THE MAJOR PROBLEM OF RURAL SOCIETY

by Karl A. Fox

Introduction

The planning committee for the conference suggested that I try to highlight some four major areas: (1) The relative decline of commercial farm income; (2) the problem of small, low income farms; (3) the problem of land resource use; and (4) the problem of adequate education for farm youth.

These are indeed important problem areas. But they are so well recognized by agricultural economists that there is grave danger of our simply playing the same old records with the same well-worn grooves.

I will try to break out of the usual pattern and present a different concept of the structure of the United States economy and society than is generally assumed in discussions of farm policy. I shall then try to show the implications of this concept for the problem areas to which I have already referred.

Stretching Exercises: Perspectives in Time

Nearly thirty years ago, in his article on "Agricultural Fundamentalism," Joseph S. Davis wrote:

"...history reveals a trend, most conspicuous in countries of more advanced standards of living, toward a smaller place of agriculture in national economies. This has been going on for centuries, at times slowly, again with quickened pace. It has been conspicuous since 1850, and especially so in the first decade after the Great War. Though the trend is sometimes interrupted or temporarily reversed, major reversals are rare. It is, of course, the obverse of the expansion of commerce and industry, the arts and the professions. Statistical evidence of it, through largely limited to the past century, is increasingly voluminous. While even now the data are by no means comprehensive, accurate, or easy to use, the testimony of various indicators is substantially concordant. One may even venture to state as a law of economic history that economic progress, broadly viewed, tends to be accompanied by a decline in the relative importance of agriculture. This has been true, if not universally, of most nations in most periods and of the world as a whole.

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"Limitations of space here prevent elaborate presentation and interpretation of the relevant evidence, a large body of which I have critically examined. The declining relative importance of agriculture is imperfectly reflected in declining rates of increase in the rural population as compared with the urban, or even in stationary or declining rural populations while city populations increase. It is more clearly revealed by falling ratios of agricultural populations to the total, and of those engaged in agricultural occupations (particularly male workers) to the totals gainfully occupied; still more by absolute contraction of the numbers engaged in or primarily concerned with farming. It is reflected in available though imperfect indexes of the net output of agriculture as compared with that of industry, in evidence of falling ratios of agricultural wealth to total national wealth, and in falling percentages of agricultural income to national income.

"In the light of these facts, it is pertinent to ask: Is agricultural fundamentalism, after all sound doctrine in spite of its antiquity and prevalence today? Is it, with its implications, true enough to furnish bases for wise national policies? The issues are of far-reaching importance. Politicians may cater to popular sentiments and prejudices, but statesmanship requires real insight and true perspective. It calls for recognition of truths even when they seem unpalatable, and for recognizing powerful economic forces for what they are. It requires measures that are directed not toward neutralizing such forces, but toward using them and making adaptations to them. Social scientists who do not fear heresy charges have a duty to contribute to clarification of thought in such a field."

In his concluding observations Davis said:

"...I challenge the soundness of agricultural fundamentalism, not because there is no truth in it, but because it contains so much error as to lead the world astray. It stands in the way of progress, and its common acceptance often operates contrary to the interests of farmers themselves."

But agricultural fundamentalism still survives, and it is reinforced by an even more stubborn political fundamentalism that invests our institutions of local government.

The major problem of rural society in the United States is our institutionalized belief that a rural society exists and can be manipulated successfully apart from society as a whole.

We Know Not What We Do

It is extremely difficult for laymen to be objective about social, economic and political problems. It is difficult even for social scientists. The physical and biological scientists deal with objects, and we can be objective about objects. The social scientist deals with people and the cultural environment that people have created; this environment includes the things we live by, fight for and sometimes die for.

Because of our emotional involvement with our cultural environment, we permit ourselves to be trapped by our own inventions. We spin ingenious webs and get entangled in them. We draw imaginary lines, such as county boundaries, to meet an immediate need and thenceforth regard them as eternal. As an aid to analysis we draw imaginary lines around "Standard Metropolitan Statistical Areas" and find no coordinating principle in the remaining areas.

We also trick ourselves with words. We are particularly enchanted by dichotomies, including such old favorites as agricultural and nonagricultural or farm and nonfarm. The right to use adjectives with a positive valence should provide farm people with considerable psychic income as well as subtle bargaining advantages. The nonagricultural labor force amounts to 92 percent of the total; nonfarm income amounts to at least 95 percent of the total. Somehow these dichotomies have not carried the field in institutions of higher learning; thus, the land-grant universities have colleges of agriculture but no colleges of nonagriculture.

Once we have drawn an imaginary line or institutionalized a dichotomy we cling to it with fearful tenacity. A hundred years ago, our state constitutional conventions created counties with roughly similar areas and populations and assigned seats in our state legislatures to represent these area-population units. Decade after decade, the rural sheriff devotes himself to a dwindling constituency while the sheriff of a county-turned-metropolis struggles to maintain law and order among five million people!

Perhaps we humans could learn something from the animals. My impression is that in a state of nature the number of herbivores tends to adjust itself to the supply of grass and the number of carnivores tends to adjust itself to the number of herbivores; reapportionment takes place without a constitutional convention.

I. The Structure of the United States Economy: Perspective from Outer Space

We have mentioned the ease with which physical and natural scientists attain objectivity about objects and the difficulty with which social scientists attain objectivity about society. Let us try to achieve such objectivity about the United States for a few minutes by imagining that we are a scientific expedition from Mars engaged in an ecological study of the North American continent. To limit our emotional involvement still further, let us assume that we Martians are a species of over-grown intellectual ants; we think of people as specimens, their territory as a habitat, and their economic activities as a food chain.

To obtain perspective on the broader ecological patterns of the human species, we fly over the surface of the planet at different altitudes. We observe the daily movements of people from the shelters in which they spend the night to other shelters in which they spend most of the day. We consider collecting a stratified random sample of people and banding them so that we can identify them at will, but we content ourselves with daubing ultra-violet pigment (visible to us but not to them) on a sample of their metallic vehicles.
We insert optical devices in many individual shelters and observe the micro-behavior that takes place within them. Much of the daytime activity involves direct contact among individuals. Many individuals wander from shelter to shelter, exchanging round metal objects and pieces of green paper for articles of food, apparel, and the like. The peripatetic individuals also exchange disks and green paper for cosmetic services and for the privilege of sitting an hour or two in a large darkened room. In some large shelters they deliver disks and paper and receive nothing identifiable in return.

Evidently, these face-to-face contacts are essential aspects of the functioning of the food chain—or, more precisely, the food-clothing-shelter-service chain.

At this stage, we are able to make a major generalization. On a macro-level, we find we can delineate a set of areas which completely cover the face of the habitat, and have the following features:

1. The number of individuals making daily trips across area boundaries from nighttime to daytime shelters is small relative to the total population;  
2. the number sleeping in Area A and working in Area B is roughly equal to the number sleeping in Area B and working in Area A;  
3. the number of boundary crossings of the nighttime to daytime shelter type would be noticeably increased if arbitrary boundaries were drawn more than a mile or two from those which minimize the daily crossings; and  
4. if we aggregate the basic areas into clusters of four or nine contiguous ones the percentage of the total population sleeping within a cluster and working outside of it is only slightly larger than the percentage sleeping in an area and working outside of it.

In the interior of the subcontinent, each basic area appears to be organized around a central agglomeration of structures accommodating anywhere from 25,000 to a million or more nighttime inhabitants. However, the geographical extent of the areas is much less variable than the population of the central agglomerations; the size of the basic area appears to be limited by the unwillingness of individuals to spend more than one-eighth of their waking hours in transit between nighttime and daytime shelters. The total populations of the basic areas rarely amount to less than 100,000 individuals and occasionally exceed 1,000,000 individuals.

The nature of the nighttime to daytime shelter trips and the kinds of goods and services obtained on a face-to-face basis in exchange for disks and green paper show little variation as between basic areas including 100,000 individuals and basic areas containing a million or more. This tends to support our generalization that the entire habitat can be divided into residiency clusters each of which contains virtually all the goods and services which individuals obtain by face-to-face interaction. The areas of these residiency clusters range from 2,000 to 6,000 or more square miles.

A most marvelous pattern of exchange takes place between the basic residiency clusters. Many of the large specialized vehicles (including those running on metal rails) are engaged in interarea commerce, and some of the very largest daytime shelters are oriented toward interarea trade.
Some of the interarea trade is evidently based on differences in natural endowments such as soil, climate, and mineral deposits. It seems clear also from the kinds of goods hauled in different kinds of vehicles that considerable attention is given to time, energy, and material costs of overcoming distance.

A careful study of the kinds of artifacts and raw materials moving between areas suggests that the trade-oriented activities of all residiency clusters in the subcontinent are linked together in one vast production process. In fact, the mathematical ecologist of our expedition is convinced that this production process can be represented as a matrix consisting of several hundred kinds of activities, each classified as to location in one of the 400 to 500 basic residiency cluster areas.

Evidently, the ecological system of the species can be divided into two major segments. The first is a cluster of residiency activities which, with relatively minor variations, is replicated in each of 400 to 500 areas. With respect to these residiency activities, each area is relatively self-contained. The second segment links the export activities of all the residiency clusters into an interarea production and trading system.

A. Political overtones. Our political ecologist has drawn some interesting inferences from the existence of these two segments.

His hypothesis is that the affairs of the entire subcontinent could be regulated by two layers of government. First, there would be a governing body for each of the residiency clusters, and it would be responsible for the residiency and face-to-face kinds of activities. Second, there would be an additional governing body to deal with the interarea production and trading system as a whole.

The latter body could determine or at least powerfully influence the locations of new structures connected with the interarea production and trading system. The individuals working in these structures receive green paper for their efforts. By presenting this green paper in turn to the local suppliers of goods and services, they set up a chain of interactions within the particular residiency clusters. Our mathematical ecologist has estimated that the final effect of this chain may be represented as the sum of a power series, which he is inclined to call an "export multiplier." A fairly typical value for this export multiplier for a residiency cluster is around 1.5.

There is evidence that the species has made progressive modifications in its physical environment and in its own spatial distribution. Most daytime shelters associated with the residiency cluster have a locational pattern and level of activity very closely related to that of the nighttime shelters in the area. But there is evidence that the more sparsely populated portions of each residiency area were once inhabited by a considerably larger number of individuals. Many structures are unoccupied and have fallen into disrepair.
In the interior portion of the subcontinent, one particular kind of daytime shelter stands out as unrelated in terms of size and number of occupants to the spatial distribution of occupied nighttime shelters. Our cartographer has discovered that one such structure is located at the center of each square unit of territory measuring 24 miles on an edge. All of these structures appear to have been designed by the same individual and built at about the same time.

Our historical ecologist has deduced that these structures were erected before metallic vehicles became the dominant means of transportation. Vehicles were then drawn by large herbivorous animals. Rough calculations indicate that with such transportation any human could have proceeded from his nighttime shelter to the nearest structure of the type under discussion and returned to his nighttime shelter on the same day. Under those conditions each 24 mile square would have constituted a meaningful ecological and governmental unit for activities of the face-to-face or residientiary type.

It seems clear that the real, functioning ecological system has been revolutionized by universal adoption of the metallic vehicles and by associated changes in the food-clothing-shelter-services chain. It is to be expected that the politico-religious attitudes associated with the 24 mile squares will gradually be transferred to the much larger residientiary cluster areas which from the basic units which form the basic units of the functioning system.

The expedition's ecological psychologist is impressed with the changes in interpersonal relationships which must have occurred as a result of this upheaval in the ecological system. However, evidence is rapidly accumulating that at least one human in five changes his residence each year; such mobility is particularly high among young individuals. The capacity of the species for spatial readjustment seems more than sufficient to cope with rather large changes in both segments of the ecological system—i.e., changes within the residientiary clusters and changes in the inter-area production and trading system.

Forgive me, fellow Martians, if I have trespassed upon your patience! Let us now pretend that we are members of the human species and consider the implications of our outer-space perspective for dealing with major problems affecting farm people.

B. A Common sense restatement. I have presented the following hypothesis about the structure of the United States economy and the organization of United States society as of 1962:

1. The economy of the United States may be classified into two sets of activities. The first set may be described as residientiary. I believe there are about 400 or 500 residientiary clusters in the United States and that the entire area of the United States can be divided into such residientiary clusters (special complications may exist for the almost continuous stretch of cities along the Atlantic Seaboard which some call Megapolis). For convenience I shall refer to the area covered by each residientiary cluster as a functional economic area, or FEA. The nonresidientiary activities in each FEA are oriented toward an interarea production and trading system which links together all of the 400 to 500 FEA's.
2. Corresponding to these two different systems of activities are two sets of economic policies. One set of policies applies to the residiary cluster of activities in each FEA. That is, there should be some central policy-making body in each FEA to deal with problems which affect all residents of the given FEA but which are of only negligible interest to residents of other FEA's. Each FEA covers an area equivalent to several Corn Belt counties, and the policies appropriate to the central governing body would be similar to those now assigned to city governments.

The other set of activities logically requires a national government with policy responsibility for the interarea production and trading system. Many instruments are available through which the federal government can influence stability and growth in the economy as a whole. Federal programs may also be used to encourage differential rates of change as between FEA's, but these programs are handicapped by the absence of local policy-making and advisory bodies coextensive with the functional economic areas.

State boundaries, particularly in the smaller states, intersect a fair proportion of all FEA's. Rationally or not, most of us would feel uncomfortable if there were no intermediate level of political aggregation and discussion between the individual FEA's and the federal government. If we were really venturesome, perhaps we would draw "state" lines in such a way as to include a specified number of functional economic areas, with the "state" boundaries roughly identical with the perimeters of clusters of (say) 9 to 16 FEA's.

When I presented these ideas in an informal context a few weeks ago, an economist (Wilbur Thompson) from Wayne State University restated my hypothesis as follows:

"The United States economy is made up not of states but of city-states."

C. Further comment on the residiary cluster and the FEA. I have suggested above that the policy problems appropriate to a functional economic area should be substantially the same as those of a city of 50,000 to 500,000 people which had political boundaries roughly coextensive with its economic ones. It seems to me that municipal government is primarily concerned with what might be called the "residiary cluster" of activities, economic and other. Although the municipality would extend police and fire protection to export-oriented firms, regulation of interarea trade would be outside of its jurisdiction.

Figure 1 should serve to make this prescription of municipal government functions for an FEA at least plausible. The figure is a map of a midwestern city with about 50,000 residents. The heavy cross-hatching identifies the industrial plants which constitute the economic base of Center City. The black oblongs are supermarkets. When the map was drawn, there were about ten supermarkets, each serving on the average of about 5,000 people. The central business district is contained in the inner circle of one-half mile radius. Not shown on the map are the small neighborhood stores and other convenience enterprises which can subsist on the patronage of a few hundred customers.
The 10,000 Center City industrial workers require only two or three square miles of land for their production activities and their residences. The same number of export-oriented workers deployed on farms would spread out over five or six Corn Belt counties. To serve such a dispersed population, the neighborhood stores, barber shops and gasoline stations must fan out into small towns and villages, many with less than 1,000 people. The supermarkets and other units requiring large volume for low-cost operation will be found in county seat towns and others of (say) 1,000 to 5,000 population. The central business district will typically be found in a city of 25,000 population or larger.

Economists should have no difficulty with this projective transformation of the structure of a city into the structure of a multicounty area. Some laymen may have difficulty with the concept, but many Iowa leaders have been quick to grasp it. To me, it seems useful to regard an FEA as a city spatially extended to accommodate a low-density pattern of land use and residential location over the bulk of its area. A further implication is that agriculture, despite its space-filling and eye-catching qualities, is simply another export industry and source of employment from the standpoint of an FEA classification scheme.

Figure 2 shows a geographer's attempt to classify midwestern villages, towns, and cities according to the range of economic activities which they perform; this range is, of course, strongly associated with population size. In the Wisconsin sector, I have left in the "second-order central places," mostly towns of a few hundred to 1,000 or 2,000 people, on the map. My belief is that a hundred years ago a county seat town plus a few nearby villages constituted a relatively self-contained labor market and "residientary cluster" of activities. In the rest of the map I have omitted the small villages and left in towns of county seat size and larger. My hypothesis is that today we could divide the area of the United States into functional economic areas containing 2,000 to 6,000 or occasionally more square miles and centered (in Philbrick's terminology) around a fourth-order or larger central place. (Philbrick's classification is not perfect for this purpose. For example, it seems to me that in north central Indiana there should be an FEA centered on a city which Philbrick's classifies as a third-order central place.)

Figure 3 shows the daily home-to-work commuting pattern of some 2,300 employees of a manufacturing plant in Newton, Iowa. Newton is a town of about 15,000 people located 25 or 30 miles from Des Moines. Significant numbers of workers commute to Newton daily from ten or more counties. Apparently not more than one or two workers drive past a larger city in order to get to Newton; the Newton labor market seems to be hemmed in by the larger towns (Ames and Marshalltown have populations of 20,000 to 30,000; Ottumwa, 35,000; and Des Moines, more than 200,000). It would be more precise to say that Newton is part of the "greater Des Moines" or "central Iowa" functional economic area.

At the risk of being classified as a Martian, I would suggest that the functional economic area has the following implications for political institutions and local government services:
1. Elections for some local government offices should be held on an FEA-wide basis.

2. Various public services, including the school system, law enforcement, health and welfare and other functions should be organized on an FEA-wide basis. Some of these systems would, of course, be guided to a greater or less degree by agencies of the state government.

My main point is that there should be some policy-making body in each FEA which could deal in a coordinated way with the whole cluster of functions affecting people in the area in their capacity as residents, workers, consumers and citizens.

Let me say parenthetically that, given a regional delineation which lends itself to a specified class of policy problems and given a central policy-making body for the region (FEA), a rigorous logical framework is available for stating and analyzing the corresponding set of policy problems. I refer to the "theory of economic policy" framework pioneered by Tinbergen during 1952-1956 and capable, in my opinion, of further elaboration and adaptation to a wide range of policy-making bodies and situations.

Many of you have seen Figure 4 and an amplification of its meaning in some of my other speeches and articles, so I will say no more about it at this point.

D. Interarea competition for new industry. Within an FEA, I expect that businessmen and others identified with residiary activities will generally recognize and take advantage of opportunities for expanding them. National and regional chain stores will also be on the lookout for such opportunities. Some of the larger residiary firms (full-line department stores, for example) will tend to locate in the central city of the FEA; so will specialized services such as commercial airports and the like.

Large industrial firms in the export-oriented cluster of activities will tend to locate in or near the central city of the FEA or in larger satellite towns to obtain sufficient numbers of workers without materially increasing local wage rates to their own disadvantage.

Firms which regard themselves as part of a national or regional trading system are not likely to be influenced by the promotional activities of small towns and villages within an FEA. Typically, such firms will decide upon a desirable area (as large in extent as at least one and probably several FEA's) and will then narrow its choice down to a particular city or town within that broad area. It appears, then, that efforts at encouraging new industries to locate should be coordinated on an FEA-wide basis.

There is room for further coordination of the activities of adjoining FEA's if longer term effects of industrial development on job opportunities available to area residents are considered. State planning boards or industrial development commissions might consider it enough that job opportunities expand rapidly in one FEA out of every three or four located wholly or partly within the boundaries of the state. In that event, while many workers would move to nearby FEA's, they would not have to move more than 50 or 100 miles to find suitable employment.
II. Problems Accessible on an FEA (Functional Economic Area) Basis

Let me return now to the four major types of problems suggested by the conference committee: (1) income problems of commercial farm operators; (2) problems of low-income farms and rural underemployment; (3) land resources and land use; and (4) education of farm youth.

A. Education of farm youth. It seems to me that the public school system of each FEA should be organized and supervised on an FEA-wide basis. Teacher's salaries, curricula and facilities should be of as nearly uniform quality as possible throughout the FEA. The elementary school system throughout the area should carry an implicit assumption that all pupils will move on to junior high schools and high schools in the FEA, and that the majority of them will go on to the state universities or at least to a "community college" located in or near the central city of the FEA.

In brief, there should be no segregation of farm youth from others in the area. We should be aware that failure to provide educational opportunities up to the limit of each pupil's capacity amounts to a betrayal and a distortion of the young human lives for which we are responsible—no matter whether they are currently living on farms, in small towns or in big cities.

B. Problems of low-income farms and underemployed farm people. A functional economic area (FEA) is an integrated labor market area—this is perhaps its most distinctive characteristic. Residents of low-income farms within an FEA are members of this labor market. The success with which they can enter nonfarm occupations in the FEA may be limited by their educational backgrounds, specific vocational skills, aspiration levels and native endowments; it may also be limited by the rate of expansion (or contraction) of job opportunities in those firms and industries within the FEA which constitute its export base.

The problems of labor force members on low-income farms can at least be diagnosed on an FEA basis. In some cases, the answers also can be provided on an FEA basis. Typically, the central city of the FEA will be the logical place for nonfarm vocational training programs and facilities. If total job opportunities in the area are expanding, the locational preferences of low-income farm people may be accommodated by training them for occupations which are expanding locally. However, vocational programs which concentrate only on the particular skills desired by local employers may amount to a betrayal of the young people and adults who seek training or retraining.

C. Problems of land use. Only a minor part of the problems of land use can be met on an FEA basis. It seems to me that zoning of nonagricultural uses might well be handled on an FEA-wide basis; so also should be the planning of recreational areas of primary interest to residents of the FEA.

Problems of price and income policy, supply control and regulation of total land resource inputs cannot be solved by policy makers at the FEA level.
III. Problems Accessible on a National Basis

Conversely, policies affecting the incomes of commercial farm operators must be conceived on a national basis, even though they may be differentiated by commodities and indirectly by geographic areas. But again the needle is in danger of slipping into an extremely well-worn groove.

Commercial agriculture is clearly part of a national production and interarea trading system. Prices received for each commodity by farmers in a given FEA are wholly or almost wholly independent of the level of nonfarm activity in the same FEA.

It seems to me that commodity programs and land retirement or acreage restriction programs should be carried out in such a way as to promote the efficiency of agriculture on a national basis and without too much concern for the effects of such programs upon nonfarm business firms and people in particular FEA's. I don't believe our political system is flexible enough to warrant slanting national commodity programs in an attempt to bolster income and employment in the residentiary clusters of particular areas.

IV. National Policies Implemented Through Functional Economic Areas (FEA's)

An FEA is a much more rounded unit than a typical county in terms of the range of occupations included, the range of economic and political problems that must be considered and the age distribution of the population.

However, because their historical backgrounds are different and because educational levels of their populations are different, some entire FEA's as of 1962 enjoy considerably higher income levels and have considerably higher potentials for internally generated economic development than have other FEA's. These existing differences should not be permitted to result in differences in the educational opportunities provided to youth (farm and other) in currently disadvantaged FEA's. This raises the question of federal aid to education in a two-stage political system and of federal and/or state equalization in a three-stage political and fiscal system.

For reasons mentioned above, I believe we are more likely to get high quality education for our farm youth if programs of state and/or federal aid to education are administered on a FEA basis. The school superintendent for the FEA might be an agent of the State Department of Education, and he would be responsible for the use of such state and/or federal funds as might be provided for school buildings or for operating expenses.

Similarly, as different FEA's have capacities for self-generated economic development, some FEA's should benefit from state and/or federal aid in development planning. It would seem desirable to have a central policy-making body in each FEA which could look at all state and federal aid programs, including urban renewal, vocational training and retraining and programs directed toward helping low income farm people from the standpoint of the area as a whole.
In addition, the FEA should form a logical unit for appraising the needs for state and federal investment and the probable impacts of different types of state and federal investment in the area.

V. Summary

The problems under discussion may be divided into two major categories, problems focusing on people and problems focusing on commercial agriculture as an industry. The first category is accessible to programs and efforts organized on an FEA basis; the second category requires intervention or at least policy determination on a national level.

A. Problems focusing on people. The functional economic area lends itself particularly well to the formulation of policies and the implementation of programs focusing on people. These include the education of farm youth within the same school system and under the same standards as other youth in the area.

Secondly, the FEA is a logical area for appraising employment opportunities and, in most cases, for programs of training and retraining. These programs should be equally available to low income farm people and others.

Both of these programs involve investments in human beings. The previous speaker (T. W. Schultz) has done a great deal to promote interest in this subject and some useful research and attempts at quantification have begun to appear.

Even if we continue to elect county officers and state legislators indefinitely on the present basis, the multicounty functional economic area provides a useful framework for activities by voluntary citizens' groups. Self-knowledge is the beginning of wisdom. If voluntary groups organize for the study of problems affecting their entire FEA, they will almost certainly recognize educational and employment problems as area wide in scope. They must seek to alleviate these problems through instrumentalities of state and local government, or through federally-aided programs.

We have already commented upon the deployment of court houses, county officers and local political energies in proportion to area rather than to current population. The county is the unit for most action programs and advisory committees of the U. S. Department of Agriculture and of educational programs such as the Cooperative Extension Service. I have seen no estimates of the quantity of human resources that are locked up in this rigid and antiquated county pattern. So far as state activities are concerned, many coordinating and executive powers have been transferred from the counties to state agencies (state boards of public welfare, state highway commissions, the state boards of education and the like). Nevertheless, by the mere fact of electing public officials and representatives to state legislatures on a county basis, we tend to lock up an undue amount of political attention and energy in an inappropriate political unit.
Let me stress once again that when counties were first delineated (at least in the Corn Belt states) they were intended to be roughly coextensive with functional economic areas. Since 1900 the automobile and other factors I have mentioned have greatly extended the sizes of functional economic areas. Each county now includes only a fraction of a functional economic unit, and many county officials are groping blindly for significant and constructive things to do. Each county board is in the position of a blind man grappling with an unidentified portion of the anatomy of a multicounty elephant. If our county officers were flown back and forth across the different tiers of counties in their state on a clear day at a height of 30,000 feet, I believe they would begin to see the shape of the multi-county economy they are trying to administer on a single county basis.

Our acceptance of the county as the basic unit of organization of "rural society" leads to a horizontal pattern of organization of our Cooperative Extension Services. We overlook one of Adam Smith's basic principles of economic development, as enunciated in 1776--the advantages of specialization and the division of labor.

Some extension activities are oriented toward people as citizens, homemakers and persons interested in self-realization and development. It seems to me that these programs could be organized much more effectively on the basis of functional economic areas than of counties. The resources now deployed horizontally on a county-by-county basis could be regrouped into a different staffing pattern adapted to the geographical areas over which residentiary activities are actually integrated.

Other extension programs are oriented toward commercial agriculture as a business. The proper organization of these activities may be very different than that of activities oriented toward people as such. However, I suspect that in many cases we have deployed our resources horizontally to serve commercial farm operators on an area basis when we might much more effectively have deployed them vertically--so that the quality of our technical information might keep pace with the increasing capacity of the buying and selling agencies with which commercial farm operators must deal.

B. Problems focusing on commercial agriculture as an industry. These are essentially problems of the national production and interarea trading system. The corresponding policy problems constitute a well-tilled field which most of us participating in this conference have plowed many times. They include farm price and income policy, supply control, policies to expand exports and domestic use, and problems of land use. These will be discussed in detail in subsequent sessions of this conference.

C. The illusion of separateness. A number of us at this conference are associated with the U. S. Department of Agriculture or with departments of agricultural economics and rural sociology--designations which help to create an illusion of separateness of agriculture from the rest of the economy and of farm residents from the rest of society. This tends to influence the way in which we conceptualize the problems of commercial agriculture and of farm people. Yet the living forces of our society have already integrated agriculture with the rest of
the economy and farm people with the rest of the society. We should free ourselves of the illusion of separateness which is fostered by our organizational titles, the deployment of our resources along county lines, and our consequent tendencies to try to improve low farm incomes or develop nonfarm job opportunities by pushing on county "strings" instead of pulling on area "ropes."

Many of us who are deeply involved in the formulation and implementation of farm policies continue to underestimate the mobility of people (1) between occupations and (2) between areas—this in spite of the phenomenal reduction in the number of small farms shown by the recent census and the differentially high rates of transfer out of the least promising situations and areas.

Joseph S. Davis quotes this passage from a dialogue written in England in 1549:

"...the more necessary that corn is, the more be the men to be cherished that reared it; for if they see there be not so much profit in using the plough as they see in other feats, think you not that they will leave that trade, and fall to the other that they see more profitable?" 3/

This motivation has never ceased to operate in free societies. Evidence that Iowa farm boys are thinking in this fashion is provided by a recent study. 4/ Out of 439 farm boys (high school seniors) who preferred farming to nonfarm jobs at equal prospective incomes of $4,000, less that one-fourth indicated that they would still farm at $4,000 if they could earn $6,000 in a nonfarm job. Further, some 347 of the 836 farm boys in the entire sample indicated that they would prefer nonfarm jobs to farming at equal incomes of $4,000. Nearly three-fourths of these boys indicated that they would prefer to farm if they could earn $6,000 in farming and only $4,000 in a nonfarm job.

I return once again to my earlier statement: The major problem of rural society in the United States is our institutionalized belief that a rural society exists and can be manipulated successfully apart from society as a whole.


FIGURE 1.
Map of Center City

CRITERIA FOR THIRD-ORDER CENTRAL PLACES:

1. Grocery Wholesaling
2. Daily Newspaper
3. County Seat
4. Industrial Supply
5. Paper Merchants
6. Merchant Wholesaling In 1950 Census And Population Over 5,000

A. Major Wholesale Grocery Center, 1935
B. Hardware Wholesaling
C. Drug Wholesaling
D. Services Allied to Transportation
E. Shoe and Leather Wholesaling
F. Major Steel Warehousing

Source: Adapted from A. K. Philbrick, in Economic Geography, Vol. 33 (October 1957)
FIGURE 3.
The Newton, Iowa Commuting Pattern, 1959*

*Based on C. A. Peterson, An Iowa Commuting Pattern and Labor Market Areas in General, State University of Iowa, June 1961, page 9.
FIGURE 4.
The Theory of Economic Policy

<table>
<thead>
<tr>
<th>Exogenous Variables</th>
<th>System of structural relationships connecting all variables: The &quot;model&quot;</th>
<th>Endogenous Variables</th>
<th>Utility, welfare or &quot;objective function&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Policy Instruments</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| \[ z_1 \]
| \[ z_2 \]
| \[ \cdots \]
| \[ z_j \]         |                                                                     |                      |                                        |
| "Data" or noncontrollable factors² |                                                                     |                      |                                        |
| \[ u_1 \]
| \[ u_2 \]
| \[ \cdots \]
| \[ u_k \]         |                                                                     |                      |                                        |
| Goals or "target variables" |                                                                     |                      |                                        |
| \[ y_1 \]
| \[ y_2 \]
| \[ \cdots \]
| \[ y_i \]         |                                                                     |                      |                                        |
| Side-effects or "irrelevant variables" |                                                                     |                      |                                        |
| \[ x_1 \]
| \[ x_2 \]
| \[ \cdots \]
| \[ x_s \]         |                                                                     |                      |                                        |

¹Classification of variables based on J. Tinbergen.

²Not subject to control by the policy-maker or level of government that sets the goals and uses the policy instruments in question.