Evaluating the Effectiveness of Local Government Farmland Protection Programs

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Abstract: The effectiveness of farmland preservation programs in fast-growth areas cannot be determined solely on the basis of stability in the agricultural land supply within the subject jurisdiction, but must take into consideration extrajurisdictional agricultural land loss which can result from stringent local development controls. A better measure of program effectiveness is the coefficient of conversion, which expresses the area of agricultural land converted to urban use per unit of urban growth. The rationale for such a measure and its application in Modesto, California are discussed.

Introduction

Local government interest in farmland preservation in the United States increased substantially in the 1970s. This increase reflects a growing national concern for preservation of agricultural resources in order to maintain the nation's long run production capabilities, the export potential of American agriculture, and the option of using agricultural land as an energy resource. These general agricultural objectives are often reinforced, at the local government level, by environmental objectives. The National Agricultural Lands Study (USDA/CEQ 1981) counted about 290 active local programs in farmland preservation, and this figure excludes a great many local planning and zoning programs which incorporate farmland retention elements but are not so labeled.

The fact that the bulk of activity in agricultural land retention has been at the local government level is not unexpected. In the vast majority of states, land use controls are reserved to local governments. Only a handful of states exert more than a nominal authority over planning and land development. Oregon has established strong land use planning objectives with which local government land-regulating actions must be consistent, and farmland preservation is one of the major objectives of Oregon's state land use policy. Elsewhere, state law may require local governments to prepare general plans, but the content of those plans is more often than not left to the discretion of the local governments, and agricultural land protection is not a mandated activity of cities or counties.

In the absence of central direction from federal and state governments, farmland preservation activity has been highly fragmented. Local governments have generally developed programs independently of one another, with adjacent jurisdictions unaware of each other's agricultural land policies. Such a variety of independently-evolved programs would seem to have provided land use researchers with raw material for extensive comparative studies, but to date such evaluative efforts have been lacking.

Persuasion by Example

Much of the existing literature on local farmland preservation programs in the United States takes the form of programmatic summaries of existing programs (for example, Toner 1978). These summaries are of interest for several reasons. They indicate the wide diversity of locales in which farmland preservation has mustered sufficient public support to result in implementation of a specific program. They show a variety of approaches to preservation. They suggest some of the obstacles — political, economic and administrative — in the way of adopting a preservation program and maintaining it over time.
The main thrust of such compendia is to encourage local governments, by example, to become active in farmland preservation. The purpose is not to evaluate such programs, either because the author is not interested in evaluation or because recognition of the shortcomings of various approaches might discourage local governments from preservation activities. With few exceptions (Schnidman 1981), such farmland protection reviews are written from a sympathetic point of view and stress the positive elements of the local farmland protection experience.

In contrast, there have been few critical reviews of local preservation programs. To date, most analytical work has been focused on state activity, such as programs for differential assessment of farmlands, and on preservation concepts such as development rights transfer, which has not been widely applied to farmland. Local governments interested in taking measures to safeguard farmland resources, even if they are aware of what other like agencies are doing, lack a sound basis to select from among alternative approaches. Furthermore, a city or a county which has a farmland preservation program is typically unable to evaluate its own performance over time: either a sound analytical methodology or the data needed to apply it are absent.

Factors Favoring Local Program Effectiveness

The lack of an analytical literature on farmland preservation does not mean local governments are ignorant of the conditions in which preservation programs are most likely to bear fruit. Some of these conditions are political: there must be a constituency supporting farmland protection which represents a sufficiently broad group of voters to maintain a program over time. The State of Oregon has been particularly successful in welding a constituency supporting strong state planning requirements, which include farmland protection. There, and in numerous local jurisdictions as well, environmentalists and conservationists, advocates of planning, opponents of growth, and some farm-land owners together can exert sufficient political force to establish and maintain a farmland protection program.

Other factors which help determine the prospects for success in farmland protection are average farm size, availability of services for agriculture and presence of physical barriers between farm and nonfarm use. If farm size is large, if the agricultural infrastructure (particularly, in the West, the water supply) is adequate and reliable and if sufficient distance between farm operations of a potentially nuisance nature and sensitive land uses (such as residential) can be maintained, the outlook is more optimistic than where contrary conditions apply.

The political and structural conditions just enumerated are strictly contextual. They suggest the likelihood of a preservation program's being successfully implemented, but they do not predict whether, or how well, it will work. Often the programs which seem to receive the most attention in the literature are located in areas in which it would not appear that significant pressures for other than farm use of land would exist. The "success" of a farmland protection program in such an area is equivocal at best, and certainly the experience of such a jurisdiction provides little useful guidance to a county or municipality facing substantial growth pressure.

For this reason, there is a great need to look at farmland protection programs implemented in less favorable contexts — for example, where competition for land by alternative uses is keen — and to evaluate them critically.

Components of an Evaluative Approach

In order to be able to evaluate the effectiveness of a local government farmland protection program, three components of the program must be specifically defined: the nature of the resource to be protected, the geographical area in which the program is intended to have an influence, and a standard of comparison, the deviation from which represents actual program impact.

The Farmland Resource: The land resource to which a protection program might apply can vary widely among jurisdictions, just as land itself varies in soil quality, water availability, growing season and nature of agricultural use across the county. In some jurisdictions, the resource may be defined very broadly, and may include, in addition to tilled land, land used for grazing, dairying, forest or watershed. In other jurisdictions, protection programs might apply to all cultivated land; in others, to all prime farmland (the Soil Conservation Service 1) has promulgated the most widely-used definition). Where all soils are prime by SCS standards, still more refined definitions might be involved as is the case with Black Hawk County's Corn Suitability Rating 2). However the resource may be defined, that definition must be specific enough to permit accurate mapping and tabulation.

Spatial Unit of Analysis: It may seem obvious that the geographical area to which a protection program is applicable is defined by the boundaries of the subject jurisdiction, but limiting the impact area in that manner overlooks the extraterritorial effects of local agency actions.

Particularly where there are substantial pressures for growth, stringent land development regulations in any one community may simple displace growth to nearby jurisdictions with more lenient regulations. City A's success in maintaining its farmland should not be accomplished at the cost of City B's losing its farmland to what is commonly known as the "spillover" effect, development activity.