

Policy Pennings by Dr. Daryll E. Ray

Agriculture dominates many rural counties contrary to USDA designations

In recent columns we have been examining USDA's designation of farm-dependent and non-farm-dependent counties. What prodded us to question their criteria is the USDA map which shows that only one county in Tennessee is marked as farm-dependent. We also noted that most of the counties in the Triple-I states (Iowa, Illinois, and Indiana) did not show up as farm-dependent even though the Triple-I states form the core of the highly agriculturally-intensive corn/soybean belt.

To provide a reality check, we had a couple of colleagues, agricultural economics professor Burt English and research associate Jamey Menard, use an input-output model (IMPLAN) to quantify the total 2003 economic activity generated by agricultural activities in 21 west-most counties in Tennessee—each of which was designated as non-farm-dependent using the USDA's criteria.

Using USDA-study rules, farm-dependency requires clearing one of two thresholds: farm earnings must account for an annual average of 15 percent or more of total county earnings during 1998-2000 or farm occupations must account for 15 percent or more of all occupations of employed county residents in 2000.

The USDA definition only counts persons in "farm occupations," a category that ignores businesses like fertilizer plants, grain elevators, feed mills, and farm implement dealerships. Arguably these folks are just as dependent on farming for their livelihood as a tractor driver in a farm field. For that reason our colleagues use the broader categories of primary agriculture, secondary agriculture, and agricultural inputs as agriculturally related occupations.

The two methodologies give strikingly different results.

Using the broader definition, the entire 21 county region is agriculturally dependent if 15% of the value of economic activity is taken as the boundary between farm- and non-farm-dependent. The percentage is 15.2 for the region, which includes the city of Memphis. In contrast, not even the most agriculturally intense county in the region made the farm-dependent definition of USDA.

9 of the 21 counties were agriculturally dependent using our colleagues' broader definition and the 15 percent cutoff. In three of the counties, agriculture represented over 40% of the economic activity—65 percent in one of those counties.

Another measure of industrial impact that county development directors often use is employment—how many jobs will the new industry bring to the county. The IMPLAN model used by English and Menard counts employment on the basis of the number of jobs on the first week in

March 2003. One caution in interpreting the data is that the number is the total number of jobs, both full- and part-time and not full-time equivalents. USDA also used employment as one of their measures, but limited it to "farm occupations." Again we looked at jobs not only in primary agriculture but also in secondary agriculture and in agricultural inputs.

When the broader measure of agriculturally related employment is used, employment in 16 of 21 West Tennessee counties exceeded the 15 percent threshold, with two of those counties reporting ag employment in excess of 40 percent, figure 1. At the regional level, agriculturally-related employment was 11.6 percent of the total regional employment including Memphis. Excluding Shelby County (Memphis), agriculturally related jobs accounted for 25.6 percent of all jobs in the remaining 20 counties.

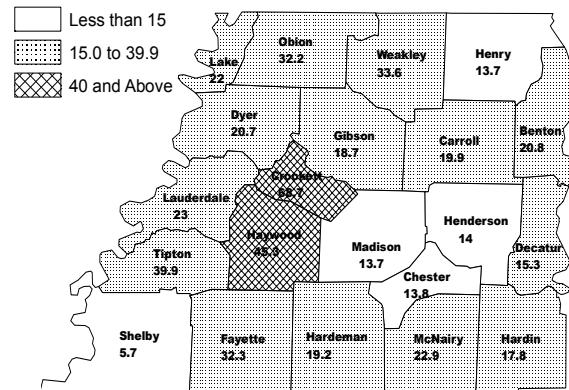


Figure 1. West Tennessee agriculturally-dependent counties, 2003, using agriculturally related employment as a criteria. The percentage of jobs resulting from agricultural activities is derived from an IMPLAN model using 2003 data for 21 West Tennessee counties. Counties were determined to be agriculturally-dependent if 15 percent or more of the number of jobs results from primary agriculture, secondary agriculture and agricultural inputs.

Yes, non-agricultural economic activity has become an increasing component of rural counties.

However, if the computations for the West Tennessee counties are any indication, agriculture's influence on rural county economic well-being remains substantial. In West Tennessee, and likely in many other parts of the country where agricultural activity is relatively intense, agriculture is the dominant root source of income and employment in a large share of the individual counties.

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