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DISCUSSION: ECONOMIC AND SOCIAL INDICATORS OF RURAL DEVELOPMENT  
FROM AN ECONOMIC VIEWPOINT

John E. Waldrop

Drs. Edwards and Coltrane show great courage in agreeing to discuss in one paper all of the variables, data, theories, models, and relationships that might be included according to the title. It was comforting to me to see that their very first endeavor was to set forth some definitions for some often used terms but terms whose meaning is seldom clearly stated by the user.

The authors distinguish between economic development and growth and suggest some alternative definitions for rural and rural development. Let us take a closer look at their efforts.

#### ECONOMIC DEVELOPMENT AND

#### ECONOMIC GROWTH

According to the paper, "economic development occurs in a region as changes evolve in the way that basic factors of production are combined. This amounts to changes in the way of doing things and usually results in additions to the mix of economic activity in a region. Economic growth, on the other hand, simply refers to increases in scale. The combination or mix of basic factors has not changed in the growth process. Expansion in economic activity results from the use of greater quantities of the basic factors of production." They suggest a difference in the impact of the two in that development adds new combinations of the basic factors to old ones which multiply the number of interactions or interdependencies and increases economic activity at an increasing rate.

Perhaps these differences exist and perhaps it is useful to make some distinctions in some special cases, but I see as many clouds as clear spots in these definitions. For example, adjustments in resource mix on a farm in response to changes in expected product or factor prices for the next production period would be classified as economic development! If expected

product prices are lower and expected factor prices higher, in real terms you get the kind of economic development that we in Mississippi have experienced all too often. Also, there is a current practice in some parts of the state of using four and six-row equipment on small fields that were formerly farmed on the contour with one row equipment. This "new way of doing things" continues until such time that erosion creates gullies which the machinery can no longer cross and the fields are abandoned as idle land. The relevant question is "should we classify this as development?" Early liquidation of timber stands due to high discount rates and short economic horizons of low income people serves as another example of changes in the way of doing things. Yet, these fall short of my value judgment as to what constitutes desirable development.

I would like very much for my research and/or teaching efforts in Mississippi to result in a substantial increase in economic activity by producing more goods by the same process (e.g., pulp and paper, \$3 soybeans, \$.34 cotton) or aid in producing new activities. Both are needed if the state is to prosper. I see very little value in distinguishing between development and growth on the basis of the arguments presented. I lean toward the concept of economic development offered by S. K. Nath [2, p. 213] in his book *A Reappraisal of Welfare Economics*. His concepts state "economic development obviously has something to do with the growth of national product." He points out that its size and relative distribution are important to the concept [2].

#### RURAL AND RURAL DEVELOPMENT

Rural development is a beautiful phrase. It is defined as whatever the user wants it to mean at the moment of use. I doubt that an index as suggested by the authors would result in little more than making

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all geographic areas rural to some degree. In my opinion, economists should be interested in the spatial location of current and potential economic activity and the interdependence of these activities irrespective of whether we label it area development, community development, resource development, economic development, economic growth or rural development!

## APPROACHES TO ECONOMIC AND SOCIAL INDICATORS

The authors state that "two approaches have been used in setting up systems of economic and social indicators. One approach gives empirical content to a set of conceptual considerations related to one another by theory. The other approach might be characterized as brute force empiricism – it has a lot of empirical content but the separate items of information do not fit into the overall pattern of relationships tied together by theory." They indicate a preference for the approach that relates to theory. I agree that useful economic and social indicators must be founded in theory.

### A Framework for Identifying Indicators

Both macro- and micro-theory are indicted for failure to deal adequately with a lot of variables which are important in rural economic development processes. Schumpeter [3] and Myrdal [1] are cited as having discussed some of these variables. Others are beyond economics entirely according to the authors.

The authors admit that they could find no best theory on which to base a set of rural economic indicators. They also indicated that they had no new development theory to offer but that the framework for identifying economic and social indicators can be adapted to quantify most existing theory. I would have appreciated a section on the development theory that the authors had in mind, old or new.

The paper then turns to a lengthy description of the various divisions and delineations of the United States that have been made by various agencies and/or individuals. Nine delineations and twelve specific economic indicators were selected . . . "to examine the consequences of alternative regional delineations." The logic underlying the delineations varies from functional economic considerations through homogeneity to purely political subdivisions. The twelve specific economic and social indicators range from percentage of population urban, percentage employment white collar, percentage of commercial firms with sales greater than \$10,000 in 1964 to local government expenditures per capita in 1962. These variables were not derived from a specific

theory or a theoretical framework of development as best I could tell. I see no justification for the variables selected over others that could be named. One might pose the question of whether fifty percent of commercial farms with sales greater than \$10,000 in 1964 is associated with a high or low level of rural development in a particular area.

The nine delineations and twelve specific indicator variables were related through several statistical analyses. These included principal component analyses, comparing the twelve variables for all delineations by such tests as differences in means, variance and the degree of skewness of the variables; differences in simple correlation coefficients; stepwise regression to ascertain the order to which variables entered a regression equation for each of the nine delineations; and a single multiple regression equation using the first five variables entering the stepwise regression for the Basic Economic Research Area delineation (BERA). The dependent variable in the regression analysis was per capita income.

The analytical work presented in the paper was very interesting. However, if it had any close connection with selecting the twelve variables used as indicators, or if it was a test of a theory of development, or if it led to a selection of one or more of the twelve variables as being most appropriate, or if it suggested regional delineations that were more appropriate than others I was not able to ascertain this from the work presented.

### CLOSING REMARKS

I would like to close my discussion of this paper with the following remarks. In my state, problems do not necessarily occur in predetermined geographic areas. In order to get a reasonable picture of the level of development, one need go very little further than looking at the total income that accrues to individuals in Mississippi during some period of time, the number of individuals among whom this income is divided and the distribution of the income. It would seem to me that if we are going to make rapid progress in increasing what has come to be known as rural development, we must approach this endeavor by finding ways of estimating the employment potential of an area, in terms of numbers of jobs that the resources in the area can support, and the associated level of income. If we will do this, I feel that we will make rapid progress toward developing rural areas and have little trouble with formulating programs and policies to aid in either increasing the potential in the area, or subsidizing the production and employment in that area, or moving people to areas where the

employment and associated income potential is greater than where they now live. Our research efforts must turn to the very difficult problems of estimating such things as externalities, including external costs and benefits, the distribution of these costs and benefits, interdependencies, and impact studies.

Here, I think we should take notice that relevant research techniques in rural development or economic development are not necessarily an extension of techniques and procedures used in the more traditional production and marketing research. It has been my experience that we cannot start at the level of sophistication in problem solving that we have attained in these areas. Rather we must start at a very basic level and develop the necessary methods and

techniques. I am also biased toward methods and techniques that derive essentially from micro-theory and build to what I would like to call pseudo-regional economic methods and techniques. After all, it is individual decision makers that decide to increase the level of production, to innovate, etc.

Rural development research is a very difficult job; however, I feel that the general area may attract sufficient support in terms of money and capable individuals so that we can expect more rapid progress in the near future. The concept of rural development will have played an important role if it focuses our attention, manpower, and money on these very broad and complicated problems.

#### REFERENCES

- [1] Myrdal, Gunnar, *Economic Theory and Under-Developed Regions*, New York: Harper Torchbooks, 1957.
- [2] Nath, S. K., *A Reappraisal of Welfare Economics*, New York: Augustus M. Kelly, Publishers, 1969.
- [3] Schumpeter, Joseph A., *A Theory of Economic Development*, London: Oxford University Press, 1969.