

Settlement Patterns: Especially Extension's Role in Helping Communities Cope

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Land use economics in the context of comprehensive planning, from the perspective of this extension economist, draws on a range of applied economic topics including: resource economics, public finance, applied microanalysis, and the new institutional economics of public choice. The economic subject area that needs formal focus in the future for effective work in land use is institutional economics. The economic inputs must be more closely related to the institutions that legislate, adjudicate and administer land use in this country, largely counties and cities. One additional challenge to extension economists is to add to the state of arts and knowledge in institutional economics so that we might benefit from and more successfully integrate the work that comes along in resource economics, public finance, and applied microanalysis into a public policy education program that has realistic focus with respect to public decision making where land use decisions are made.

Land use extension education is obviously public policy work. Maurice Kelso's address at this meeting last year reaffirmed the institutional economics nature of public policy work.¹ It seems particularly appropriate for extension economists to find out what we are, who our antecedents were, what they thought, and finally begin to contribute to this body of public choice literature. The results of this institutional economic work should assist in giving us less disparity in the assumptions and objectives of our work in relation to the institutional setting surrounding the land use issues raised by communities.

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¹Kelso, Maurice. "Agricultural Economics in the Public Policy Thicket", proceedings, Western Agricultural Economics Association meetings, Reno, Nevada. July 20-22, 1975.

In land use, this disparity in analytical work assumptions, stated objectives and institutions, makes the discussion of the extension economist weak, if not in some cases, ridiculous. As an indication of the kinds of problems inherent in land use is the problem of assisting a county land use planning commission establish a comprehensive plan considering the interrelationships of economic analysis that show low returns to agricultural land, wide fluctuations in agricultural income, problems of national foreign exchange balances, the world food-population problems, and the observation that many people are willing to bid more for agricultural land than farmers. When the institutions making the land use decisions are small local units of governments there is little ability to pragmatically relate world food production problems, foreign exchange, rate of return on agricultural land, or national security, etc. into realistic institutional policy variables providing incentives to this level of government. Planning commissions and local officials are more concerned about the appraised value of land, local enforcement problems arising from environmental conflicts in land use, the age or state of health of the seller of the land, impact on local traffic patterns or needs, sewer and water costs, etc., and how they might express these concerns in a land use planning ordinance.

State enabling land use legislation largely reflects a broad citizen land use concern, but places the responsibility and authority for implementation at the county or city level. A public policy education program needs to assist in creation of public awareness of the land use issues, convey some alternatives, assist in developing a broad philosophy which will result in institutional changes which permit and sustain a reduction in conflict and cost of land use problems. The Extension Service has contributed significantly

in Oregon for over fifty years, in my opinion, in an important, but I believe unanticipated way, to opening the door for contributions in land use planning. Two Oregon extension activities have helped establish important attitudes in the State that affect today's land use planning. The first was a program of public involvement in long term county-wide planning that started in the 1920's. The second activity was an extensive effort by one extension land use specialist, starting almost a decade ago to popularize land use issues and especially land use conflicts in the specific community. Perhaps it is worth outlining these activities briefly. Although the first one may be impossible to duplicate in other states, the second activity could usefully be undertaken by an extension economist or another specialist with land use interest and capabilities.

Background Extension Programs

Extension long range county planning began in the early 1920's in Oregon, as it did in other states, and has been repeated at seven to fifteen year intervals. For the first thirty years these activities focused mainly on agricultural production and marketing problems, with some increasing efforts in family living and youth. In the 1930's and into the 1950's the subject matter drifted over time from direct agricultural problems to ones with broader community concerns. The shift was made to issues of rural electrification, domestic and irrigation water development, highways and finally, in the last ten or fifteen years, to issues related to the broad topics of water, land, human resources, economic development, etc. Though agriculture has remained a major single factor in these planning activities, agriculture no longer dominates the total effort. This, so called, long run extension program planning activity turns out to be good public policy work. What has happened is that on about a decade interval, the Extension Service has become deeply involved with "ad hoc" local committees of lay people interested in identifying issues and opportunities that are of local concern. Because of the topics identified, many of these issues were spun outside of the Extension program domain for community action. But in the process issues, leadership and some education were brought together so that local

people could be more effective in community action programs. As a result of this expensive extension activity, expensive in terms of local citizen and extension agent time, rural communities in Oregon have a long history of active issue assessment, leadership training and education associated with local problems in a setting of local institutions. This has made planning a much more acceptable public activity in many Oregon rural communities than it would have been without this effort. These communities could be antagonistic toward planning, particularly toward land use planning, but they have experienced some success from local collective effort, have seen the need to get together on water, transportation, electrification issues, economic development, libraries, schools and have the leadership to articulate local benefits from joint action.

The second activity was a straight forward extension presentation, with a little humor included, illustrating land use conflict in rural areas. This talk and slide program focused on land use issues, especially conflict, and were illustrated in terms of the specific local community by using local or nearby examples. The talk was given nearly 300 times over the State in a four or five year period and helped create a broad public awareness that began to relate local events with land use conflicts and subsequently the need for land use planning. As an example of what can happen, an extremely rural southeastern Oregon county, a part of the Great Basin, felt a great deal of antagonism toward any formal land use planning "forced on the county by the state". They were largely trees and cattle, feeling no urban pressure of any consequence; land use planning was not felt to be needed nor was it felt to be appropriate public activity. An industrial firm identified a dry lake bed as an excellent site for an industrial waste dump. The environmental threat to the county was felt immediately and though the county had expressed great reluctance to do any comprehensive planning, this single threat resulted in an interim comprehensive plan, affected within a matter of weeks, and a subsequent comprehensive planning and zoning accomplished in very short order. Because of presentations by the extension land use specialist, the county people were sensitive to the relation between local land use control and an environmental threat and were able to link these two to the industrial waste

dump. County citizens were willing, even eager, to get themselves organized to resist this form of urban expansion into their rural community. This type of result surely has some relationship to at least one, if not both, of these Extension programs.

From the above, three general public conditions seem necessary to make effective land use planning possible, and establishing these general conditions may be necessary extension work before an Extension economist can productively work on a land use program. First is the willingness on the part of the citizens to do public planning. Legitimacy of public planning is necessary to establish the structure of local land use control institutions.² If planning is a dirty word and totally unacceptable public activity, you are in trouble at the outset. Second, the alternatives available for land use must be real and must be worth obtaining. If all of the interesting options are gone, there can be no incentive to reward the effort needed to work on land use. If you have desirable alternatives, then land use planning to change local institutions may be a productive public activity. Three, there must be active lay citizen involvement. The lay citizenry must be interested in land use and be willing to play an active role, at least in support of land use planning and subsequent administration.

No way can the Oregon Extension Service claim to have established the above conditions alone. It was important in helping, and the challenge now is how to work with a public that sees incentives to make land use decisions. But a reminder to economists with policy interests: land use decisions are largely locally legislated and administered decisions with little responsibility or incentive for reacting to nonlocal concerns such as world food, foreign exchange balances, national security or even domestic food production.

Incentives for Land Use Change

An Extension economist is lost if confronted with changes in human behavior, nor is it to our comparative advantage to attempt to change

² An institution is a human construct that establishes ground rules for inter relationships of human behavior.

³ An interesting essay on this for extension economists is the first chapter in Richard B. McKenzie and Gordon Tullock, *The New World of Economics: Explorations into the Human Experience*, Richard D. Irwin, Homewood, Illinois, 1975.

behavior. Where we have some ability is to use what is known by economists about human behavior and use this to predict outcomes that result from appropriate changes in institutions.³ In the land use field the local institutions hold the major readily available policy variables to alter land use incentives. The common variables are local development fees, property assessment and taxes, building and sanitation codes, comprehensive planning and implementation ordinances and the formation of public objectives. These variables of local government are the major institutional variables open for public policy work and extension economics education in land use.

In this light the land use effort in Extension focuses at local issues and local institutions. A first priority in Oregon is given to the county or city planning staff. This group of land use professionals need to be made more productive in working with citizen groups across the county or city. Economists have no particular comparative advantage in working with this group directly on planning subjects, as planning is currently constituted. In Oregon we are fortunate to have an Extension geographer with a planning background who focuses an Extension program directly at planners in the State. Limited economics is integrated into this program on specific planning topics. The second element of this program is carried by county Extension agents as they have been most effective in assisting county planning staffs with citizen involvement programs in several Oregon counties. Extension economists have little to offer as economists to these activities, though knowledge of the institutional relationships will assist in later work.

Where the Extension economist should have some comparative advantage is working in the area of economic incentives. These incentives usually relate land use with individual or community economics and hence to the broader area of comprehensive planning and economic development. Any economist can provide insights into land owners behavior concerning the sale of land or impact of changing land use relationships to local government expenditures and tax levies. As an example, planners and lay planning commissions frequently express surprise that farm owners may offer active resistance and negative votes to exclusive farm use zoning (EFU) that takes place in the county, particularly around the urban areas. They understand the incentive structure represented by

the developer, but an Extension economist can be of assistance in pointing out the incentive structures that exist for the farm owner. The economist can help flag incentives that may be in variance with perception, even by local Extension agents, and certainly by planners and commissioners as they look toward implementation of a comprehensive plan. My observation is that if open space preservation, much of it agricultural land, is going to take place, it is going to be based upon action taken by urban people who don't own the land. Agricultural uses may be a publicly low cost way to hold open space, but the price is too high for the owners to impose upon themselves, therefore the urban vote is required.

Planners and others seem perplexed by finding farm owners favoring Exclusive Farm Use Zones (EFU) at public meetings in rural areas, only to have the plan defeated in a referendum vote. The national or world food needs, environmental concerns, property tax relief are strong arguments for retaining open space and agricultural land, but a farm owner is not in a position to be greatly concerned about foreign trade or world food problems when it comes to selling agricultural land. The land owner may give consideration to the general price levels or net returns as asking prices are affected by these forces, but the "public interest" is of little importance with his major concerns of capital generation, tax considerations, financing retirement, the risk of potentially expensive health problems, the general family economic well being, and the family's interest in continued farming. The value of land in alternative uses is generally much greater than in agriculture, if any alternative use potential exists.

Agricultural land sales to other farmers should not be expected except where no more profitable uses exist. The value difference is simply too great to do otherwise in terms of the farm family. Frankly, the opportunities nationwide are very limited for moving agricultural land out of agricultural production, and farming turns out to be the most profitable use for the bulk of our open space land. But around the necessarily growing urban areas there are serious problems and this spreads the problems to many of our counties, even in the western United States. But the suburban expansion in rural areas of recreational or retirement subdivision developments brings the conflict of incompatible land uses into more rural communi-

ties and urban people may need to be made aware of potential problems. My bottom line on incentives to farm owners, even farm owner-operators, is that the sale of agricultural land for nonfarm uses will take place if there are any other land use alternatives, unless there are major changes in our institutions. If it is the desire of our national population to alter our land use pattern, perhaps more accurately to preserve our existing pattern, then clearly, major changes are needed in institutions to alter the incentive structure surrounding land use. But remember the current decision unit is not national or state, but at the county or city level, and incentives must reach this level if land use has an opportunity of accomplishing anything lasting.⁴

Now why do urban people care if farm land is retained in their local community? What incentives do they have? The incentives are borne by the general public in three major ways. One, changing land use impacts on quality of life or environment such as: polluted ground water, increasing traffic problems, direct conflicts of neighbors over land use such as where spraying agricultural crops continues with children, pets and gardens in surrounding area. The second and increasingly important incentive for social action is the local government fiscal impact in terms of rising costs of extending public services for urban extensions that go beyond the present urban service boundaries. Clearly, present private costs of going out of town for a residence or business has less private cost, but the public costs may be rising. In some extension program research work in Oregon we have consistently found that both public and private out of pocket expenditures for open space residences have been less than comparable costs in adjoining urban areas.⁵

The third contribution of potential urban interest is the role open space plays in terms of economic contribution to the local basic employment. The extension economist is frequently asked to provide figures on "how important is X industry

⁴The responsible institutions could be moved from local governments to state or national levels. Arguments on this topic will not be expanded here, but the interested reader might review Vicent Ostrom, *An Intellectual Crisis in American Public Administration*, Alabama University Press, 1972.

⁵Pattie, Preston S., *Impacts of Urban Growth on Local Government Costs, and Revenues*, Oregon State University Extension Service, Special Report 423, November, 1974.

to the community or state." This argument may assist in preserving open space as many urban jobs and income may be significantly related to open space based industries.

The first series of incentives mentioned above is left for other discussions as environmental or quality of life incentives, but below a brief expansion exists on the second and third items.

Local Government Fiscal Impacts and Economic Development

Perhaps the most convincing argument to the urban dweller for preserving open space is the increased tax costs of providing governmental services when the need arises to spread urban services beyond concentrated urban boundaries. Granted, there must be expansion of urban areas, but the questions arise as to whether or not population densities need to continue to drop and what is implied if they do in terms of either service quality levels or local tax loads. If the conversion of open space lands to urban uses tends to lead to increasing government expenditures faster than the revenues, then taxpayers may become sufficiently concerned to change the institutions that control the rate of expansion. At least two major challenges to extension economists exist when attempting to answer the questions: 1) Do expenditures expand faster than revenues, and 2) can voter-taxpayers be educated to the cause-effect relationship sufficiently well to permit them to change the nature of the institutions that regulate this rate of expansion? In these two areas the economist can provide some positive assistance, but be forewarned: This area of economic work is at the theoretical margin of our discipline, plus the numbers generated may work against you if you are not careful with your considerations of assumptions and of objectives, for the impact may differ radically between the short and long run. In other words, institutional economists are needed who are aware of the nature of the choices and questions being asked by public decision makers or the public and the relationship between public objectives and the economics implied for long and short run. (You may be able to influence the nature of the objectives or questions, but you're on thin ice.) As an example, rural residential subdivisions cause county governments problems in

terms of new roads or higher maintenance costs on existing roads, increased snow removal cost, more sheriff patrols, more business for county reorders, appraisers, tax collectors, etc., plus the associated time and cost of longer planning agendas.⁶

In each Oregon case evaluated to date, the total tax revenue generated by all land and improvements from designated rural subdivision exceeds the expenditure for services at the current levels of development in the subdivisions. This latter statement is important. The current costs in the county are lower than revenues because the revenues are raised by the tremendous number of platted lots that have appraised values considerably higher than the open space appraisals. The present level of development is sufficiently low that the expenditures for service are well below the revenue generated and information from other states and the rate of development in Oregon and elsewhere indicates it may stay low. The private wells, septic systems, poor roads and their effect on transportation costs and higher insurance premiums for fire are all paid by the private individuals involved. The costs are either hidden from government as the private costs or are placed on the environment. Of course, with low enough density, the environmental load may be acceptable, but the results appear to be a short run revenue generator for local government and a more complete analysis is necessary.

Typically the numbers alone don't leave an unequivocal answer to a public issue. When school costs are considered almost any subdivision turns out to be a tax liability if all school costs are allocated to residents of the subdivision. But this may be important to rural communities serving as bedroom communities or looking at recreational home sites as a basic industry. School costs may well be very relevant and may tend to tip the expenditure revenue balance quite early if new children are brought into the community. If school costs are considered at the outset, most of the rural developments we've looked at have greater expenditures than revenues at very early stages of development because families with children seem to live in these areas, though the areas don't plan for this event.

⁶Tillson, Gregory et al., *Local Tax Impact of Recreational Subdivisions*, Oregon State University Extension Service, Special Report 365, April 1976.

On a year to year basis with low levels of development, the county generates more revenue than expenditures, however, as the capacity of the administrative structure of the various departments of government become increasingly loaded with more and more population, a reversal takes place. As a larger number of county staff is acquired, and more of the overhead costs of county government are spread over the rural subdivisions, these areas turn from revenue generators to revenue losers.

The role that agricultural land plays in supporting off-farm employment may provide a second assist in getting urban voters interested in land use outside of the urban areas. Several Extension programs are in progress in Oregon based on research of the interrelationships within local economies. The argument is not overwhelming in the local communities, but the public does respond to the information generated for the four major resource based industries in Oregon—forestry, agriculture, recreation and fishing. The importance of these collectively to local communities creates appreciation and concern for their protection by the locally employed taxpayer. Agriculture has provided a stability to jobs in rural communities, even though farm income may fluctuate widely. The input and output streams in physical terms imply fairly constant employment. This latter aspect is appreciated by local business and may assist urban interest in land use.

When the economic role of agricultural production in a local community and the local government revenue generation aspect, particularly the long run one of urban expansion into rural areas are tied together, general education may be possible with groups in the county, particularly planning commissions and local elected leadership. The planning staff of the county should be involved in the study themselves, as this is part of the education program. It is at this point that communities make changes in institutions in terms of establishing comprehensive plans and writing new ordinances. But these education programs are not focused at agricultural land, but on land use and

the local economy and a large amount of focus on the local public sector.

One final opportunity for the extension economist exists with extreme pressure on local governments to hold or even reduce property taxes. Local officials are increasingly interested in education programs that explain where local tax money came from and where it goes. In this discussion it is possible to begin to inform the voter of relationships between urban economic growth and stability, rural land use and the tax impact; specifically what is implied for the future with continued urban expansion into open space. These issues form a core for focus of the Oregon land use economic program now and in the recent past. I'm not sure that Oregon extension economists have influenced any voter shift that has directly resulted in institutional change, but the questions being asked by local elected officials seem to be changing, with increased interest in fiscal impacts of land use decisions and voter education.

Kelso, a year ago was insightful as usual, I believe particularly so for the extension economist interested in land use. He observes that "policy action is concerned only indirectly with the conventional agricultural economics parameters; policy action is directly concerned with the framework of institutions."⁷ Here he suggests that it is through changes in institutions that conditions are established which will encourage amelioration of the problem. In the land use setting, the institutions involved are ones that are largely based within the county and city domain. There may be enabling legislation at the state level for land use planning but the decision, by and large, lies with the local communities. It is at this level that the extension economist needs to focus the attention on changing institutions, not expecting to change behavior, but to change the nature of incentives offered by institutions; hopefully in compliance with the public values held, reflecting the alternatives and questions asked by local people, with appropriate weights given to the ties counties and cities have to the larger world.

⁷ Op. cit., p. 158