

CORNELL
AGRICULTURAL ECONOMICS
STAFF PAPER

AN ASSESSMENT OF SUFFOLK COUNTY'S
FARMLAND PRESERVATION PROGRAM

by

William G. Leshner and Doyle A. Eiler

Reprinted from American Journal of
Agricultural Economics, Vol. 60 No. 1
February 1978

June 1979

No. 79-14

Department of Agricultural Economics
Cornell University Agricultural Experiment Station
New York State College of Agriculture and Life Sciences
A Statutory College of the State University
Cornell University, Ithaca, New York 14853

An Assessment of Suffolk County's Farmland Preservation Program

William G. Leshner and Doyle A. Eiler

A primary objective of contemporary land use policy has been to limit or control urban growth. More than forty states have encouraged the preservation of open space, primarily farmland near urban areas, through the enactment of use-value assessment laws which allow farmland to be assessed at its value in use for property tax purposes (Council on Environmental Quality, p. iii). While this type of legislation has not been entirely effective, it does seem to allow a more orderly conversion from agriculture to urban development (Conklin, p. 18).

Because of use-value assessment's inability to limit development, the public purchase of development rights has emerged as an approach to preserving farmland adjacent to urban areas.¹ Such proposals have been introduced in New Jersey, Maryland, Massachusetts, and Connecticut; and a proposal initiated at the local level in New York State has been adopted. Following a four-year planning period, Suffolk County passed a \$21 million program to purchase development rights on 3,883 acres of farmland (Leshner, Klein 1976).

Since Suffolk County is pursuing a farmland preservation policy unlike any other unit of government in the nation, it has received considerable attention (Hanrahan, p. 1; Kidder, p. 51). Given that interest, it is appropriate to compare possible impacts of the program.

Land Use in Suffolk County

Suffolk County's 600,000 acres occupy the central and eastern portions of Long Island. It is bounded on the north, east, and south by coastal waters and on the west by heavily urbanized Nassau County. Its western boundary is only forty miles from New York City. Population growth pressures have been high and the suburbs are currently moving across Suffolk County.

There are now, in Suffolk County, approximately 270,000 developed acres (commercial, residential,

William G. Leshner is a legislative assistant for agricultural and rural affairs on the staff of Indiana Senator Richard G. Lugar, in Washington, D.C.; Doyle A. Eiler is Research Manager, Food Marketing Institute, Washington, D.C. The article was written while both Leshner and Eiler were assistant professors at Cornell University.

¹ Property rights that flow from fee simple ownership can be viewed as a continuum; that is, land ownership involves a bundle of rights to use the land for several purposes. One such right of farmland ownership is the right to develop the land to a more intense use, commonly called the "development right."

industrial) and another 60,000 acres permanently committed to recreation or conservation use by public or private ownership (Kunz). Thus, there are still 270,000 undeveloped acres. About 20%, or 55,000 acres, of this is farmland, 41,000 acres of which are harvested cropland (U.S. Dep. Commerce 1976). The remaining 80% is primarily scrub pine acreage.

Most of Suffolk County's population growth is in its western portion, containing over 90% of the county's 1.24 million residents and approximately 62% of its land area. Within this area there are still approximately 80,000 acres of undeveloped land, 5,000 acres of this, farmland (Kunz; U.S. Dep. Commerce 1975).

Eastern Suffolk County is predominantly rural, with 38% of the county's land area and less than 10% of its population. There are approximately 190,000 undeveloped acres, including 50,000 acres of farmland. Most of the farms are on soils well suited for agricultural production. The soils of the nonfarm open space land are predominantly flat and well-drained, suitable for almost any type of non-farm use, including residential (Scholvinck, p. 5; Raynor).

Agriculture is a major but declining industry in Suffolk County. Over the past two decades, farm acreage has decreased by 50%. One of the reasons for the continuing decline in farm acreage is the nonfarm demand for land. Reflective of this is the \$7,500 average per-acre price being paid for farmland that has an estimated agricultural value of \$1,500 per acre (Bryant and Conklin, p. 395). About 60% of the farmland is owned by nonfarmers (Gupte, McKay).

For many years Suffolk County farmland has been assessed, de facto, at use-value, which has helped maintain low taxes on farmland relative to taxes on other types of property. Currently property taxes on farmland average \$25 per acre. While \$25 does not seem unreasonable based upon the land's agricultural value, it is far below the \$375 per acre which might result if it were assessed at its full market value (McKay).

An Examination of the Suffolk County Farmland Preservation Program

In 1972 a newly elected county executive became the moving force behind enactment of a farmland preservation program. Following a four-year plan-

ning period which included committee reports, court cases, and partisan activities, the Suffolk County farmland preservation program became a reality. Even though the initial 3,883 acres are fewer than had been envisioned, the county executive is planning to expand the program gradually through 1979 to 15,000 acres, at a cost of approximately \$90 million for the development rights, plus substantial legal and administrative costs.

The primary motivation for passage of the program was to "limit growth." This was most frequently articulated in terms of three broad objectives of the program: (a) preservation of a viable agricultural economy, (b) maintenance of an aesthetically pleasing rural environment, and (c) local tax savings. Using the anticipated total program acreage, total cost estimates, and the locally projected population growth rate of 22,500 per year, we will examine the program's likely accomplishments relative to these objectives.

Preservation of a Viable Agricultural Economy

Suffolk County is the leading agricultural county in New York, with annual gross agricultural receipts of \$70 million. Of the 41,000 cropland acres harvested in 1974, 34,000 were devoted to the relatively land-extensive enterprises of potatoes, vegetables, and sod. These enterprises generated approximately \$35 million, or 50% of the county's gross farm receipts. On the other hand, the relatively land-intensive enterprises of ducks, flowers/bedding plants, and nursery stock generated \$34 million in gross farm receipts on only 6,000 acres of cropland. On a per acre basis, flowers and ducks generate approximately eleven to fifteen times the \$1,000 per acre gross receipts of potatoes or vegetables.

While the land-intensive enterprises play an important role in the county's agricultural economy, the farmland preservation program has focused almost exclusively on land currently producing potatoes. If preserving a viable agricultural economy is one of the program's objectives, why have not the 6,000 acres now used in the land-intensive enterprises of ducks, flowers/bedding plants, and nursery stock and generating \$34 million in gross farm receipts per year been included?

Economic viability is closely related to the cost of land resources. Proponents have argued that the program will increase the economic viability of agriculture because the purchase of development rights will reduce the price of farmland. But would farmers be financially better off even if the market price of farmland, stripped of its development rights, approximates its currently appraised agricultural value of \$1,500 per acre? Certainly those farmers who sold their development rights would realize a substantial capital gain from their land, but this says little about the program's impact on the cost of using the land for agricultural production.

The cost of using the land depends upon whether

it is rented or owned. If the land is rented, the per-acre cash rent indicates the farmer's cost in the production process; but if owned, the land cost includes the opportunity cost of the resources invested in the land and the real estate taxes.

Currently 60% of the farmland is owned by "speculators" (Gupte, McKay) who rent to farmers at an average cost of \$50 per acre (McKay, White, Newton). If farmers were to buy this land at its agricultural value of \$1,500 per acre, their per-acre land cost would be \$145 (assuming an opportunity cost of capital of 8% and real estate taxes of \$25 per acre). Since speculators are willing to let farmers use their land at a nominal cost, it appears the program will not reduce the farmer's cost of production. One might question whether land costs based solely on the farming rights would be drastically reduced by the program for two reasons: (a) competition for additional acreage by farmers who sold their development rights; and (b) urban demand. If, in fact, the market price of the preserved acreage would escalate over time, this also would increase the cost of agricultural production because land ownership costs would also increase. Thus, it seems that farmers may have nothing to gain economically from ownership of the preserved acreage with the possible exception of appreciation in value of the farming rights over time.

Furthermore, will land devoid of development rights continue to be used in commercial agriculture? The program does not prohibit the extensive remodeling of old farm houses, the building of white fences, or the raising of black cattle and horses. It also appears that as long as the land continues to be used in "agriculture," this preserved acreage can be subdivided.

Maintenance of an Aesthetically Pleasing Rural Environment

The two aesthetic attributes most often identified with a rural area are an open landscape and a low population density. Thus, we must address the question of whether or not the public purchase of development rights on 15,000 acres of farmland is likely to contribute in any measurable way to the preservation of these pleasing rural characteristics.

The farmland included in the program will be located in eastern Suffolk County, within an hour or two drive for many county residents. While the public will not have access to the land, they will be able to experience the scenic and nostalgic benefits of driving through the area. This may be especially important because eastern Suffolk County is the only rural area conveniently accessible. In addition to the benefits associated with viewing the rural landscape, other residents may derive a vicarious satisfaction just knowing such an area exists. This is often referred to by environmentalists as option demand (Cicchetti and Freeman).

However, the land extensive agricultural enterprises which are most visually enjoyable may not be

economically feasible in the long run. Since the program does not restrict the choice of enterprises, farmers will grow those crops that are most profitable. This may mean a continuum of roadside stands and u-pick operations rather than vast fields of potatoes. Further, the possible conversion of the preserved acreage into country estates may result in a landscape which is no more aesthetically pleasing than large-lot, rural residential development.

Many Suffolk County residents seem concerned about the congestion and pollution frequently accompanying concentrated suburban development. They view the result of the quarter-acre lot subdivisions found in neighboring Nassau County with disdain (Kunz). However, the high-density residential development found in Nassau is unlikely to occur in Suffolk, even without the preservation program, because most of the developable land, including farmland, is zoned for single-family dwellings on lots of at least one acre. Although large-lot zoning may not preserve an open landscape, it will reduce the congestion and pollution problems associated with more dense developments. While local zoning can be altered to accommodate more development, the reverse may also be true. For example, the town of Brookhaven is considered the transition area separating the residential and rural portions of the county (Scholvinck). Recently, the minimum lot size was increased from one to two acres on a sizable tract of land within the town.

Since the farmland preservation program is unlikely to affect the density of residential development, and its ability to maintain a desirable open and aesthetically pleasing landscape can be questioned, will it help restrict population growth? Currently Suffolk County has approximately 270,000 acres of developable land. This includes all of the agricultural land. If the program preserves 15,000 acres of farmland, this means there are still 255,000 acres that can be developed. Assuming four persons per house, one acre lots, and .75 housing units per acre, 255,000 acres would provide housing for 765,000 people. At the current rate of population growth it would be approximately thirty-four years before the preserved farmland would limit the population of Suffolk County.

Local Tax Savings

One of the more generally accepted rationales for limiting urban sprawl concerns tax savings through the reduction in the provision of public services (Council on Environmental Quality). The largest single public service that a local government provides is education. According to a Suffolk County Planning Board Report (Klein 1973, appendix), 100 acres of developed land in Suffolk County in acre lots would have 105 students. The local cost of educating these students was estimated to be \$105,000 per year, while the school tax revenue estimated for 100 acres of new residential development was \$67,340—a difference of \$37,660 per year.

But for these savings to be valid and attributable

to the program, one acre of farmland preserved must mean one acre not developed. And this is only true when all the other land is developed so that the preserved acreage actually restricts growth. Any savings accruing from the preservation of farmland must be discounted to its present value. Assuming a 5% interest rate, the present value of a \$37,660 perpetual stream of income thirty-four years in the future is \$143,485. Thus, the educational cost savings from not developing 100 acres of farmland has a present value of \$143,485. The cost of the development rights for 100 acres of land is \$600,000.

While over one-half of the local property taxes are for education (Klein, appendix), other public service costs for roads, water, and sewage could also be reduced if the land remained in agriculture. However, even if the actual dollar amount of cost savings from all public services were three times the amount projected for education alone, the present value of these savings would be less than three-fourths the current cost of the development rights.

Furthermore, the cost of the program will be borne by all residents of the county irrespective of where they live, while the cost savings will be realized by the local school and town taxing districts contained within the preserved acreage.

Program Size and Population Growth

Up to this point, the analysis has assumed a farmland preservation program eventually encompassing 15,000 acres. The program currently includes only 3,883 acres, and local residents do not appear anxious to burden themselves with the additional \$69 million debt needed to expand the program (Kidder, p. 52). The current program acreage, however, may be below the critical mass needed for agricultural survival (Dhillon and Derr).

New York has the nation's highest per capita state and local taxes (McKeating, Commerce Clearing House) and a less than bright economic outlook. This has led to a flight of business, industry, and people from the state (Weinstein and Keller). Stagnation has already appeared in other urban fringe counties of New York City (Tyran). Thus, the current population growth rate of 22,500 per year in Suffolk County may not continue. If population growth does not continue at its present rate, agriculture will remain on the productive farmland of Suffolk County, even without a farmland preservation program.

Summary and Conclusions

In 1976 Suffolk County initiated a farmland preservation program to manage residential growth through the public purchase of development rights on prime agricultural land. As currently envisioned, the program will acquire development rights on only about one-fourth of the agricultural land in the county. The most likely acreage for

which development rights will be purchased is devoted now to land-extensive crops. On a per acre basis, these crops contribute little to gross farm receipts when compared to the more land-intensive enterprises. It also is possible that the program will increase, rather than decrease, the cost of agricultural production on the program acreage. Furthermore, it may encourage the development of small country estates on the land that is now in commercial agriculture.

The two aesthetic attributes most often identified with a rural area are an open landscape and a low population density. While the program may help to continue an open landscape in limited areas of eastern Suffolk County, it is unlikely that even without the program all of the agricultural land will be developed. In addition, with so little of the potentially developable land included in the program, it appears the purchase of development rights will have little effect on the county's population density. This would appear to be especially significant if the present large-lot zoning is maintained. Thus, it appears the primary aesthetic benefits of the program are limited to the visual and vicarious enjoyment of a rural landscape.

The program will result in cost savings in public services, but on a per acre basis the development rights will cost more than the present value of the most optimistic estimates of public service cost savings. Moreover, any tax savings experienced will benefit those taxpayers who live in close proximity to the preserved acreage at the expense of those who live in western Suffolk County.

While it seems the program cannot be justified on an economic basis, the unique island geography limiting accessibility of alternative open space, the continuing concern about overpopulation, and the relative affluence of the residents may help explain local support for the program.

Considering the uniqueness of the Suffolk County situation and its relatively long struggle to implement a purchase-of-development rights program of modest size, one might very well question whether such a policy instrument will be useful to other areas worried about controlling urban fringe growth.

[Received May 1977; revision accepted October 1977.]

References

- Bryant, W. R., and H. E. Conklin. "New Farmland Preservation Programs in New York." *J. Amer. Inst. Planners* 41 (1975):390-396.
- Cicchetti, L. J., and A. M. Freeman. "Option Demand and Consumer Surplus." *Quart. J. Econ.* 85 (1971):528-529.
- Commerce Clearing House News Bureau. "State-Local Tax Burdens." Chicago: CCH, Nov. 1975.
- Conklin, H. E. "Property Tax Incentives to Preserve Farming in Areas of Urban Pressure." *Property Tax Incentives for Preservation: Use-Value Assessment and the Preservation of Farmland, Open Space, and Historic Sites*. Proceedings, 1975 Property Tax Forum, Washington, D.C., 5, 6 June 1975, pp. 8-18.
- Council on Environmental Quality. *Untaxing Open Space*. Washington, D.C., Apr. 1976.
- Dhillon, P. S., and D. A. Derr. "Critical Mass and the Maintenance of Productive Open Space." *J. Northeast Agr. Econ. Council* 3 (1974):23-34.
- Gupte, P. "Suffolk Legislature Kills Plan to Preserve East End Farms." *New York Times*, 12 May 1976, p. 45.
- Hanrahan, M. "Suffolk Earmarks \$21M for Farmland." *New York Daily News, Nassau-Suffolk Section*, 9 Sep. 1976, p. 1.
- Kidder, T. "The Battle for Long Island." *The Atlantic Monthly*, Vol. 238, Nov. 1976, pp. 47-54.
- Klein, J. V. N. "Report to the Suffolk County Legislature." Suffolk County Exec. Rpt. Riverhead, N.Y., 2 Jan. 1973, pp. 1-14 and appendix.
- . Information obtained in personal interview with Suffolk County Executive Klein, Riverhead, N.Y., 26 Oct. 1976.
- Kunz, A. H. Personal interview with Kunz, deputy director, Nassau-Suffolk Regional Planning Board, Hauppauge, N.Y., 26 Oct. 1976.
- Leshner, W. G. "An Analysis of Northeastern Rural Land Use Policies." Ph.D. thesis, Cornell University, 1977.
- Leshner, W. G., and D. A. Eiler. "Farmland Preservation in an Urban Fringe Area." Dep. Agr. Econ., AERR 77-3, Cornell University, Mar. 1977.
- McKay, T. Personal interview with Senior Assessor McKay, Riverhead, N.Y., 26 Oct. 1976.
- McKeating, M. P. "New York's Tired Economy Going Flat." *Empire State Report*. Vol. 1, No. 9. Albany, N.Y., Sep. 1975, pp. 327-329, 351-353.
- Newton, D. F. Personal interview with Newton, land use specialist, Suffolk County Cooperative Extension Service, Riverhead, N.Y., 26 Oct. 1976.
- Raynor, J. J. Personal interview with Raynor, land surveyor, Riverhead, N.Y., 26 Oct. 1976.
- Scholvinck, J. B. W. "Preserving Agriculture on Long Island." M.S. thesis, Cornell University, 1974.
- Tyran, T. "Orange Land: The Bloom is Off the Boom." *Times Herald Record*, Middletown, N.Y., 14 July 1974, pp. 1, 11.
- U.S. Department of Commerce, Bureau of the Census. "Preliminary Report: Suffolk County, New York." *1974 Census of Agriculture*. Washington, D.C., June 1976.
- U.S. Department of Commerce, Bureau of the Census. "1973 Population and 1972 Per Capita Income Estimates for Counties, Incorporated Places, and Selected Minor Civil Divisions in New York." *Population Estimates and Projections*. P-25:577. Washington, D.C., May 1975.
- Weinstein, B. L., and G. Keller. "The Startling Changes in New York's Economy." *Search: Agriculture*. Cornell University Agr. Exp. Sta., Winter 1975-1976, pp. 5-19.
- White, J. N. Personal conversation. Mar. 1977.