Foreword

This final report sets forth the major findings of Northeast Regional Research Project 90, "Rural Land-Use Policy in an Urbanizing Environment." Representatives of seven state experiment stations and the Economic, Statistical, and Cooperative Service of the United States Department of Agriculture formed the Technical Committee for the project and prepared this report on the research they directed.

The individuals at the several cooperating stations selected policy instruments for intensive study that were particularly relevant to the policy issues of major importance in their respective states. In addition, the project manager supervised a general study of all major land policy instruments adopted or seriously proposed in all of the states of the region. This region-wide study supplemented the intensive, sharply focused studies within the individual states. Together these efforts provided the basis for the descriptions and analyses here reported.

Dr. Robert Hutton served as administrative advisor throughout the life of the project. The Technical Committee, and especially the project manager, very much appreciate Dr. Hutton's thoughtful guidance and his skill in smoothing out the rough spots along the administrative pathways.

Howard E. Conklin NE 90 Project Manager

Introduction

This report is concerned with the efforts being made in the northeastern United States to preserve agriculture. This region is known more for its cities than for its farms, yet the Agricultural Census of 1974 recorded a farm output here amounting to 7 percent of the total national farm output. About 500,000 people, in farming and related businesses, are employed as a result of agriculture in the region.

The regional interest in preserving agriculture extends beyond an interest in food and employment. Agriculture provides a pleasant variety in the rural landscape, and many urban as well as rural dwellers support steps to preserve it for this reason.

The first steps to preserve agriculture in the Northeast were taken when the population here was rising rapidly. Today our population increases are much more modest. The population of the 12 northeastern states increased 13.5 percent in the 1950s and 10.3 percent in the 1960s; but now, in the latter part of the 70s, it is estimated to be essentially constant (U.S. Bureau of the Census 1974). However, the rural population of the region is still increasing at a significant rate, justifying our continuing concern with agricultural preservation.

Efforts to preserve agriculture have been divided in this discussion into seven classes. Tax policies are discussed first. All the northeastern states have adopted some type of farm-value assessment. New York's use of agricultural districts is discussed next. These districts provide protective arrangements for farming beyond farm-value assessment. New York's use of agricultural districts is discussed next. These districts provide protective arrangements for farming beyond farm-value assessments.

Zoning is the third topic. Long used in the cities, zoning was first brought to rural areas in Wisconsin in the 1930s, where it was used to prevent farming in unsuitable areas. Using zoning to preserve farming was not proposed until well after World
War II, and few proposals have been adopted at either state or local levels. Proposals for zoning at the state level in New York and Vermont are discussed here. Both were parts of more comprehensive statewide land-use program proposals that failed to pass. A current New York state proposal for the Catskills and a New York law to control land use on flood plains are also discussed. The flood plain zoning law was passed in response to a federal law (recently repealed, in part) requiring flood insurance in flood prone areas as a condition for borrowing funds from government sources or federally supervised banks. This law favors agriculture over other uses on the flood plains.

A discussion of "transfers of development rights" (TDRs) is the fourth main subject covered. A proposal for use of TDRs, a special variant of zoning, has been developed recently in New Jersey. It involves exercise of police power, as does zoning, but also includes an arrangement for compensating the people who are prohibited from developing their land — actually an arrangement under which they can sell their development rights though they cannot use them.

The fifth topic is government acquisition, either of fee simple or of lesser rights such as development easements. Programs for purchasing development easements to farmlands have been launched in Suffolk County, New York, and in Maryland, Massachusetts, and Connecticut. Similar proposals are being considered in New Jersey.

The sixth major topic consists of several special development controls. Included are Vermont's controls under Act 250 and a general discussion of subdivision and site location laws as they affect agriculture.

The last major section treats various other means for preserving agriculture, from the creation of special agencies to promote and defend agriculture to programs for diverting nonfarm demands for land away from farmland.

**Tax Policies**

Governments have recognized that taxes can affect taxpayers differently. Thus, taxes may be imposed not only to raise revenue, their main purpose, but also to accomplish other objectives. For example, progressive income taxes are used to help redistribute income, and high taxes on alcoholic beverages and cigarettes are imposed in part to discourage the use of those products. Taxes can be used to guide, direct, encourage, or prohibit activities, social and economic relationships, and resource uses.

Because of their differing effects, several interrelated factors in taxation should be considered simultaneously. These include equity, incidence, ease of administration, cost of collection, and potentiality for avoidance (or evasion). A complex set of issues surround any new tax or a change in an old tax, including tax reductions or rebates, that are proposed.¹

**Property Taxes**

Real estate taxes generally have been the most important source of revenue for local government and public schools, both of which have had to increase tax levies to meet rising costs. In rural areas, farmland is a leading contributor to these taxes. Farmland values have increased sharply in recent decades, and increased assessments have followed. Because farmers usually own relatively large areas of land, real estate taxes contribute importantly to the cost of farming.

When increased tax costs reduce farm profits, some farmers are forced to sell out; and high land values can make selling a profitable alternative in a few though declining number of cases. Many farmers do not want to leave farming and often would prefer to pass a viable farm business on to their children even if they could sell for more than farm value. Most farmers in the broad commuting areas around northeastern cities actually never have received a bona fide offer at a price higher than farm value, and most probably will not for some decades in the future. City fringes usually include an area much larger than the cities themselves and could not have been fully urbanized for decades even at the growth rates of the 1950s and 1960s. Urban growth still continues in some fringes, and scattered rural populations are increasing nearly everywhere. Local governments, hard pressed for funds, are tempted to use this growth as a basis for large increases in assessed values on farms.

Of course, the effects of these forces on farming vary from one area to another. Land located near larger expanding urban centers is more likely to be affected. The needs, attitudes, and practices of local governments and public officials can influence how individual farmers fare. The tax laws also vary from state to state, and in recent years many jurisdictions have adopted new statutes that affect agriculture.

**Assessment Procedures and Practices**

An assessor once described the qualifications of the ideal person for the office he occupied thus: "He must know something about everything and know it well. He must possess specialized knowledge. He must be able to recognize and value every kind of property in his district. He should be good at mathematics, know the fundamentals of law, engineering, accounting, and business procedures...He should be as well informed about current affairs as a good financial writer...He should be an expert in public relations with the ability to explain difficult matters in simple, understandable language...He should be a master of diplomacy and possess tact and initiative. He should have a keen sense of humor...He should command the respect and confidence of the taxpayer and above all else be a man of unquestioned honesty and integrity. He should have sharp piercing eyes, attentive ears, the wisdom of Solomon, the hide of a rhinoceros, and the ability to live on almost nothing" (Fewell 1976, p. 25).

The assessor, whether elected or appointed, is the local government official who has major responsibility for determining the values of land on which taxes will be based. Assessors are guided by laws and regulations, however, and are subject to reviews. Furthermore, customs, accepted practices, and attitudes may strongly influence their actual procedures. Political pressures influence elected assessors and may indirectly affect appointed persons in this position. Biases or beliefs can be a factor, and a change in assessors may alter existing relationships.

Property tax reforms in the nineteenth century led most states to adopt an ad valorem universal property tax, basing assessments on "true" or "actual" values and treating all kinds of property equally. Subsequently, legislatures have made growing lists of exceptions, exemptions, deletions, and special treatments for selected properties (Colyer 1975). Some of these were based on the problems and needs of practical and efficient property tax administration (Lynn 1969, U.S.

¹ The passage of Proposition 13 by California voters in 1978 illustrates some of the complexities of property tax laws as well as the importance of this tax in many areas of the nation.
 Sheila 1973a), and others were intended to benefit specific groups whom the legislatures believed to have been unfairly treated or burdened. In recent years, the elderly, the poor, and farmers have been frequent beneficiaries of such actions.

Tax assessment and levy processes have, on the whole, treated farmland quite favorably (Colyer 1975; Lesher 1977; Morris, Frick, and Burwell 1974). In 1968-69, for example, acreages in West Virginia were assessed at 40 percent of their sales values while other real estate was assessed at an average of 45 percent (Colyer and Templeton 1974, 1977). Because of this kind of advantage, farmers have often been less receptive to formal preferential treatment plans than they might otherwise have been.

Farmers have not always been favorably treated, however. Corty (1955) found that in the late 1950s, New York farms were assessed at 40 percent of their selling prices; but rural residences were assessed at only 25 percent because assessments lagged behind the rapidly rising postwar prices of rural houses.

Land prices rose rapidly during the 1960s and early 1970s, often faster than house prices. Residential scat teration also accelerated in some areas; and in nearly every farming community, at least small areas of land have brought urban-level prices. These higher prices have often made farm assessments appear especially low, even though most of the farmland could not actually have been sold at such prices.

Farm assessment levels can change in relation to other classes of property for several reasons:

1. When land values go up, assessments nearly always increase, too, although the time lag may be substantial. Even the simple act of a landowner selling a few lots at high prices will cause assessors to reevaluate all the property in an area. Before long, farmland assessments can become exorbitant in areas where not all farmland can be converted to subdivisions for years or even decades. Such excessive assessments were discovered on this project in Orange County, New York (King 1977).

2. Economic pressures often force local government units to raise assessments and/or tax rates to pay for government services.

3. Tax assessors themselves are becoming more professional and better trained; thus, they tend not to treat any group favorably. Many government units have supported the trend toward professionalism by appointing tax assessors or by providing training for elected officials and their deputies. State-required examinations and other procedures have also increased the level of competence of assessment officials.

4. As areas become more urban, officials may be less sympathetic toward agriculture and therefore less likely to treat that sector favorably.

5. Suburban and semisuburban growth during recent decades created the illusion that any landowner within commuting distance of a city could sell his land for a price well above its farm value. Many nonresident people bought land in these areas for speculation or to hedge against inflation (Bryant 1974, 1976a; King 1977; King and Conklin 1977). But the recent sharp drop in the population growth rate in most areas of the region has caused the nonfarm component of land value to level off and even decline in such areas as the lower Hudson Valley and parts of eastern Long Island. And because not all farm product prices are keeping pace with production costs, the farm component of rural land values may decline, too, in some areas.

The assessment and tax practices that tended to help protect farmers during the 1960s appear to have been turned around in recent years. Current procedures are, in effect, building the high speculative land values of the recent past into assessed values. Many states have taken action to protect the sector by enacting counteraction legislation, and nonfarming sectors have usually offered strong support for these measures. Where constitutional amendments were required before such laws could be enacted, they usually passed by large majorities.

Use-Value Assessment

Clearly, real estate taxes can be high enough to discourage farmers from improving their property; taxes can even make their continued operation financially impossible. Discouraged farmers do not build new barns, plant new orchards, or otherwise improve their property. Sometimes, debilitated farms continue in use at low levels of productivity; other times, they go out of use completely. Lands around Buffalo, Syracuse, and Albany, New York, have been forced out of farming by urban influences, part of which are high taxes. Examples of low levels of use occur around Rochester and Philadelphia and in several parts of New Jersey and Maryland. (While taxes can force farmers out or discourage them, it is, of course, also true that low taxes by themselves cannot keep farmland in that use. Urban influences other than taxes can discourage farmers. Then, too, some farmers really do have opportunities to sell at high prices.)

One approach that helps to overcome the unfavorable effects of rising speculative values and taxes on continued agricultural use of land is preferential taxation or use-value assessment (Barlowe, Ahl, and Bachman 1973). These procedures treat agricultural land preferentially, assessing it at its value for use in farming rather than at the higher speculative market value. The resulting reduced taxes on the land lower the costs of farming and enable the operation to continue; also, lower taxes are less likely to discourage the farmer from maintaining and improving his real estate capital.

Over three-fourths of the states have adopted some form of use-value assessment, but all of the laws vary considerably (North Central Public Policy Committee n.d.; Hady and Sibold 1974). All 12 states in the Northeast have tax law provisions that treat agricultural land preferentially in comparison with some or all other properties, although Vermont does not have a specific use-value assessment law (Lesher 1977). In Vermont, farmers or other owners of "open space" can enter into contracts with their town governments to "stabilize" land taxes, although the towns are not required to enter into such contracts. In West Virginia, under the state constitution, both agricultural land and owner-occupied residences are taxed at half the rate of other types of real estate. This practice, though not directly related to the farmland value in use, has a somewhat similar effect. In 1977, West Virginia passed a use-value law to prevent higher mineral rights assessments from affecting farmland taxes.

The use-value assessment laws of the other ten states differ considerably in such features as "qualifications, criteria for defining a farm, administration, method for arriving at assessment values, benefits to the qualified parcel owners, the sanction brought against the parcel owner if a change in use occurs, and the types of land use which qualify" (Lesher 1977, p. 139). The details of the various laws are reported elsewhere (see Lesher 1975, 1977). However, an outline of the types of provisions can help in understanding their impacts.
Under such laws, farmland and, in some states, other open land such as forestland or recreation land are assessed at their value in use rather than at market value, in instances where the latter is higher than the former. Because use values are lower, the tax is reduced and the land is not as likely to be forced out of farming. Qualifications for classifying land for agricultural or open space use sometimes include minimum size restrictions or requirements as to farm product sales values, and they may require the owner to be the operator. Laws may merely require that the land is in agricultural use as determined by the assessor, or they may stipulate that it be included in an agricultural district, has been used for agriculture for two years, consists of ten or more acres, and produces at least $10,000 in gross farm sales. In many cases, the requirements have been tightened after the initial laws were passed because in their original form, land speculators and other nonfarmers took advantage of them.

In most states, the landowner must apply for use-value assessment, but in Maryland it is granted automatically. Some states allow local governments to accept or reject the applications, but in others acceptance is mandatory if the applicant qualifies under the state law. All the states now have penalties for use changes, although some states initially passed laws that did not provide for them. The penalties vary: some states simply require that a certain amount of formerly exempted taxes be paid (a "rollback"). In one case, a penalty charge is made equal to twice the taxes levied in the year following the use change, on the entire parcel involved, even if use was changed on only a small part of it. In some states, the penalty is graduated according to the length of time between initial granting of the use-value assessment and the use conversion, a higher penalty being assessed for short than long periods. This procedure is similar to the capital gains tax discussed in the next section of this report.

The methods for determining the value in use also vary. Some states allow the assessor complete freedom to set the values, others use sales data on comparable land, and still others use net income capitalization. The sales data method assumes that comparable land is being sold under conditions where the market reflects only the demand for land for producing agricultural products. In some cases, however, such a market does not exist. The capitalized value is determined by dividing the net land income by an appropriate interest rate; the problem with this approach is that net income and an appropriate interest rate may be difficult to determine. Since quality of resources, type of farm, prices, and costs all affect farm income and values, the task of determining use values can be quite complex.

The problems associated with determining use values have induced many states to set up special commissions or advisory committees; others have charged existing agencies with specific responsibilities for determining use values or at least delimiting ranges for them. Frequently, these groups will classify land according to its productivity and other characteristics and then use capitalization with budgeting or other techniques for determining the use values or appropriate ranges. These values may be used as advisory information for assessors, or they may be binding on the local officials. In some states, counties or other local governments may develop their own methods or regulations.

Use-value assessments are especially important in areas where scattered and sprawling development is progressing at a fairly rapid rate but where open space is still so extensive that the area cannot be fully urbanized for several decades. Land sales in such an area are apt to reflect development values; and if assessors use sales data to establish new value levels, farmers’ tax costs rise markedly. If use-value assessment is available, farmers can prevent a substantial part of such cost increases. Conklin (1976) cites such a case. In 1974 in Orange County, New York, a new set of assessed values resulted in an average tax of about $50 per crop acre, nearly double that of the preceding year. As a consequence, nearly all the eligible farms were organized into agricultural districts to make them eligible for use-value assessment. Similarly, almost all of the eligible farms in New Jersey have been placed under use-value assessment.

In some areas, the growth of the rural nonfarm population has caused scattered parcels in farm communities to sell above farm values under conditions in which the community would be much less attractive to the new nonfarm buyers if it were to be filled completely with nonfarm development. Farming in these instances provides an important part of the amenity value of the area. To assess farmers as though all of their land could be sold for high nonfarm prices would be to destroy the activity that helps to sustain these high prices.

Farmers in areas more remote from urban or suburban influence usually have less incentive to apply for use-value assessments (Barlowe, Ahl, and Bachman 1973; Fellows 1975a; Lesher 1977). Even where it might help a little, the restrictions (penalties) on changes in use and/or sales frequently make owners reluctant to use the technique. In a few instances, however, farmers in remote areas have had their assessments raised on the basis of sales of nearby land for recreational purposes.

A tendency for farmers to capitalize tax reductions into land values could defeat the purpose of farm value assessment laws (Pasour, Danielson, and Liner 1970). In most areas where use values are employed, however, market values are substantially higher than use values, and farmers must pay market values if they wish to buy more land.

### Capital Gains Taxes

The use of a special capital gains tax on land by state or local governments has been suggested as a way to reduce land speculation. This tax would be in addition to, and distinct from, the federal capital gains tax, which tends to have the opposite effect because it taxes capital gains at

---

2 The assessing practices followed in Orange County are now being adopted statewide in New York with pressure from the recent Hellerstein decision and newly adopted policies of the State Board of Equalization and Assessment.
lower rates than ordinary income. This concept has been discussed since Henry George published Progress and Poverty in 1870. Vermont has such a tax (Bingham 1975; Lesher 1975, 1977). Connecticut, Massachusetts, and New Hampshire also tax sales of lands that are under use-value assessments, but these taxes are on sales values rather than gains.

In addition to helping preserve open space, capital gains taxes can provide a way for the public to recover part of the windfall profits that landowners receive because of public investments. Since some of the appreciation in land values results from construction of roads, sewers, power lines, schools, and other public facilities, it is argued that the public should share in some of the profits.

While an infinite number of variations are possible in the application of capital gains taxes, only one example is available. Under the Vermont law, the tax rate varies according to both the degree of gains and length of time the land is held before its sale. Rates rise as the percentage of gain from the sale increases, and they decline as the time increases. The highest rate is 60 percent of a gain of 200 percent or more for land sold during the first year after purchase. The rate during the first year is only 30 percent if the gain is less than 100 percent and 45 percent if the gain is between 100 and 200 percent. The rate drops uniformly by one-fifth in each gain class as the years increase, until after six years there is no tax.

The law has resulted in substantial tax collections in the state, but it appears that most were from intrastate sales. An exemption of one acre for a personal house was included in the original act, and a later amendment raised the exemption to five acres. The effect of such a law is difficult to evaluate until it has been in operation for a number of years, but the short duration and declining rate of the tax seems to preclude the Vermont law from being effective except against short-run speculation. It should be possible, however, to design a capital gains law that would effectively deter long-term speculation.

Washbon (1976), for example, has proposed a relatively high "prime farmlands transfer fee" as a way to discourage the conversion of farmland into nonfarm uses. The fee would be collected on approved transfers and used to compensate owners of land not converted. A much higher fee would be collected from unapproved conversions, although they would not be prohibited. All such proposals can prevent conversion, but more research is needed to evaluate their political feasibility and their costs, legality, administration, and related effects.

Other Taxes Affecting Rural Land Use

Agriculture and other open space uses also may be affected by other taxes not levied directly on the land. Examples are income and estate taxes. Federal income tax laws have influenced land ownership, speculation, and use; and federal estate taxes have influenced what happens to farms on the death of owners. The estate tax law was revised in 1975 to raise exemptions but will still affect many of today’s larger farms. Agricultural land use can also be affected by business taxes. In many states, farmers do not have to pay business and occupational taxes paid by other businesses; but in New York, farmers until recently were required to pay unincorporated business taxes, which were not levied on lawyers, doctors, and other professionals.

The federal income tax. The federal income tax, according to Raup (1975), has been used to subsidize the suburbs and thus to stimulate the conversion of substantial areas of prime agricultural land to residential, commercial, and industrial uses. Deductible interest charges have been an incentive to building large numbers of single-family residences, which use more land; and tax-exempt municipal bonds have enabled the suburbs to finance schools, roads, libraries, and other services at lower costs.

The federal capital gains tax, however, probably has been the most important provision of the federal income tax to have affected agricultural land. Income from property held for a year (formerly 6 months) qualifies as capital gains and is taxed at a lower rate than other income. Thus, individuals who can arrange to receive their income from capital gains, or who can convert ordinary income into capital gains, lower their tax burdens. Speculators can do this by purchasing relatively low-priced land and selling it later at higher prices, provided they are skillful enough to pick land whose value actually increases. Since the land nearest to urban areas will have already appreciated in value, speculators tend to buy farther out. Developers follow, if the speculators have chosen wisely. The scattering of subdivisions and individual houses far beyond the urban perimeter has been made possible, of course, by the automobile and by the expansion of public services into rural areas.

Owners of farmland share in land value gains when they make a high-priced sale. Scattering suburbanites, however, infiltrate wide fringes around most urban centers — fringes much larger than can be fully converted to urban uses for many decades. Many farmers not only receive no high-priced offers for more than their frontage, but become subject to high taxes, vandalism, theft, dog damage, restrictive ordinances, and related cost-increasing effects. Farmers who are lucky enough to sell are often surprised by the high costs and time delays involved in relocating. Even the low rate of capital gain levied on them comes out of money they would use to relocate, unless they are ready to retire. Farmers, as farmers, do not buy land to sell and therefore seldom gain directly from the capital gains provisions of the income tax laws. Speculators, however, may offer farmers somewhat higher prices in consideration of their opportunities to benefit from these provisions of the income tax laws. Speculators also will be more persistent in seeking land to buy because of these prospective benefits.

The presence of speculators in an area has a debilitating effect on farming. The offers they make, though often limited in number, still tend to divert farmers’ attention. Increasing numbers of nonfarmers usually follow with their disadvantaging influences. Farmers stop replacing buildings, orchards, and other investments that deteriorate and become obsolete. A high proportion of farmers’ investments in real estate in the Northeast are in depreciable items, so these changes are especially damaging. Even as little as a 10 percent ownership of land by speculators can have serious effects (King and Conklin 1977, Bryant 1976b).

Estate taxes. Estate taxes are levied to raise revenue, redistribute income, and direct social development (Woods and Guither 1975). Because the taxes must be paid on the death of the estate holder and are sharply progressive with the size of the estate, they may result in the need to dispose of all or a portion of the estate to pay the taxes.3 Estate taxes, therefore, are an important factor in the transfer of farmland from one generation to another.  

3State inheritance taxes are also levied, but they generally are no more than the deductible amount that can be applied against the federal estate tax.
The 1976 Federal Tax Reform Act eased the effects of estate taxes by changing the minimum size of estate on which taxes would be owed from $60,000 to $120,000 for 1977-80 and to $175,625 for 1981 and thereafter (Sisson 1976). Also, it raised the marital exemption to $250,000 or one-half the estate (whichever is greater) and extended to 15 years the time for paying the tax on farms or other closely held businesses. The new law also combines the estate and gift taxes; but perhaps the most important provision is one that allows valuing farms (and other closely held businesses) at their value in use rather than at market value. This provision can aid greatly in keeping land in the hands of heirs who wish to continue farming, especially if the land is located in urbanizing areas where development frequently determines market values. Without the use-value provision, increasing land prices would still subject many average-sized farms to significant estate taxes. The law also contains a recapture provision that applies if the property is sold outside the family or converted to other uses within 15 years. In short, the 1976 Tax Reform Act makes it easier to pass sizable farms from one generation to another.

Facilitating Districts

Traditionally, zoning ordinances have provided the mechanism for establishing land-use priorities in the United States where such priorities have been set as a matter of government policy. Zoning has not been popular, however, for giving priority to agriculture. Recently, other approaches for recognizing agriculture as a priority land use have been developed. These alternatives to zoning, tailored to the particular problems and concerns of commercial agriculture, have considerable appeal to policy makers, commercial farm operators, and the public in general.

The New York Agricultural District Law

New York has accumulated several years of experience with a nonzoning technique designed to recognize commercial farming as a priority land use. The technique involves state enabling legislation, which allows landowners voluntarily to petition county legislative bodies to create agricultural districts.

The agricultural district law is designed to encourage commercial farming in the face of growing urban pressure. Its preamble states that it is a matter of state policy to "conserve and protect and to encourage the development and improvement of its agricultural lands for the production of food and other agricultural products" (Lesher and Conklin 1976). The law is based upon the premise that much of the state's agriculture, especially that in the wide commuting belts around urban areas, is jeopardized by urban growth.

Provisions of the law. The law contains six major provisions which apply in all agricultural districts:

1. Owners of 10 or more acres with $10,000 or more in yearly gross farm sales may make an annual application for a use-value assessment of farmland. If any land so assessed is converted to a nonfarm use, a rollback of exempted taxes must be paid up to a limit of five years.4
2. Local jurisdictions of government are constrained from regulating farm structures or practices by ordinance. Any new regulations must bear a direct relationship to the public health and safety.
3. State agencies must modify regulations and procedures to encourage commercial farming, consistent with promotion of public health and safety.
4. The right of public agencies to acquire land through eminent domain is modified if actively farmed land is involved. Reviews are required at the state level. If the review shows that public acquisition would have unreasonable effects on viable farmland, public hearings and reports conducive to a wide dissemination of the findings must be made.
5. The right of public agencies to provide funds for public facilities that would encourage nonfarm development is modified.
6. The power of public service districts to tax farmland for sewer, water, and non-farm drainage is restricted.

In combination, the provisions of the law are intended to encourage the continuance of agriculture in commuting belts around cities (Bryant and Conklin 1975). Some provisions offer commercial farmers protection from public regulations that might be overly restrictive on farming practices, and others offer owners of farmland relief from property tax assessments that exceed the use value of farmland. Eminent domain proceedings involving farmland must be more carefully considered. Finally, some of the provisions aim at discouraging (but not prohibiting) residential, commercial, and industrial development.

The impetus for creating a district stems from a petition by landowners to the county legislative body. Owners forwarding the proposal must own 500 acres or 10 percent of the land in the proposed district, whichever is greater. The proposal is referred to the county planning board and a county agricultural advisory committee for consideration. These groups make reports to the county legislature, public hearings are held, and the proposal ultimately goes to the New York State commissioner of Environmental Conservation. The New York State Agricultural Resources Commission (a part of the New York State Department of Agriculture and Markets) and the secretary of state are consulted before the commissioner's certification is made to the county legislature. The county legislature then takes final action to ratify the proposal and create the district.

The creation process is complex and time consuming. Six months or more often expire before a district proposal is ratified by the county legislature. The lapse of time, however, allows for a substantial amount of interaction among landowners, planners, legislators, and representatives of state agencies. Some observers contend that such interaction has also increased local public awareness of the agricultural district program and the importance of agriculture in the community (Conklin and Bryant 1974).

3 A county agricultural advisory committee is appointed by the county legislature and consists of four active farmers, four agribusinessmen, and one member of the county legislative body.

4 In September 1975, the commissioner of Environmental Conservation was granted authority to create districts of 2,000 or more acres to encompass "unique and irreplaceable agricultural lands." The commissioner must consult with local people, the Agricultural Resources Commission, and the secretary of state before taking action. To date, no initiative to create a district has been taken at the state level.

4 Individual farmers who are not inside a district are also eligible for a use-value assessment under the Agricultural District Law. Their commitment, however, is for 8 years (renewed annually), and conversion to a nonfarm use involves a monetary penalty rather than a rollback of previously exempted taxes.
Patterns of implementation. Response to the New York agricultural district law was strong and immediate. Initial proposals on the part of landowners to create districts were forwarded to county legislatures during the fall of 1971. Within the program's first year, two districts involving roughly 6,000 acres were formed by county legislatures (table 1). The program rapidly gained momentum, and well over 400,000 acres were added during the second year. By April 1977, slightly over 4.25 million acres were included within the boundaries of agricultural districts. 7

The trend has been toward larger districts. Districts initially created averaged less than 3,000 acres (table 1), but those created during the fifth year averaged 24,657 acres. The average district in New York now contains just under 14,000 acres.

Overall, county legislatures and state agencies have been highly receptive to landowner initiatives to create agricultural districts. New York's 321 districts have stemmed from 330 separate petitions by interested landowners (New York State Agricultural Resources Commission n.d.). According to records provided by the Agricultural Resources Commission, only six petitions have been rejected after going through the review process.

The response to the New York law has also been remarkably even in that 47 of 57 county legislatures have created agricultural districts. 8 Of those county legislatures that have not acted, four (Nassau, Putnam, Rockland, and Westchester) are near New York City, suburban in character, and lack concentrations of agricultural land uses. The need to create districts probably cannot be expected there. Similarly, three nonparticipating counties (Fulton, Hamilton, and Warren) are mountainous, and large land areas are unsuited for farming. The remainder — Schenectady, Schuyler, and Suffolk counties — have commercial agriculture in varying amounts but have not yet created districts.

District size. The New York law allows for a minimum of 500 acres in an individual district. However, few small districts have been petitioned for by landowners. Only 8 of the 321 districts formed through April 1977 contain fewer than 1,000 acres (table 2). These smaller districts account for only two-tenths of one percent of the total program acreage. At the other extreme, districts with 25,000 or more acres make up 53 percent of the program acreage. New York's largest agricultural district, located in St. Lawrence County, contains more than 243,000 acres (about 380 square miles.)

Farm numbers also constitute a useful dimension of district size. The law specifies that an agricultural district can be composed of a single farm, but the average district contains 40 farms (table 3). Almost one-fifth of all districts contain fewer than 10 farms, but New York's eight largest districts contain an average of 291 farms.

District configuration. Although the law is specific with respect to minimum district size, landowners and county legislatures received no specific advice on district configuration. The law merely requires that county legislatures and state agencies take measures to insure that an agricultural district consists predominantly of viable agri-

---

7 Additional districts have been created since this report was written. As of August 1978, New York had 373 districts, which take up 5,324,472 acres.

8 Five of New York's counties comprise New York City and have neither county legislative boards nor large acreages in agriculture.
cultural land and that the district is not inconsistent with state and local comprehensive plans, policies, and objectives. Viable agricultural land is defined as: Land highly suitable for agricultural production and which will continue to be economically feasible for such use if real estate taxes, farm use restrictions, and speculative activities are limited to levels approximating those in commercial agricultural areas not influenced by the proximity of urban and related non-agricultural development (Lesher and Conklin 1976, p. 5). In judging viability, the law requires that:

any relevant agricultural viability maps prepared by the Agricultural Resources Commission shall be considered, as well as soil, climate, topography, other natural factors, markets for farm products, the extent and nature of farm improvements, the present status of farming, anticipated trends in agricultural economic conditions and technology, and other such factors as may be relevant (Lesher and Conklin 1976, p. 8). After making a field inspection, the Agricultural Resources Commission prepares a written report at the state level. One purpose of the report is to establish to the satisfaction of state agencies that the proposed acreage predominantly consists of viable agricultural land.

As a practical matter, physical features and patterns of land use in virtually all of New York State preclude the delineation of a district that is solely comprised of "viable" farmland. Some of New York's total land in farms has no direct use for production. The typical New York farm contains 205 acres, and 124 acres are used for crop production (U.S. Bureau of the Census 1976). The remainder — woodland, waste land, and the like — has only incidental use in producing livestock or crops, yet whole farm units are included in a district.

Similarly, farms and farmland in New York are generally comingled with land in several nonfarm uses. Residential, commercial, forest and "non-uses" — idle land — are often interspersed with land owned or controlled through lease by commercial farmers.

Several county legislatures have delineated districts that involve two or more noncontiguous areas of land. Presumably, the acreage that separates districted tracts is deemed to have no viable use for commercial farming, is farmland owned by individuals who have declined to participate in the program, or both. On the other hand, most districts in New York consist of but one contiguous area of land. Some of this acreage is not owned or controlled through lease by commercial farmers and involves a nonagricultural use.

Agricultural districts and city size. Most observers agree that the influence of cities on commercial farming tends to decrease as the distance from cities increases.\(^5\) Bryan (1975) describes belts or rings of urban influence, but urban influences are difficult to measure quantitatively.

Although a sophisticated measure of urban pressure is not available, it may be useful to study the proximity of New York's agricultural districts to large central cities (cities with a population of 50,000 or more). Table 4 shows the volume of districted acreage located within and beyond an arbitrarily selected 25-mile radius of central cities (they are Albany-
have been in more rural areas of the state. Intense in the vicinity of large cities as they form agricultural districts have been as 25-mile radius — a percentage more than acreage included in agricultural districts. Schenectady-Troy, Binghamton, Buffalo, New York City, Rochester, Syracuse, and Utica-Rome). About 24 percent of all acreage included in agricultural districts through April 1977 is situated within the 25-mile radius — a percentage more than proportionate to the total land area within those zones. One can infer that efforts to form agricultural districts have been as intense in the vicinity of large cities as they have been in more rural areas of the state. Districts located near large cities, however, are not situated immediately adjacent to them (table 5). About 160,000 acres (less than 4 percent of the state's total districted acreage) are within 10 miles of cities with a 1970 population of 50,000 or more. Moreover, average district size increases as distance from the central city increases. Although pressure from smaller urban places might also be disruptive to agriculture, in fact few agricultural districts are immediately adjacent to an urban place of any size (table 6). Around 10 percent of all districted acreage lies within 5 miles of an urban place, and most is 11 or more miles from a place that has 2,500 or more residents.

Discussion
The New York Agricultural District law has been rapidly implemented. As of April 1977, roughly 4.45 million acres (14 percent of the state's total land area) were included in the program. Additional initiatives to form districts are underway in several New York counties. The rapid progress is attributable to several factors. First, the primary responsibility for creating districts is placed in the hands of individual landowners. This approach has proven to be well suited to the political realities confronting land-use policy decisions within New York State. Also, the program has been implemented with relatively modest expenditures of public funds. Although the creation process is time consuming, jurisdictions need only bear the costs of reviewing proposals and arranging for public hearings.10

The law also appeals to landowners in that it takes into account and seeks to modify some of the urban influences other than taxes that can impinge upon the success of agriculture, such as restrictive ordinances on noise or odors that commercial farm owners and the general public perceive as important. Another factor encouraging district creation is that a district can help cope with specific local problems. For example, New York's first agricultural district was formed in a community where plans for a water storage project were being discussed. Land would have been permanently removed from farm use if the reservoir had been constructed. For landowners, the district offers protection against conflicting land-use plans.

Finally an important incentive to form districts involves current interest in property tax reforms for New York State. Local tax jurisdictions, with encouragement from state government and the courts, are changing their procedures for real property valuation. Many farmland owners may be electing to form agricultural districts in the belief that the historically low farmland assessments will not continue in their community. The law's provisions for use-value assessments would protect farmland owners from higher property taxes if the new assessments reflect nonfarm land values.

Widely different motives for creating districts correspond with different expectations as to the law's effects. Some people view the law primarily as a device to give landowners property tax relief. Satisfactory performance, in these terms, involves successfully preventing a shift of property tax burdens from other classes of property owners to farmers in a reappraisal process. Others consider the law a device to couple property tax relief with other measures so that farmland can be protected from encroachment. Satisfactory performance, in these terms, would involve measurable impacts on commercial farming and patterns of land use within the boundaries of agricultural districts.

Regardless of individual expectations, generalizations about the performance of agricultural districts are difficult to make yet. The program is new, and few districts have been in place for as much as four years.” Furthermore, attempts to create districts have coincided with surges in farm commodity prices, significant increases in energy prices, a general downturn in many nonfarm sectors of the New York economy, and a slight decline in total state population. The net effects of districts on commercial farming and land use in general cannot be readily separated from the net effects of other important events during this period.

Even with these reservations in mind, however, it still seems clear that two aspects of the agricultural district approach will have long-term consequences for public policy within New York. First, agricultural districts grow out of the interests of and initiatives taken by landowners. The deployment of districts may not coincide with the wishes of urban and of professional groups, nor even with those of some nonfarm rural persons.

Secondly, if public policy instruments are continually developing to deal with land use near cities, agricultural districts may in time be thought of as a logical step in that progression. Districts couple property tax relief — the first step taken in most parts of the United States — with several other measures designed to encourage the continuance of commercial farming under direct urban pressure. They increase the visibility of agriculture as an industry and as a priority use in a locality. Districts also help focus the public's attention upon farm businesses as well as farmland. A facilitating district may be useful until the public at large forms a sharper opinion about the problem and decides to take more positive action.

Local governments will have costs imposed in the form of foregone property tax revenues as farmland owners take advantage of the law's provisions for use-valued farmland assessment. However, de facto preferential tax treatment of farmland has been a long-standing practice in New York. Only those farm owners in taxing jurisdictions who use

"A pilot study is now nearing completion in Erie County, New York, to ascertain any measurable effects of agricultural districts located there.
Zoning

The land-use decisions of more people in the Northeast are affected by zoning than by any other land-use control measure. Zoning was originally developed for controlling land use in urban areas, and today nearly all urban and suburban areas of the Northeast are zoned. Zoning more recently has been extended into rural areas, especially into semisuburban areas and intensively used rural recreational areas.

Zoning is an exercise of the police power, and as such it requires no compensation for those whose activities are restricted. To be constitutional, it must be exercised in the interests of the health, safety, morals, and general welfare of the public at large. It is applied geographically, with the municipality involved subdividing its territory into zones and providing for differential restrictions on land use among these zones. Normally, the courts require that all the territory within any given municipality be covered by the ordinance; in other words, all parts of the area must be in one zone or another and subject to the restrictions applied to that zone. (The alternative is called “spot zoning” and is usually not acceptable to the courts.)

Our national and state constitutions and subsequent court decisions have placed the police power in the hands of each state (Roberts 1975). The states may exercise this power themselves, or they may delegate it to lower units of government through enabling legislation. The police power necessary for exercising zoning to control residential, commercial, and industrial uses has been granted by all northeastern states to cities, villages, and towns. The direct exercise of this power for zoning by the states is rare, and only in West Virginia has it been granted to counties. One regional agency, the Adirondack Park Agency, has received a clear grant of zoning authority, but no others have.

Unless zoning is carried out in a “reasonable” manner, it will be declared unconstitutional by the courts (Bosselman and Callies 1971). Reasonableness is judged partly on whether suitable institutional safeguards are provided—such as land-use plans, hearings, and boards of appeals—and partly on the magnitude of the losses in land value, if any, suffered by those whose uses are restricted. Institutional safeguards generally have been standardized, and ordinances are rarely invalidated on this basis. The loss issue, however, is much more complex and uncertain. Courts, in some instances, permit large losses, whereas in others small losses are sufficient to overturn an ordinance. Generally, the courts have become less sensitive to large value losses.

Zoning has the potential for preventing other uses from interfering with farming, and thus it can help to preserve agriculture in areas where farming is an economically viable activity. The viability of farming is affected by the natural condition of the land resources and by the availability of farming interests and skills, farm input supplies, agricultural capital, and markets for farm products. Zoning cannot influence these factors directly, but it may help to maintain enough farming in an area to provide the minimum critical mass needed to keep farm supply and marketing businesses alive.

The possibility of exclusive agricultural zoning has been discussed widely throughout the nation, but no instances of exclusive agricultural zoning in the Northeast have come to the attention of the authors of this report. Large-lot zoning (see below), however, sometimes is supported by the argument that it discourages residential interference with agriculture; and a system of land-use control known as TDR, which would use exclusive agricultural zoning as one feature, is being strongly promoted in some areas. (See “Transfer of Development Rights” in this report.)

Even though most municipalities have the authority to zone for all land uses, zoning is used principally in urban development and in preparing areas for urban development. The trend in the Northeast for a century-and-a-half was a population movement to metropolitan areas, and until 1970, development and growth were concentrated in the suburbs. Therefore, the tendency in zoning has been to consider urban uses “highest and best” for all lands. The most desirable lands (i.e., those with the best location, access and soils) often were zoned industrial and commercial, followed by residential.

Large-lot Zoning

In some semisuburban and rural areas of the Northeast, zoning ordinances require that lots be several acres in size for the construction of a new house. The stated purpose, at least in some instances, is to discourage settlement and preserve open space for agricultural or other uses. Sometimes, large-lot zoning ordinances are advocated to contain public service costs and provide sufficient area for the disposal of septic tank effluent.

Large-lot zoning so far has been largely ineffective in preserving farming. Common requirements call for 2 to 10 acres as minimum lot sizes. Farm values for land seldom exceed $1,000 per acre in most areas of the Northeast and rarely exceed $2,000 per acre even in intensively farmed localities. Lots of 2 to 10 acres thus would cost $2,000 to $20,000, a price range that is common for house lots in densely settled suburbs and thus not likely to significantly deter development. If the cost of large lots exceeded this range, it would indicate that urban pressure already exists and may be debilitating agriculture through high taxes, restrictive ordinances, and speculation that distracts the attention of farmers.

Large-lot ordinances are limited almost entirely to residentially attractive semisuburban areas, and in general their location bears no close relationship to the suitability of the area for farming. The houses constructed are usually expensive compared with most new houses, and their occupants can easily afford the cost of the large lots at farm value. Large-lot zoning is more suitable for maintaining selected areas for attractive residential development than for preserving agriculture.

It would be possible for owners of large lots to rent land to farmers. The lots usually are not large enough, however, to make this practical. The predominance of animal agriculture in most areas of the Northeast also mitigates against this. Much land is rented by farmers in semisuburban areas, but most of this is still held as undeveloped land by speculators in much larger blocks than the lot sizes specified in large-lot ordinances.

Minimum lot sizes might be increased in large-lot ordinances. Some courts, however, have questioned the equity of this approach because lot sizes then bear no possible relationship to health and safety, and the ordinances are open to charges of elitism. Large-lot ordinances also become less politically acceptable as lot size increases beyond what is preferred by affluent fringe-area residents.

Less than 1 percent of the agricultural land of the Northeast is covered by large-lot zoning ordinances. It seems most unlikely that this instrument will contribute significantly to the preservation of agriculture in the region.

Exclusive Agricultural Zoning

A carefully designed, exclusive agricultural zoning ordinance would most likely
be considered constitutional, at least in many areas of the Northeast, even though none appear now to exist. It could perform an important public purpose by helping to assure an adequate supply of food. The only possible difficulty would arise over the question of whether an exercise of the police power is a reasonable means for furthering this purpose.

Reasonableness would be judged by the courts in part according to the magnitude of the value losses suffered by those who are restricted (Bosselman and Callies 1971). In many areas, farmland has not yet become valuable for nonagricultural uses, and ordinances passed now in anticipation of future urban pressures would most likely be upheld. Additionally, the courts currently appear to be giving greater consideration to noneconomic factors than to value losses. Preserving agriculture immediately adjacent to expanding urban perimeters could be quite difficult because of the very large value losses it would impose on landowners; but farther out in semisuburban areas, preserving farmland through exclusive agricultural zoning probably would pass all court tests with few problems.

Exclusive agricultural zoning meets its greatest difficulties in political feasibility. Action to maintain a healthy agriculture needs to be taken before many nonfarm uses have infiltrated the area. Usually, however, local people see no reason for taking action before the problem is serious, and they also hold strongly to traditional values of individual freedom, including freedom to use one's property as one sees fit.

Numerous proposals have been made to move the exercise of zoning to higher levels of government and to transfer more of its control from lay boards and elected officials to professional planners. The American Law Institute (1975) has proposed a model law for this purpose, and bills of this type have been introduced in the legislatures of most states in the Northeast over the past ten years.

Two states — Vermont and New York — made especially well-organized attempts to institute land-use controls at the state level. Both were partially successful. Vermont adopted part of the proposed controls for the whole state, and New York adopted all of the proposed controls for a part of the state, the Adirondacks.

Vermont’s Act 250 contains provisions for regional and state control of large developments anywhere in the state and of smaller developments in environmentally sensitive areas. It also calls for creating a statewide plan for all land uses and implies creation of state controls to implement this plan (Healy 1976, Lesher 1977). The development controls have been put into practice and are widely supported, but no detailed state plan for all land uses has been accepted, and no implementing state controls have been adopted. (See “Special Development Controls” in this report.)

The New York effort to redesign the institutional structures through which zoning is carried out produced Senate Bill 9028 of 1970. The bill did not pass; in fact, it never came to a vote. Instead, the budget of the office proposing it was cut by 60 percent, and its name was changed.

Bill 9028 would have left nominal planning and zoning powers at the local level, as at present, but would have created a seven-member state board with far-reaching authority to set standards for exercising these powers and to supplant local control if the standards were not met. The bill introduced a new concept called “areas of critical state concern.” These areas included most portions of the state in which housing and other urban developments were likely. Also included were “areas of statewide agricultural importance.” Those who prepared Bill 9028 expected that this state action would bring about exclusive agricultural zoning.

Although summarily rejected for statewide use, the concepts of Bill 9028 were used in other instances. To some extent, the bill was a model for a flood plain zoning law enacted in 1974. More significantly, however, the concepts of the bill served as a model for creation of one regional land-use control agency — the Adirondack Park Agency — and for the proposal of a second one for the Catskills. The question is whether acceptance of the Adirondack Park Agency foreshadows region-by-region acceptance elsewhere.

The Adirondack Park Agency has been bitterly opposed by many residents within the region, but actively and strongly supported by a variety of groups concentrated especially in the more affluent parts of metropolitan New York. Many in the more modest income areas of large cities support the agency, though less actively, even though its controls in the long run will reduce the likelihood that they could find suitable facilities if they wished to visit the park.

Bills have been introduced into the New York legislature under the title "Catskill Regional Resources Management Act," but none have come to a vote. This region contains many more local people than the Adirondacks. More importantly, large numbers of New York City people enjoy vacations in the Catskills and fear their activities and accommodations could be affected.

At this writing, the chance for creation of a Catskill regional agency that would have reserve authority to control land use appears to be not better than 50 percent. The population in the area has been estimated to be growing more rapidly than in any other area of comparable size in the state. Preliminary data from a study in Schoharie County on the north side of the region suggest that many of the immigrants are Social Security retirees and lower-middle-income “escap­ees” from the inner city areas of the New York metropolitan area. Part of the population increase also is coming from children born locally who decide to stay in the area rather than move city-ward as in the past. The “escap­ees” and the local young people often have modest incomes and frequently depend on local agribusinesses for employment. None of these increasing components in the rural population pose major threats to the continuance of agriculture in the area.

The flood plain zoning act adopted by the New York legislature in 1974 also followed the general pattern proposed in Bill 9028 of setting standards and establishing reserve power to act at some level above the local governments. In this case, the federal standards imposed for qualification for flood plain insurance were adopted as the standards to be enforced under the state law. The federal definition of flood-prone areas also was adopted for the area
The importance of state and regional efforts

While agricultural zoning at regional and state levels so far has encountered insurmountable political difficulties, evidence continues to accumulate that no type of low-density zoning at the town level can resist heavy population pressures. Research conducted in Rhode Island as part of this project contributes further to this evidence. Despite its small area, Rhode Island is an appropriate region for an analysis of land-use controls. It is a microcosm of the land area designated by Jean Gottman as "Megalopolis" (Gottman 1961).

Rhode Island has a relatively long history in the use of zoning to control land use. In 1921, the state passed enabling legislation allowing towns and cities to adopt zoning ordinances. Today, all cities and towns in Rhode Island have zoning ordinances, though the Town of Exeter waited until 1974 to adopt its ordinance. None of the towns have exclusive agricultural zones, but all have low-density residential zones.

A 15-year time period (1960-1975) was used in this study to analyze zoning controls in Rhode Island, and information for 16 towns was included. With Exeter, which adopted its ordinance too recently to be included, these 16 towns form a ring encircling the urbanized area of the state.

The criterion used as a measure of the extent to which zoning yielded to pressure was the number of rezonings in each town. The number of rezonings were correlated with population growth and employment changes, and less formal comparisons were made with growth in the highway, public sewer, and public water systems.

The 16 Rhode Island towns in this study granted 195 rezonings totalling 4,451.7 acres between 1960 and 1975. The average rezoning involved 22.8 acres. In 84 percent of the rezonings, more intensive use of the property was allowed, and in 68 percent a more intensive use actually was instituted.

Populations increased in all towns between 1960 and 1975. Using the average number of rezonings per year as the dependent variable, the correlation coefficient with population increase was statistically significant at the 1 percent level of confidence probability. The conclusion was that there is a highly significant positive correlation between population growth and the number of rezonings in rural suburban Rhode Island.

The employment changes used in this analysis were those recorded under the Rhode Island Employment Security Act. Agricultural employment was not included, but since it is small in comparison with other sectors of the economy, its omission probably did not have a significant effect on the findings. As with population changes, employment increased in the rural area during the time covered by the study. The correlation between rezonings and annual employment changes by towns was statistically significant at the 1 percent level.

Because population and employment interact to influence the number of rezonings, a multiple correlation analysis with both population and employment as independent variables was done, and it gave the highest correlation coefficient of all.

During the 15-year time frame of this study, new highway construction reduced the travel time between Providence and the semisuburban towns by 5 to 10 minutes. For purposes of this analysis, the number of rezonings occurring within 3,000 feet on either side of new major highways was compared with the number of rezonings outside this corridor. It was found that 71 percent of all rezonings occurred in the 6,000-foot corridor. Moreover, 60 percent of the rezonings that were made outside this corridor occurred on other state, rather than local, highways. The majority of the rezonings within the corridor were to higher intensity uses (70 percent), whereas most of the rezonings outside the corridor were only for changes in residential use.

Only 2 of the 16 towns had public sewer systems. A total of 11 rezonings occurred in those two towns, all of which were to permit commercial development or apartments. Public sewers tend to follow growth and not direct it. Federal funding policies for sewers require a high minimum flow, which makes it impossible to use sewer construction for directing growth toward suitable but as yet undeveloped land.

The incidence of rezonings in areas served by public water systems (49 percent) was little different from those in areas without public water. This unexpected result may be due to the fact that plentiful well water exists in most of Rhode Island, and wells are often used until population densities become quite high.

Three factors thus appear to be highly correlated with changes in zoning in rural suburban towns: population, employment, and proximity to major highways. It seems clear that the changes in zoning to more intensive land use are a reflection of growth pressures that occur either because of greater accessibility or because of natural growth.

It should be noted that the zoning changes represent only 1.2 percent of the land area under study. On the other hand, it is also true that rezonings are only a partial measure of change. Most towns are overzoned for the more intensive uses. For example, 5/2 times as much land was zoned for industry in 1970 as was currently in industrial use.

Although none of the zoning in Rhode Island has attempted explicitly to preserve agriculture, development has in fact tended to avoid highly viable agricultural areas in the more rural suburban towns. In the more urban suburban towns, however, much good agricultural land has passed to urban uses since 1960, although nonviable agricultural lands were developed first.

In general, the changes in land use that occurred from 1960 to 1975 conformed closely with the predictions made in 1960 when open land was classified according to its economic suitability for agriculture or forestry (Jeffrey 1962). Economic land class IV consisted of land that could be expected to remain in agriculture because of its high economic return. Land class HI consisted of good agricultural land, but its future potential in farming was lower because of less favorable soil characteristics and location.
Land classes I and II were primarily woodland in 1960, with some scattered agriculture in class II. It was expected all of classes I and II would be out of agriculture by 1975.

In fact, in the more urban suburban towns, classes I and II had largely developed before 1960; thus, between 1960 and 1975, these towns had the greatest changes in the two higher classifications. In the more rural suburban towns, development took place mostly on class I and II land, and little change occurred on class III and IV land.

Summary

The possibility of preserving agriculture by exercising the police power through zoning has been strongly advanced in the Northeast but so far has found little acceptance. Action at regional or state levels appears prerequisite to successful exclusive agricultural zoning. The only instance in which zoning has been authorized at the regional level is in a region with little agriculture. Attempts to expand this model to areas that include important agricultural activities have been largely urban based and unique to that region. All efforts to pass state zoning for the one regional program appears to be minimal under these conditions. Various types of compensatory zoning have been considered under these conditions, including the transfer of development rights (TDR) and the transfer of development rights to maintain a current open-space land use in the first zone. The TDR approach has been considered for water aquifer recharge areas, flood plains, historic sites, woodlands, aesthetic natural areas, and prime agricultural land. What is transferred or relocated are potential housing densities (units per acre) and floor area for industrial and commercial uses. Thus, the permitted new development density is reduced for the area to be preserved and increased for areas where it is deemed desirable to have future development. The developer would be permitted to build at higher densities in the developable zone by purchasing "development rights" from owners in the preserve. Basically, all future development would be prohibited in the preserved zone, except that which would be consistent with the intent of the zone. For example, the construction of agricultural facilities would be permitted if the zone were to preserve farming on prime agricultural land. Certain extensive recreational activities would also be consistent. As compensation for this down-zoning in the preserve, landowners would be issued development right (DR) credits or certificates which they could eventually sell to a developer-builder in the up-zoned area. Builders would be given a choice in the development zone: build at the current permitted density, in which case no credits or certificates would be required, or build at the higher permitted density, in which case they would have to purchase DR certificates. It is assumed that developers would prefer to build at the higher density, especially after development is prohibited in the preserve zone. Current

Transfer of Development Rights

The 1950s and '60s were characterized by a flight to the suburbs, rapid conversion of farmland, agricultural surpluses, and excess resources in the food and fiber industry. But, at the turn of the current decade, agricultural surpluses disappeared, and farm incomes rose with the strengthening of the international market. Also, communities started to realize that growth was not necessarily a benevolent goal, for expansion produced some unanticipated growing pains. Communities became aware of the total cost of progress, including such losses as vanishing natural landscapes and pastoral scenes. As communities viewed their shrinking acres of open space, these areas took on a rapidly increasing value.

While remaining open space was scarce and desirable, the cost of saving it by conventional means was becoming prohibitive. At the local governmental level, even the cost of a few hundred acres was too much if financed out of general income. On the other hand, development values had become so high that zoning to preserve open space was becoming politically if not legally unacceptable. A land-use control technique known as the transfer of development rights (TDR) was proposed to solve the problem. It would shift the financial burden to the private sector via the market place and compensate those whose choices would be restricted.

The Basic Concept

The basic concept of TDR programs is systematically to transfer potential development from one zone to another in order to maintain a current open-space land use in the first zone. The TDR approach has been considered for water aquifer recharge areas, flood plains, historic sites, woodlands, aesthetic natural areas, and prime agricultural land. What is transferred or relocated are potential housing densities (units per acre) and floor area for industrial and commercial uses. Thus, the permitted new development density is reduced for the area to be preserved and increased for areas where it is deemed desirable to have future development. The developer would be permitted to build at higher densities in the developable zone by purchasing "development rights" from owners in the preserve. Basically, all future development would be prohibited in the preserved zone except that which would be consistent with the intent of the zone. For example, the construction of agricultural facilities would be permitted if the zone were to preserve farming on prime agricultural land. Certain extensive recreational activities would also be consistent. As compensation for this down-zoning in the preserve, landowners would be issued development right (DR) credits or certificates which they could eventually sell to a developer-builder in the up-zoned area. Builders would be given a choice in the development zone: build at the current permitted density, in which case no credits or certificates would be required, or build at the higher permitted density, in which case they would have to purchase DR certificates. It is assumed that developers would prefer to build at the higher density, especially after development is prohibited in the preserve zone. Current

Transfer of Development Rights

The 1950s and '60s were characterized by a flight to the suburbs, rapid conversion of farmland, agricultural surpluses, and excess resources in the food and fiber industry. But, at the turn of the current decade, agricultural surpluses disappeared, and farm incomes rose with the strengthening of the international market. Also, communities started to realize that growth was not necessarily a benevolent goal, for expansion produced some unanticipated growing pains. Communities became aware of the total cost of progress, including such losses as vanishing natural landscapes and pastoral scenes. As communities viewed their shrinking acres of open space, these areas took on a rapidly increasing value.

While remaining open space was scarce and desirable, the cost of saving it by conventional means was becoming prohibitive. At the local governmental level, even the cost of a few hundred acres was too much if financed out of general income. On the other hand, development values had become so high that zoning to preserve open space was becoming politically if not legally unacceptable. A land-use control technique known as the transfer of development rights (TDR) was proposed to solve the problem. It would shift the financial burden to the private sector via the market place and compensate those whose choices would be restricted.

The Basic Concept

The basic concept of TDR programs is systematically to transfer potential development from one zone to another in order to maintain a current open-space land use in the first zone. The TDR approach has been considered for water aquifer recharge areas, flood plains, historic sites, woodlands, aesthetic natural areas, and prime agricultural land. What is transferred or relocated are potential housing densities (units per acre) and floor area for industrial and commercial uses. Thus, the permitted new development density is reduced for the area to be preserved and increased for areas where it is deemed desirable to have future development. The developer would be permitted to build at higher densities in the developable zone by purchasing "development rights" from owners in the preserve. Basically, all future development would be prohibited in the preserved zone except that which would be consistent with the intent of the zone. For example, the construction of agricultural facilities would be permitted if the zone were to preserve farming on prime agricultural land. Certain extensive recreational activities would also be consistent. As compensation for this down-zoning in the preserve, landowners would be issued development right (DR) credits or certificates which they could eventually sell to a developer-builder in the up-zoned area. Builders would be given a choice in the development zone: build at the current permitted density, in which case no credits or certificates would be required, or build at the higher permitted density, in which case they would have to purchase DR certificates. It is assumed that developers would prefer to build at the higher density, especially after development is prohibited in the preserve zone. Current

Figure 1. Diagrammatic flow of TDR program

[Diagram of the flow of TDR program with stages labeled as follows: Developable area, Built up area (unchanged), Preserve area, Compensation, Governing body, TDR plan, Zoning/master plan modification, State enabling legislation, Periodic revisions. Each section is connected with arrows indicating the flow of the process.]
A TDR program could be carried out with a minimum of new governmental involvement. Government would need to modify the zoning ordinance and the master plan, but existing personnel — building inspector and chief zoning officer — would be in charge of administration and enforcement. The forces of supply and demand via the market place would determine the value of the DR credits or certificates. Supply and demand would be influenced by the relative sizes of the developable area and the preserved zone. A basic flow chart of the procedure is portrayed in figure 1.

The TDR concept would not be a substitute for zoning; instead, it would be a special form of this well-known device. It would bring a new set of objectives within the range of zoning by making more stringent restrictions acceptable in the interest of protecting both ecologically sensitive land uses and also those uses that require a "minimum critical mass" to be economically feasible (Dhillon and Derr 1974). The TDR approach is viewed as a way to "permatize" areas that require stability by providing compensation to the landowners in the preserve.

TDR Proposals

The TDR concept was developed about 6 years ago (Keene 1977). Although many TDR plans have been proposed and a few local ordinances enacted, few DRs have been sold. Economic trends in the construction industry during recent years may have hampered its adoption. Some have suggested that the cost of doing business (transaction costs) under a TDR arrangement may be too high (Small and Derr 1976). Interest in the concept still remains strong, however.

All work on the TDR concept has been pursued with the same basic idea in mind but with different perspectives in various locations, with resulting proposals differing in a number of ways: in degree of governmental involvement; in method for designation of developable zones and preserve zones; and in provisions for distribution and transfer of certificates. Some programs call for no direct governmental involvement except adoption of the enabling legislation, whereas others call for a government "development rights" bank (Costonis and Shales 1974). The Assembly Bill 3192 proposal for New Jersey called for indirect control of the supply and demand for DRs by controlling the sizes of the developable and preserve areas, but this can be only a longer-term type of control. The development rights bank approach is more immediate and can take many forms, from purchasing all rights offered for sale by owners to establishing a minimum price to ensure market continuity and market confidence over the life of the program. For example, the Buckingham Township ordinance provides for the purchase of rights by the township, but only to ensure marketability.

Some programs call for actually creating and issuing development rights certificates to landowners in the preservation area, while others, like Buckingham Township, provide only a system of accounts on which DRs are first credited and then debited as they are used. Still other programs require developers to purchase land in the preserve zone from which they can transfer dwelling unit credits to a receiving tract where higher-density construction is allowed (this is true in the Chesterfield Township ordinance). A Maryland proposal, called development rights pooling, provides for creating and issuing DRs even on developed land.

The Basic Issues

Currently, there are no active statewide TDR programs to serve as guides in developing a model ordinance. However, a series of basic issues must be addressed if a community is to implement the concept. They can be grouped under eight titles: (1) intent or purpose, (2) compensation to the landowners in the preserve, (3) development rights requirements per housing unit or floor area, (4) the "windfall-wipeout" problem, (5) transaction costs, (6) size of the area to be maintained, (7) market activity/confidence, and (8) taxation of DRs.

The intent or purpose of the TDR ordinance. The immediate goal of transferring development rights from one zone to another is common to all ordinances, but the ultimate reason for guiding density varies. Some proposals call for density transfers to aid in reducing housing costs by lowering expenditures per unit for land, streets, sidewalks, transportation, and utility lines. The focus of other ordinances is on ecologically sensitive areas like marshes, historic sites, scenic views, unique physical features, and prime farmland. Care must be taken in delineating preservation areas where emphasis is placed basically on physical features but where economic factors are also vital. A case in point is prime farmlands, where maintenance of the farmland also requires the maintenance of farming, which is an economic activity. To maintain farming requires necessary support services and industries, such as farm equipment agencies, feed mills, fertilizer blending plants, and chemical and petroleum product dealers. Adequate market outlets for farm products also must be present. Thus a TDR ordinance must consider any special conditions that are necessary beyond mere physical specifications.

Compensation for the DR holder. The biggest problem inherent in the TDR concept is, "To what extent will the landowners in the preserved areas be compensated?" Most communities considering TDRs will already have some type of farm use-value assessment program. Also, landowners will have some knowledge of the market values of land in the area. From these two items they can estimate the value of DRs (market value - agricultural value = value of development rights). Landowners thus will have some level of expectation regarding compensation. This level is likely to be inflated, however, because farm-value assessments tend to be low and a few high sale prices tend to unduly affect estimates of market value. If landowners' expectations are not met, the program will most likely be challenged in the courts. If this challenge fails, expectations will be revised and DR sales may proceed.

Thus far, two court cases have dealt with the constitutionality of TDRs. To quote the basic court findings in the first case (Fred F. French Investment Company vs. City of New York):

In this case, the zoning amendment is unreasonable, and, therefore, unconstitutional because, without due process of
law, it deprives the owner of all his property rights, except the base title and a dubious future reversion of full use. The land in question was included within a special park district that left the owner with virtually no residual economic value. The court further indicated that the owner was compelled to enter an unpredictable market to sell the development rights granted to him.

Another recent case involved the Grand Central Terminal (Perm Central Transportation Company vs. City of New York). The Penn Central Transportation Company and its affiliates wanted to build an office building above the terminal, which had been designated as a landmark by the City of New York and the City Landmarks Preservation Commission. At issue were the above-the-surface development rights. The State of New York Court of Appeals upheld the regulations, declaring there was no due process violation. The courts held that the regulation of Grand Central Terminal permitted continued productive use and that the DRs could be transferred to sites in the immediate area owned by the Penn Central Company. Also, "fair" compensation was possible. Although this is considered a landmark decision, there remains to be answered how applicable this case is to preservation zones in less intensively built-up areas interested in maintaining natural conditions or agriculture.

Development rights requirements in the developable zone. Compensation to landowners in the preserve and market viability over the life of the program will also be influenced by the DR requirements per dwelling unit for residential purposes and DR requirements per unit of commercial floor area. If it is housing, then what a developer/builder can justify paying for DRs will depend in part on the type of housing and the density permitted with and without purchase of DRs. The developer's offer price will depend also on the market demand for housing of various types at various allowable densities. A large market study of a New Jersey community where TDR could be applicable revealed a strong demand for low-density, single-family detached units (1.3 to 1.8 units per gross acre), a modest demand for townhouses (6 to 10 units per gross acre), and little or no demand for garden apartments (Small, Kasper, and Derr 1978). In such a situation, owners in the preserve district would find a poor market for their development certificates.

The windfall-wipeout issue. The TDR concept has been viewed as a way of reducing problems caused when zoning changes create instant windfall profits for some and eliminate potentially higher and better uses for others. When the preserved area is down-zoned, landowners are provided DRs as potential compensation, thus eliminating or reducing the wipeout possibility and assuring that more people share in the capital gains generated by development.

A TDR ordinance will correct windfalls and wipeouts only if those who design the ordinance can accurately forecast the future market for housing and other structures. If demand for high-density housing were suddenly to drop in the developable area, the market would collapse for DRs, while low-density demand might still bring capital gains to those in the developable area.

Transaction costs. Even assuming a viable market for the DRs, buyers may incur costs in locating sellers, negotiating, and completing the necessary legal documents. These costs would, in effect, mean that the net price offered to the seller by the buyer would be reduced. It is anticipated that these costs would be high at the beginning of the program and then fall as the program establishes itself.

The municipality will also incur costs in initiating the program. If the goal is to maintain an existing natural or farming area, extensive resource data and economic information must be collected. Records regarding the transfer of DRs will also have to be maintained. (These records could be designed to be quite useful in generating market information for buyer/seller decision making.) A careful and thorough market study regarding the urban growth potential in the area and the type of likely growth will also have to be paid for by the municipality in order to ensure a viable TDR program.

Size of the area included. Transaction, planning, and recording costs will also be influenced by the size of the trade area for DRs. It is anticipated that transaction costs will tend to increase as the trade area is enlarged. However, if the TDR program incorporates a DR bank through which government will purchase most of the DRs and resell them to prospective users, then the trade area could be large without undue cost.

The size of the preserved portion of the program area probably will be constrained by the overall development pressure in the total area. If little development occurs and few DRs are purchased, many landowners in the preserve are likely to become unhappy at being allowed no opportunity to gain directly from the little development that does occur.

In delineating the preserve area, consideration will have to be given to physical and economic conditions outside the political jurisdiction. A water aquifer that extends beyond the boundary of a town cannot be protected without action in another town as well. An agricultural area within one town may not meet minimum critical mass requirements by itself and may be dependent on actions taken to preserve an area in an adjoining town.

Market activity and confidence. A TDR ordinance is intended to create a new market for one real property right — the right to develop. The right to develop, or the potential right to develop, often represents at least 75 percent of the total market value of undeveloped land in urbanizing areas. Thus the viability of the new market will be of great concern to landowners who must sell these rights. At least initially, much uncertainty and lack of market confidence can exist. This confidence also will be greatly influenced by the concurrent economic conditions of the real estate market. Since the real estate market is cyclical, like many other markets, initiating the program when the market is on the upswing will enhance viability.

An alternative approach is to have a government-financed DR bank, which will stand ready to purchase a certain number of rights to establish the market and provide continuity over time. A case in point is the proposed TDR enabling legislation in New Jersey. It was initially introduced in 1975 with no purchase clause, but the latest version provides $5 million in state funds to underwrite the program.


Government Acquisition

For nearly 200 years, the land tenure system of the United States adequately served the basic goals and objectives of individual citizens and of the total society. During the colonization and western expansion periods, vast areas of land were transferred from the public domain into private ownership at minimum money cost to the individual. Land policy during this period correlated well with explicit and implicit objectives of rapid settlement, individual ownership of land as a productive resource, relative freedom of the individual to make decisions concerning the use of land, and equal opportunity of individuals to have access to land.

The land tenure techniques that evolved during this period concerned the relationships among persons in the control and use of land. It gave great freedom and control to the landowner through the institutions of private property in land and fee simple tenure. Such tenure consisted of an extensive group or “bundle” of rights, which gave to the owner all rights in land except those explicitly reserved to government, either local or national. Reserved rights were four: escheat, eminent domain, police power, and taxation. Private rights included such opportunities as to possess, use, abuse, mortgage, lease, subdivide, sell, and bequeath. These rights could be held by the owner in their entirety, or one or more could be separated from the others by sale or transfer.

No single document described these rights. Rather, they were recognized and protected by common law, court decisions, and by the Constitution itself. The fifth and fourteenth amendments to the Constitution protect owners from confiscation or “taking” of rights by governments without due process and just compensation, and court interpretations of these amendments provide the basis for circumscribing the exercise of the police power to protect the health, safety, morals, and welfare of the general public.

Under this system of land tenure, the United States has achieved a level of food production per capita and per acre never before approached by a nation of comparable size. Many today, however, see in this land tenure system the seeds of critical land-use problems in an urbanizing society. They believe that the owner’s rights associated with private property have been stressed at the expense of environmental responsibility. Private decisions in the use of land are carried out through a neutral market place and, typically, achieve some private, immediate goal — especially profit maximization. They believe that many long-term public goals related to land use are largely ignored. Ignoring the environmental aspects of land use can probably be tolerated in an agrarian society or one with “limitless” areas to be settled rapidly. But, in areas of extensive urbanization, such as the northeastern United States, environmental aspects may assume overriding importance. These two conflicting themes of land use have been summarized as follows in a recent lecture series at Michigan State University:

The land as resource to be exploited, as private property to be owned; man as owner, individually determining the fate of the land in ways of use and profit to him alone; the land as environment to be shared, not only with other humans, but with all living things; man as perhaps chief steward among whose purposes are the preservation of the land as both ecosystem and our natural home for this and all future generations of living things.

One promising land-use control technique that can be used to reconcile the problems arising from differences between private and public environmental goals is greater government ownership of land or selected rights in land. This approach would reverse one aspect of the land policy of the last two centuries in this nation, but it would provide a powerful tool for recognizing long-term public interests in land uses that make beneficial contributions to the environment and the aesthetic quality of human life. The method would be of particular relevance to open space land and, when applied to agricultural land, could have corollary benefits of preserving a nonrenewable natural resource for food production.

Government Acquisition of Fee Simple

Governmental ownership of land could be achieved through the purchase of fee simple title from the current owner. Agencies representing local, regional, state, and federal governments could carry out the pro-

---

21 Perspectives of the Land, Michigan State University, 1976.
22 The regional project did not have a formal project on governmental acquisition of land. Comments on this technique are based upon conceptual evaluation and field observations by land economists in the region.
The achievement of public goals could be absolute, and the landowners would receive full compensation for the market value of their properties.

Several disadvantages are inherent in this policy. One problem is related to the uncertainty that may be associated with governmental programs, especially at local and regional levels. With changing administrations and events, the long-run continuance of the policy might be put in jeopardy. A major problem also concerns the use of the land resource itself. It could be operated at varying levels of intensity by some governmental unit, or it could be leased to individuals for acceptable uses. Each method has its weaknesses, especially if productive farms are involved. Governmental operation of commercial farms has generally been too inefficient to be profitable, and tax monies must be diverted to maintain the business. Operation of open space land to furnish recreational and environmental benefits has been much more successful, especially since much of the costs of these programs are generally met through taxation.

Leasing agricultural land to private operators may be a feasible alternative. A purchase and leaseback arrangement with the present owner could permit farming to continue. Currently, however, government leasing arrangements often provide no long-term security, and delays in having needed capital improvements made by the governmental unit have led to inefficiencies in such programs. Each of these problems could be solved by more comprehensive leasing arrangements similar to those that have been achieved in the private sector. But more impediments to such leasing improvements exist currently in the public sector.

A final disadvantage of governmental acquisition of fee simple title to land concerns the financial impact upon the public. The initial cost of implementing the program is higher than for alternative programs because the purchase price reflects full market value. Annual ownership and maintenance costs also may exceed the rental returns, especially at the urban fringe where a general retrenchment of agriculture may be underway. In addition, the land may be removed from the tax base, or the taxes generated from the land may be substantially below the amount that would have been collected under private ownership. Thus, the remaining taxable properties usually bear a higher tax than before the acquisition. Alternative government acquisition programs exist and are being used more extensively. These include the acceptance of gifts varying from fee simple transfer to transfers in trust and transfers of easements. Fee simple transfers are relatively simple and give the organization entrusted with the land the freedom in the future to vary the uses of the property to meet needs and conditions that were not anticipated at the time of the transfer. In transfers in trust, the interest of the governmental unit in a property is limited to carrying out specific wishes of the donor with respect to its preservation. Transfers in trust deserve serious consideration where restriction of use is a prime objective. Granting of an easement transfers a right in land without the transfer of full ownership. For example, it includes rights-of-way across land for hiking trails or bicycle paths, air rights, and conservation easements. A conservation easement is basically a negative interest in that it prevents any future owner of the remaining rights from making alterations that are detrimental to its open or natural character. In granting a conservation easement, the landowner under most laws gives up his development rights in perpetuity. He or she retains all other property rights including the freedom to otherwise use the land and to enjoy it in any way that is consistent with its open or natural character. The owner may sell or otherwise convey any remaining interest in the property. The right to develop it in a manner prejudicial to its natural beauty or openness, however, is forever denied to the present and every subsequent owner of the land in question.

It is easier to give land or an interest in land today than it has ever been. Federal law encourages gifts of real property to public or certain nonprofit organizations by providing substantial income tax advantages, capital gains savings, and estate tax benefits to the donors. In addition, certain state tax deductions are allowable, and local property taxes may be eliminated or significantly reduced depending on the extent of the interests in land which are given. Most farmland owners in the Town of Perinton, near Rochester, New York, for example, have transferred their development rights to the town under Section 247 of the state municipal law for a specified period in return for a reduction in taxes.

Government Purchase of Development Rights Easements

Recently, governments have undertaken programs to purchase development rights easements from landowners. This technique takes advantage of the opportunity to separate certain rights in property from other rights. The right to develop land or sell it for development is part of the original bundle of rights in private property. By acquiring the development rights, government can prevent nonagricultural development without affecting the remaining rights. Farmland owners who participate in the program can continue to use, rent, sell, or bequeath their properties for agricultural purposes, but they cannot develop or sell them for nonagricultural purposes.

Government purchase of development rights can recognize some public goals without displacing all private goals and individual property rights. Through the application of this technique, society may be able to:

• limit sprawl and "scattering" developments with their adverse impacts on agri-
  culture;
• establish permanent areas dedicated to the efficient production of food; and
• improve the general environment for farming and offer recognition of its impor-
  tance for both aesthetic and economic reasons.

Advantages of an easement purchase program over purchase of fee simple are several. First, separation and transfer of the development rights leaves the owner free to hold, to use, and to transfer the property as if there had been no change, except that neither the owner nor his or her heirs nor assigns can develop it for urban purposes. Second, although the government reimburses the owner for the surrender of development rights, the initial cost to the government is less than purchase in fee simple. Third, the land remains within the free enterprise system under the direction of independent operators who strive for economic efficiency and who remain as taxpayers in the community.

The purchase of development rights has two other advantages. Some problems in maintaining owner-operatorship of farm land are simplified. Because land sells for less without development rights, young men and women who wish to enter farming or to take over from their parents have easier access to productive resources. Taxation adjustments also are simplified at all levels for farmland since real estate assessments then reflect only agricultural use value without special tax assessment procedures. Inheritance taxes and capital gains taxes also are reduced substantially for all future owners.

Within the framework of the regional project on rural land-use policy, researchers in Connecticut, New Jersey, and New York have carried out the conceptualization and
partial evaluation of programs to permit government acquisition of development rights easements.

**Present Programs**

As of June 1978, four states in the Northeast — New York, Massachusetts, Connecticut, and Maryland — had programs for the purchase of development rights on agricultural land. The most extensive program to date is in Suffolk County, New York, where a $21 million bond issue has been issued for this purpose. The Massachusetts legislation speaks of purchasing "agricultural preservation restrictions," but this is equivalent to purchasing development rights. The Massachusetts legislation provides for the administration of a purchase program and authorizes the issuance of $5 million in state bonds to finance it. The Connecticut program is a pilot effort. The state will purchase development rights on selected farmland that has a high potential for food production and on which there is a high "probability that the land will be sold for nonagricultural purposes." The issuance of $5 million in state bonds has been authorized to finance the program, and its accomplishments will be evaluated and reported to the General Assembly by December 1979. Following this evaluation, a long-term program may be adopted. Maryland legislation provides for quite elaborate administrative structures at state and local levels to initiate the purchase of development rights beginning in 1981. A subsequent enactment has authorized funding to $5 million.

New Jersey has a strong interest in state purchase of development rights, but no program has yet been authorized.

The Suffolk County program is being carried out under Section 247 of the New York State municipal law with no supervision or funding from the state. Farmers have been invited to make offers to sell their development rights, and consulting firms have been employed by the county to appraise the total market value and the farm value of the properties on which offers have been made. Rights to several hundred acres had been purchased by mid-1978.

Massachusetts legislation provides for the creation of an "agricultural lands preservation committee" at the state level to evaluate projects submitted by local governments and to select those to be funded. It is expected that local conservation commissions will provide the local administration in most instances. Any government body is authorized to acquire agricultural preservation restrictions.

Maryland legislation places action at the state level in the hands of the Maryland Agricultural Land Preservation Foundation and provides for several possible sources of funding, including state appropriations or bonds and transfers of funds from local governments. The foundation alone is authorized to acquire easements but may do so only within agricultural districts that are requested by farmers and formed by action of county government with approval of the foundation. Farmers apply for the sale of easements, specifying a price at which they will sell. Both the county and the foundation must approve a farmer's application before a purchase can be made.

All purchase programs contain provisions for appraising total market value and agricultural use value of subject properties, and all provide opportunities for some bargaining between farmers and the administering agencies. Only the Maryland law provides explicitly for assuring the farmland owners of the right to continue farming without restrictions on farming practices, though in New York farmers who sell development rights may also attain such assurances by forming agricultural districts as a separate step. In all cases, it is expected that farmers would be assessed for tax purposes only on the value of the rights they retain to use the land for farming, and this is explicitly provided for in Connecticut, Maryland, and Massachusetts.

Planning bodies at local and state levels also advise in the selection of areas for development rights purchases, but no elaborate provisions have been made to this end in any of the four states.

**Recent Research**

Preliminary research studies of the Suffolk County, New York, program have been completed by Scholvinck (1974) and Lesher and Eiler (1978). They discovered that most farmers preferred to sell their development rights at the usual appraised market values rather than to create agricultural districts that provide only for farm use-value assessments and for restricting other governmental actions that might disadvantage farming in the area. It is not expected, however, that current funding for the Suffolk program will finance easement purchases on much more than 4,000 to 5,000 acres of farmland. With the current court mandates calling for market-value assessment of all real property, farmers in Suffolk County have begun to ask for agricultural districts. Even those who expect to sell development rights may ask for agricultural districts afterwards for the nontax benefits they convey.

Some of the research suggests that it may be easier to obtain large sums for the purchase of development rights in Suffolk County than in many other areas because the county contains a large and quite affluent population and because, if the 50,000 acres of land remaining in farming in Suffolk County were to be developed, residents would have to travel long distances to reach areas with attractive pastoral scenes.

Researchers in New York also have raised a theoretical question about the ultimate equity of a program in which the prices paid for easements are high enough in all instances so that all farm participants in the program are willing sellers. They point out that if no purchases were made, some properties would sell in time for development at high prices but others would sell only at low prices or not at all. Since it is difficult to predict far in advance the parcels that in fact will bring a high price, it is argued that all landowners are free to expect that their property has a good chance of being one of the high-priced units. Given this expectation, more farmers will ask a high price for their development rights than in fact ever could sell those rights (sell their land) for such price. In other words, a speculative component will exist in some asking prices and thus inflate purchase costs if no exercise of eminent domain is practiced by the government. A counter argument points out, however, that if taxpayers are willing to pay for some speculative elements to gain the benefits of preserving open-space agriculture, equity questions become moot. Only the overall question of ability and willingness to pay remains.

The Suffolk County program is the only one that became operational during this research project and thus is the only one that was available for examination. Anticipatory research has been conducted, however, in two other states, Connecticut and New Jersey (Fellows 1975; Lambert, Burns, and Hughes 1975; Park, Hunter, and George 1974; State of Connecticut; State of New Jersey 1973). These projects have attempted to anticipate what consequences development rights purchases would have under a variety of arrangements within each state. In both states the research was conducted by or for a state commission, and recommendations for program structure were made on the basis of the research. In Connecticut, a pilot study of one municipality was conducted to discover whether existing information was adequate to meet requirements for determining agricultural areas to be preserved and whether
local planning agents could establish the preservation areas. The study also analyzed the costs of implementing three different alternatives of the open-space policy.

The basic land capability information was found to be adequate to meet planning requirements. By combining existing land capability maps of the area with ownership data, the local planning agency could identify and recommend agricultural open space areas. Cost data were obtained by surveying comparable sales in the immediate and adjacent areas. A report to the local administrators showed cost estimates for three levels of intensity in land-use planning within the specified open space areas as follows: Alternative 1. Preservation of all farmland and adjacent areas to control water runoff, give contiguous blocks of land, separate development areas, and provide specific environment objectives. Total acres preserved — 3,340 Percentage of total acres in town — 25 Total cost index — 169 Alternative 2. Preservation of economically viable farm units and specific multipurpose adjacent land. Total acres preserved — 2,110 Percentage of total acres in town — 16 Total cost index — 108 Alternative 3. Preservation of specific multipurpose farm and nonfarmland. Total acres preserved — 1,950 Percentage of total acres in town — 15 Total cost index — 100

Interest in the alternative programs at the local governmental level was strong, and the Land-Use Planning Committee sponsored two public meetings to discuss the alternatives. No policy actions were taken by the citizens, however, because of policies on rural land preservation that might be initiated by the state. Currently, several local municipalities are waiting for the outcome of the state proposals before acting on agricultural land preservation.

One task of the Blueprint Commission on the Future of New Jersey Agriculture was to evaluate various easement purchase mechanisms. The proposal drawn up by the commission has been exposed to many groups of the interested public, including planning officials, business people, real estate interests, tax assessors, property appraisors, environmental interest groups, and landowners. The response has been evaluated and used to suggest changes in the original proposal (Park, Hunter, and George 1974).

The commission also studied how the public would accept an easement purchase program and how easement acquisition costs would be influenced by relevant variables. Feasible methods for estimating easement acquisition costs were examined, along with legal issues involved in the policy. In addition, the commission asked whether a critical mass for agricultural enterprises existed, and it surveyed 250 farmland owners for their reactions and potential adjustments to the easement purchase policy (Lambert, Burns, and Hughes 1975).

A Possible Program for the Purchase of Development Rights to Preserve Agriculture

The results of research in Connecticut and New Jersey were used to formulate a model development rights purchase program for agricultural land. This model includes a state enabling act, the intent of which would be as follows:

1. To establish a state authority to administer the program.
2. To permit the planning board in each municipality to establish permanent agricultural open space areas within guidelines established by the authority.
3. To encourage planning for agricultural areas to be integrated among adjacent municipalities through a regional planning activity.
4. To provide funds to compensate municipalities for the cost of development rights.

Because the success of the program would depend on a large extent upon the support and involvement of the people living in the communities, educational programs would be conducted in each town to acquaint the public with the purposes and procedures of the legislation. The state authority would work closely with local planning officials in establishing specific guidelines.

General guidelines called for in the model are —

1. To use the classification established by the Soil Conservation Service to select farmland for the purchase of development rights, with focus especially on classes I and II;
2. To preserve farmland for agriculture, where feasible, especially lands above aquifers, in flood plains, in areas adjacent to water ways and impoundments, and those having unique aesthetic qualities.

According to the guidelines currently being considered in Connecticut, the amount of class I and II land to be maintained would be determined by the percentage of in-state consumption of such products as fluid milk, fresh fruit, and fresh vegetables that the public considers should be grown locally. Expected production levels would be used to establish needed acreages of cropland, pastureland, and peripheral land. On the basis of existing information on soil types in the state, a specific percentage of class I and II agricultural soils would be determined to achieve the needed acreage.

The local planning board in each municipality, in turn, use these guidelines to establish agricultural areas varying in number, size, and shape; these areas would include approximately the given percentage of the class I and II soils, together with adjacent soils of lower classes that would be necessary to support economically viable farm units.

It is being advocated for Connecticut that, once identified, these preservation areas be zoned for agricultural use, and no development or construction not compatible with agricultural or less extensive use would be permitted except as prior nonconforming uses. The authority would develop rules and regulations to assure that lands zoned for agricultural use in the district would be used for agricultural purposes and that economically viable farm units would be encouraged. Furthermore, normal and recommended practices consistent with economic agricultural production would be protected in the areas, unless there were evidence of substantial damage to the public health and safety. In at least some areas, the courts would probably consider that zoning for agricultural use only constitutes a taking of rights of the property owners. To avoid this problem, the local planning board would recognize development rights, and development easements would be purchased on these areas by the local governments.

Each landowner in the agricultural areas for whom development rights had been recognized could, according to this model, sell all or part of such development easements to the local administrative agency at the inception of the program or at any time during a limited period thereafter. The rate of compensation for the sale of development easements would be the difference at the time of sale between average market value for development purposes in each area, or comparably located areas, and the estimated average value of the land when used as a productive resource for agricultural purposes.

It is claimed by some that the model program could be undertaken without serious distortion of individual rights. Management of land for agriculture in these areas would remain in private hands under the guidance of the enterprise system and the market economy so long as it were used for no...
developed, and as necessary supporting
probably increase as resource allocation
they believe, would lead to superior eco-
purpose other than farming. This system,
due.
financing might be through the sale of state
bonds, but these bonds probably would be
paid out of general revenues when they come
due.
The model is based on the notion that the
benefits of the program would accrue to the
total population of the state from a local
supply of quality food products and
improvements in the local environment; thus,
it is proposed that the costs associated with
it be borne by all citizens in the state. Initial
financing might be through the sale of state
bonds, but these bonds probably would be
paid out of general revenues when they come
due.

Summary
Government may acquire various rights in
land by gift or purchase. Fee simple title to
agricultural land usually must be purchased
and often is much more expensive than
lesser rights. Its purchase also is likely to be
inconsistent with maintaining high levels of
agricultural productivity.

Development rights are sometimes pre-
seated as gifts to governments, and arrange-
ments are being made to encourage such
gifts by giving tax reductions in return.
Development rights to some farmlands have
been gained in this manner for specified
periods, but rarely in perpetuity.

Four states in the Northeast have pro-
grams for purchasing development rights —
Connecticut, Massachusetts, Maryland, and
New York. The program in New York is
financed and administered by Suffolk
County, but the other states have statewide
programs.

Development rights purchase programs,
provided they are adequately financed,
clearly can preserve economically viable
agriculture, even under conditions of intense
urban pressure, without raising significant
constitutional questions. The Suffolk
County program is the most adequately
financed program to date. Its present level
of financing probably will permit purchase
of development rights to between 4,000 and
5,000 acres of farmland.

Special Development
Controls
Special development controls have not
been used to date in the Northeast for the
specific purpose of preserving agriculture.
They have, however, had indirect effects on
agriculture, in some instances. The newest
of them have been especially influential, as
they are focused on regulating large private
developments, often in rural areas.

Special development controls are here
limited to building codes, health and sanita-
tary codes, and subdivision controls and
related types of development permit pro-
grams. These controls are carried out as
exercises of the police power, but do not
involve geographically delimited restrictions
of the zoning type.

Special development controls have been
most commonly exercised by cities, villages,
and towns, although sanitary codes are
often adopted at county and state levels.
The new permit systems for large develop-
ments, such as major industrial plants,
recreational and retirement villages, and
massive shopping malls, are exclusively
regional and state-level programs.

Vermont was a leader in devising the new
system for controlling large developments
(Healy 1976). Interest in this approach was
stimulated by soaring land prices, increasing
demands for public services, and rising real
estate taxes, which were accompanying
influxes of new residents. Local govern-
ments were being overwhelmed by the large
new development proposals being put for-
ward by well-financed outside firms in the
late 1960s.

While Vermonters always have held
strongly to ideas of individual freedom and
home rule, they felt that this time they had
to compromise. They built controls that
were strong enough to guide or turn down
proposals by some of the largest develop-
ment corporations in the country, yet
refused to let these controls totally become
the province of the state. They also kept
these controls sharply focused on the activi-
ties that were causing the problems, rather
than imposing, blanketlike, upon the rural
areas the high levels of use segregation
called for under the zoning ordinances that
are often adopted by cities.

Pressure was brought in Vermont, as in
many states (see New York's Senate Bill
9028 of 1970 discussed earlier), for vesting
a large measure of land-use control in a small
state board whose functions would follow
the urbocentric patterns of thought then
dominant in the planning profession.

Though elsewhere such comprehensive state
proposals were totally rejected (except for the
Adirondack Park), Vermont accepted
controls on large developments and invented
a regional, semistate structure to carry them
out. At one point in the development of the
Vermont program, legislation was passed
promising creation of a comprehensive,
statewide, state-administered program, but
this idea later was rejected (Healy 1976,
Lesher 1975).

All of the northeastern states with ocean
frontage have provided in one way or
another for state controls on large industrial
developments along the sea coast (Lesher
1975). Some have also provided for special
controls on inland power plants, power lines,
and strip mines. None of these controls are
directed specifically at preserving agriculture
and seem less likely to have an indirect
effect on agriculture than the Vermont
program. Few of these industries are likely
to locate in good farming areas. Even most of
the strip mines of Pennsylvania and West
Virginia are located in areas unsuited to
farming.

The More Traditional Special
Controls
Subdivision controls, health regulations,
and building codes have been in effect in the
cities and suburbs of most northeastern states
for decades. They have been promoted for
rural areas also, especially in recent years,
but their coverage in rural areas still is
limited and spotty.

Subdivision controls specify that persons
who plan to subdivide an area of land into
smaller parcels, on each of which a house
will be built, must apply for permission
before they proceed. The justification for this
type of regulation rests on the notion that the
layout of a subdivision, and even its
existence, can influence subsequent costs of
public services, health conditions, amenity
values, and related considerations, not only
for the new residents but for people already
settled in the area. Usually, a map must be
prepared of the proposed subdivision, indi-
cating lot boundaries, streets, sewer and
other lines, types of structures proposed, and
the like. This map becomes the focal point
for discussions and decisions relative to
granting a permit.

Subdivision controls normally are the
province of local governments. In some
instances, however, regional and state bodies
have been empowered to exercise them, as
under Vermont Act 250, Maine's Site
Location of Development Law, and others.
The main thrust of subdivision controls has
been to assure useful, healthy, and
pleasant places to live after construction is completed. They do not aim to prevent urban conversions; only to assure that urban conversions are successful.

Sometimes the lines between subdivision controls and health regulations are blurred. In the name of health considerations, some states have superimposed regulations that have been essentially similar to local subdivision controls. But this blurring is to be expected because the arrangements of houses and the location and nature of public services can affect health.

Subdivision controls could be used to preserve farming if subdivision permits were denied in good farming areas. But nowhere in the present process of subdivision control is provision made for collecting information on farming and farmland, and the decision makers in the process rarely have agricultural expertise. Subdivision controls have clear and specialized purposes, and it would seem unwise to disturb these.

The health regulations imposed on new urban-type construction probably vary more from area to area than the other types of special controls. In many rural areas, health regulations are nonexistent, and in some areas they provide detailed specifications for sewage disposal, water supplies, drainage systems, and the like.

It has been said that one simple health regulation — specifically, requiring that all new houses be connected to a public sewer system — could save more farmland than all the zoning regulations, farm-value assessments, and related devices so far imagined. Such a proposal, however, clearly could not be supported on health considerations alone, and our current patterns of legal thought would make it difficult to introduce other considerations into court cases testing the constitutionality of such a program. Health regulations are even narrower in focus than subdivision controls and probably will remain so.

Building codes, the third type of traditional special controls, are also narrow in focus. They have been used to assure house buyers that new houses have safe wiring, serviceable plumbing, and good general construction. There is no question but that building codes have been subverted on occasion for a variety of purposes, such as sustaining high rates of pay for certain trade unions, and it seems unlikely that they could be turned to the preservation of agriculture.

While it is unlikely that traditional special controls can save agriculture in more than Isolated instances, health regulations and building codes unwisely applied to farms can speed the disappearance of farming. Some proposals have been made that would inhibit the recycling of manure, and section 208 of the federal water pollution act has been interpreted in some quarters as requiring controls on the use of fertilizer. Such actions could put local livestock and poultry farmers at a competitive disadvantage. Applying standard dwelling-type building codes to farm buildings would greatly increase their cost without any compensating advantages. Dairy herd owners, especially, are now subject to health department regulations in the construction and maintenance of their barns. Imposing additional codes would force many farmers out of business.

Vermont's Act 250

The portion of Vermont's Act 250 that became effective is focused on large developments — principally, those of more than ten dwellings or industrial or commercial developments on more than 10 acres. Those who propose these developments must obtain permits from one of nine district boards, each of which consists of three lay members appointed by the governor. A state body, the nine-member Environmental Board, was also created by Act 250 to oversee the permit review process and to hear appeals. Its chairman is full-time and salaried, but the other members are citizens who work part-time. All are appointed by the governor.

Act 250 specifies that a number of factors be considered in deciding to grant or deny a given permit request, but no mention is made of any anticipated effect on agriculture. Agricultural activities, however, are not to be restricted under the act, except possibly in the rare instances in which they occur above 2,500 feet in elevation.

Act 250 thus was not designed to preserve agriculture, and its effects upon farming are only incidental. The purposes of the act are broad, however, and it would not be inconsistent with the criteria now specified to call for consideration of impacts on farming.

The Adirondack Park Agency Control of "Class A" Projects

The zoning authority of the Adirondack Park Agency has already been discussed. The agency also has first-instance authority to grant or deny permits for a long list of activities, many of which fall in the same size groups as those controlled under Act 250. Here again, however, it is clear that the permit-granting features of this act are not intended as a means for preserving agriculture. The act recognizes agriculture and refrains from discouraging it, but provides it no positive aids.

Other Permit Systems for Large Developments

As already mentioned, seacoast, power, and mine controls in the Northeast are unlikely in their present forms to contribute significantly to agricultural preservation. Little farming occurs immediately adjacent to the seacoast, and most mining is in areas unsuited to farming.

While power plants and transmission lines will never occupy large areas, there is a history of some controversy between power companies and farmers. The formation of the first agricultural district in New York was an attempt — successful, as it turned out — to prevent construction of a power dam. In more than one instance, farmers have unsuccessfully protested the construction of 765-KV lines, and they have complained about new lower-voltage lines that preclude the use of airplanes for seeding, dusting, and spraying.

Agriculture appears not to be mentioned once, however, in the laws that have established permit-granting agencies for power plants and electric lines. Agricultural interests could introduce agricultural considerations at many of the hearings that are provided for, but the laws give no assurance that information on agriculture otherwise will be considered. Here again, as under Vermont Act 250, it would not be inconsistent with the environmental and social focus of these laws to provide explicitly for taking account of the probable impact of development on farming.

Secondary and Supplementary Means for Preserving Agriculture

Tax policies, special districts, zoning, TDR, government acquisition, and special development controls are the means most commonly considered for preserving agriculture in the Northeast. Several secondary and supplementary means may be used, however, for advancing the same ends. Some of the potentially most useful are treated here.
Agencies to Promote and Defend Agriculture

Several states of the Northeast have created commissions and other bodies to alert citizens, other government agencies, and officials to the progressive disappearance of agriculture in their states and the consequences thereof. Some of these have been temporary bodies, such as the Blueprint Commission on the Future of New Jersey Agriculture (State of New Jersey). Others, like the Agricultural Resources Commission of New York (State of New York), have been made permanent "watchdog" agencies.

Although the main intent of the Blueprint Commission was to generate suggested legislation, it has also produced some lasting influence on ongoing administrative decision-making in such areas as planning and the development of a demonstration agricultural maintenance program. It has become increasingly popular throughout the region for governments and government agencies to declare that they will not take "prime" agricultural land when siting new facilities, and bodies such as the Blueprint Commission have helped to promote such policies.

The New York Agricultural Resources Commission was primarily responsible for developing the agricultural district idea and for proposing a law under which farmers in this state can obtain tax exemptions on new farm buildings for 10 (formerly 5) years, as will be discussed below. This commission also has widely publicized the importance of agriculture in the state and helped to popularize the idea that agriculture should be kept strong. It has also undertaken to defend agriculture in numerous specific instances in which proposed roads, reservoirs, parks, wildlife areas, and the like would remove prime land from farming. A permanent body, it has continuing development, promotional, and defensive responsibilities.

Diverting Nonfarmers from Farm Areas

The task of preserving agriculture can be viewed as one of keeping farmers on the land. It can also be viewed as one of keeping nonfarmers from moving onto farmland.

Before World War II, rural life compared quite unfavorably with city life. After the turn of the century, competition from areas further west, together with technological innovation, forced farmers in the Northeast to discontinue farming at a rapidly increasing pace, and large numbers of people moved to the cities.

Improved cars and roads, rural electrification, septic tanks, and consolidated schools brought the beginning of a major reversal. Before 1940, great numbers of rural houses were left vacant and decaying, but after 1945, new rural houses began to be built in increasing numbers. The reversal in population flow gradually picked up speed, at first producing a massive concentration in the suburbs and semisuburbs. Now, growth rates in rural areas exceed urban and suburban growth rates.

The growth problems of the fifties and sixties were associated with suburban sprawl. Now they appear to be problems of more remote rural growth, though we cannot yet be certain how long rapid rural growth will continue. Population movements between some of the states of the region and to other regions are complicating the picture. Rural and urban employment trends and changes in commuting patterns introduce other uncertainties.

It is clear, however, that people are not about to move back to the center cities in large numbers, nor are young people born in rural areas apt to resume old patterns of city-ward movement on a massive scale. In fact, the exodus from center cities continues, leaving in some of them block after block of abandoned residential structures. Today in much of the Northeast, the extent of net migration to rural areas is so great that programs to keep nonfarmers in the cities would be effective programs for preserving agriculture. Enough net rural-ward movement occurs to produce a few cases of highly inflated land prices in nearly every farming community. These inflated prices distract farmers' attention from farming, attract speculators, provide excuses for raising farmers' assessments and taxes, and otherwise disrupt the functioning of the agricultural sector.

Physical fences to keep people out of farming areas are impossible, of course, and it also is impossible to arbitrarily roll back the technology that made the rural-ward movement feasible. The price of gasoline could rise high enough to shift the balance of attractiveness between life in the country and life in the city, but even this does not appear clearly probable.

Good roads have been blamed for urban sprawl. This hypothesis may soon be inadvertently tested. New road construction has declined sharply in most states of the Northeast, and present roads are deteriorating in many areas. Farmers, however, need good roads to move their products efficiently and to compete favorably with other regions of the nation. To an extent, nonfarmers have helped farmers by promoting and helping to pay for good roads (Friday 1969).

Bank policies on "redlining" tend clearly to encourage urban scattering, and these policies could be modified by legislative action. Credit terms available through activities of the Federal Housing Administration tend to favor single-family dwellings in less-congested areas. Even the Farmers Home Administration has been authorized in recent years to loan on nonfarm houses in rural areas and on rural water and sewer systems. Other federally supported rural development activities also make rural living more attractive. 8

It was hoped at one time that new towns would provide an attractive alternative to widespread scattering of nonfarm people in rural areas (Conklin and Dymszta 1972), but this has not occurred in the Northeast. Reston and Columbia, private new towns in Maryland, were not financially rewarding for their promoters, but they nevertheless came into being on a large scale and surely will remain physically viable. Others such as Gananda, Riverton, and Radisson in New York have not attained self-sustaining viability, and there is evidence that many people who have moved from cities to rural areas find new towns unattractive (Bryant 1974).

Finally, any policies that would reduce crime, increase employment, and otherwise make cities more attractive again would reduce population pressures on rural areas and on farming. Current efforts in this direction seem small, however, in comparison to the size of the task.

23 It is in no way intended that federal policies affecting the continuation of agriculture be fully discussed in this report, but federal home loan programs and rural development efforts are so massive that they deserve note.
Keeping Public Service Costs Down

Public services differ widely from area to area in the Northeast. Farmers need good roads. They also need fire and police protection and good schools. But in predominately farming communities where farmers exercise major influence over public service decision making, even these services are seldom so costly as in suburban areas. Farmers find it difficult to pay for "frills" and for the elaborate programs usually associated with urban and suburban areas.

The increases in public service costs that arise as communities become more urbanized place unwanted burdens on farmers. Real estate taxes often must make up deficiencies above state and federal aids, and farmers usually hold large amounts of real estate; thus, increasing levels of public services bear especially heavily on them.

If an urban margin realistically can be expected to continue its outward movement, farming "deaths" due to high public service costs may anedate full urbanization by only a few years. Nearly everywhere, however, it now is possible to find sewered, watered, and otherwise comparably serviced areas extending outward from metropolitan centers far enough to accommodate the growth of full urbanization for the next 25 to 50 years.

Capital Investment Incentives

Attempts to preserve agriculture sometimes are directed toward encouraging farmers to commit themselves to continue farming through new investments. New York State, for example, has a law that gives farmers a 10-year exemption from real estate taxation on new farm buildings. At the time the law was proposed, it was argued that farmland near cities often passes out of use when the old barn burns or will no longer be approved by the milk inspectors. Incentives for new investments in both state and federal income tax legislation existed, but it was felt that a new and very specific incentive would be useful.

Another positive aspect of the bill was that it would not give speculators a "free ride", as they can get on some farm-value assignment programs. No exemptions are granted unless large investments are made, and speculators would lose more on the investments than they would gain from the exemptions.

To date, many millions of dollars in new buildings have been exempted under the New York law (Linton 1973, King 1978). The period of the exemption was extended from 5 to 10 years in 1978.

Assessment Roll Consolidation of Farms

Farms today typically are composed of several parcels. Each parcel is listed and assessed separately in most taxing jurisdictions, a practice that tends to result in overassessments of farms.

Individual parcels are sold much more frequently than whole farms. Parcels are added on to farms being enlarged. Farmers often pay more for these add-on parcels than they could for a whole farm because they are spreading the fixed costs of buildings and equipment over more land. Individual parcels are also purchased by nonfarmers seeking a home in the country. The purchase price in these instances is set more by comparisons with urban alternatives than by the forces that determine farmland prices. Only a few farm parcels are attractive to the more affluent nonfarm purchasers in most areas. Total nonfarm demand is too small to support high prices for what are considered the less attractive pieces, so these remain unsold in the hands of farmers. Attractiveness is difficult to judge, however, and there is a tendency to take the sale price of any parcel of land as indicative of the value of any other parcel.

With all farms listed in the "bite-size" pieces that appeal to nonfarmers, it is doubly tempting to generalize the high prices paid for a few parcels to all lands. This temptation is reinforced by the relative scarcity of whole-farm sales. Assessors in many taxing jurisdictions never identify whole farms nor consider the possibility that any of them consist of parcels so unattractive to nonfarmers that they would sell for more as farm units than broken up.

It would be possible by law to require that all parcels constituting any given farm be consolidated on the assessment roll. The idea is, in fact, being considered for farms in agricultural districts in New York, stimulated by a recent court decision requiring market value assessments. Perhaps farmers could be granted the privilege of specifying which parcels should be consolidated. Problems would arise in such an arrangement: a suitable definition of a farm would be needed; if a farm were spread over more than one taxing jurisdiction, its value would have to be allocated between jurisdictions; and the assessors of more than one assessing jurisdiction would often need to form assessing committees to look at all parts of a farm together.

Lease Laws and Customs

With large amounts of land near cities owned by speculators and with considerable rural acreage held by homeowners and recreationists, the preservation of agriculture in many areas of the northeast depends in part on land-rental arrangements for farmers (Bryant 1976a, Orsini 1976, Osterhoudt and Conklin 1966).

Rental agreements traditionally are verbal and temporary (Bryant 1976a). Owners often view renting only as a means for reducing the costs of holding their lands until an opportunity materializes for a sale with large capital gains. Some owners even refuse to rent lest it would delay a sale even a few months (Orsini 1976).

In the Middle West and some other agricultural regions of the nation, investors buy farmland for the rental income it can yield. This is true in only a few areas of the Northeast, where rental rates are rarely high enough to pay rates of return that are more than a small fraction of returns paid by savings banks (Bryant 1976a). Because many landlords in the Northeast view renting as only temporary or as a means for reducing residential or recreational costs, they are not interested in maintaining or updating farm improvements such as buildings, orchards, and drains. And the tenants feel their position to be too tenuous for them to make such investments. Present rental arrangements allow for reasonably efficient use of land that can be farmed without any improvements, but such lands are rare in the Northeast. In some areas, sharply curtailed rates of population increase have lessened prospects for capital gains from land ownership, and farmers rent much of their cropland from speculators looking for capital gains. Current efforts to reassess at market values also are making land speculation less attractive (King 1977). Farmers may have opportunities to buy more of the land they use, but much of it most likely will be rented for many years.

If leasing arrangements were legally controlled, many landlords might cease renting. As hopes for large capital gains decline, however, landlords may be under more pressure for rental income. It would be constitutionally permissible for legislatures to prescribe at least some
terms and conditions in lease agreements, and it seems worthwhile to explore these. Tax incentives for adopting improved leases are another possibility. An amendment to the Agricultural District Law has been considered, though not yet passed, that would make it easier for landlords in agricultural districts to qualify for farm-value assessments provided they grant farmer tenants at least 3-year leases.

Environmental and Consumerist Regulations

Farmers throughout the Northeast are concerned about present or proposed restrictions on their use of wetlands and lands subject to flooding, on cutting of timber, on spreading manure and use of fertilizer, on use of pesticides, on access to irrigation water, on sale of meat and milk directly to consumers, on the terms under which they can employ workers, and other similar restrictions. The preservation of agriculture in general has a positive value in the minds of many modern “activists”, but not all activist actions are compatible with this goal.

Nationwide restrictions placed on farmers could cause reductions in food supplies that would more than proportionately increase price. A recent study estimated that a 50 percent reduction in nitrogen fertilization of corn would increase corn producers’ net incomes by over $2 billion (Taylor and Frohberg 1977). A danger from the farmers’ standpoint, however, is that such price rises would trigger increased imports. Restrictions also would bear differentially on different types of farming and various regional situations. Attempts by farmers to join the activists in promoting stringent restrictions of selected kinds might have some useful shock effect on consumers, but otherwise probably hold limited promise.

Efforts to prevent restrictions that discourage and handicap northeastern farmers may have to be limited to rear-guard actions, but it is worthwhile to remind everyone concerned that restrictions can affect possibilities for preserving agriculture.

Liability Laws

A small but vexing concern of farmers in some states of the Northeast is with property liability laws. In some states, farmers are liable for harm even to those who trespass on their land, and trespassers multiply as the nonfarm population of rural areas increases. Although all nonfarmers need not be excluded from farmlands, more satisfactory rules need to be developed to facilitate farmer - nonfarmer relationships on this point.

Summary

Agriculture in the Northeast provides important amounts of food, employment, and scenic attractiveness. It is worth preserving.

Only a small percentage of the agriculture in this region is in danger of being physically displaced by intensive urban activities, but a large part of it is in danger of becoming debilitated as the result of the presence of urban activities nearby. The fully urbanized areas of the Northeast have increased by many hundreds of thousands of acres since World War II, but the areas into which urban uses have scattered have increased by many millions of acres. Nonagricultural people outnumber farm people in nearly every farming community.

Urban scattering takes only a field or a farm here and there, but it sparks speculation, increases public service demands, raises farm assessments, brings increased regulations, causes more vandalism, makes road transport of farm equipment more difficult, and in other ways interferes with efficient farming. Farmers under these conditions hesitate to build new farm buildings, plant new orchards, install new drainage systems, and make other investments that increase efficiency but also require many years for recovery. Land in areas of more active urban scattering often passes gradually into the hands of speculators, even in circumstances where only a part of it actually will be converted to intensive urban uses. Farmers often continue to use it, but usually under lease arrangements that discourage them almost completely from putting major improvements on it. And the speculate owners hope to sell in a few years for good capital gains without making these improvements.

Trends in demographic patterns have changed in recent years in ways that may reduce urban pressures on farmlands, but this is not certain. Some metropolitan areas in the Northeast continue to grow, though many do not. Most inercity areas started losing population decades ago, but for a long time suburbs grew more than enough to make up the difference. At present, it is rural populations that are growing most rapidly. Being more dispersed, this growth may not pose so great a threat to farming as did suburban growth. It does, however, bring more nonagricultural neighbors for farmers, a trend which sustains a continuing interest in agricultural preservation.

As pointed out in this report, means of public action to preserve agriculture in the Northeast fall into six well-defined types of instruments. A seventh group consists of a variety of secondary and supplementary means.

1. Tax policies. Most states of the Northeast provide some type of use-value assessment for farmland. In some instances, farmers are granted these assessments automatically, and in others they must apply for them. In some instances they sign contracts; in others they do not. Some states place stringent restrictions on qualifications; others let all owners of open lands qualify, whether farmers or not.

It seems clear that taxes can be high enough to contribute significantly to the discontinuance of farming. On the other hand, low taxes are not likely to bring farming back once it ceases, nor even to assure its continuance at current levels in the face of strong urban pressure. Use-value assessments appear likely to be most effective where speculation associated with urban scattering, rather than total urban development, is threatening the continuance of farming.

Specialized tax provisions, such as the Vermont capital gains tax on real estate, and present-use provisions in estate tax laws can be useful in some circumstances.

2. Facilitating districts. Both Maryland and New York have agricultural-district enabling legislation, but Maryland’s law is focused very sharply on the acquisition of development rights to farmland. New York’s law has no rights acquisition features but contains a group of provisions designed to encourage farming and to discourage nonfarm activities in the agricultural districts: (a) prohibitions on some types of regulations, (b) discouragements to new government construction and to government provision of urban-type public services, (c) instructions to interpret state laws as favorably for agriculture as the courts will permit, and (d) provision for farm-value assessments. Over half of the commercial farms in New York are now in agricultural districts. Maryland’s program is too new for any significant action as yet.
3. Zoning. There is no exclusive agricultural zoning in the Northeast. Local ordinances of this nature apparently would be legal now under selected circumstances but have not so far been politically feasible. State agricultural zoning has been unsuccessfully proposed as part of more comprehensive land-use control packages. Such proposals continue but are less strongly advanced than in the recent past. Flood plain zoning that generally favors agriculture in flood-prone areas has been passed in some states, but its contribution to agricultural preservation will be indirect and limited.

4. Transfer of development rights. TDR programs involve issuing specified quantities of development rights to all land owners in an area, together with a provision that these rights can be used only in part of the area. Owners in that part, however, may buy rights from owners where development is prohibited and then may increase the density at which they develop. TDR programs have been established in a few rural local jurisdictions of the Northeast but have only barely started to function. TDR is a type of compensatory zoning under which those who are prohibited from developing receive payments that reduce their losses. This compensation could make the prohibition look more reasonable to the courts and reduce local opposition to a proposed prohibition.

Accurate forecasts of supply and demand for development rights are expected to be necessary for a successful TDR program. Transaction costs and provisions for recording and taxing development rights need also to be considered.

TDR programs can be modified in various ways, including government manipulation of the market for development rights or government purchase, initially at least, of these rights. The size and nature of the areas included in TDR programs are also matters of important choice.

5. Government acquisition. State and local governments can acquire a variety of rights in land and can thereby attempt to preserve agriculture. The acquisition of fee simple rights to farmland for the purpose of assuring its continued use for farming has not been tried on a significant scale in the Northeast and is not likely to be an effective means for preserving agriculture. Government purchase of development easements is in no conflict with constitutional guarantees so long as the sellers agree willingly to the sales. Assessed values for farms also revert automatically to farm values, and the impact of inheritance taxes on the estates of farmers may be lessened. The prohibition of nonfarm uses on farmlands is absolute so long as development rights are held by the government and not exercised by it. It is very costly in some areas, however, for government to acquire development easements. Preventing nonfarm uses also does not guarantee continued farming and may in some instances make an area especially attractive to hobby farmers.

6. Special development controls. Building codes, health and sanitary codes, and subdivision and development permits can all affect the amount of land that is diverted from farm to urban uses, but they were not intended for this purpose and are seldom used to preserve agriculture. In recent years, permit systems have been established in several states to control large developments, and these are at least potentially useful for preserving agriculture. Vermont Act 250 and the Adirondack Park Agency law contain provisions of this type, but in neither case agricultural preservation explicitly contemplated. The same holds for the seacoast, power, and mine development controls provided for in several states.

Controls for large developments clearly are supported by a majority of people in Vermont and have not been a target for major criticism even in the Adirondack Park, where detailed and comprehensive controls have been bitterly opposed.

7. Secondary and supplementary means for preserving agriculture. These approaches include agencies to promote and defend agriculture, means for making rural areas less attractive or urban areas more attractive for new settlement, efforts to limit public service expenditures, farm capital investment incentives, assessment roll consolidation of farms, improved farmland leases, curbs on regulations of farmers, and improved property liability laws. When these means are focused on preserving agriculture in areas where only urban scatetation, not total urban occupancy, is in prospect, they can be useful.

Nonfarm people often come to rural areas to enjoy pastoral beauty, part of which is provided by well-kept, prosperous, and productive farms. Their very coming, however, frequently starts a series of subtle changes that make it increasingly difficult for farming to survive. The destruction of farming is unintended, but new rules are needed to prevent it.

The destruction could be avoided, of course, if nonfarm people were confined to cities and villages. This could be done legally through zoning or some adaptation of it. Zoning has been the standard urban solution to land-use incompatibilities for over a half century.

Zoning has not been acceptable, however, for preserving agriculture. City people do not want to be fenced in, and rural people do not want extensive police power controls on land use lest those controls grow to where they interfere with traditional rural activities. The efficacy of zoning is even being questioned in cities. It solves incompatibilities by partitioning, and some believe this contributes to the alienations that seem to be part of current urban problems (Reps n.d., Procos 1976, Greenbie 1976). In any event, farm and residential uses are so intermingled in the rural areas of the Northeast that to separate them would be a long and painful process.

An intermingling of diverse activities and life styles has characterized rural America from its beginning. People in all walks of life know each other by their first names, and their children ride the same school buses together as a matter of course. Hard lines of conflict are less likely under these circumstances.

The turn-around in population movements between cities and rural areas suggests a new awakening to the values of intermingled rural diversity. The maintenance of this diversity, including a strong farm component, poses a major challenge, one not yet adequately met by any of the means examined in this study.
References

American Law Institute.

Barlowe, R.; Ahl, J. G.; and Bachman, G.

Bingham, W. G.

Bosselman, F., and Callies, D.

Bosselman, F.; Callies D.; and Banta, J.

Bryant, W. R.

Bryant, W. R., and Conklin, H. E.

Colyer, D.

Conklin, H. E.

Conklin, H. E., and Bryant, W. R.

Dhillon, P. S., and Derr, D. A.


Council on Environmental Quality.


Fellows, I.


Fewell, M.J.

Friday, R. E.

Gloudemans, R. J.

Gottmann, Jean

Gustafson, G. C, and Wallace, L. T.

Hady, T. F., and Sibold, A. G.

Healy, R. G.

Jeffrey, A. D.
1962. Present use and economic classification of non-urban land in Rhode Island. Rhode Island Development Council, Publ. No. 4, Providence, R.I.

Keene, J. C.

King, W. H.


King W. H., and Conklin, H. E.

Lambert, C. E.; Burns, D. J.; and Hughes, D. W.

Lesher, W. G.


Linton, R. E.

Lynn, A. D., Jr. (editor)


New York State Agricultural Resources Commission.

North Central Public Policy Education Committee.

Orsini, J. B.

Osterhoudt, F. H., and Conklin, H. E.
Park, W. L.

Park, W. L.; Hunter, J. H.; and George, S.

Pasour, E. C, Jr.; Danielson, L. E.; and Liner, H. L.

Poole, A. T., Jr.; Marshall, J. P.; and Gibson, W. L., Jr.

Procos, D.

Raup, P. M.

Reps, J. W.

Sisson, C. A.

Small, L., and Derr, D. A.

Small, L. E.; Kasper, V.; and Derr, D. A.

Southern Land Economics Research Committee.

State of Connecticut.

State of New Jersey.

State of New York.

Taylor, C. R., and Frohberg, K. K.

Temporary State Commission to Study the Catskills.

U.S. Bureau of the Census.


U.S. Department of Agriculture.

U.S. Senate.

Washbon, W. E.

Woods, W. F.

Woods, W.F., and Guither, H. D.
Selected Earlier Northeast Regional Research Project 90 Reports

1974


1975


Lambert, C. E.; Burns, D. J.; and Hughes, D. W. A Computerized Model for Predicting Cash Flow Analysis for Easement Purchase, New Jersey Agricultural Experiment Station, Special Report 29, March 1975.


1976


1977


1978


The administrative advisor for Project 90 was Robert F. Hutton, Pennsylvania State University; the project manager was Howard E. Conklin, Cornell University; and the Cooperative State Research Service project representative was Roland Robinson.

Also, during the life of Project 90 the Technical Committee membership changed for certain states. The following individuals were previous members of the Technical Committee:

David Burns
Department of Agricultural Economics
Rutgers University

John Carroll
Institute of Natural and Environmental Research
University of New Hampshire

Douglas Morris Institute
of Natural and Environmental Research
University of New Hampshire

Leslie Small
Department of Agricultural Economics
Rutgers University

Contents

1 Foreword
1 Introduction
2 Tax policies
6 Facilitating districts
10 Zoning
13 Transfer of development rights
16 Government acquisition
20 Special development controls
21 Secondary and supplementary means for preserving agriculture
24 Summary
26 References
29 Selected earlier Northeast Regional Research Project 90 reports

Received for publication January 25, 1979

Ordering information. Copies of this or previously published bulletins in this series can be ordered from the appropriate issuing station. Issuing station identification is found at the top of the front cover of each New York’s Food and Life Sciences Bulletin.

Copies of bulletins issued by the Geneva station may be ordered from: Distribution Center, New York State Agricultural Experiment Station, B13 Jordan Hall, Geneva, NY 14456.

Copies of bulletins issued by the Ithaca station may be ordered from: Distribution Center, 7 Research Park, Cornell University, Ithaca, NY 14850.

The New York State College of Agriculture and Life Sciences provides equal program and employment opportunities.