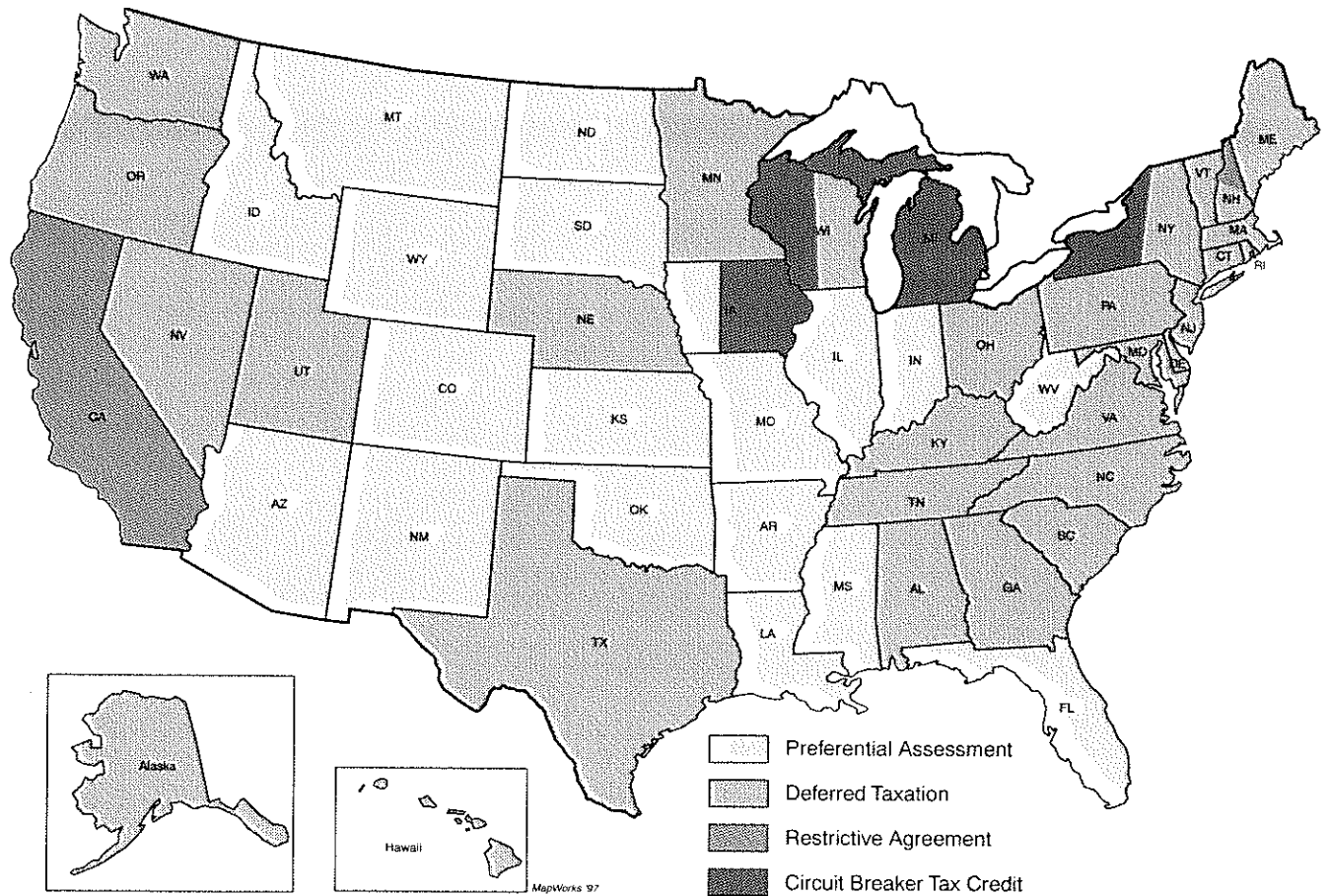


SECTION ONE: FARMLAND PROTECTION TOOLBOX

CHAPTER 5: AGRICULTURAL TAX PROGRAMS

MAP 5.1: STATE AGRICULTURAL TAX PROGRAMS, 1997



Tax incentives are widely used to maintain the economic viability of farming. Some tax relief programs were initiated specifically to protect farmland. All states have at least one program to reduce the amount of money farmers are required to pay in real property taxes.

DIFFERENTIAL ASSESSMENT

The most important type of agricultural tax program is known as differential assessment, because farmland enrolled in these programs is assessed differently than other real property.* Every state except Michigan has a differential assessment program that allows local officials to assess farmland at its agricultural use value, rather than its fair market value, which is generally higher. Agricultural use value represents what farmers would pay to buy land in light of the net farm income they can expect to receive from it. Full fair market value represents the amount a willing buyer—whether farmer or developer—would pay for the land. Five states provide differential assessment as a benefit of enrollment in agricultural districts. There are three types of differential assessment programs: preferential assessment, deferred taxation and restrictive agreements.

CIRCUIT BREAKER TAX RELIEF CREDITS

Three states—Michigan, New York and Wisconsin—allow farmers to claim state income tax credits to offset their local property tax bills. These programs are called “circuit breakers” because they relieve farmers of real property taxes that exceed a certain percentage of their income. Iowa also offers a credit against school taxes on agricultural land. While circuit breaker programs are not widespread, they are receiving increasing attention from state governments looking for ways to relieve farmers’ tax burden.

OTHER AGRICULTURAL TAX PROGRAMS

Agricultural district laws in eight states limit the ability of local governments to impose special taxes for services such as sewers and police protection, for example, on farmland. New York offers tax credits for the construction and renovation of farm buildings, and Connecticut allows local governments to provide tax relief to dairy farms, orchards and vineyards. Sixteen states provide tax relief for owners of farmland restricted by conservation easements.

BRIEF DESCRIPTION OF
AGRICULTURAL TAX
PROGRAMS

Differential assessment laws, circuit breakers and other agricultural tax programs have three purposes:

- To help farmers stay in business by reducing their real property taxes;
- To treat farmers fairly by taxing farmland based on its value for agriculture, rather than at fair market value as if it were the site of a housing development; and
- To protect farmland by easing the financial pressures that force some farmers to sell their land for development.

FUNCTIONS AND
PURPOSES OF
AGRICULTURAL TAX
PROGRAMS

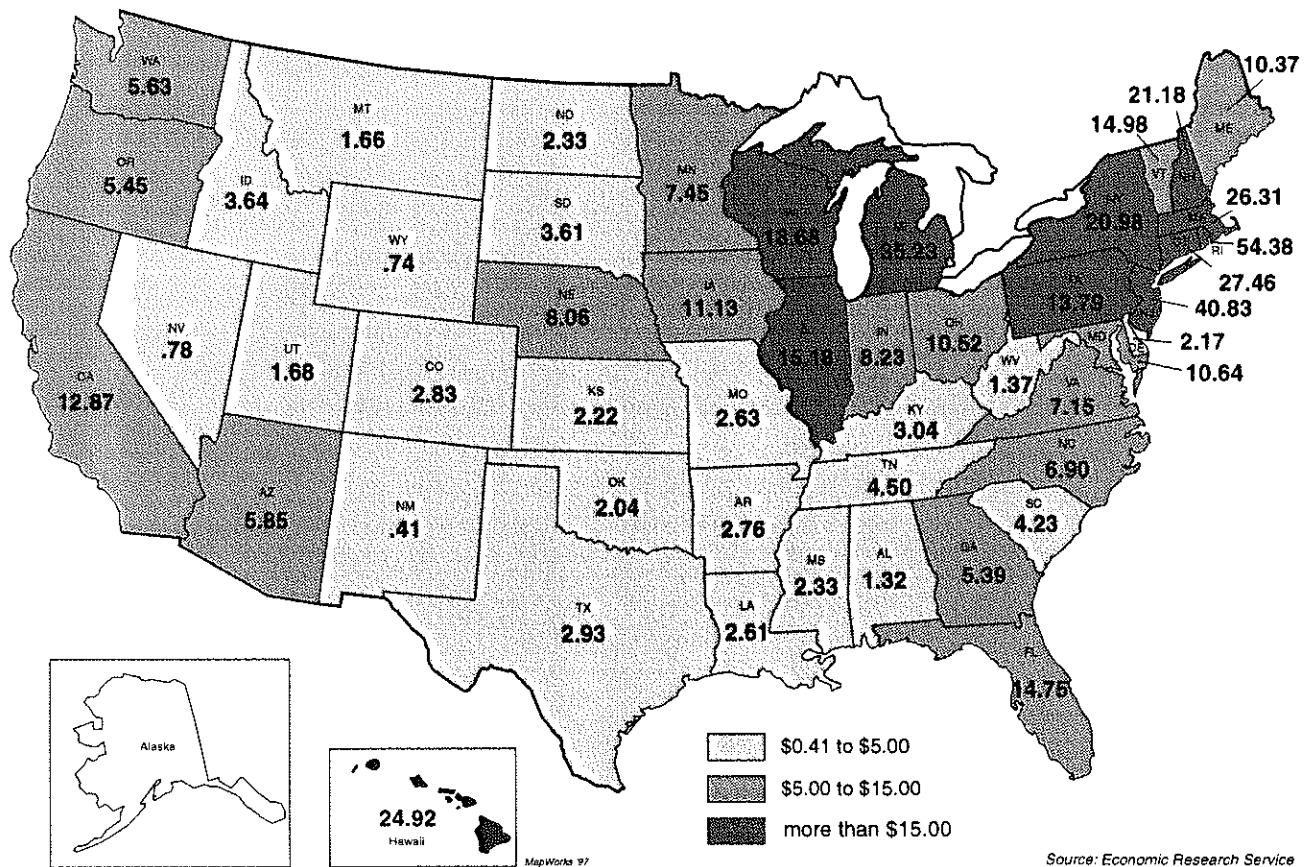
*Differential assessment is also known as current use assessment, and use value assessment. The terms are interchangeable and all are used in this chapter.

As land in the outer reaches of metropolitan areas comes under pressure for new residential, commercial and industrial development, rural property values rise. As new residents and businesses move to rural areas, local governments often raise property tax rates to support increased demands for public services such as roads, schools and sewer systems.

In agricultural communities, the market value of farmland is determined primarily by its productivity. Real property taxes based on this value generally reflect the agricultural income received from the land. If, however, farmland values rise because of non-farm development pressures, taxes based on these values no longer reflect the current use of the land, nor farmers' ability to pay. Increasing property values and the corresponding rise in taxes can have a devastating impact on agricultural profitability.

Figures 5.1 and 5.2 show 1992 agricultural real estate taxes per acre and per \$100 in full market value of farmland across the country¹. Taxes shown on the maps include reductions due to differential assessment programs. Taxes of less than \$5 per acre may be considered a minor cost, but taxes of \$15 or \$20 per acre, common in many northeastern and midwestern states, represent a major expense for farm families.

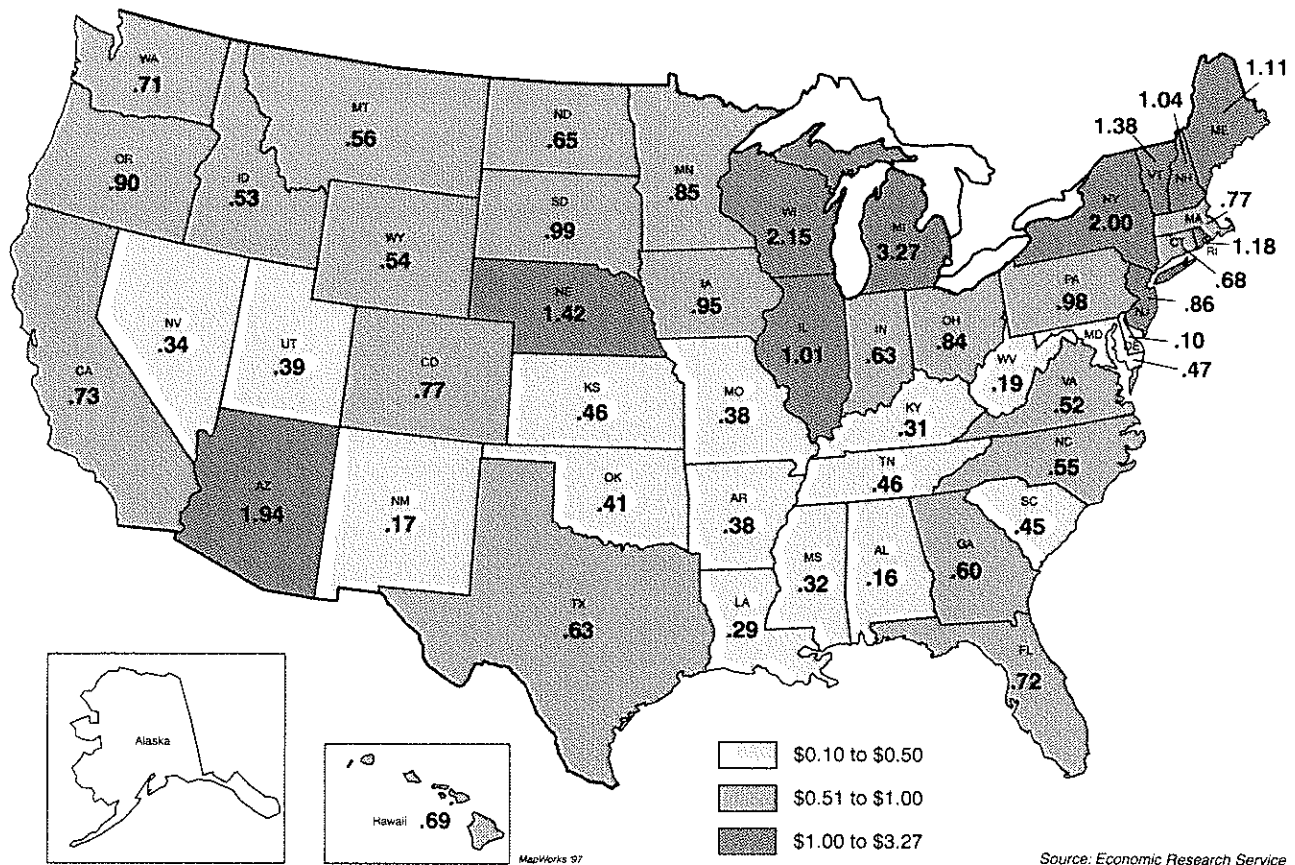
FIGURE 5.1: AGRICULTURAL REAL ESTATE TAXES PER ACRE, 1992



High land values make it more difficult for farmers to increase profits by expanding their operations. The combination of expensive real estate and high taxes creates strong economic incentives for farmers to stop farming and sell land for development. Differential assessment and circuit breaker programs help ensure that farmers who want to continue farming will not be forced to sell land just to pay their tax bills.

Differential assessment and circuit breaker programs are also designed to correct inequities inherent in local property tax systems. Property taxes are assessed on a per-acre basis, and farmers are often the largest landowners in rural communities. The amount of land a farm family owns, however, does not reflect the cost of services they receive from local government. It costs local government much less to serve one or two families living on a 200-acre farm than it does to provide education, roads, water, sewers and police and fire protection to 400 families living on half-acre lots in a 200-acre subdivision. More than 40 cost of community services studies have shown that farmland owners pay more in taxes than local governments pay to provide them with services, while homeowners receive more services than their taxes pay for (see Table 5.1, p. 150). Ratios displayed on the table show the relationship between revenues generated by each land use category and the cost of providing municipal services to that category.

FIGURE 5.2: AGRICULTURAL REAL ESTATE TAXES PER \$100 IN FAIR MARKET VALUE, 1992



Source: Economic Research Service

TABLE 5.1: SUMMARY OF COST OF COMMUNITY SERVICES STUDIES (RATIOS IN DOLLARS)

| State/Town | Residential including farm houses | Combined Commercial & Industrial | Farm/Forest Open Land | Source |
|----------------------|-----------------------------------|----------------------------------|-----------------------|--|
| Connecticut | | | | |
| Durham | 1 : 1.07 | 1 : 0.27 | 1 : 0.23 | Southern New England Forest Consortium, 1995 |
| Farmington | 1 : 1.33 | 1 : 0.32 | 1 : 0.31 | Southern New England Forest Consortium, 1995 |
| Hebron | 1 : 1.06 | 1 : 0.47 | 1 : 0.43 | American Farmland Trust, 1986 |
| Litchfield | 1 : 1.11 | 1 : 0.34 | 1 : 0.34 | Southern New England Forest Consortium, 1995 |
| Pomfret | 1 : 1.06 | 1 : 0.27 | 1 : 0.86 | Southern New England Forest Consortium, 1995 |
| Maine | | | | |
| Bethel | 1 : 1.29 | 1 : 0.425 | 1 : 0.06 | Thomas Good, Antioch New England Graduate School, 1994 |
| Maryland | | | | |
| Carroll County | 1 : 1.15 | 1 : 0.48 | 1 : 0.45 | Carroll County Dept. of Management & Budget, 1994 |
| Frederick County | 1 : 1.05 | 1 : 0.39 | 1 : 0.48 | American Farmland Trust, 1997 |
| Massachusetts | | | | |
| Agawam | 1 : 1.05 | 1 : 0.44 | 1 : 0.31 | American Farmland Trust, 1992 |
| Becket | 1 : 1.02 | 1 : 0.83 | 1 : 0.72 | Southern New England Forest Consortium, 1995 |
| Deerfield | 1 : 1.16 | 1 : 0.38 | 1 : 0.29 | American Farmland Trust, 1992 |
| Franklin | 1 : 1.02 | 1 : 0.58 | 1 : 0.40 | Southern New England Forest Consortium, 1995 |
| Gill | 1 : 1.15 | 1 : 0.43 | 1 : 0.38 | American Farmland Trust, 1992 |
| Leverett | 1 : 1.15 | 1 : 0.29 | 1 : 0.25 | Southern New England Forest Consortium, 1995 |
| Westford | 1 : 1.15 | 1 : 0.53 | 1 : 0.39 | Southern New England Forest Consortium, 1995 |
| Williamstown | 1 : 1.11 | 1 : 0.40 | 1 : 0.34 | Hazler et al., 1992 |
| Minnesota | | | | |
| Farmington | 1 : 1.02 | 1 : 0.18 | 1 : 0.48 | American Farmland Trust, 1994 |
| Lake Elmo | 1 : 1.07 | 1 : 0.20 | 1 : 0.27 | American Farmland Trust, 1994 |
| Independence | 1 : 1.04 | 1 : 0.19 | 1 : 0.47 | American Farmland Trust, 1994 |
| New York | | | | |
| Amenia | 1 : 1.23 | 1 : 0.17 | 1 : 0.25 | Bucknall, 1989 |
| Beekman | 1 : 1.12 | 1 : 0.18 | 1 : 0.48 | American Farmland Trust, 1989 |
| Farmington | 1 : 1.22 | 1 : 0.27 | 1 : 0.72 | Kinsman et al., 1991 |
| Dix | 1 : 1.51 | 1 : 0.27 | 1 : 0.31 | Schuyler County League of Women Voters, 1993 |
| Fishkill | 1 : 1.23 | 1 : 0.31 | 1 : 0.74 | Bucknall, 1989 |
| Hector | 1 : 1.30 | 1 : 0.15 | 1 : 0.28 | Schuyler County League of Women Voters, 1993 |
| Kinderhook | 1 : 1.05 | 1 : 0.21 | 1 : 0.17 | Concerned Citizens of Kinderhook, 1996 |
| Montour | 1 : 1.50 | 1 : 0.28 | 1 : 0.29 | Schuyler County League of Women Voters, 1992 |
| Northeast | 1 : 1.36 | 1 : 0.29 | 1 : 0.21 | American Farmland Trust, 1989 |
| Reading | 1 : 1.08 | 1 : 0.26 | 1 : 0.32 | Schuyler County League of Women Voters, 1992 |
| Red Hook | 1 : 1.11 | 1 : 0.20 | 1 : 0.22 | Bucknall, 1989 |
| Ohio | | | | |
| Madison Village | 1 : 1.67 | 1 : 0.20 | 1 : 0.38 | AFT and Lake County Ohio SWCD, 1993 |
| Madison Township | 1 : 1.40 | 1 : 0.25 | 1 : 0.30 | AFT and Lake County Ohio SWCD, 1993 |
| Pennsylvania | | | | |
| Bethel Township | 1 : 1.08 | 1 : 0.17 | 1 : 0.06 | Tim Kelsey, 1992 |
| Carroll Township | 1 : 1.03 | 1 : 0.03 | 1 : 0.02 | Tim Kelsey, 1992 |
| Straban Township | 1 : 1.10 | 1 : 0.11 | 1 : 0.06 | Tim Kelsey, 1992 |
| Rhode Island | | | | |
| Hopkinton | 1 : 1.08 | 1 : 0.31 | 1 : 0.31 | Southern New England Forest Consortium, 1995 |
| Little Compton | 1 : 1.05 | 1 : 0.56 | 1 : 0.37 | Southern New England Forest Consortium, 1995 |
| West Greenwich | 1 : 1.46 | 1 : 0.40 | 1 : 0.46 | Southern New England Forest Consortium, 1995 |
| Virginia | | | | |
| Clarke County | 1 : 1.26 | 1 : 0.21 | 1 : 0.15 | Piedmont Environ. Council, Clarke County, Virginia, 1994 |
| Wisconsin | | | | |
| Dunn | 1 : 1.06 | 1 : 0.29 | 1 : 0.18 | Town of Dunn, 1994 |

Some, though not all, differential assessment laws were enacted with the goal of protecting farmland. Pennsylvania's Act 319 was hailed as the "Clean and Green" bill. Vermont's use value assessment law is designed to "encourage and assist the maintenance of Vermont's productive agricultural and forest land..."². In 1980, the Minnesota legislature passed the Metropolitan Agricultural Preserves Act to protect farmland in the Twin Cities metropolitan area; property tax relief is a key element of the program.

BENEFITS AND
DRAWBACKS OF
AGRICULTURAL TAX
PROGRAMS

BENEFITS

- Agricultural tax programs help farmers stay in business by lowering their expenses.
- Agricultural tax programs help correct inequities in the tax system.

DRAWBACKS

- Agricultural tax programs do not ensure long-term protection of farmland.
- Differential assessment programs often provide a subsidy to real estate speculators, who are keeping their land in agriculture pending development.

BRIEF HISTORY

Iowa's Agricultural Land Credit Fund, established in 1939, was the first state program to provide farmers with relief from property taxes. Maryland enacted the nation's first differential assessment law in 1956³. Between 1959 and 1969, 20 other states adopted differential assessment legislation. Michigan adopted its circuit breaker tax relief program in 1974. By 1989, all 50 states had at least one type of agricultural tax program for farmland owners, and several states had more than one program. Table 5.2, p. 152 lists differential assessment and circuit breaker tax relief programs by state.

TRENDS IN
AGRICULTURAL
TAX PROGRAMS

As the value of farmland has risen, states have expanded their agricultural tax programs. Michigan adopted a special tax rate for farmland as part of its comprehensive property tax reform legislation in 1994. Wisconsin created a differential assessment program to supplement its circuit breaker program in 1995, and New York adopted legislation to create a circuit breaker program in 1996.

TABLE 5.2: STATE DIFFERENTIAL ASSESSMENT AND CIRCUIT-BREAKER TAX RELIEF LAWS

| State | Type of program | Date enacted |
|----------------|-------------------------|--------------|
| Alabama | Deferred Taxation | 1978 |
| Alaska | Deferred Taxation | 1967 |
| Arizona | Preferential Assessment | 1967 |
| Arkansas | Preferential Assessment | 1980 |
| California | Restrictive Agreement | 1965 |
| Colorado | Preferential Assessment | 1967 |
| Connecticut | Deferred Taxation | 1963 |
| Delaware | Deferred Taxation | 1968 |
| Florida | Preferential Assessment | 1959 |
| Georgia | Deferred Taxation | 1987 |
| Hawaii 1 | Deferred Taxation | 1961 |
| Hawaii 2 | Deferred Taxation | 1973 |
| Idaho | Preferential Assessment | 1971 |
| Illinois | Preferential Assessment | 1977 |
| Indiana | Preferential Assessment | 1961 |
| Iowa 1 | Circuit Breaker | 1939 |
| Iowa 2 | Preferential Assessment | 1967 |
| Kansas | Preferential Assessment | 1989 |
| Kentucky | Deferred Taxation | 1976 |
| Louisiana | Preferential Assessment | 1976 |
| Maine | Deferred Taxation | 1971 |
| Maryland | Deferred Taxation | 1956 |
| Massachusetts | Deferred Taxation | 1973 |
| Michigan | Circuit Breaker | 1974 |
| Minnesota | Deferred Taxation | 1967 |
| Mississippi | Preferential Assessment | 1980 |
| Missouri | Preferential Assessment | 1975 |
| Montana | Preferential Assessment | 1973 |
| Nebraska | Deferred Taxation | 1974 |
| Nevada | Deferred Taxation | 1975 |
| New Hampshire | Restrictive Agreement | 1976 |
| New Hampshire | Deferred Taxation | 1972 |
| New Jersey | Deferred Taxation | 1964 |
| New Mexico | Preferential Assessment | 1967 |
| New York 1 | Deferred Taxation | 1971 |
| New York 2 | Circuit Breaker | 1996 |
| North Carolina | Deferred Taxation | 1973 |
| North Dakota | Preferential Assessment | 1973 |
| Ohio | Deferred Taxation | 1974 |
| Oklahoma | Preferential Assessment | 1974 |
| Oregon | Deferred Taxation | 1963 |
| Pennsylvania 1 | Deferred Taxation | 1966 |
| Pennsylvania 2 | Deferred Taxation | 1975 |
| Rhode Island | Deferred Taxation | 1968 |
| South Carolina | Deferred Taxation | 1975 |
| South Dakota | Preferential Assessment | 1967 |
| Tennessee | Deferred Taxation | 1976 |
| Texas | Deferred Taxation | 1966 |
| Utah | Deferred Taxation | 1969 |
| Vermont | Deferred Taxation | 1977 |
| Virginia | Deferred Taxation | 1971 |
| Washington | Deferred Taxation | 1970 |
| West Virginia | Preferential Assessment | 1977 |
| Wisconsin 1 | Circuit Breaker | 1977 |
| Wisconsin 2 | Deferred Taxation | 1995 |
| Wyoming | Preferential Assessment | 1973 |

ACCOMPLISHMENTS

Differential assessment programs enjoy broad farmer support because they provide substantial tax savings. In 1993, 4.2 million acres of farmland were enrolled in Pennsylvania's Act 319 program, the more important of the two differential assessment programs in the state. The median tax reduction for Class I farmland was 58 percent. In 1995, approximately 15.9 million acres were receiving differential assessment under California's Williamson Act, accounting for more than half the total farmland in the state⁴. New York farmers saved approximately \$57 million in property taxes in 1993⁵. More than 41,000 parcels of land in New York were covered by differential assessment, saving farmers a total of approximately \$48 million. Exemptions from taxes on farm buildings accounted for approximately \$9 million in 1993⁶.

CHALLENGES

Differential assessment provides critical tax benefits to farmers, but it also reduces the local tax base. If the assessed value of farmland goes down, how does the local government make up the revenue to pay for education and other public services? In a few states, including California, Minnesota and Maine, the state government provides some funding to local governments to make up for losses due to differential assessment. In most states, however, towns and counties simply raise the local tax rates to compensate for the loss to the tax base.

The increase in tax rates caused by differential assessment is the source of two different problems. First, the increase shifts property taxes from farmland owners to residential, commercial and industrial taxpayers. This tax shift can be controversial. But even though the assessed value of farmland goes down and some of the tax increase is shifted, farmers must still pay the higher tax rate. If lower assessed values are offset by very steep increases in the tax rate, farmers may not get much relief. This has been the case in New York, which created a circuit breaker tax relief program to address the problem.

DESCRIPTIVE ANALYSIS OF AGRICULTURAL TAX PROGRAMS

Differential assessment

Differential assessment programs reduce the amount of local property tax that farmland owners are required to pay. There are three different forms of differential assessment: preferential assessment, deferred taxation and restrictive agreements.

Preferential assessment is the least restrictive form of differential assessment, because it does not impose penalties for converting land to non-eligible uses. Preferential assessment allows farmland to be assessed at its current value for agriculture instead of its fair market value. The agricultural value is multiplied by the local tax rate to determine the amount of real property tax due each year. Farm buildings are generally assessed at fair market value. Preferential assessment programs base the farmers' tax bills on the agricultural values as long as their land remains in agricultural use. Nineteen states use this approach (see Table 5.2, p. 152).

Deferred taxation uses the same process as preferential assessment to calculate property taxes on farmland. Farmers receive preferential assessment for as long as their land remains in agriculture. When land is converted to an ineligible use or sold for development, however, landowners must pay a penalty. Some states impose "rollback" penalties, which are

ISSUES AND OPTIONS

calculated based on the sum of tax benefits received for a number of years before the land was converted. Other states require landowners to pay a simple conversion tax, generally set at 10 percent of the fair market value of the land. Twenty-nine states have deferred taxation programs.

In California, farmers must sign restrictive agreements to be eligible for deferred taxation under the Williamson Act. The agreements are legally enforceable contracts that prevent property owners from converting their land from agriculture for a period of at least 10 years. After the initial 10-year enrollment period, the agreements are automatically renewed each year. Landowners and local governments both have the option not to renew Williamson Act contracts. When a notice of non-renewal is filed, automatic term extension ceases and the contract is allowed to expire. During the expiration period, the assessed value of the land gradually rises to fair market value. Landowners may cancel contracts with the permission of the local government under limited circumstances, but must pay a penalty if they do so. In New Hampshire, farmers whose property does not qualify for deferred taxation may become eligible for the program by signing a 10-year easement preventing development. Differential assessment programs in Georgia, Hawaii, New York and Pennsylvania also require landowners to sign restrictive covenants, but landowners may terminate these agreements by paying back taxes plus interest or a penalty. These programs have been classified as deferred taxation.

Eligibility criteria for differential assessment vary significantly between states. Among the more important criteria are:

- Land use limited to agriculture or timber production;
- History of eligible land use;
- Land located in an agricultural district;
- Minimum parcel size;
- Minimum farm income; and
- Family ownership.

Most of these criteria are intended to ensure that tax benefits are targeted to land that produces agricultural products, rather than “hobby farms” used solely for recreation, or land that is vacant pending development.

Minnesota has relatively restrictive eligibility criteria for its Green Acres deferred taxation program. Landowners must have at least 10 acres, and meet both ownership and use tests. Under the ownership test, the property must fit one of the following descriptions:

- be the owner’s homestead or that of a surviving spouse, child or sibling;
- have been in the possession of one of the above for seven years; or
- be the homestead of a shareholder in a family farm corporation.

To be considered in agricultural use, the land must be devoted to the production of farm products for sale, and must provide at least one-third of the owner’s total family income, or yield at least \$300 plus \$10 per tillable acre in total income, including rent.

In most states with differential assessment programs, landowners must renew their applications for tax relief each year. In Indiana and Wisconsin, farmers do not have to apply for differential assessment—the laws in these two states direct local officials to assess all eligible farmland at its agricultural use value.

Circuit breaker tax relief credits and other agricultural tax programs

Circuit breaker programs allow farmers to take tax credits for part of their local property tax bill. The cost of the credits is distributed among all taxpayers in the state. Michigan, Wisconsin and New York have income tax circuit breaker programs. Iowa's Agricultural Land Credit Fund finances local school tax credits for farmers.

Michigan's circuit breaker program, known as PA 116, is built on a foundation of 10-year restrictive agreements between farmers and local governments⁷. Landowners who sign "farmland development rights agreements" promise not to build any non-farm structures on their land, or to sell any interest in the land with the exception of scenic or utility easements. In return for signing the agreements, farmers are protected against taxes levied by local utilities and receive credits against their state income taxes.

The size of the Michigan circuit breaker credit depends on the farmer's income and the amount of real property tax owed. Owners of qualifying farmland may claim credits equal to the amount by which their property taxes exceed 7 percent of household income. For instance, a farm family with an annual household income of \$20,000 could take a credit for any property taxes exceeding \$1,400 per year.

Michigan landowners must get local and state approval for withdrawing from the state's circuit breaker program before their 10-year farmland development rights agreements expire. If withdrawal is approved, landowners must reimburse the state for the total amount of all credits received, plus 6 percent interest. Owners who simply allow the agreements to expire are subject to a 7-year rollback tax.

Wisconsin's circuit breaker program includes two types of tax credits: farmland preservation credits and farmland tax relief credits. The farmland preservation credit program required participating counties to develop farmland protection plans. Seventy of the state's 72 counties did so. With the plans in place, farmers whose land is subject to APZ or who have signed individual restrictive agreements with their county government are eligible to receive state income tax credits through the farmland preservation credit program. The credits are calculated using a formula based on household income and property taxes up to \$6000. Basically, the higher the property tax, the higher the tax credit, and the lower the income, the higher the credit. The maximum credit is \$4,200; farmers may receive a refund if their credits exceed their tax liability. Households whose incomes are too high for the formula credit are eligible for a minimum credit of 10 percent of property taxes or \$600. In 1996, nearly 23,000 farmers claimed farmland preservation credits totaling \$28.4 million. The average credit was approximately \$1,200 per claimant.

The size of farmland preservation tax credits also depends on the strategy used to protect the land. Farmers whose land is subject to exclusive APZ are eligible for the maximum credit, while those who sign agreements are eligible for only 80 percent of the maximum.

The Wisconsin farmland tax relief credit is equal to 10 percent of up to \$10,000 in property taxes on agricultural land. Household income does not affect the size of this credit. Farmers may claim both farmland preservation and farmland tax relief credits, but the sum of the two credits may not exceed 95 percent of their total property tax liability.

New York's circuit breaker program was created in 1996. It provides farmers who earn at least two-thirds of their total household income from farming with relief from local school taxes levied on agricultural land and buildings. The size of the credit will increase gradually from 1997 to 1999, when farmers will receive a 100-percent credit for school taxes on farm structures and up to 250 acres of farmland, and a 50-percent credit for taxes on more than 250 acres. Farm families with incomes up to \$100,000 are eligible for a 100-percent credit. Farm families with incomes between \$100,000 and \$150,000 are eligible for partial credits. Farmers who convert their land to non-agricultural uses within three years of enrollment in the program must pay back any tax savings.

Iowa's Agricultural Land Credit Fund entitles farmland owners to a tax credit when the school tax on their land exceeds \$5.40 per \$1,000 of assessed value. This program is different from other circuit breakers, because the size of the credit is determined by the amount that the school tax exceeds the limit stated in the law, rather than by the income of the landowner. Also, the credit is applied directly against local property taxes, rather than against state income taxes. Eligible landowners receive reductions in their local property tax bills, and the local governments are reimbursed by the state. Appropriations for the Agricultural Land Credit Fund are currently capped at \$39.1 million per year, and credits are awarded on a prorated basis. The average credit is approximately 25 percent of school tax liability in excess of \$5.40 per \$1,000 of assessed value⁸.

In 1991, the Iowa legislature created a second circuit breaker program, known as the Family Farm Tax Credit. This program is identical to the Agricultural Land Credit program, except eligibility is limited to farm owner-operators. Corporate farms and out-of-state landowners may not receive the credit. The first \$10 million in the Agricultural Land Credit program funds the Family Farm Tax Credits. Eligible farmers may receive credits through both programs.

Other agricultural tax programs

A few states have experimented with other, targeted tax incentives for farmers. Arizona allows farmers to take credits against their state income taxes to pay up to 75 percent of the cost of buying and installing agricultural water conservation systems for use on farms or ranches⁹. To qualify, the taxpayer must have filed a water conservation plan with the U.S. Department of Agriculture's Natural Resources Conservation Service. Excess credits may be carried forward five years. Connecticut allows municipalities to abate up to 50 percent of the property tax on any dairy farm, orchard or vineyard¹⁰. At least one town has taken advantage of this provision¹¹.

As part of its investment tax credit program, New York allows farmers a 4-percent tax credit for investments in tangible personal property and buildings used in farming¹². New York also allows a 10-year property tax exemption on newly constructed or reconstructed

farm structures and buildings; and the state's Historic Barns Act, approved in 1996, created a 25-percent income tax credit for property owners who rehabilitate barns for agricultural or retail purposes.

In Pennsylvania, land that has been devoted to agricultural use for three years prior to the installation of water or sewer services serving the area is exempt from special assessments, provided that the property owner does not use or benefit from the services.

AGRICULTURAL TAX PROGRAMS AND AGRICULTURAL PROTECTION ZONING

Wisconsin is the only state that ties eligibility for tax relief to local planning and agricultural protection zoning. Farmers may not apply for income tax credits under the state's farmland preservation credit program unless their local government has adopted an APZ ordinance or a farmland protection plan. Farmers with land in jurisdictions that have both a farmland protection plan and an APZ ordinance are eligible for larger credits than those in communities that have either a plan or APZ.

The planning and zoning requirement created a very strong incentive for local governments to adopt APZ, and more than 425 Wisconsin jurisdictions have done so. The Wisconsin farmland preservation credits are an example of how tax relief can be combined with other techniques to build an effective farmland protection program. While farmers in many communities around the country have opposed agricultural protection zoning, Wisconsin farmers have lobbied local governments to approve APZ ordinances¹³.

RELATIONSHIP BETWEEN
AGRICULTURAL TAX
PROGRAMS AND OTHER
FARMLAND PROTECTION
STRATEGIES

DIFFERENTIAL ASSESSMENT AND AGRICULTURAL DISTRICT LAWS

Farmers who enroll in agricultural districts in California, Utah, Virginia or the Twin Cities metropolitan area are automatically eligible for differential assessment. Agricultural district laws in Illinois, Iowa, Maryland, New York, North Carolina, Ohio and Virginia limit special assessments for municipal services such as sewers on land enrolled in agricultural districts.

Calvert County, Md., has its own agricultural districts, independent of the Maryland state program. Farmers who enroll their land in a county agricultural district receive a 100-percent county property tax credit.

DIFFERENTIAL ASSESSMENT AND AGRICULTURAL CONSERVATION EASEMENTS

Land that is subject to an agricultural conservation easement cannot be developed. Sixteen states have laws that direct or allow local governments to assess these properties at their restricted values¹⁴.

 THE POLITICS OF THE TAX SHIFT: CHANGES IN VERMONT'S AGRICULTURE AND
 MANAGED FOREST LAND USE VALUE PROGRAM

 THE EVOLUTION OF
 DIFFERENTIAL
 ASSESSMENT AND
 CIRCUIT BREAKER
 PROGRAMS:
 FOUR CASE STUDIES

Vermont enacted a differential assessment law in 1977. Under the law, towns were directed to list all property on the tax rolls at fair market value, but owners of farmland or forests could choose between several state-run differential assessment programs. The legislation required the state to reimburse local governments for the portion of property taxes not collected on land enrolled in the current use program. In 1988, the legislature created the Working Farm Tax Abatement program, which provided state funds to pay 100 percent of the education tax on farm buildings located on land enrolled in the program. In 1980, fewer than 12,000 acres of farmland were covered by differential assessment; by 1990, more than 272,000 acres were enrolled. The total cost of the program, including reimbursements for taxes on 860,000 acres of forestland, rose to nearly \$12.5 million per year in 1990¹⁵.

State budget shortfalls and the high cost of reimbursements to towns led to a legislative decision to reduce funding for current use in 1991. Between 1991 and 1995, Vermont paid towns between 59 percent and 80 percent of the revenue not collected due to differential assessment. Some local governments absorbed the tax losses, but most required farmers to make up the difference between the state payments and the property taxes due on the fair market value of their land. According to one study, taxes on forested parcels of land more than tripled in 1994, when funding for the current use program sank to a low of 59 percent¹⁶.

In response to complaints about underfunding, the Vermont legislature made major changes in the current use program in 1996. Towns were directed to list all farm and forest land at current use values, and assess taxes accordingly. The Working Farm Tax Abatement program was eliminated; farm buildings were to be assessed at 50 percent of their fair market value. State reimbursement was also eliminated. State aid for education was increased, and some towns received "hold harmless" funding to minimize the impact of the tax shift from farmland and forest owners to other local taxpayers. The shift in funding for differential assessment from the state to the local level brought Vermont in line with most other states, but response from local governments was fast and furious.

Daphne Gratiot, a tax lister in the town of Pomfret, spoke for many local government officials when she warned that changes in the current use program would "set neighbor against neighbor¹⁷." Many local government officials charged that the changes were an "unfunded mandate" handed down by the state¹⁸. "It would be one thing if we had voted in our town to have this program. Then it would have been our choice," explained Gratiot. "But the state entered into a contract with selected landowners and then turned around and said to the towns, "You have entered into an agreement with these people¹⁹." Town listers in Barnard, Bridgewater and Halifax rejected the new differential assessment program and assessed all land at fair market value²⁰.

A poll conducted after the program change found that 82 percent of Vermont residents supported differential assessment, but 83 percent believed that funding for the program should come from the state²¹. Why should Vermonters be so hostile to local funding of current use assessment, which is the practice in nearly every other state in the nation? Part of the problem is clearly that no one wants to pay higher taxes. Another reason may be that Vermont

schools are exceptionally dependent on property taxes for funding. In 1995, property taxes accounted for nearly 60 percent of all local revenues in Vermont. The national average is less than 33 percent. State aid to education in Vermont is far lower than the national average. In 1994-1995, Vermont ranked third in the nation for the percentage of local revenues used to fund education²². But perhaps the simplest explanation is that Vermonters, who had become accustomed to state funding of the current use program, resented the change in the status quo.

Debate over the future of differential assessment in Vermont continues. In October 1996, the Governor's Tax Force on Current Use, which was composed chiefly of local government officials, issued a list of recommendations to reform the program. Heading the list was a call for the legislature to "enact comprehensive property tax reform to significantly reduce the reliance on local property taxes as a means to fund education²³."

Deborah Brighton, former director of Vermont's current use program, agrees that comprehensive property tax reform is the only long-term solution to the controversy surrounding the current use program. "The property tax system is in crisis, and current use is in the middle of it," Brighton explains. "But it needs to be fixed in the context of the whole system²⁴."**

SUPPLEMENTING DIFFERENTIAL ASSESSMENT: NEW YORK'S CIRCUIT BREAKER TAX RELIEF PROGRAM

Differential assessment has been available in New York since 1971. In the late 1980s and early 1990s, however, legislators and farm leaders received an increasing number of complaints from farmers that property taxes were still too high²⁵. In 1992, New York's Agricultural Protection Act directed the State Advisory Council on Agriculture to study agricultural property tax relief programs and report its findings to the governor and the legislature.

The Advisory Council found that New York farmers paid substantially higher property taxes than farmers in other major agricultural states. In 1992, New York farmers paid an average of \$22.65 per acre in property taxes, approximately four times the national average²⁶. Property taxes totaled 27 percent of farm net cash returns in 1992²⁷. Property tax rates in 1993 ranged from a low of \$10.74 per acre in rural Jefferson County to \$71.27 per acre in Suffolk County on Long Island²⁸. The rate of increase in property taxes in New York was also troubling. *Taxed Ground*, a 1995 study of agricultural property taxes conducted by the New York Farm Bureau, found that 17 counties experienced more than a 50-percent increase in property taxes between 1987 and 1992²⁹. Statewide, property taxes increased 44 percent during that period.

Both the State Advisory Council on Agriculture and the New York Farm Bureau called for statewide tax reform to reduce reliance on property taxes as a source of funding for education³⁰. In the absence of comprehensive tax reform, both studies recommended that New York create a circuit breaker tax credit program to provide immediate tax relief for farmers. This recommendation was implemented in 1996.

** As this publication was going to press, the Vermont legislature approved a comprehensive tax law reform program. The text of the new tax law is accessible through the Farmland Information Center at <http://www.farmlandinfo.org>.

SUPPLEMENTING CIRCUIT BREAKER TAX CREDITS: WISCONSIN'S DIFFERENTIAL ASSESSMENT PROGRAM

Wisconsin passed an amendment to its state constitution enabling differential assessment in 1974. The state created a circuit breaker tax relief program in 1977, but it took legislators more than 20 years to enact current use legislation. During the 1970s and 1980s, high property tax rates were seen as a barrier to creating a differential assessment program for farmland. Legislators did not believe that residential taxpayers would be willing to accept higher taxes for any purpose, and differential assessment would have resulted in an additional tax burden³¹.

By the early 1990s, Wisconsin's agricultural property tax rates placed it among the nation's top 10 states. In 1992, taxes on Wisconsin farmland averaged \$18.68 per acre, one of the highest rates in the nation. In 1993, the Wisconsin legislature charged the state department of revenue to investigate a variety of issues relating to use value assessment for farmland, including:

- The ramifications of changing to use value assessment;
- The shifts in tax burdens among classes of property locally and statewide;
- The effectiveness of providing property tax relief to agricultural property;
- The impact on state aid distribution; and
- The feasibility of implementing use value assessment³².

The department of revenue study stated that high farm taxes were reducing the amount of land available for farming, forcing farm families out of business, and resulting in conversion of farmland to less desirable uses. The study recommended a relatively simple differential assessment program, under which all qualifying land would be automatically assessed at its use value³³. In 1995, a second study estimated that the proposed program would result in an average net local tax rate increase of \$0.49 per \$1,000 of assessed value³⁴.

In 1995, Wisconsin made major changes in its system of funding education. The state agreed to pay two-thirds of the cost of elementary and secondary education. The new formula resulted in more than a one billion dollar increase in state aid to schools between 1995 and 1997³⁵. According to Roger Cliff, executive director of government relations for the Wisconsin Farm Bureau, education tax reform changed the political context for differential assessment. With the decrease in school taxes, legislators believed that taxpayers might be willing to absorb the cost of a use value assessment program. In July 1995, the legislature approved Act 27, which created a differential assessment program for farmland.***

*** Act 27 froze assessed values of agricultural land at 1995 values and provided for the phase-in of differential assessment over a 10-year period beginning in 1996. In 1996, a group of mayors filed a lawsuit challenging the law. The suit charged that the freeze in assessed values violates the uniformity clause of the state constitution. The freeze, according to the suit, does not allow for adjustments in assessed values to reflect changes in the market value of land in different communities. Wisconsin Farm Bureau and other farm advocacy groups filed a friend of the court brief in support of the law; the case was scheduled to be heard by the Wisconsin Supreme Court in 1997.

 FIXING THE WHOLE SYSTEM: COMPREHENSIVE TAX REFORM IN MICHIGAN

Michigan is the only state that does not have differential assessment. In 1992, real property taxes on farmland averaged \$3.23 per \$100 of fair market value, the highest rate in the nation. Farmers paid an average of \$35.65 in property taxes per acre. Michigan's circuit breaker program provided some relief—in 1993, the state paid farmers a total of \$64.6 million in circuit breaker tax credits and the average farmer received \$3,230—but property taxes were still a major problem for agriculture.

High property taxes were a problem for all Michigan taxpayers in the early 1990s, and there was broad support for tax reform. In 1993, the state made fundamental changes in its system of funding education with the passage of "Proposal A." The initiative eliminated local property taxes as a source of school funding. Local school taxes were replaced with a statewide education tax. Primary residences were taxed at \$6 per \$1,000 of assessed value, businesses and second homes at \$24 per \$1,000 of assessed value. The Michigan Farm Bureau successfully lobbied to include farmland at the \$6 residential property rate. Income taxes were reduced from 4.6 percent to 4.4 percent. The state sales tax increased from 4 percent to 6 percent, and the state imposed a .75-percent real estate transfer tax, a new tax on interstate phone calls and a 50-cent increase in the cigarette tax. Finally, increases in local property taxes for services other than education were limited to 5 percent per year or the rate of inflation.

Proposal A reduced agricultural property taxes by approximately 40 percent¹⁶. According to Ron Nelson, legislative counsel for the Michigan Farm Bureau, farmers are happy with the changes. While farm property taxes in Michigan are still double the national average, Proposal A is viewed as a major improvement in the tax system¹⁷.

 DO AGRICULTURAL TAX PROGRAMS PROTECT FARMLAND?

Agricultural tax programs are designed to help farmers stay in business, to tax them fairly, and to protect farmland by easing the financial pressures that force some farmers to sell their land for development. While it is not known exactly how much taxes have been reduced by differential assessment programs, it is clear that these programs provide significant financial benefits to farmers.

As far as fairness goes, cost of community services studies conducted in more than 40 communities around the nation show that residential development results in a net loss of revenue for local communities. The taxes that homeowners pay do not cover the cost of services. The biggest shortfall is in funding for schools. Farms, forests and open land, by contrast, consistently generate tax surpluses (see Table 5.1, p. 150). This is true even when farmland is assessed at its current, agricultural use. While differential assessment programs may not make local property tax systems completely fair to farmers, COCS studies counter the argument that these programs give farmers an unfair tax break.

It is more difficult to determine whether agricultural tax programs protect farmland from conversion. Many differential assessment programs are tax relief programs that are designed to support agriculture, but are not really intended to prevent conversion. In 19 states, farmers may withdraw their land at any time with no penalty.

OBSERVATIONS

Opinions differ about whether states should impose penalties for conversion of land enrolled in agricultural tax programs. Those who argue against penalties generally emphasize the tax relief and tax equity functions of differential assessment and circuit breaker programs. Farmers, the argument goes, are more likely to enroll their land in tax relief programs if there are no penalties. And if taxes are based on current use of the land, farmers should not be required to pay any taxes on the “highest and best use” of the land unless and until it is actually developed. Rollback and conversion taxes, according to the argument, are equivalent to demanding back taxes from homeowners who expand their homes or build a swimming pool or tennis court. Those who argue for penalties maintain that rollback and conversion taxes deter farmers from selling land for development and protect the public investment in differential assessment and circuit breaker credits.

There is little evidence to support either argument. It is possible that rollback and conversion taxes delay farmland conversion in some cases, but landowners can generally pay these penalties and still make a profit selling land for development.

Michigan’s circuit breaker program requires farmers to sign agreements restricting conversion, but David Skjaerlund of the Michigan Department of Agriculture reports that the program has been more effective in providing tax relief than in protecting farmland. According to Skjaerlund, enrollment in the circuit breaker program has traditionally been lowest in areas with the most intense development pressure, and highest in the areas with the least development pressure. He believes that farmers in high-development areas are unwilling to sign restrictive agreements or risk paying penalties for withdrawing their land¹⁸.

THE FUTURE OF AGRICULTURAL TAX PROGRAMS

Recent reforms in agricultural tax programs in a handful of states may provide insight into the future of differential assessment and circuit breaker programs in other states. Enactment of a circuit breaker tax credit in New York and a differential assessment law in Wisconsin in the mid-1990s suggests that one agricultural tax program is not enough to protect farm income in states where property taxes are high and farming is important.

The protests that Vermont encountered when it shifted financial responsibility for the current use program to local governments were a symptom of widespread public dissatisfaction with the property tax system. As federal and state programs are scaled back, local governments are facing increasing demands for services. Programs that reduce local revenue-raising capacity are increasingly likely to come under attack, as communities struggle to procure funds.

By changing the way that it funds education, Michigan has adopted the most radical solution to the property tax problem. Calls for comprehensive property tax reform are getting louder and more frequent in other farm states. In 1996, the New York State Advisory Council on Agriculture declared:

With respect to farmers, there is no question that the property tax is unfair because it is not based on demand for municipal services nor on ability to pay. The property tax is a relic of the 18th century that has become increasingly disconnected with sound tax policy over the last 200 years. Fundamental reform of the property tax system will be imperative as we approach the 21st century³⁹.

It is unclear what fundamental property tax reform will mean for agriculture—and farmland—over the long term. In Michigan, lower agricultural property taxes have decreased the size of circuit breaker tax credits. As a result, farmers have less of an incentive to enroll in the program. Changes in PA 116 enacted in 1996 gave farmers a one-time opportunity to withdraw land from the program before the expiration dates of their restrictive agreements. It remains to be seen how property tax reform and changes in PA 116 will affect enrollment in the circuit breaker program, but it is possible that withdrawal from the program will actually accelerate farmland conversion.

CONCLUSIONS

Differential assessment and circuit breaker tax relief programs do not in themselves prevent farmland conversion, but they are an important element of any program to sustain agriculture. Agricultural tax programs are most effective at protecting farmland when they are combined with other economic incentives and land use controls designed to keep land in farming.



For more information on farmland protection, contact the Farmland Information Center at <http://www.farmlandinfo.org> or call (413) 586-4593.

ENDNOTES

1. Michigan Society of Planning Officials, *Working Paper: Agricultural Trends* (Rochester, Mich.: 1994), pp. 3-43.
2. 32 VSA 3751.
3. The Maryland legislature first passed a differential assessment law in 1955. The governor vetoed the law, but it was enacted over his veto in 1956. The law was then repealed and enacted in a different form in 1957. In 1960, the law was declared unconstitutional. The state amended its constitution, and enacted a new differential assessment law in 1961.
4. State of California, Department of Conservation, *The California Land Conservation (Williamson) Act, 1993 to 1995 Status Report* (Sacramento, Calif.: 1996).
5. New York State Advisory Council on Agriculture, *Farm Property Taxes in New York State* (Albany, New York: New York Department of Agriculture and Markets, 1996), p. 38.
6. *Ibid.*, p. 38.
7. Michigan Compiled Laws, Sections 554.701-504.719.
8. Jim Moyle, Taxpayer Service Specialist, Iowa Department of Revenue, telephone conversation with Robin Sherman, March 1997.
9. Arizona Revised Statutes Section 43-1084.
10. Connecticut Public Act number 90-270, Section 35.
11. Jay Dippel, telephone conversation with Robin Sherman, January 14, 1997.
12. McKinney's Consolidated Laws of N.Y. Ann., Tax Law, Section 606a.
13. Roger Cliff, Executive Director of Government Relations, Wisconsin Farm Bureau, telephone conversation with Robin Sherman, January 16, 1997.
14. States that have laws that provide for preferential tax treatment of land restricted by conservation easements include Alaska, California, Colorado, Connecticut, Florida, Illinois, Indiana, Missouri, Montana, Nebraska, New York, North Carolina, Oregon, South Carolina, Tennessee, and Virginia.
15. Data from Vermont Department of Taxes, cited in Rebecca Basch, *Running with the Land: The Past, Present and Future of Vermont's Use Value Appraisal Program, draft report* (Montpelier, Vt.: Vermont Natural Resources Council, 1996), p. 10.
16. Forest Resources Advisory Council, *Interim Report to the Vermont Legislature*, 1996, as cited in Basch, *op. cit.*, p. 11.
17. Christopher Graff, "Towns Outraged Over Tax Changes," *Rutland Herald* (Rutland, Vermont May 9, 1996), p. 1.
18. Basch, *op. cit.*, p. 14.
19. Graff, *op. cit.*, p. 14.
20. Basch, *op. cit.*, p. 14.
21. *Ibid.*, p. ii.
22. *Ibid.*, p. 1.
23. Edward Haase, *Governor's Task Force on Current Use Final Report* (Montpelier, Vt., October 29, 1996), p. 3.
24. Deborah Brighton, telephone conversation with Robin Sherman, January 1997.
25. New York State Advisory Council on Agriculture, *op. cit.*, p. 36.

26. *Ibid.*, p. iv.
27. *Ibid.*, p. iv.
28. *Ibid.*, p. 32.
29. Farm Bureau of New York, *Taxed Ground: An Analytical Perspective* (1995), p. 5.
30. State Advisory Council on Agriculture, *op. cit.*, p. 43; New York Farm Bureau, *op. cit.*, p. 30.
31. Roger Cliff, *op. cit.*
32. Wisconsin Department of Revenue, *A Study of Use Value Assessment of Farmland in Wisconsin* (Madison, Wis., 1993), p. iii.
33. *Ibid.*, pp. 4-1, 4-2.
34. Wisconsin Department of Revenue, *Effect of Use Value Assessment on Property Taxes* (Madison, Wisconsin 1995), 1.
35. Ken Schuck, Wisconsin Department of Revenue, telephone conversation with Robin Sherman, January 31, 1997.
36. David Skjaerlund, telephone conversation with Robin Sherman, December 30, 1996.
37. Ron Nelson, Wisconsin Farm Bureau, telephone conversation with Robin Sherman, January 14, 1997.
38. David Skjaerlund, telephone conversation with Robin Sherman, December 30, 1996.
39. New York State Advisory Council on Agriculture, *op. cit.*, pp. 43-44.

Basch, Rebecca. *Running with the Land: The Past, Present and Future of Vermont's Use Value Appraisal Program, draft report*. Montpelier, Vt.: Vermont Natural Resources Council. 1996.

Haase, Edward. *Governor's Task Force on Current Use Final Report*. Montpelier, Vt. October 29, 1996.

LITERATURE CITED

Farm Bureau of New York. *Taxed Ground: An Analytical Perspective*. 1995.

New York State Advisory Council on Agriculture. *Farm Property Taxes in New York State* Albany, N.Y.: New York Department of Agriculture and Markets. 1996.

State of California, Department of Conservation. *The California Land Conservation (Williamson) Act, 1993 to 1995 Status Report*. Sacramento, Calif. 1996.

Wisconsin Department of Revenue. *A Study of Use Value Assessment of Farmland in Wisconsin*. Madison, Wisc. 1993.

Wisconsin Department of Revenue. *Effect of Use Value Assessment on Property Taxes*. Madison, Wisc. 1995.

Keene, John C., David Berry, Robert E. Coughlin, James Farnam, Eric Kelly, Thomas Plaut, and Ann Louise Strong. *Untaxing Open Space*. Washington, D.C.: U.S. Government Printing Office. 1976.

RECOMMENDED

Lincoln Institute of Land Policy. *Preferential Property Tax Treatment of Forest and Open Space Land in New England*. 1993.

READING

COST OF COMMUNITY
SERVICES STUDIES

American Farmland Trust. *The Cost of Community Services in Hebron, Connecticut*. Northampton, Mass.: American Farmland Trust. 1986.

American Farmland Trust. *Does Farmland Protection Pay?: The Cost of Community Services in Three Massachusetts Towns*. Northampton, Mass.: American Farmland Trust. 1992.

American Farmland Trust. *The Cost of Community Services in Madison Village and Township, Lake County, Ohio*. Northampton, Mass.: American Farmland Trust. 1993.

American Farmland Trust. *Is Farmland Protection a Community Investment?: How to do a Cost of Community Services Study*. Northampton, Mass.: American Farmland Trust. 1993.

American Farmland Trust. *Farmland and the Tax Bill: The Cost of Community Services in Three Minnesota Cities*. Northampton, Mass.: American Farmland Trust. 1994.

American Farmland Trust. *The Cost of Community Services in Frederick County, Maryland*. Northampton, Mass.: American Farmland Trust. 1997.

American Farmland Trust and the Cooperative Extension, Cornell University. *The Cost of Community Services in Towns in Dutchess County, New York*. Northampton, Mass.: American Farmland Trust. 1989.

American Farmland Trust and Lake County Soil and Water Conservation District. *The Cost of Community Services in Madison Village and Township, Lake County, Ohio*. Northampton, Mass.: American Farmland Trust. 1993.

Carroll County Department of Management and Budget. *Fiscal Impacts of Residential, Commercial/Industrial and Agricultural Land Uses in Carroll County, Maryland*. Westminster, Md. 1994.

Concerned Citizens of Kinderhook, New York. *Cost of Community Services Study*. 1996.

Good, Thomas. *The Cost of Community Services in Bethel, Maine*. Keene, N.H.: Antioch New England Graduate School. 1994.

Hazler, Kirsten, John Kinabrew and William Sullivan. *Net Fiscal Impacts According to Land Use: The Cost of Community Services in Williamstown, Massachusetts*. Williamstown, Mass.: Williams College. 1992.

Kelsey, Timothy W. *Local Tax Bases and Change: Fiscal Impacts of Alternative Land Uses*. State College, Penn.: Cooperative Extension, The Pennsylvania State University. 1992.

Kinsman, Connie, Lloyd Garrison and Jane Sloan. *Farmington Cost of Community Services Study*. 1991.

The Piedmont Environmental Council. *The Fiscal Impact of Major Land Uses in Clarke County, Virginia*. Warrenton, Va. 1984.

Bucknall, Christopher P. *The Real Cost of Development*. Poughkeepsie, N.Y.: Scenic Hudson, Inc. 1989.

Schuyler County League of Women Voters. *The Fiscal Impact of Residential, Commercial and Agricultural Use in the Towns of Reading and Montour, New York*. Watkins Glen, N.Y. 1992.

Schuyler County League of Women Voters. *The Fiscal Impact of Residential, Commercial and Agricultural Use in the Towns of Hector and Dix, New York*. Watkins Glen, N.Y. 1993.

Southern New England Forest Consortium. *Cost of Community Services in Southern New England*. Chepachet, Rhode Island. 1995.

Town of Dunn. *Cost of Community Services by Land Use*. Dunn, Wisc. 1994.