vegetables are seldom produced commercially. When land is used for pasture, yields are comparable to yields for hay.

Orchards

A - Orchard will yield 550 bushels or more of apples per acre, 6 tons of cherries per acre or equivalent yields of less common fruits.

B - Orchard will yield 400 bushels of apples per acre, 4 tons of cherries per acre or equivalent yields of less common fruits.

C - Orchards which yield less than the amounts indicated in "B" above. *Fruit orchards not capable of yielding 300 bushels of apples per acre, or 2 1/2 tons of cherries per acre should be considered as cropland with a "B" rating.

Vineyards

A - Vineyard yielding 5 tons of grapes per acre and above.
B - Vineyard yielding between 4 and 5 tons of grapes per acre.
C - Vineyards yielding less than 4 tons of grapes per acre.

Muck

A - Suited for growing onions and lettuce. Yields 750 bushels or more of onions per acre. Depth of muck is greater than 6 feet. Drainage is good enough to preclude flood damage to crops. Irrigation water rights are assured.

B - Suited for growing onions, lettuce, celery, spinach, and carrots. Onion yields are generally 600 bushels per acre. Depth of muck is between 3 to 6 feet. Occasional damage from flooding, and irrigation water may be scant in some years.

C - Limited to growing potatoes, sweetcorn, and other moderate intensity crops. Depth of muck is under 3 feet. Legal rights to water for irrigation may be questionable. Spring and fall flooding may restrict use.

P - Pasture - Land used as permanent pasture which has not been plowed within 5 years. Consists predominantly of native grasses.

O - Other Farmland - Nontillable lands with severe limitations; may be swampy, rocky, or over-grown with nonmarketable trees, but is an integral part of the farm and is not used for any nonfarm purpose.

Source: State Board of Equalization and Assessment

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with the creation of agricultural districts. Perception of the goals of agricultural districts varied depending upon the observer's viewpoint. In Orange County where agricultural and nonagricultural rural land has been assessed at a fairly high exchange value in anticipation of suburban development, the law is seen to be advantageous to farmers primarily because of its differential tax provision, rather than for the other benefits to farmers discussed in the previous section. By way of contrast, in a county where farm real estate taxes are low and there is little to be gained from differential assessment (a category which includes most counties) farmers have not applied for agricultural use value assessments. The benefit of the law in these cases is seen to be the reduction of the pressures of suburbanization and other development such as large scale improvements or highway construction and their attendant special taxes. Thus the "premature retirement" of farmland is curtailed.

Taking a larger view of the philosophy behind the law, there is still some divergence of opinion. Some see agricultural districts as encouraging orderly development of rural areas so that leapfrogging and strip development are averted and better planned expansion of the suburbs accomplished. Alternatively, but perhaps as the other side of the same coin, others see the law as a means for establishing agricultural reserves where land can be set aside on which agriculture has priority over other uses. Which view, if either of these, squares best with the actual results can be determined only after further experience with the law. With respect to farm real estate taxes, most observers agree that, as Howard Conklin put it, "farm value assessment cannot keep land in farming but high assessments can drive farmers out."

Participation in the agricultural district program is summarized in Table 2; as of February 14, 1975 participation ranged from no acreage in some counties to virtually 100% of all farmland in others. The table shows that agricultural districts are not concentrated in large urban areas (those counties classified as being in a Standard Metropolitan Statistical Area--SMSA--in 1970)[1]. This perhaps surprising result may be due to several factors. First, much of the urban farmland may be preferentially assessed already, in fact if not in law, so there is little incentive to form a district on this count. Second, many farmers in these urban areas may be intent upon selling out to land speculators or developers in the near future. Third, small urban areas not in SMSA's, may put considerable pressure on some farmers to form districts. Fourth, assessments outside SMSA's may be relatively high as in Orange County thus inducing farmers to form districts. And, fifth, nonurban-area farmers may be better able to plan over a longer time horizon than those under potential pressure to sell to urban developers or speculators and so are more apt to form districts. There is, after all, a lot of effort required to form a district and one wants to be sure the effort is worth his while.[2]

Concerning differential assessment per se, the general impression of those people interviewed is that although formation of agricultural districts has proceeded rapidly, applications for differential assessment have been few except in cases such as Orange County. However, as rural land assessments rise, more farmers can be expected to seek agricultural use value assessments. Finally, very little application for differential assessments outside agricultural districts has taken place anywhere in the state.

[1]The reader should keep in mind that the denominator of the concentration index is 1969 acreage in agriculture which may have substantially changed in the period 1969-1975. The agricultural district data in the numerator of the index are for 1973, 1974, or 1975.

[2]See also Nelson Bills (n.d.)

Table 2

SUMMARY OF STATISTICS ON AGRICULTURAL DISTRICTS IN NEW YORK STATE*

A. Participation Over Time

Date	No. Districts	No. Acres (Index of Concentration in SMSAs)**	No. Farms	% of 1969 Farm Acreage in Districts
By Aug. 22, 1973				
Total formed or in process***	78	612,496 (0.66)	2923	6.0%
By Jan. 15, 1974				
Total formed or in process***	120	1,079,054 (0.70)	4296	10.6%
By Feb. 14, 1975				
Total	210	2,436,547 (0.70)	8073	24.0%
Formed	174	1,813,171	6075	17.9%
In process***	36	623,376	1998	6.1%

B. Number of Districts Rejected, 3

C. Largest District as of Feb. 14, 1975 159,760 acres (250 square miles)
Smallest District as of Feb. 14, 1975 700 acres (1.1 square miles)

* Source: Agricultural Resources Commission: "Agricultural Districts Status Reports" Nos. 18 and 31; and "Agricultural District Information."

** Index of Concentration in SMSAs = x/y where x = (acreage in districts in SMSAs/total acreage in districts in the state) and y = (acreage of farmland in SMSAs/total acreage in farmland in the state); if index is less than 1.0, SMSAs are receiving less than their "share" of land in districts. (acreage in farmland is for 1969, data from 1969 Census of Agriculture)

*** "In process" means certified, under review or being reviewed by Agricultural Resources Commission.

Because of limited experience with the differential assessment aspects of the program, the tax shift from farmers to others is not evaluated here. The Orange County experience may even yield spurious results since the conversion value of land appears to have been overestimated by the assessors in many people's opinion. Conversions of agricultural land to nonagricultural uses within the districts has been spotty and no pattern is yet discernible.

Opposition to the agricultural districting law is weak and seems to be associated primarily with individual situations. There are some community leaders who favor unrestrained suburban development and see the limitations imposed by the law as a hindrance. Others are skeptical of the effectiveness of the law in retaining land in agriculture as there are few sanctions for converting land to nonfarm uses within a district (essentially none if the land is not differentially assessed).

IV. IMPROVEMENTS IN THE LAW

Improvements in the law may be required in several areas, according to the cooperative extension service agents interviewed. Among their suggestions are: a) shortening the time and paperwork procedures for creating a district, especially for the farmers who initiate proposals for districts; b) clarification of the procedure used to calculate the gross income from rented land--is it the exchange value of the products grown on that land (e.g., hay) or is it to be included as part of the exchange value of the final farm output (e.g., milk from cows which ate the hay but whose barn is on other land?); c) lowering the requirement of $10,000 average gross income so that retired farmers are not forced to sell out immediately; d) combining the gross income from land owned separately by husband and wife so that the minimum income requirement can be met; and e)permitting farmland to be valued at farm value for state inheritance tax purposes.

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II. TECHNICAL ANALYSES -- SUPPLY AND DEMAND STUDIES

A. TECHNICAL ANALYSIS OF THE FARM SHOW SURVEY

This section is intended to present a technical discussion of the materials in Chapter IV of Part One concerning the supply side of the market for conversion of land. Specifically, it is concerned with a survey of farmers visiting the Pennsylvania Farm Show in January 1975. This survey was undertaken to identify major trends in farmers' thinking about reasons for selling their farms and to shed light on the variations in importance ascribed to these reasons. A total of 69 useable responses was obtained from 71 sample farmers. The questionnaire itself is reproduced at the end of Section II with a summary of the responses. It should be noted that the farmers are not a random sample of all Pennsylvania farmers, as people most likely to attend the Show were those strongly committed to farming.

1. Underlying Reasons for Selling

Two types of analysis were performed. First we wished to identify the major dimensions of reasons for selling which underlie the responses given to the question asking the farmers to rate the importance of each of eleven reasons for selling on a scale of 0 to 100. To do this the eigenvectors of the 11 by 11 correlation matrix of ratings given to these reasons were extracted. See Table 1. Four underlying dimensions, each corresponding to one of the eigenvectors, summarize the reasons for selling: economic, demographic, secondary, and transitional reasons.

Because many readers may not be familiar with this technique, we offer a simplified discussion of it. The extraction of the eigenvectors of a correlation matrix (which is the standardized covariance matrix) constitutes a rigid rotation of the axes of the original eleven dimensional space of reasons for selling, where each original dimension corresponds to one of the eleven reasons. By rotating the axes it is possible to combine several of the original dimensions which are highly correlated into just one new dimension without losing much of the original variance. For example, in two dimensions, suppose variable a and variable b are highly correlated as shown in the correlation matrix below. The upper graph in Figure 1 shows the original (standardized) data

	a	b
a	1.00	.82
b	.82	1.00

plotted in the two dimensional space with dimensions a and b. From the scatter of observed data points, it is evident that we can rigidly rotate the original axes through angle α so that the new axes or dimensions y and z are still perpendicular and so that most of variation in the data is reflected in axis or dimension y. See Figure 1, lower graph. Thus, the rotation through angle α allows us to consider only one new dimension, y, which represents most of the information originally contained in the two dimensional space described by coordinates along a and b. (To capture all the original variation it would be necessary to consider dimension z as well, but there is little reason to rotate the axes if the number of original dimensions cannot be reduced.) The coordinates of the original data on the new dimension y are obtained by erecting perpendicular lines from the observation points to the y axis.

Notice that the angle of rotation, α, can be interpreted as a weighted combination of the original dimensions, a and b. In this case, the weights (or, as they are usually called, loadings) of a and b on the new dimension are equal. Furthermore, the angle of rotation can be specifically defined

Table 1

FIRST FOUR EIGENVECTORS OF THE CORRELATION MATRIX OF REASONS FOR SELLING[1]

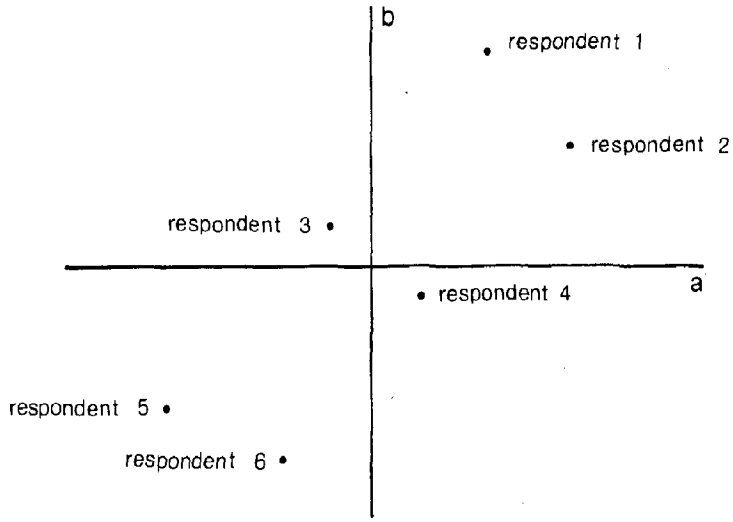
Reason	EIGENVECTOR I Economic Dimension	II Demographic Dimension	III Secondary Dimension	IV Transitional Dimension	Average Rating (scale 0-100, 100 = most important)
a. value of farm products too low	-.39*	-.24	.21	.14	54.7
b. inheritance tax too large	-.32*	-.07	.18	-.36	19.2
c. price offered attractive	-.34*	.27	-.07	.03	36.2
d. death in family	-.21	.46*	.35	.12	26.1
e. property taxes too high	-.32*	-.35	.27	.14	48.7
f. all nearby land being developed	-.14	.14	-.70*	.30	24.7
g. difficult to hire good labor	-.36*	-.08	.27	.30	28.9
h. desire to move elsewhere	-.27	.04	-.38	-.46*	14.1
i. ready to retire	-.14	.66*	-.10	.17	22.0
j. costs of operation too high	-.44*	-.18	.03	.17	59.7
k. desire for different kind of work	-.24	.21	.00	-.61*	9.3

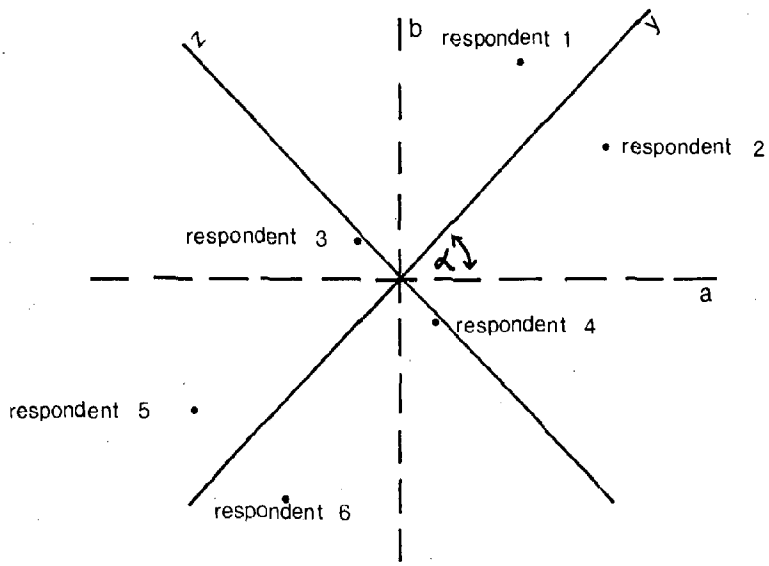
[1]The eigenvalues are 3.57, 1.44, 1.19, and 1.12 respectively.

Note: asterisks indicate the variables with the largest loadings on each eigenvector.

Figure 1

EXAMPLE SHOWING EXTRACTION OF EIGENVECTORS





by requiring that the first new dimension, y, be chosen so as to maximize the variance of the original standardized variables (a and b) accounted for by the new dimension. Under these conditions, the new dimension is called an "eigenvector" and, in the example, y is an eigenvector. In general, the process of extracting eigenvectors can be extended to n dimensions and up to n-1 new dimensions or eigenvectors can be extracted perpendicular to the first eigenvector (and perpendicular to all previously extracted eigenvectors).

By looking at which of the original eleven reasons have the largest loadings (in absolute value) on each of the four eigenvectors we extracted, we can interpret the eigenvectors. Thus, eigenvector I is an economic dimension (largest loadings on reasons a, b, c, e, g, and j), eigenvector II is a demographic dimension (largest loadings on reasons d and i), eigenvector III is a secondary dimension (largest loading on reason f), and eigenvector IV is a transitional dimension (largest loadings on reasons h and k). See Table 1.

The four underlying dimensions can each be ranked in importance by calculating the average of the average ratings of those reasons in question 3 on the questionnaire which are designated by asterisks in Table 1. Economic reasons are the most important, secondary and demographic reasons have nearly equal scores and rank second, and transitional reasons are least important.

2. Relations between Underlying Reasons for Selling and Other Factors

The second kind of analysis concerned the statistical relationships between people's "scores" on each of the eigenvectors and their responses to other questions on the questionnaire. To obtain the scores on each eigenvector we multiply each respondent's rating on each of the eleven reasons by the corresponding element of that eigenvector and sum the products. Given the scores of each respondent on each dimension we can then check for statistically significant relationships between the answers to the other questions on the questionnaire and the importance placed upon each of the economic, demographic, secondary, and transitional dimensions of the reasons for selling one's farm.[1]

The major statistically significant findings are described below.

a. Economic Dimension

i. People placing greater importance on the economic reasons for selling (a high negative score on Dimension I) tend to say that a 50% drop in property taxes would make it less likely that they would sell their farms. Conversely, people not placing much importance on the economic reasons for selling (a high positive score on Dimension I) tend to say that a 50% drop in property taxes would have little affect on their decision to sell. (This relationship is significant at the .005 level using the Kruskal-Wallis test with question 2 on the questionnaire.)

ii. People for whom a non-farm job might be acceptable tend to place greater importance on the economic reasons for selling (a high negative score on Dimension I), and, conversely, people for whom farming is very important and who would not consider another line of work even if it paid more tend to place less importance on the economic reasons for selling their farms (a high positive score on

[1] To test for significance the Mann-Whitney U test was applied to the ranks of the scores on each dimension where respondents could answer a question in one of two categories (excluding "don't know" or "no answer") such as question 1. Where the respondents could and did select from 3 or more choices, such as question 2, the Kruskal-Wallis test was applied to the ranks on each dimension.

Dimension I). (This relationship is significant at the .005 level using the Mann-Whitney U test with question 4 on the questionnaire after having eliminated the one respondent who said he would like to give up farming if he could get a job elsewhere.)

b. Demographic Dimension

i. Farmers placing relatively greater importance on the demographic reasons for selling (a high positive score on Dimension II) tend to say that a 50% reduction in property taxes would have little effect on their decisions to sell their farms. Conversely, farmers placing relatively little importance on the demographic reasons for selling (a high negative score on Dimension II) tend to say that a 50% reduction in property taxes would make it less likely that they would sell their farms. (This relationship is significant at the .01 level using the Kruskal-Wallis test with question 2 on the questionnaire.)

ii. Farmers who do not have a son or other close relative interested in continuing to farm tend to place either a great deal of importance on the demographic reasons for selling or very little importance on the demographic reasons for selling (a high positive score or a high negative score on Dimension II). Those farmers placing greater importance on demographic considerations are probably near retirement and their sons, if any, have long since left the farm for employment elsewhere. Young farmers with no children or very young children probably cannot say whether their sons (if they ever have any) would wish to continue farming, and they themselves can probably give little definite thought to retirement 25 or 30 years in the future. (This relationship is significant at the .02 level using the Mann-Whitney U test with question 5 on the questionnaire. Because we need to test for bunching of scores from one population in the middle of the distribution and the scores from the other population at the extremes of the distribution, it was necessary to rank the scores on Dimension II as follows: highest score = rank 1, lowest score = rank 2, second highest score = rank 3, second lowest score = rank 4, etc.)

c. Transitional Dimension

i. Farmers placing greater importance on a desire for change (transitional factors) as a reason for selling their farms (a high negative score on Dimension IV) tend to say that, if the opportunity arose, they would be tempted by another kind of work. Conversely, farmers placing very little importance on a desire for change as a reason for selling their farms (a high positive score on Dimension IV) tend to say that farming is very important to them and that they would not consider going into any other line of work, even if it paid more. (This relationship is significant at the .06 level using the Mann-Whitney U test with question 4 on the questionnaire, after having eliminated the one respondent who said he would like to give up farming if he could get a good job elsewhere.)

ii. Farmers living inside a metropolitan county tend to place less emphasis on a desire for change as a reason for selling (a high positive score on Dimension IV) than farmers living outside a metropolitan county. (This relationship is significant at the

.005 level using the Mann-Whitney U test.) This can possibly be explained by a combination of two reasons: one is that those who remain in farming in metropolitan areas despite urbanization pressures are those who are especially attached to farming. Those who place less importance on farming inside the metropolitan areas may have already sold out either to urban uses or to more dedicated farmers. The second reason is that while farmers outside of the metropolitan areas may enjoy farming as a way of life, they may also desire the amenities of urban areas which they cannot obtain where they live.

No other strong relationships between the scores on the four dimensions representing reasons for selling and answers to the other questions on the questionnaire were apparent. The only dimension not highly correlated with answers to other questions was the one reflecting secondary factors as exemplified by development pressure, Dimension III.

B. TECHNICAL ANALYSIS OF THE JOINT EFFECT OF SUPPLY AND DEMAND FACTORS ON THE CONVERSION OF FARMLAND

1. Formulating a Model

In order to analyze statistically the effect of property taxes on the conversion of farmland it is necessary to account for measurable supply and demand factors. Constrained by the availability of data, the following variables constitute the focus of our research:

Δ = percent change in land in farms over a specified time period

T = agricultural property tax (on land and buildings) per acre in a specified year

Y = gross farm income (dollars per acre). Because of lack of data on farm investment, net farm income could not be estimated.

P = increase in population density (persons per square mile) over a specified time period

A = percent of farmers over 65 in a specified year (i.e., near retirement age)

X = agricultural property taxes as a proportion of gross farm income ($X = T/Y$)

Specifically, we model Δ as a function of the other variables using two alternate regression analyses:

a) $\Delta = \alpha_0 + \alpha_1 T + \alpha_2 Y + \alpha_3 P + \alpha_4 A$

b) $\Delta = \beta_0 + \beta_1 P + \beta_2 A + \beta_3 X$

In the equations the values of the regression coefficients α_i or β_i are to be estimated and these estimates indicate how much Δ would change if any single variable were to change by one unit, while holding the other variables in the equation constant. The variables on the right hand side of either equation are called independent variables and Δ is called the dependent variable. Notice that in each model, the independent variables include both a demand-related variable, P, and supply-related variables, T, Y, and A, or else X and A. Finally, the form of the variables was chosen to eliminate the effect of the area of the observations (counties) on the regression coefficients by using percent changes

in land in farms and changes in population density.

As just remarked, the observational unit for all variables is the county. This is largely for convenience: the county is the smallest areal unit for which Census of Agriculture data, state agricultural data, and state tax data are published. Occasionally, data by minor civil division can be obtained, but a full complement of agricultural and tax statistics at that level of disaggregation could not be found.

Area of land in farms, gross farm income, and percent of farmers over 65 can be obtained from the U.S. Census of Agriculture for years 1964 and 1969. In order to study years after 1969, areas of land in farms and gross farm income must be obtained from state (or county) figures as the 1974 Census of Agriculture is not yet available. Changes in population density can be easily obtained from the U.S. Census of Population for the years 1960 to 1970. Agricultural property taxes are, of course, most crucial for our analysis, but these data were the most difficult to obtain. (Taxes paid by farmers can be calculated by multiplying county agricultural assessments times the average nominal tax rate in the county if it is not actually recorded on a county basis.) Finally, it is important that any area we study experience a sufficient degree of urbanization so that loss of agricultural land to urban uses can be studied.

To obtain tax and agricultural data twelve states were contacted by phone: Florida, Georgia, Illinois, Indiana, Michigan, New Jersey, New York, North Carolina, Ohio, Pennsylvania, Washington, and Wisconsin. Inicial contacts were usually made with the Property Tax Division of the State Tax Commission in the state capital. Other useful sources included agricultural economists in the agricultural extension service of the state university and the state statistician in the State Department of Agriculture. Property taxes paid by farmers could be easily obtained by county for the years 1974 or 1973 only from New Jersey, Ohio, and Wisconsin; they could also be obtained for Florida for the years 1971 and 1972. However, other important data, particularly land in farms and gross farm income, could not be obtained for 1971 and 1972 for Florida, thus making an analysis of this state impossible.

The ability to determine an unambiguous relationship between the percent change in land in farms over some time period and increases in population density, farm income, agricultural property taxes, and demographic features of the farm population is, to a large extent, dependent upon fortuitous circumstances. Given that spatially disaggregated data are available for all these variables it is still critical that the independent variables -- changes in population density, farm income, property taxes, and demographic information -- be correlated only slightly with each other. Otherwise it is difficult if not impossible to sort out which factors are likely to be causing declines in land in farms.

The State of Ohio fits these statistical requirements rather well, one reason for this being the lack of an implemented statewide uniform use-value tax on agricultural land and buildings prior to 1974. Thus agricultural property taxes have not been strongly correlated with the other independent variables in recent years. Unfortunately, reliable data on net farm income do not exist for each Ohio county, so we are forced to substitute gross income (cash receipts) as a measure of the economic welfare of the average farm. Obviously, this overlooks spatial variation in costs of farm production (other than property taxes). The independent variables in Wisconsin and New Jersey are highly correlated and therefore we were unable to pursue the analysis of these states to a conclusion. This is further explained later in this section.

Table 2

SUMMARY OF DATA FOR SAMPLE COUNTIES IN OHIO

Counties	Statistic	T	Δ	Y	A	X	P
49 counties (one deleted because of missing data)	mean	16.57	-.33	182.45	17.22	0.11	51.51
	standard deviation	26.21	4.58	204.27	4.15	0.07	100.17
16 Dairy counties	mean	14.49	-2.04	116.31	17.89	0.14	17.25
	standard deviation	7.74	2.71	46.90	4.04	0.07	22.27
19 Corn-soybean counties	mean	9.14	3.43	145.74	14.71	0.07	21.00
	standard deviation	3.06	2.50	31.19	3.07	0.05	20.82
8 Urban agriculture counties	mean	40.87	-5.55	449.00	20.52	0.11	196.25
	standard deviation	60.74	3.83	423.11	4.64	0.11	183.15

Definitions of Variables

T = property taxes per acre in 1973 (dollars)

Δ = change in farmland 1969-1973 as a percent of farmland in 1969 (%)

Y = cash receipts per acre in 1973 (dollars)

A = percent of farmers over 65 years of age in 1969 (%)

X = (Property Taxes/Cash Receipts) in 1973 = T/Y

P = change in population density 1960-1970 (persons per square mile)

Note: Six sample counties were not classified in any of the three agricultural regions

[1] Sources of data in Table 2.

Y, Δ: Ohio Agricultural Research and Development Center (Wooster), Ohio Farm Income, 1969 and 1973.

A: U.S. Census of Agriculture, 1969

T: Ohio Department of Taxation: "Property Taxes: Real Estate and Public Utility," 1973, and "Assessed Valuation of Real Property in 88 Counties of Ohio by Class and Population Group," 1973.

P: U.S. Bureau of the Census, County and City Data Book, 1967 and 1972.

As our primary concern is not with Ohio per se, but with causes of the loss of land in farms, we have considered only 50 of the 88 counties in Ohio. Expanding urbanization is one of the most important causes of loss of farmland, so all 1970 SMSA counties except one in the Huntington-Ashland metropolitan area and all counties (except one) containing a city of at least 25,000 people in 1970 are included in the study. Preliminary inspection of data also revealed large losses of farmland in nonurban areas of eastern Ohio and so several of these counties not containing major cities were also included. Finally, to lend some perspective to the analysis, several agriculturally prosperous cornbelt counties in the state were included.

2. Description of the Data

The fifty sample counties can be classified into three agricultural complexes based on the value of those farm commodities accounting for 10% or more of the total dollar value of farm output from each county in 1973: a soybean-cornbelt complex, a dairying complex, and an urban agriculture complex, viz, nurseries and greenhouses and vegetables. However, a few counties had to be classified under two or three complexes since leading agricultural activities do not fall neatly into just one category.

Much can be learned about the agricultural regions of the state by examining the means and standard deviations of certain key variables as shown in Table 2. The dairy belt had the lowest cash receipts per acre in 1973 (Y), the highest proportion of agricultural property taxes to cash receipts in 1973 (X), and the lowest increase in population density from 1960 to 1970 (P).

The relatively high loss rate of farmland and lack of extensive urbanization in much of the dairy belt indicates conversion to nonurban uses, such as strip mining and second homes, and possible abandonment of marginal agricultural land. If we define subsistence farms as farms whose gross income was less than $2500 in 1969, then we note that forty-five percent of all farms in the dairy belt earned under $2500 in 1969 as compared with only thirty-five percent in the urban agricultural and cornbelt areas (Census of Agriculture, 1969). Approximately 400,000 acres of land in Eastern Ohio is strip mined and the 1972 and 1965 Minerals Yearbooks show that for 13 of our sample dairy belt counties, production of bituminous coal from strip mines increased from 16 million tons in 1965 to nearly 27 million tons in 1972.

The corn-soybean region had the lowest agricultural property taxes per acre in 1973 (T), the most positive percent change in farmland from 1969 to 1973 (Δ), the lowest percentage of farmers over 65 in 1969 (A), which indicates that many younger men wish to engage in farming in the area, and the smallest proportion of agricultural property taxes to cash receipts in 1973 (X).

Finally, the urban agricultural counties had the highest agricultural property taxes per acre in 1973 (T), the most negative percent change in farmland from 1969 to 1973 (Δ), the highest cash receipts per acre in 1973 (Y), the highest percentage of farmers over 65 in 1969 (A), and the largest increase in population density from 1960 to 1970 (P).

Each variable (T, Δ, Y, A, X, and P) was found to vary significantly among the three agricultural regions at the .01 level using the Kruskal-Wallis nonparametric analysis of variance. Hence, the observed regional differences in the means of the six variables reflect the tendency of counties in one region to bunch at the high or low end of the overall distribution of that variable among all three regions (corn-soybean area, dairy belt, or urban agriculture).

3. Regression Results

The regression models described previously were applied to 49 of the 50 sample Ohio counties (some data were lacking for one) as well as for the dairy belt, corn-soybean region, and urban agricultural areas separately.

Table 3 summarizes the regression results, where the numbers in parentheses are the ratios of the coefficients to their standard errors. Coefficients written as "0" are such that this ratio is less than 1.5, except where noted.

Table 3

SUMMARY OF REGRESSION MODELS-- DEPENDENT VARIABLE: PERCENT CHANGE IN FARMLAND 1969-1973

Model	Agricultural Region	Constant	Coefficients of Independent Variables A	X	P	T	Y	R^2
b	49 sample counties	7.636	-.245 (1.70)	-26.012 (3.57)	-.019 (3.44)	----	----	.53
b	19 corn-soybean counties	5.095	0	0	-.079 (3.63)	----	----	.44
b	16 dairy counties	4.235	-.180 (1.50)	-25.868 (3.76)	0.032 (1.57)	----	----	.69
b	8 urban counties	-0.718	0	-16.898 (1.46)	-.015 (2.23)	----	----	.53
a	49 sample counties	8.640	-.433 (3.24)	----	-.012 (2.13)	-.055 (2.90)	*	.49
a	19 corn-soybean counties	1.779	**	----	-.085 (4.05)	0	.024 (1.68)	.52
a	16 dairy counties	-5.472	**	----	0	-.123 (2.03)	.045 (4.47)	.62
a	8 urban counties	-.860	0	----	-.015 (3.15)	-.042 (2.93)	*	.75

* Strong effects of multicollinearity exist due to correlation of Y and P ($r > .80$), so Y is eliminated from model a.

** Strong effects of multicollinearity exist due to correlation of Y and A ($r < -.60$), so A is eliminated from model a.

Note: Six sample counties were not classed in any of the three agricultural regions. Variables are the same as those in Table 2.

a. Urban Counties

In the urban counties we find that increases in population density P, and taxes, T, or taxes as a proportion of gross income, X, both are negatively related to percent change in land in agriculture from 1969 to 1973, Δ. That is, higher taxes (or taxes as a proportion of gross income) and higher increases in population density are associated with greater losses of farmland in these eight urban counties. All the regression coefficients are at least 1.5 times their standard errors except that of X.

The graph in Figure 5 in Part One, Chapter IV and the regression equation in Table 3 from which it is derived indicate that although a reduction in agricultural property taxes is likely to reduce the loss rate of farmland, this reduction will not stop the loss of farms no matter how large it is. Pressure from increasing suburban population will always cause some farmland to be lost. Thus, in rapidly growing metropolitan areas, tinkering with taxes is likely to be only slightly effective in preserving farmland.

There is good reason to believe that the regression coefficients we have estimated for the urban counties are not very stable over time. This would imply that the slopes of the lines representing values of Δ in Figure 5 of Part One and the spacing between the lines representing levels of Δ in that figure are unstable. In the period 1964 to 1969, the five years immediately preceding the time span of the regression analysis presented above, loss rates of farmland were generally greater due in large part to relatively low farm product prices. The average change was -20.00% from 1964-1969, but only -5.55% from 1969 to 1973 in these eight urban counties; even considering the fact that the earlier time period is one year longer, this contrast is remarkable. In periods of very rapid losses of farmland, lowered agricultural property taxes may have no effect at slowing these losses and, in fact, our regression analysis of the eight urban counties from 1964 to 1969 yielded a regression coefficient of T which was not significantly different from zero.

b. Dairy Counties

The impact of reducing property taxes appears to be greatest in the dairy belt, where the demand pressures for conversion are generally weaker than in the urban counties, but where the supply pressures, such as low farm income and a relatively low percent of younger men undertaking farming, are quite strong. In both models "a" and "b" the coefficients of X and T respectively are greater for the dairy belt counties than for any other class of counties. See Table 3. Much of this marginal farming area is losing population, and so the positive sign of the coefficient of P in model "a" is not surprising.

To interpret the nature of land conversion in these dairy belt counties, where there are some moderate sized cities such as Youngstown but where much of the land is relatively far from urban pressures, we relied on information supplied by six county agricultural agents in eastern Ohio and the Ohio Agricultural Resources Center at Caldwell. The conversion process includes some suburbanization near the major cities of the region but is dominated by the selling of land for second homes to individual investors who live in places such as Cleveland, Akron, and Canton, and by the leasing or selling of land to strip miners.[1]

With regard to second homes, there is little evidence that large speculators are heavily involved in the land market in this area of the state. Land in this area is of marginal value for agriculture, and, with a few exceptions, very little urbanization pressure exists. Despite this, land that was selling for $35 to $50 per acre 10 years ago is today selling for $150 to $300 per acre. In short, there is a demand pressure for conversion to second homes exerted by potential absentee landlords who are not likely to develop the land intensively and an ample supply of marginal farmland made available by a population of low income farmers with a large proportion of older men in it.

Strip mining for coal is of considerable importance in much of the dairy belt. Approximately 400,000 acres in this area have been or are being strip

[1] The state of Ohio has been active in acquiring agricultural land for recreational purposes in central Trumbull County as well.

mined. Often strip mining companies do not actually buy land from farmers for their mining operations, but rather, lease the land from farmers. After the lease has been signed the land usually stands idle for a period while the mining company moves in and sets up its equipment. Today, after the land has been strip mined it must be reclaimed in accordance with Ohio law. The land is reseeded and usually is converted into pasture land. However, the laws requiring reclamation are relatively recent and so, in this area, there exist many thousands of acres of unreclaimed strip mined land, some of it owned by the mining companies, the rest by various absentee landlords.

In conclusion, a reduction in property taxes in the dairy belt counties may very well reduce the need to sell farmland by reducing costs of operation and hence increasing net returns. As a result, the loss rate of farmland should decrease. However, if younger men are still not induced to stay in farming here the long run effect of reduced taxes may be quite small.

c. Corn-soybean Counties

The corn-soybean counties experienced net gains in farmland from 1969 to 1973, which is probably due more to increases in soybean prices than to anything else. Indeed, the regression analysis shows that while increasing urban populations may squeeze corn belt farmers off the land, the high gross income of this type of farming counteracts this effect in many counties by causing farmers to bring land back into production farther from the major cities. The impact of agricultural property taxes on the percent change of land in farms is not significant in these prosperous agricultural counties.

4. Analysis of Data from Wisconsin and New Jersey

As noted above, we explored data from twelve states in order to perform a statistical analysis of loss rates of farmland. In only three states, however, were sufficient data available to carry out such an analysis and of these three, only Ohio was not beset by problems of multicollinearity among the independent variables. Because of this statistical difficulty, Wisconsin and New Jersey data did not lead to any substantive conclusions about the potential effectiveness of reducing property taxes to save farmland. In this section we summarize what analysis was possible given the extent of the multicollinearity problem.

a. Analysis of Wisconsin Data

Paralleling the Ohio analysis, the following regression models were explored first for the counties located in an SMSA and then for all other counties in the state of Wisconsin.

(a) $\Delta = a_0 + a_1A + a_2X + a_3P$

(b) $\Delta = b_0 + b_1A + b_2P + b_3T + b_4Y$

where for each county,

Δ = percent change in land in farms from 1964 to 1969 (data from Census of Agriculture, 1964 and 1969)

A = percent of farmers over 65 years of age in 1964 (data from Census of Agriculture, 1964)

P = change in population density (persons per square mile) from 1960 to 1970 (data from County and City Data Book, 1973 and 1967).

Y = gross farm income per acre in 1969 (data from Census of Agriculture, 1969)

T = property tax per acre on agricultural land and improvements in 1969 (tax data from Wisconsin Department of Revenue, "Property Tax 1969," Table V for taxes levied; and acreage data from Census of Agriculture, 1969)

X = property taxes on agricultural land and improvements in 1969 divided by gross farm income in 1969 = T/Y.

Generally speaking, the period 1964 to 1969 was one of relatively low returns to agricultural activity and large losses of farmland. This can be seen in Table 4, which shows the means and standard deviations of Δ, A, P, Y, T and X for the SMSA counties (except Milwaukee County, which is unusually urbanized for Wisconsin, and Douglas County, which is part of the Duluth, Minnesota SMSA but largely rural), Milwaukee County, and all other counties, called "rural," (except Menominee, Shawano, and Oconto, for which data are incomplete.)

Unfortunately, it was not possible to separate out the effects of population increase (as measured by P) and taxes (as measured by T or X) while holding the other variables constant in either the urban (SMSA) or rural counties. This difficulty arises because of the high degree of correlation between P and T, or P and X. See Tables 5 and 6. As a result of this multicollinearity a reliable estimate cannot be made of the effects of P and T on Δ, the percent change in land in farms from 1964 to 1969. An ambiguous result can only be misleading, so we have decided not to report the estimated regression equations. (For the rural counties model b is not beset by multicollinearity problems, but R^2 is less than .25.)

Table 4

SUMMARY OF DATA FOR WISCONSIN COUNTIES

Counties	Statistic	Δ	A	P	Y	T	X
SMSA except Milwaukee and Douglas (11 counties)	mean	-8.25	13.90	57.18	106.42	10.71	0.099
	std. dev.	4.89	3.28	33.06	18.20	3.95	0.033
Milwaukee	observed value	-32.20	22.20	113.00	260.18	57.28	0.220
Rural (57 counties)	mean	-13.38	14.54	3.53	69.04	4.56	0.066
	std. dev.	7.97	2.76	6.06	26.83	2.21	0.014

Definitions of Variables

Δ = percent change in land in farms from 1964 to 1969

A = percent of farmers over 65 years of age in 1964

P = change in population density from 1960 to 1970 (persons per square mile)

Y = gross farm income per acre in 1969

T = property tax per acre on agricultural land and improvements in 1969

X = T/Y

Table 5

CORRELATION OF VARIABLES IN ELEVEN SMSA COUNTIES IN WISCONSIN
(excluding Milwaukee and Douglas Counties)

	Δ	P	A	T	Y	X
Δ	1.00	-.56	-.35	-.25	.38	-.56
P		1.00	.80	.75	.19	.83
A			1.00	.65	.09	.75
T				1.00	.60	---
Y					1.00	---
X						1.00

Table 6

CORRELATION OF VARIABLES IN 57 RURAL COUNTIES IN WISCONSIN

	Δ	P	A	T	Y	X
Δ	1.00	.30	.38	.51	.66	-.06
P		1.00	-.01	.74	.55	.41
A			1.00	-.23	-.32	.19
T				1.00	.82	---
Y					1.00	---
X						1.00

Looking at Table 5, we can observe that in urban areas percent change in land in farms is negatively correlated with P and rather weakly correlated with A, T, and Y, and negatively correlated with X. In the rural counties, Table 6 reveals that strong simple correlations occur between percent change in land in farms and T (a positive correlation!) and Y. However, as noted above, these simple correlations relating Δ and P and T cannot be tempered by holding P or T constant to investigate the partial correlation of Δ and T or Δ and P respectively. Finally, a graphical inspection of the rural and urban data did not lead to any improvements in the condition of the data, such as transformations to account for nonlinearities or deletion of outliers.

b. Analysis of New Jersey Data

For New Jersey as for Wisconsin and Ohio, we attempted a regression analysis in which percent change in land in farms from 1964 to 1969 was the dependent variable and in which the independent variables included agricultural property taxes per acre in 1969 and increases in population density from 1960

to 1970 (in persons per square mile).[1] Only sixteen counties had appreciable agricultural activity in 1964 and 1969, and so the analysis was restricted to just these counties. However, there is some difficulty using county data in New Jersey because of the heterogeneity of the counties. For example, Burlington County contains suburban development near Philadelphia plus part of the New Jersey Pinelands 20 or more miles from Philadelphia. County-wide changes in land use may be quite deceptive, as the causes for these changes may be different in different parts of the same county. Even worse, though, the high correlation between taxes and population increase, 0.71, makes it nearly impossible to separate causes of the loss of farmland and attribute proportions of that loss to taxes and population pressures. The causes are indistinguishable, and hence the effect of reducing property taxes is difficult to assess.

For the sixteen New Jersey Counties[2] means and standard deviations are presented below for: percent change in land in farms from 1964 to 1969 (Δ), agricultural property tax per acre in 1969 (T), and increase in population density (persons per square mile) from 1960 to 1970 (P).[3]

Table 7

SUMMARY OF DATA FOR NEW JERSEY COUNTIES

Statistic	Δ	T	P
Mean	-13.34	30.07	147.06
Standard deviation	11.38	14.06	138.97

Definition of Variables

Δ = percent change in land in farms from 1964 to 1969

T = agricultural property taxes per acre in 1969

P = increase in population density from 1960 to 1970 (persons per square mile)

[1] The tax data were computed by multiplying the assessed value of farmland in a county as a proportion of the assessed value of all property in a county (taken from columns 26 and 27 in the Farmland Assessment Act of 1964 Summary for 1969) by total property taxes paid in 1969 (taken from columns 12DIII and 15C of Appendix 2--Abstracts of Ratables and Tables of Equalized Valuations in the 1969 Annual Report of the Division of Taxation.

[2] The counties are: Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester, Hunterdon, Mercer, Middlesex, Monmouth, Morris, Ocean, Salem, Somerset, Sussex, and Warren.

[3] The data on percent change in land in farms are from the 1964 and 1969 Census of Agriculture and increase in population density from the County and City Data Books for 1973 and 1967.

QUESTIONNAIRE AND SUMMARY OF RESPONSES

Are you a farm owner? I'm from the Regional Science Research Institute, a non-profit organization. If you have a few minutes, I'd like to ask you some questions about the economic pressures on the farmer these days.

1) Pennsylvania has recently passed a law which makes it possible for county and municipal tax assessors to assess farmland at its value for farming instead of the higher value it might bring if sold. Do you intend to apply? 63.8% yes 24.6% no
11.6% no answer

2) Assume that your taxes would be only 50% of the present dollar amount if you participate in the new Pennsylvania preferential assessment law. Would this reduction in property taxes have an effect on any intention you might have to sell your farm? (Check one)

It would make it much less likely that I would sell	23.2%
It would make it somewhat less likely that I would sell	15.9%
It would have no effect	58.0%
It would make it somewhat more likely that I would sell	1.4%
It would make it much more likely that I would sell	0%
no answer	1.4%

3) If you were to sell your farm (or a large portion of it) in the next few years, what would be the major reasons for doing so? Please rate each of the following reasons, on a scale from 0 to 100. Key points on the rating scale are identified as follows. However, don't restrict yourself to these five key ratings. Use any numbers between 0 and 100.

Rating	Meaning
100	the most important
75	very important
50	a major consideration
25	a minor consideration
0	not important at all

	Reason	Average Rating
a.	value of farm products is too low	54.7
b.	inheritance tax is too large	19.2
c.	price-offered attractive	36.2
d.	death in family	26.1
e.	property taxes too high	48.7
f.	all nearby land is being developed	24.7
g.	difficult to hire good farm labor	28.9
h.	desire to move elsewhere	14.1
i.	ready to retire	22.0
j.	costs of operation too high	59.7
k.	desire for different kind of work	9.3
l.	other (please specify) _____	

4) Aside from personal reasons (such as ill health, advancing age, etc.), how important is it to you to remain in farming? (Check one).

72.5% Very important to me. I would not consider going into any other line of work, even if it paid more.

23.2% If opportunity arose, I might be tempted by another kind of work.

1.4% I would like to give up farming if I could get a good enough job elsewhere

2.9% no answer

5) Approximately how old are you (ask owner)? μ = 44.62, σ = 12.57

Do you have a son or close relative who is interested in continuing to farm? 47.8% yes 33.3% no no answer / don't know } 18.8%

If so, approximately how old is he _____

6) How large is your farm? _____ acres μ = 179.710, σ = 89.297

What are the major crops or products?

corn, dairy, beef, hay most common

_____

_____

_____

7) What county is it in?

SMSA yes = 44, no = 25

8) How close is it to a major city? _____

What city is it _____

III. BIBLIOGRAPHY*

INTRODUCTION

In evaluating differential assessment programs, information and theory must be drawn from many areas of knowledge including land economics, agriculture, and property taxation. Reflecting this situation, references listed in this bibliography have been classified by their primary subject matter under one of the 12 categories explained below.

The categories were chosen to assist in sorting out the wide literature that is relevant to the questions addressed in this report. There is some unavoidable overlap among them because many references cover more than one topic, especially in the areas of differential assessment programs, the land market, and agricultural policy.

The central focus of the bibliography is on the assessment of open land and differential assessment programs, the land market and the land conversion process, and agricultural land policy. These listings are quite comprehensive, while related categories of background topics include a few central works. Brief annotations accompany many works.

The categories used are:

A. Property Taxation, General

These references present a general background in the theory and practice of property taxation. Jensen's is the classic study, including a history of property taxation. Netzer provides a comprehensive introduction to the central issues and the societal context of property taxation.

B. Property Tax Reform and Relief

As local revenue needs have soared, attention has been focussed on the need both to reform the administration of the property tax and to provide relief for groups hit particularly hard by the increasing tax burden. The collection of articles in Property Tax Reform, edited by George Peterson, provides a detailed discussion of the range of issues in this area. Useful publications by the Advisory Commission on Intergovernmental Relations have monitored progress toward property tax reform and assessed the need for property tax relief.

The "circuit-breaker" concept, which has gained widespread application in the states, is covered in several references. Several articles on site-value taxation have been included because of continued interest in this area among tax theorists.

C. Property Taxation and Land Use

These works contain general theoretical and empirical discussions of a topic that has interested city planners and land economists for many years: the general relationship between property taxation and land use. While earlier optimism that the force of property taxation could be harnessed to promote desired development patterns has dampened, considerable discussion continues. Articles in the sections on the land market and on differential assessment also encompass extensive discussions of this relationship in a more specific context.

D. Ad Valorem Assessment

Concerned with the practices and problems of ad valorem, or market value, assessment, these references present the context and the practices that have led states to pass differential assessment laws.

* Prepared by James Farnam

E. Tax Incidence and Equity

The technical question of tax incidence, or exactly who bears the final burden of the property tax, is the subject of heated debate among economists. The regressivity or progressivity of the property tax depends on one's definition of income as current or lifelong, on whether capital gains are counted in annual income while they accrue, and on the local administration of the tax, which can be very different from theoretical models. Netzer's 1973 article, "Incidence of the Property Tax Reconsidered," presents a good outline of the major arguments in the debate.

The literature under Property Tax Reform and Relief also considers questions of incidence, especially Property Tax Reform, edited by George Peterson, and Financing Schools and Property Tax Relief from the Advisory Commission on Intergovernmental Relations.

F. Assessment of Agricultural and Open Lands

This section includes references on the problems and practices of agricultural and open space land assessment. This includes studies of assessment levels, tax burdens, and general issues involved in assessing these lands, as well as guidelines and handbooks for making the assessments of land under the differential assessment laws.

While this section contains some treatment of differential assessment programs, primarily it elaborates on the situations which have precipitated differential assessment legislation and some of the mechanics of use-value assessment. Numerous references in the next section also discuss these subjects in the context of the differential assessment legislation.

Also included in this section are data on farm real estate taxes, the most useful and comprehensive source being Farm Real Estate Taxes: Recent Trends and Developments issued annually by the U. S. Department of Agriculture, Economic Research Service, and the statistical bulletins from the same source.

G. Differential Assessment: Programs and Issues

This section is a comprehensive listing of works about differential assessment programs in theory and practice. The range of issues covered includes the necessity of differential assessment, the magnitude and distribution of benefits under the programs, the shift in tax burden from participating lands to other classes of property, the land use effects, the legal questions, particular program provisions, administrative problems, political analyses, and related questions.

The two most recent and comprehensive studies of differential assessment are:

State Programs for the Differential Assessment of Farm and Open Space Lands by Thomas F. Hady and A. G. Sibold and

Use-Value Farmland Assessments: Theory, Practice, and Impact by the International Association of Assessing Officers (IAAO).

Hady and Sibold describe state statutes in detail after a discussion of the issues involved. The IAAO study, by Richard Gloudemans, does this and also looks at the impact on the tax base and on land use in detail.

H. Forest and Timber Taxation

A number of states, particularly those with extensive forest products industries such as Maine, Oregon, and Washington, have enacted laws for the differential assessment of forest land and timber. Usually these substitute a yield tax at harvest time for the annual ad valorem tax levy. These references outline the major issues and provide details of state legislation.

I. The Land Market and the Land Conversion Process

A central goal expressed in much of the differential assessment legislation is the preservation of agricultural and open space lands. Evaluation of the programs by this criterion requires an understanding of the dynamics of the land market, particularly on the rural-urban fringe, and the land conversion process.

The references in this section cover a range of topics in these areas including land market imperfections, determinants of market value, the divergence between market and use-value, the causes and nature of urban sprawl, the motivations of participants in the land market, and the public stake in the land market.

Many works present data on transfers and market values of open land.

J. Agriculture: Data, Policy, and Preservation

Legislatures have enacted differential assessment laws in an effort to support the agricultural sector and the "family farmer" in particular. Numerous states, particularly in the Northeast, have moved toward developing more comprehensive policies for "agricultural preservation" which encompass not only land policy but a range of measures designed to promote a healthy and permanent agricultural sector.

These references present the environment in which differential assessment and other agricultural policy measures must be considered: the farm income situation, problems of farming in urbanized areas, changes in technology, farm tenure patterns, and policy statements of state commissions created to study the situation.

References in the section on differential assessment programs also consider questions of agricultural policy at some length.

K. Open Space

Selected references from the extensive literature on the preservation of open space which are particularly relevant to our interests are presented here.

L. Miscellaneous State Documents

State government documents referred to in our investigation but not coming under the categories above are listed here for reference.

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I. THE LAND MARKET AND THE LAND CONVERSION PROCESS

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