

The Economics of Rural Places and Agricultural Economics

Emery N. Castle¹

Paper presented at the Western Agricultural Economics Association Annual Meetings, Vancouver, British Columbia, June 29-July1, 2000.

1 Emery N. Castle is professor emeritus, Department of Agricultural and Resource Economics, Oregon State University, emery.castle@orst.edu.

During my professional lifetime there have been two developments that have both broadened and deepened agricultural economics in an important way. One has been our significant involvement in international economics, including economic development and trade. The other has been the broad-based participation of agricultural economists in the development and maturation of natural resource and environmental economics (henceforth referred to as “resource economics”). This involvement in international economics and natural resource economics fundamentally changed agricultural economics. Horizons were broadened, a different literature was read, new conceptual models came to the fore, tools more appropriate to different tasks were fashioned and employed, and different talent was attracted to the field.

This paper explores the effect that expanding work in rural area economics likely would have on agricultural economics. In addressing this purpose it is useful to note the similarities and the differences between rural area economics on one hand, and international economics and resource economics on the other.

A description of what is included in rural area economics is useful at the outset. I have reference here to the economic activity and the economic problems of the rural, or the non-metropolitan, parts of the total economy. The term “rural” means “not urban”. Thus, “rural economics” might be considered to be “not urban economics”. “Rural area economics” is more inclusive than “rural development” or “community economics”. “Rural area economics” requires that economic problems in the countryside be viewed through a different lens than the one commonly used to visualize agricultural phenomena.

In retrospect, it is clear three conditions existed as both international economics and resource economics were incorporated in agricultural economics. These were:

1. A few people within agricultural economics had been working on these subjects for some time before they assumed major proportions within agricultural economics.
2. Distinctive conceptual approaches were developed for each that were different from what had been employed within agricultural economics to that time. Only two examples will be cited here to make this point—the work of T. W. Schultz on traditional agriculture and S. V. Ciriacy-Wantrup concerning conservation economics. This is not to argue that traditional work in agricultural economics was of no value in the development of these new fields, but rather that a continuation of past work was not sufficient.
3. Both addressed an expressed concern by the larger society of which we are a part. This condition is of great importance in an applied field such as agricultural economics. Monetary support is always needed, of course. Of greater importance is that an articulated social need makes interaction possible between users and suppliers of research and educational services. Interaction brings realism into a field, both with respect to problems that are addressed, as well as providing a test of the usefulness of work accomplished. Few things are more deadly to an applied social science than to attempt to exist in a social vacuum.

To what extent do these three conditions exist with respect to rural area economics? The position taken here is that two of the three conditions do exist, but the situation with respect to the third is uncertain. The remainder of the paper examines evidence and arguments that relate to these three conditions with special attention given to the third, that is, whether society is likely to support work in rural economics.

The Economics of Rural Places

Sparseness of population, diversity of conditions, and interdependence with urban and global systems, establish the parameters within which rural area economics operate. Sparseness of population means that space and distance are important variables. Diversity makes generalization difficult. For example, agriculture is the dominant industry in some rural places, but it provides less than ten percent of the employment in non-metropolitan places in total. Interdependence means that significant rural problems can seldom or ever be addressed in isolation from urban or global systems.

A great deal of the literature on rural America, including some in agricultural economics, is made irrelevant to rural social problems because one or more of these characteristics are not considered. It may be maintained agricultural economists are well aware of these elementary considerations. Perhaps so, but it is not difficult to document examples of prominent agricultural economists neglecting one or more of these fundamental characteristics. For example, the recently announced AAEA essay contest limited consideration to “world food systems”. It is clear the intent was to be inclusive. Yet by forcing resource economists and rural economists to view all of agricultural economics through the prism of agriculture, most of rural economics and much of resource economics is excluded.

A diagram is helpful in visualizing the domain of agricultural economics relative to that of rural area economics. (Figure 1) The diagram is based on the assumption scientific knowledge is always imperfect or incomplete. The diagram indicates the conceptual lens of an intellectual discipline, such as economics, may improve understanding and help dispel ignorance. The overlap in the diagram between agricultural economics and rural area economics shows that neither is included entirely within the other. One of the great obstacles to the development of rural studies generally is the propensity of both lay and professional people to treat agriculture and rural as synonymous. This fallacy keeps the public generally from engaging in meaningful discussion of rural issues. It also leads economists, including agricultural economists, to assume that all rural output is agricultural, and that rural development consists mainly of finding value added activities for agricultural commodities. If agricultural economics is to provide leadership for rural area economics, there must be recognition that the sectional employment shares between rural and urban economies are not greatly different, and research and educational activities need to be consistent with that fact.

At the outset, it was maintained three conditions contributed to the success of international economics and resource economics. Each condition is now examined for rural area economics.

1. A Cadre of Scholars.

There now exist a significant number of people within agricultural economics doing highly competent research and extension education in rural area economics. Even though these people tend to be clustered at particular institutions, only a few institutions are doing quality work at the graduate level with an emphasis in rural area economics. As a result, vacancies in rural economics now often are filled with people educated outside agricultural economics.

In September 1996 Bruce Weber and I held a workshop in Kansas City on the new growth theory and the new institutional economics. Workshop leaders were Paul Krugman and Gary Libecap. We made an effort to identify and then invite every active agricultural economist working in rural economics. Approximately 50 people participated. This experience permitted us to learn a great about the people working in the field and the nature of the work they do.

The number of agricultural economists now working in rural economics exceeds the number working in production economics and resource economics when I first began to work in those sub-disciplines. The quality of much of the work is high. They are highly dispersed geographically. Many look outside agricultural economics for intellectual stimulation. For example, many have found intellectual stimulation in regional science associations.

2. A Conceptual Core.

The terms “loose”, “mushy”, or “amorphous” are often used to describe research and education in rural area economics. Yet a strong case can be made that the conceptual core for rural economics compares favorably both with international economics as well as with resource economics when those fields were first developed within agricultural economics. In support of this position, conceptual approaches used in rural area economics are now described.

Location, Space, and Distance. The basic model pertaining to the spatial location of economic activity was set forth by J. H. von Thunen in 1826 and has been ably summarized by James Hite (Hite 1997). This model considers the urban-rural relationship to be in the nature of a continuum. Hite shows two fundamental characteristics of rural areas can be deduced from the model, specifically low population densities and high economic specialization. By use of asset fixity concepts Hite identifies a third characteristic to be that rural areas on the Thunen plain most likely will have capital shortages. Hite notes that a great deal of what can be observed in rural areas can be deduced from the Thunen model. Specifically rural areas will either have low population densities or be relatively poor, specialized, and economically conservative. The Thunen model is elegant in its simplicity and its power is demonstrated by how much can be deduced from its sparse, basic premises. The deductions from this model need to be taken seriously by those who would bring about economic development in rural areas. When the deductions of this model do not coincide with empirical observations, an explanation may be sought in the particular circumstances in a given situation. These anomalies suggest the need for a more general theory. New growth theory has been advanced as a way to make the Thunen model more general and more powerful.

New Growth Theory and Rural Economics. During the 1980's parallel areas of investigation began to emerge that have come to be labeled “new growth theory”. These parallel areas of investigation have some common features but have not yet been integrated. To refer to them as a “theory” is a convenience rather than correct nomenclature. Even so, in the context of rural economics, it is useful to consider all of these related developments rather than directing attention only to the new economic geography, which is a part but not the whole of new growth theory.

In recent decades a great deal of economic modeling has assumed constant returns to scale, atomistic competition, and homogenous products. Such assumptions are a way of making many investigations manageable, and for many problems useful results are obtained by proceeding in this fashion. (Hausman, chapters 14,15). Yet such models may give rise to expectations that are at variance with actual conditions. Unequal growth among nations and regions, extensive trading among similar countries, oligopoly, and product differentiation provide examples.

Brian Arthur has investigated increasing returns in a variety of circumstances over a long period of time. He long believed it was important that increasing returns be brought under mathematical control, although he knew it was difficult to do so. He has written, “As a result many in our profession chose to disregard or dismiss them. The distaste reached its peak in the early 1970's with the broad acceptance in

economics that all properly specified economic problems should show a unique equilibrium solution” (Arthur, p4i, 4ii). He concluded that a major difficulty in dealing with increasing returns was the indeterminacy associated with possible multiple equilibria. This led to a consideration of positive feedbacks, and path dependence in economies. When he applied his analysis to the location of economic activity, he concluded that historical accident often plays a role in the establishment of a trajectory for an area and positive feedbacks under conditions of increasing returns can influence the persistence of such trajectories.

Paul Romer also published on increasing returns during the 1980’s. He measured the extent of increasing returns in different economies. The nature and origin of technical change has been of central importance in his work. In his view intellectual discoveries constitute a part of the capital stock of any economy. Discoveries, however, may be different from other forms of capital. Even though use may not diminish the quantity available to others, it may be possible to exclude others from its use for a period of time as a result of property rights or market structure. In Romer’s view much technical change is endogenously determined and stimulated by increasing returns. Those who wish to explain the differential performance of nations as well as regions within nations need to be concerned about such matters.

Still another part of the new growth theory has been concerned with location issues and this work has come to be labeled the “new economic geography”. Hite has shown how deductions from the Thunen model can be enhanced with this approach. Paul Krugman has popularized this area of work in several books and articles (See Krugman, 1991, for an example and citations). Krugman’s work rests heavily on the seminal work of Venables (1975) and Dixit and Stiglitz (1977), who used monopolistic competition concepts as a means of explaining trade among countries at similar stages of economic development with similar industries. Krugman has developed formal models of urban-rural economic relations. Kilkenny has gone beyond Krugman with more realistic assumptions of conditions in the countryside.

This brief review of new growth theory brings three issues to the fore. First, it is a mistake to conclude the “new economic geography” is the only part of these parallel developments relevant to rural economics. Second, the fundamental building blocks of the new growth theory were developed in a literary way by early neoclassicists such as Marshall, Chamberlain, Young, and Kaldor. The major contribution of contemporary writers has been to develop these concepts in the context of formal economic models, which permitted fresh empirical work and novel conclusions to be drawn. Third, many agricultural policy issues would benefit from the insights provided by the new growth theory. Much agricultural policy literature and empirical research is oriented to the short run and emphasizes the consequences of government intervention in agricultural markets. This approach has produced information of value but the problems of primary industries over time have been neglected. The careful working through of the implications of possible decreasing, rather than constant, costs in agriculture would not only help explain the past but it would provide insights for the future. It would, perhaps, lead us to avoid suggesting we have a “new” agriculture and permit us to understand what we are now experiencing in agriculture is the inevitable consequence of trends that have been underway for many decades. This could well be an example of mainstream agricultural economics benefiting from a conceptual approach now widely employed in other parts of economics.

The Capital Stock of Rural Places. As noted earlier, the Thunen model gives space and distance important roles in explaining rural economic activity. If stocks, as well as flows, are considered attention is directed to the rural capital stock. The capital stock connects an area to its past, limits what can be accomplished in the present, and provides a means of influencing the future. A systematic consideration

of the rural capital stock permits an analytic treatment of such subjects as path dependence where both time and distance are important variables. (Castle, 1997, 1998). This requires that the term “capital” be defined carefully and used consistently. To qualify as capital, an instrument must be created or conserved by humans with the expectation their future welfare will be enhanced. Because it must be created or conserved, its future availability will require sacrifice either in the past or present.

Of course, expectations may not always be realized. Items created or saved in one time period may not be of value in another, even though it was expected they would have value. Rural places often become the repository of items abandoned by a no longer viable business or industry. Unless the items left behind have capacity for usefulness, they cannot be considered a part of the capital stock.

The capital stock of an area can be classified in various ways. I prefer four categories—natural, man-made, human and social. Natural, man-made, and human capital are well developed in the literature and there is little need to elaborate on them here. Social capital is much less well understood (Wilson). Again, it is important to emphasize that “capital” is an economic concept. If “social capital” is to play a role in economic analysis, the term “social” must be used to differentiate it from other forms of capital. If “social” is to be married to “capital” it cannot be used to refer to every human social arrangement in existence. Some social arrangements may be obsolete and few will be useful for all purposes. It makes no more sense to refer to them as capital than it does to refer to obsolete man-made machinery as capital. At best, some social arrangements are of economic value in some contexts, but not in others. The tools of the watchmaker would not be considered as capital by the ditch digger or vice versa. Some writers have made a great deal of the fact that what they consider to be social capital is beneficial in some situations, but not in others. It would be truly surprising if it were otherwise. No other specific capital form is useful in every circumstance.

The term “social capital” has become something of a fad in the social sciences. It is often used very generally, but is sometimes applied to specific situations. Not surprisingly there have been negative reactions. Some have suggested the term be abandoned in scholarly writing because it is not used consistently or precisely. The more substantive criticisms have come from within sociology and economics. Some sociologists argue the term confuses the source of social capital with its consequences. From within economics, Kenneth Arrow does not believe it should be considered parallel to other forms of capital, but that it should be treated as an externality.

Both concerns deserve to be taken seriously. As I understand the arguments of the sociologists I have read on the subject (Portes and Landholt, Summers, Durlaug, Bowles.) “Social capital” may not serve general needs within sociology as well as does the concept of community, as that term is used within sociology. The problem is that “social capital” is being used to refer to all social arrangements, especially those social arrangements that might be considered “communities”. This problem can be addressed by using “social capital” to refer only to those social arrangements that constitute “capital” in an economic sense. I do not presume to judge if there is a need for the term “social capital” within sociology. But, unless an economic meaning is attributed to the term “capital” economists and non-economists are likely to be talking past one another.

The objection of some economists, including Kenneth Arrow, to the term, social capital, is very different. Arrow recognizes that a social environment that reflects mutual trust enhances economic activity. His objection is referring to social arrangements as “capital”. He prefers that social entities be incorporated into economic analysis in a different way. It is difficult to argue against such a position in general

terms. To this time attempts to integrate social arrangements into economic analysis have not been highly successful. Different attempts to do so are not necessarily mutually exclusive, and more than one approach may be justified.

There are several reasons the social capital concept serves rural economics well. First, it permits a complete accounting of the assets available to rural places, and provides a way of integrating multidisciplinary rural studies efforts. The model of how this can be done has been set forth elsewhere and will not be repeated here (Castle, 1998). Second, it has the potential of establishing common ground between sociology and economics in the study of rural communities. Rural communities are important entities in rural economies, but economic theory, as currently practiced, does not provide a ready place for group decisions intermediate between individuals and firms on the one hand, and the state on the other. Sociologists, on the other hand, recognize the importance of communities, and the rural community is an integral part of rural sociology.

The social capital concept permits a social entity occupying an intermediate position between the firm and the state to be made endogenous to an economic system. This is of considerable importance when the concern is with rural issues. I have written elsewhere:

“ The normative base for rural studies, then, is that it is appropriate rural people have, and exercise, a degree of autonomy in addressing their common concerns and in seeking fulfillment of their aspirations. This establishes the usefulness and legitimacy of a rural perspective in social action and scholarly endeavor. Note the autonomy is not absolute: an important part of rural studies is concerned with the reconciliation of internal and external interests in rural affairs. The proposed normative base is consistent with the way rural people and rural scholars behave, and the way political institutions are structured.”

There is empirical evidence that social entities occupying positions intermediate between the firm and the state contribute to economic output (Knack and Keefer, Fukuyama). The social capital concept provides a means by which the economist may translate individual aspirations into group action at the local level.

Public Support for Rural Economics

At the outset three conditions were identified that contributed to the success of international economics and resource economics. It has been established that two of these three conditions exist for rural economics. There is a cadre of competent workers engaged in research and education. A respectable conceptual base exists and competent empirical work is being done. Now we turn to the third condition. This is whether there is sufficient public interest in the subject to provide financial support, and whether it will be possible to establish communication with those concerned and involved with rural economic decision making.

In 1992 James Bonnen published an article entitled “Why Is There No Coherent U. S. Rural Policy?” Bonnen answered the question posed in the title of his article by saying that rural interests were too fragmented to be an effective political force. These arguments were convincing then, they continue to exist, and are not likely to change greatly. There are no indications that a national rural policy will be seriously debated in the forthcoming election, much less put into place by an incoming national administration.

Yet there are signs of renewed interest in things rural. Even though general concern does exist about the

welfare of rural people and places, there is evidence of recent special interest. The greatest interest may exist in the upper mid-west. The rural development councils of Minnesota and Iowa have recently met jointly and discussed what the content of a national rural policy might be. Stanley Johnson, an agricultural economist and director of extension work at Iowa State University, has adopted a rural policy focus in the work they do there. And the Federal Reserve Bank of Kansas City has established a Center for the Study of Rural America. I believe this interest, at base, stems from the recognition that a wide range of problems that cannot be addressed effectively unless particular attention is given to the rural dimension. Land use, uneven economic development, state and local government, education, health care, rural poverty, and natural environmental quality provide examples of general problems where the rural dimension is of crucial importance.

As noted, rural people have been accorded a degree of autonomy in addressing these and other problems, and it is important that rural people have the means to address common problems. The position announcements that come to my desk suggest that some land grant institutions are responding to these concerns. There are a significant number of openings for people interested in and qualified to work on the kinds of problems identified above. Many of the positions advertised require that the occupant work part or full time in extension. Often it is far from clear how they will relate to the traditional subject matter departments in the University. This raises questions about the wisdom of undertaking extension work without also providing for the development of corresponding subject matter knowledge. Clearly there are numerous people doing useful educational work on rural issues that also have quality research programs underway. Yet there is evidence the people doing such work believe there is need for interaction with peers and for the accumulation and conservation of the subject matter knowledge with which they work.

Generally speaking, agricultural economics departments are not educating many people with an interest in, and capacity for, these positions. There is little doubt there is a need for research findings that address a wide range of rural economic problems that are not being addressed within traditional agricultural and natural resource economics. Should departments of agricultural economics in land grant universities attempt to address these needs? One of the strengths of land grant system is that it is diverse, just as the universe it serves, is also diverse. No single course of action will be appropriate for every institution, but there may well be opportunities for some to have a rural economics emphasis. Such an emphasis requires that the world not always be viewed through the prism of agriculture, but there will be both benefits and costs of doing so. The benefits will include the stimulation that comes to a field from new concepts and different perspectives. Further rural studies generally hold prospect of providing land grants, especially the schools and colleges of agriculture, with much needed diversification. A major potential cost may be that the traditional clientele of the schools and colleges of agriculture may not be pleased.

Commercial agriculture interests have consistently opposed providing funds for rural education and research programs. The traditional supporters of agriculture in the land grants have not traditionally ranked rural research or education high on their priority lists. Yet this may be changing. Some of these people are greatly concerned about changes in their communities in particular, and in rural areas more generally. Many must rear and educate their children there, and they must provide for the health care of their families. Too, many are very much aware that more than half of their income, on the average, comes from off-farm sources. The health of the rural economy may be more important to some than the fluctuation in farm income. There are other potential supporters of land grant education and research concerned about such problems as land use, uneven economic development, state and local government,

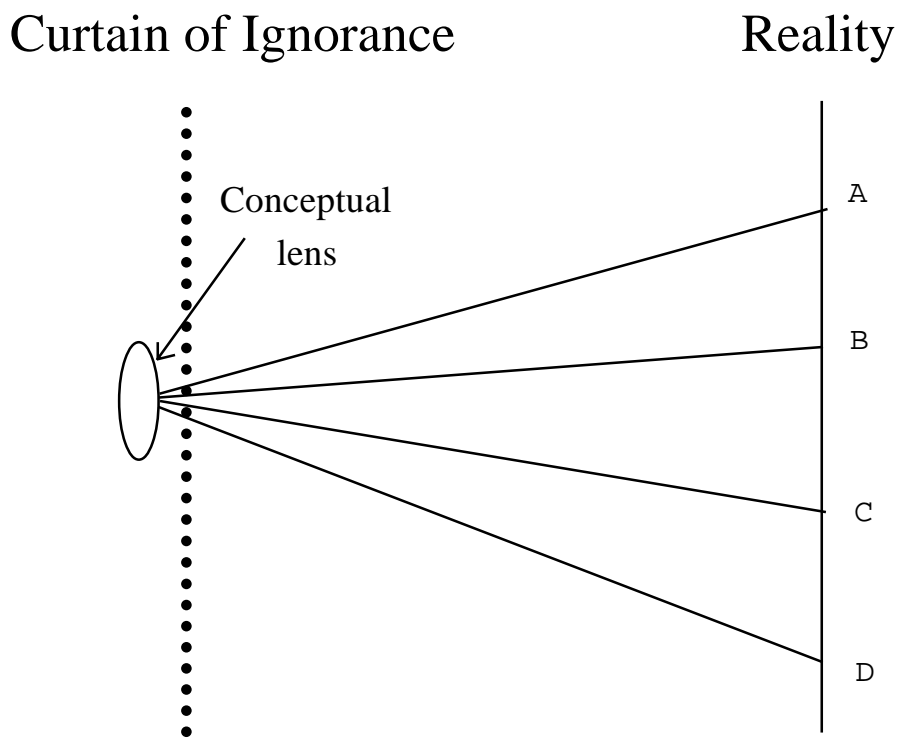
education, health care, and quality of the environment. In each of these problem areas, special interest groups and non-governmental organizations exist with educational and informational needs. The identification and mobilization of these potential support groups would require academic entrepreneurship of a high order. To be lasting such entrepreneurship would need to be buttressed by solid academic effort. Its promise is that it will broaden our horizons, challenge our analytic capabilities and provide much-needed diversification in our support base.

Summary and Conclusions

An expanded research and educational program in rural economics likely affect agricultural economics in the following ways:

1. Relocate the boundaries of agricultural economics and broaden the perspective of agricultural economists. Such a development has the potential of enriching the content of traditional work in agricultural economics. Agricultural policy work would benefit from the perspectives of the new growth theory. There is substantial complementarity between international comparative advantage and regional development. A broader focus would be helpful also to resource economists concerned with land use and rural environmental issues.
2. Carry risks of alienating traditional agricultural economics clientele. In some departments expanding into rural economics may be a zero or negative sum game, but undoubtedly will be a positive sum game for the profession as a whole in the long run. Many agricultural leaders are becoming increasingly concerned about problems that pertain to the communities in which they live. A proposed program that held promise of providing reliable knowledge and even-handed educational services about such matters would be appealing to many. Rural land use, local economic development, health and educational services, and welfare often are intertwined with traditional issues in agricultural economics.
3. The rewards and costs among departments of agricultural economics probably would vary considerably if all were to undertake ambitious efforts in rural economics. Therefore blanket recommendations are not likely to be helpful. However, a case can be made that agricultural economics will suffer in the long run if it continues to practice “benign neglect” with respect to rural economics. Many educational institutions are undertaking efforts related to this problem area. They are employing people educated in fields other than economics such as rural sociology, regional science, and state and local government. A case can be made the profession would benefit significantly from establishing a few centers of excellence in this field. This would make available a few agricultural economists for the positions that are being established in various places. It is not difficult to imagine rural economics becoming a growth area in one or two decades. Over time it holds prospect of providing needed diversification in the funding base of departments of agricultural economics.
4. The West was a major leader in our profession in incorporating resource economics into agricultural economics (Weber). The West also became involved at an early date in international work in agricultural economics. The leadership in rural economics appears to be coming from the Southeast and Mid-west. The University of Wisconsin, Iowa State, Ohio State, University of Missouri, Penn. State, Virginia Tech, and Clemson provide examples. It would be a pity if agricultural economists in the West have concluded that disciplinary correctness precludes innovation.

Figure 1 – The Relation of rural area economics to agricultural economics



A, B – Agricultural economics

C, D – Rural area economics

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