DISCUSSION OF THE EFFECTS OF RECESSION ON THE RURAL-FARM ECONOMY*

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It will probably be useful to trace the evolution of the title of this paper. Initially, the assigned purpose of the paper was "to contrast the impact of a recession on rural areas having industrial development with those that have not attracted additional industry." The program title became "The Effect of a Recession on Employment, Population and Industrial Development in a Rural Economy." My first review draft of the paper carried the title "Effects of General Economic Conditions on an Industrialized Rural Economy." One week preceding the meetings, I received a revised draft of the manuscript, title "The Effect of Recession on the Rural-Farm Economy."

To some extent, this ever-changing title might result from the agricultural economist's understandable desire to work with agriculture, i.e., the rural-farm part of the economy as opposed to the rural non-farm or urban part. It may also be a reflection of the scarcity of recent work dealing specifically with the relationship between the whole economy and the rural economy part of it. Schultz's book was published in 1945, although an update was offered in 1974, and an article pertinent to supply function elasticity was presented in 1975, Firch's material was published in May 1964.

A different approach is to consider the literature on regional business cycles in relation to the national business cycle. Detailed work, as opposed to articles or other literature that are more speculative, is not easy to find. Some that should be mentioned was done by Borts [3], Vining [8, 9, 10] and Airov [1]. The first two authors are given coverage in Chapter 6 (Regional Cycle and Multiplier Analysis), of Isard's book, *Methods of Regional Analysis: An Introduction to Regional Science*, published in 1960 [5].

Because recessions after World War II have been relatively less traumatic to individuals and the public, the study of the relationship between regions, and between the regions and the national economy, may have been considered less important than the study of other matters. Some economists would argue that this is due to automatic (e.g., unemployment compensation) and discretionary fiscal and monetary policy (e.g., tax cuts and increasing the money supply) damping down cyclical fluctuations in the economy.

The seriousness of the December 1973-May 1975 recession, as reflected in the high unemployment rate and the decrease in real Gross National Product, provides an opportunity to reconsider the relationship existing between regions and between one region and the national economy.

If tentatively accepted that earlier studies have some relevance to the present, they make some observations that appear appropriate. Isard argues that "a development policy for a region should consider the cyclical implications of such a policy. Other things being equal, it is generally more desirable to develop an industrial mix whose cyclical tendencies tend to balance out or at least do not intensify each other" [3, p. 183]. This is not automatically guaranteed by diversification (a rural economy which has both agricultural and industrial enterprise might be considered diverse by some agricultural economists).

Thus, Isard quotes a 1946 study by Kidner comparing cyclical fluctuations of the state of California and of the United States to the effect that "mere diversification . . . is no guarantee of stability. The relevant question has to do with the particular composition of industrial activity in the region

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covered. Particular types of specialization might yield better promise of stability than a random diversification" [3, p. 187, footnote 11].

Using frequency distributions of annual income payments by states (expressed as percentage gains or losses relative to income payments in year preceding), Vining tentatively finds that "sparsely settled states in the South, Southwest, Great Plains, and Rocky Mountain regions that specialize so predominantly in the agriculture and mineral raw materials . . . (that is those) . . . parts of an economy specializing in the upper (primary) stages of the structure of production appear to be the first to experience the slowing down of the rate of contraction and of the rate of expansion, and they seem to experience more rapid changes in income than appears to be the case with the parts of the economy specializing in the lower or deeper (secondary and tertiary) stages" [8, p. 208]. Vining labelled these findings tentative, suggesting that a regional time sequence or pattern exists.

By using cross-sectional data for two periods, to form a dependent variable—the increase in the unemployment rate between December 1973 and May 1975—Gardner does not allow the possibility of a regional time pattern [4]. Vining also recognized the inadequacy of employing states as regional units. He attempted to consolidate states to form more meaningful units by grouping geographically contiguous states. Gardner, in his third question using percentage change in unemployment as the dependent variable, makes a similar attempt by using a dummy variable for ten Southern states.

Borts' 1960 article lists six principal conclusions. Two of these seem relevant to this paper. First, in (business) cycles with strong contractions, there is a well-marked pattern of transmission of cyclical impulses among and within states. Second, states experiencing retardation in growth relative to other states, tend to show cyclical swings in manufacturing employment larger than those of others [3, p. 152].

The first conclusion is, in part, explained by this quote: "In terms of industrial composition, the most variable states are characterized by a high proportion of durable-goods manufacture, specially transportation equipment (e.g., automobiles) primary and fabricated metal products, machinery and lumber. The least variable states are characterized by non-durable manufactures: textiles, shoe apparel, tobacco, and food products" [3, p. 158].

It is not being argued here that these earlier works are valid for the 1973-1975 recession, but rather that hypotheses advanced and tentative conclusions reached provide a useful frame of reference for analysis of the 1973-1975 period. Relevant changes that have taken place since the 1950s include increased non-farm jobs in non-metro areas, in conjunction with a process of industrial decentralization, which has placed factories in non-metropolitan areas.

During the 50s and 60s many rural areas lost population to the metro areas. However, Calvin Beale has pointed out that "vast rural-to-urban migration of people that was the common pattern of U.S. population movement in the decades after World War II has been halted and, on balance, even reversed. During 1970-1973, non-metropolitan areas gained 4.2 percent in population compared to only 2.9 percent for metro areas" [2, p. 3].

"From 1962 through 1969, half of all U.S. non-metro job growth was in manufacturing . . . (and) . . . although growth of manufacturing has been a centerpiece of the revival of non-metropolitan population retention, the recent reversal of population trends has not been focused in areas already heavily dependent on manufacturing. Growth of jobs in trade and other non-good producing (tertiary) sectors has now come to the fore" [2, p. 9].

By 1973, then, non-metro areas had undergone much change compared to twenty years earlier. In addition, in the winter of 1973-1974, shortages of petroleum products were occurring or were considered likely to occur. Fortunately, severe shortages did not happen, although one study done in Arkansas showed that if they had, thirty-seven communities—eleven of them with a population of less than 2,500—would be very vulnerable. This last point is made to reinforce Gardner's point that the 1973-1975 recession was not a "typical" post-World War II recession.

The first part of Gardner's paper looked at all post-World War II recessions and showed, both graphically and using two time series regressions, that real non-farm income of farm operator households per capita, and real farm income per capita are apparently unrelated to those years in which the recessions ended. These are national data. It is possible, in some rural economies during one or more of the recessions, real non-farm income of farm operator households, per capita, did fall by a measurable amount.

The second part of the paper seems to have more potential, even though it uses cross-sectional data and ignores the time dimension of business cycles. Also, it uses states as the unit of measurement which, unsatisfactorily characterizes a rural economy. But it is this part of the paper in which some interesting questions can be discussed.

An article in the Appalachian Regional Commissions magazine, *Appalachia*, suggested the region's population reversal was in part attributable to the "big unemployment rates and high housing costs in larger metro areas of the North, which had previously

attracted Appalachian migrants" [6, p. 102]. Does this mean that there were more chances of getting a job in Appalachia than in Detroit? Does it mean that other factors are important—such as a "substantial increase in social welfare payments," another reason also cited in the *Appalachia* article? Another question might be in terms of employment changes in non-metro and metro areas. Data indicate that between November 1973 and November 1974 (the period closest to the recessionary period used by Gardner), there was an increase of 56,800 jobs in non-metro areas and 167,800 jobs in metro areas. This represents an identical 0.3 percent increase in both areas.

However, in the non-metro areas manufacturing jobs declined 289,400, a five percent decline. In metro areas manufacturing jobs declined 381,900, a smaller 2.6 percent decline [7]. Does this mean that the manufacturing sector in non-metro areas has been affected more negatively than in the metro areas?

Equations used by Gardner in this part of the paper all have the obvious drawback of using data only for the rural-farm population. A quick check shows that 82 percent of all rural residents in Arkansas are rural non-farm residents. In Alabama, the corresponding percentage is 89 percent [11]. I also disagree with Gardner when he states that "if the 'rurality' of a state makes a difference in the state's experience in recession it would presumably be because in a rural area a worker can reallocate time to self-employment rather than becoming an unemployed member of the labor force" [4, p. 110]. Surely a more likely explanation would be in terms of differences in industrial composition associated with rurality, and/or the difference in the size and age of firms (this latter point is embodied in the beginning of Gardner's third hypothesis).

Some confusion is generated by the use of three equations whose statistical characters are not adequately explained. Also, a choice is never really made between the equation with off-farm wages-rurality interaction terms (equation 2) and the following equation (3), which includes that interaction term and then adds a dummy variable for ten Southern states.

A last thought is that one useful comparison is between an industrialized and an unindustrialized area. However, relative prices and other relevant signals seem to be bringing about geographical movement in resources. These things suggest that an even more interesting comparison would be between an industrialized rural economy and an industrialized urban economy.

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