

Conclusions: The Role of Farmland Protection in the Supply of Rural Amenities

In this report, we have examined evidence concerning the goods and services that the public seeks when they legislate and support programs to protect farmland and other rural land from conversion to urban uses. Though the report's focus is on farmland preservation programs, those programs are considered within the broader context of the entire array of programs and public entities that directly affect all rural land uses. In particular, we considered the motivation, structure, and implementation of farmland preservation laws and programs, drawing upon a body of economic theory related to public choice.

Besides food and fiber, agricultural lands provide a variety of non-market outputs. These include rural amenities such as agrarian cultural heritage, open space, scenic beauty of rural landscapes, wildlife habitat, and environmental quality—all of which are unintentional byproducts of the agricultural production process. However, because of the non-market, public good nature of many rural amenities, government programs seek to provide these amenities at levels beyond those that would result from the operation of private land markets. In some cases, the amenities would not be supplied at all without governmental involvement. By examining State and local government efforts to supply these amenities through the structure and implementation of farmland protection programs, we attempt to decipher which rural amenities are considered especially important to the public. Drawing upon this analysis, the report provides several lessons about the public's interest in rural amenities produced by farmland, implications for efficient provision of these amenities, and the potential Federal role in their provision.

First, analysis of legislation enacted by States to enable their farmland protection laws and programs indicates that a large number of rural amenities are sought by States and that the demand for amenities varies by region. The Northeast, Lake, and Pacific Regions seek more amenities than other regions. Within a given region, and across the United States, the most densely populated States are concerned with the full spectrum of rural amenities. Four categories of outputs—open space, agrarian heritage, local food security, scenic beauty—are primary concerns for most

States with farmland preservation programs. Other rural amenities are cited less often in State legislation. Sparsely populated States and regions show less concern about rural amenities; in particular, there is almost no mention of rural amenities in the State legislation of North Dakota, Alabama, Mississippi, Oklahoma, Idaho, New Mexico, and Wyoming. The relatively abundant supply of rural amenities in those States probably accounts for this absence. The more densely populated States, often with less remaining farmland, have enacted a broad portfolio of programs that includes language concerning the protection of many types of rural amenities, apparently perceiving that these amenities are being under-supplied by the unfettered land market.

Second, a review of the agricultural PDR programs allows us to more closely examine the relative weights that citizens place on the multiple rural amenities provided by farmland. In particular, PDR programs often explicitly weigh parcel characteristics in order to prioritize expenditures for easement purchases. These ranking schemes provide us with evidence of the public's preferences for permanently preserved agricultural parcels.

A review of these programs, using data from five Northeastern States, reveals that agricultural PDR programs place high priority on protecting a viable local agricultural industry. The strong emphasis within these PDR programs on agricultural viability is evidence that (at least in the Northeast) active agriculture, and amenities that are uniquely provided by certain types of agriculture, are important to people. Differences in circumstances among States—such as agriculture's contribution to the State economy—can also contribute to variation in the adoption and design of preservation programs.

The emphasis on agricultural viability may also be considered a necessary condition for the provision of rural amenities associated with active agriculture. That is, by selecting the best agricultural lands, the probability that the land will end up being idle, and therefore not provide these rural amenities associated with agriculture, is diminished. This rationale has two consequences. First, it implies that those amenities uniquely associated with active agriculture are de facto favored, versus amenities associated with idle agricultural landscapes. Second, it implies a tradeoff between the long-term provision of amenities (from farms that

are deemed most likely to survive⁵¹) against the optimal set of rural amenities associated with agriculture that could be obtained if farm survival were not an issue. That is, the preservation programs may be designed to favor preserving farms most likely to remain in operation in the long term even though the public may actually prefer an agricultural landscape with different features today.

Overall, the evidence from our analysis of enabling legislation, and the PDR ranking criteria of several States, indicates a emphasis on amenities most associated with active agriculture. In contrast to this finding, our review of survey-derived results reported in the economics literature leads to a different conclusion: the public is concerned with a wider variety of rural amenities, with the continuation of active agriculture often not a predominant concern to taxpayers that support farmland preservation programs. Some people appear to prefer preserving environmental attributes or simply a lack of development to active agriculture.

Does this contrast suggest a discrepancy between the set of rural amenities on which government preservation efforts focus and those preferred by the public? If so, then questions could be raised as to whether the orientation of farmland protection programs should be changed. However, before reaching such a conclusion, it is crucial to recognize that farmland protection programs occur within the context of a broad array of other rural land protection programs.⁵² Placed within such a context, this apparent discrepancy may be resolved. That is, as described in Appendix 5, given the existence of other rural land protection programs, it may be appropriate that farmland protection programs target those rural amenities associated with active agriculture.

For example, consider the relationship between agricultural PDR programs and national/State parks. Parks and farmland may be considered substitutes in the sense that both provide a “lack of development.” However, parks and farmland may be considered complementary in that each provides amenities that the

other does not. While parks provide public access to the amenity of outdoor recreation, there are amenities (e.g., cultural heritage, rural or agrarian landscape) that only farmland can provide. PDR programs may have the liberty of targeting farms for preservation that are agriculturally viable with less emphasis on preserving other rural amenities, when amenities not provided by farmland (e.g., outdoor recreation) are provided by other programs. Thus, the emphasis of agricultural PDR programs on agricultural viability may not be a weakness of program design, but merely a reflection of the reality that agricultural PDR programs are implemented in the context of broader land use schemes and mixes of programs to protect an array of rural amenities.⁵³

Third, PDR programs give program administrators some ability to target the type and location of lands that are preserved, and thus, the array of rural amenities that are a priority. Although PDR programs are voluntary and the outcome depends on landowners’ decisions to participate, the programs are almost always oversubscribed, which allows the program agency’s preferences to influence which parcels and amenities are preserved. State and local governments use ranking systems to prioritize easement sale applications. Program administrators can prioritize parcels with desirable characteristics or those that are critically located. For example, examination of several programs’ ranking systems reveals that parcels with high soil quality are given higher priority, as are parcels adjacent to previously preserved farms.

The choice of preservation program design is also important. For example, the use of TDR programs preserves large blocks of contiguous farms, perhaps increasing the viability of the local agricultural industry and thus each individual farm.⁵⁴ However, TDR is not effective at targeting specific characteris-

⁵¹ We abstract from issues of how well these factors such as soil quality predict farm survival. In fact, anecdotal evidence suggests that other factors, such as the ability to respond to the demands of urban consumers, are often equally important.

⁵² This report’s case studies highlight the variety of rural land conservation programs that States implement. These programs protect a mix of rural land uses— including parks, forestlands, and open space, as well as farmland.

⁵³ It is interesting to note that most of the reviewed surveys do not simultaneously consider other forms of rural land protection when investigating the reasons for supporting farmland preservation. Such a multivariate model would better measure the importance of farmland’s ability to provide rural amenities associated with active agriculture, relative to rural amenities that are not associated with active agriculture.

⁵⁴ Although land in “sending areas” is not truly preserved (in the sense of conservation easements existing on each parcel), and the zoning can change, it is much less likely that zoning will change. This is because zoning decisions in these areas must be taken with regard to the entire area and not with regard to individual parcel. It is the relative ease of obtaining variances (on individual parcels) that reduces the effectiveness of traditional zoning (AFT 1997).

tics; TDR cannot target the highest quality soils and by definition preserves all the land types in the “sending” area. Another example is parks, which are more suitable for providing amenities for which public access is crucial (such as outdoor recreation).

Fourth, preserving amenities by preserving farmland is not synonymous with eliminating all development. For example, almost all agricultural PDR programs allow “family” lots; in reality, the density of development is reduced, but not eliminated. This leaves open the question of whether the beauty of the rural landscapes and the agrarian cultural heritage are actually preserved.

Finally, given that agricultural PDR programs focus on farmland protection, limited funding implies tradeoffs in preserving particular characteristics—for example, protecting the most threatened land in the urban fringe or greater acreage farther away from the currently urbanized areas. Preserving farmland at the urban fringe provides the associated amenities in close proximity to many people (though on scattered smaller acres, with perhaps less long-term viability), whereas protecting far-away rural land gives protection to more acres for the same amount of money, and may preserve more “cultural heritage.” There seems to be a preference to have the preserved farmland in close proximity to urban populations, where the rural amenities are being lost most rapidly as farmland is converted to nonagricultural uses.

Given the limitations of the kind of data examined in this report (that is, data on the adoption, language, and implementation of public programs), our ability to address issues of where program dollars are best spent is limited. Furthermore, evidence that efficiency gains may be possible by changing a State’s program priorities to achieve different outcomes should be interpreted with caution when applied to other, systematically different, States. Yet given these provisos, we can discuss some implications for the Federal Government’s role in farmland preservation.

Implications for a Federal Role

In considering its role,⁵⁵ the Federal Government might first consider whether spillovers from develop-

⁵⁵ Heimlich and Anderson discuss pros and cons of a potential Federal role in land use policy toward developing urban fringes. Among other conclusions, they remark on the potential for Federal assistance to help improve State and local planning capacity.

ment of a region (and thus conversion of farmland) are national in extent or whether the spillovers are largely local. The analyses conducted in this study indicate that there is a large array of “rural amenities” desired by American consumers. Local governments, in conjunction with local landowners, by legal mandate and tradition, largely control the supply of these amenities. Implementation of public programs intended to prevent development and preserve farmland is one means by which this control occurs. This suggests that many of the amenities sought by implementation of public programs to preserve farmland are local in nature, meaning that the benefits will accrue to the urban populations associated with urbanizing fringes of cities and to the residents of those urbanizing fringes. Yet to the extent that the appreciation of local rural amenities is not limited to residents of a single State (or county), and to the extent that the American population moves across State lines, the Federal Government does have a role in representing the Nation’s interests in rural amenities.

Second, the Federal Government, in considering its role in rural amenity preservation, is presented with choices regarding which specific amenities it desires to preserve. For example, given limited budgets of farmland protection programs, there will be tradeoffs between preserving the largest number of acres and preserving those acres in close proximity to urban centers, or preserving the largest number of acres and preserving the most productive acres. Since different kinds of amenities are provided by protecting as many acres as possible, by protecting the most threatened acres, or by protecting the most productive acres, it is important to consider the relative values, today and in the long term, of these amenities when deciding what to preserve.

With the passage of the 2002 Farm Security and Rural Investment Act (the Farm Bill), contains an order of magnitude increase in Federal support for the Farmland Protection Program (FPP), this concern is timely (see box on p.13). As noted above, the existence of a broad array of rural land protection programs suggests that it is appropriate for farmland protection programs to focus on rural amenities associated with active agriculture, even though there is mixed evidence on the overall importance of these active agriculture rural amenities. However, a large increase in farmland protection funds, relative to other funds for protecting other rural lands, could upset this balance. Given the significant increase in Federal

funding for farmland protection, the balance between existing agriculture-focused priorities and other rural-amenity objectives may deserve further consideration.

Third, in determining a national role in farmland preservation, consideration needs to be given to whether the preservation is to be permanent or temporary, and whether public access for outdoor recreation is of primary importance.⁵⁶ Farmland preservation policies coexist with other rural land conservation policies, as well as with a preexisting mass of protected public lands. Since these lands also provide rural amenities, the Federal Government could help provide a broader perspective on what types of lands are best preserved. In addition, the allocation of Federal funds to different programs (farmland acquisition or acquisition of parkland) influences the mix of preserved rural amenities. Hence, coordination of this funding may be beneficial.

⁵⁶ Since farmland protection programs in the United States rarely (if ever) allow for public access, a need for public access would suggest that other methods (such as outright purchase of open space) would be a better use of government funds. However, there are instances (such as in Massachusetts) where forestland conservation easements are combined with public access. Also, public access to farmlands in Europe is not uncommon. Hence, it is conceivable (though potentially controversial) to include public access as an additional component of an agricultural conservation easement.

Fourth, once the amenities most in need of preservation have been identified, some means of targeting their protection is called for. This targeting can take place in a number of ways, including the choice of tools in the farmland preservation portfolio, the weights used in PDR ranking schemes, and by the degree of cooperation among local, State, and national governments and land trusts (or other nongovernmental organizations).⁵⁷

In closing, the set of rural amenities available to rural and urban residents alike is determined by a large and complex network of policymakers, from various levels of government and nongovernmental organizations, using a wide array of amenity preservation tools. These entities, in aggregate, paint the urbanizing landscape.

⁵⁷ The combination of approaches and tools used for farmland preservation largely determines which array of amenities get preserved. For example, more acres per dollar, more water quality, increased populations of some wildlife species, and a greater variety of agricultural systems are often associated with preserving lower quality land (e.g., grazing land or woodland); while fewer acres, lower water quality, lower populations of wildlife, and more negative spillovers on nearby nonagricultural residents are often associated with preserving high-quality cropland.