

Economics and Marketing

Hiren Bhavsar
Section Editor

Utilization of Part-time and Temporary Labor in the Tennessee Nursery Industry
Enefiok Ekanem and Mary Mafuyai

Tennessee State University
3500 John Merritt Blvd., Nashville, TN 37209

eekanem@tnstate.edu

Index Words Tennessee nursery and greenhouse industry, part-time and full-time labor

Significance to Industry According to the 2012 Census of Agriculture, Tennessee's nursery, greenhouse, floriculture and sod generated sales of \$295 million to the state's economy. This sector ranked 4th in terms of total value of sales, making up about 8.2% of the value of total sales. Crops, including nursery and greenhouse crops showed a total value of sales of approximately \$2.09 billion in 2012 from 20,000 farms in Tennessee. Although hired farm workers constitute less than 1% of all U.S. wage and salaried workers, they play an important role in U.S. agriculture. Wages, salaries, and contract labor expenditures represent approximately 17% of total variable farm costs and as much as 40% of costs in labor-intensive crops such as fruit, vegetables, and nursery products (USDA/ERS, 2016). Hired farm workers include field crop workers, nursery workers, livestock workers, farmworker supervisors, and hired farm managers. Some employment estimates may include on-farm support personnel, and service workers brought to farms by special contractors.

The average number of hired farmworkers has steadily declined from approximately 3.4 million to about 1 million, over the last century. According to the Farm Labor Survey (FLS), annual average hired farm labor employment (including agricultural service workers) decreased from 1.142 million in 1990 to 1.032 million in 2007 dropping further down to 1.063 million in 2012. (Figure1).

Approximately 575,000 positions were full-year in 2009 while 199,000 were part-year positions in 2012. Calculating the ratio of part-year to full-year positions, part-year positions represented about 34% of all hired farm worker positions in the U.S. Using household rather than farm labor survey, the Current Population Survey (CPS) estimated the average hired farm employment at 787,000, a number closer to the FLS estimate of 775,000 excluding agricultural service workers.

Results and Discussion As in the broader agricultural sector, employment in the nursery, greenhouse and the floriculture sub-sector is highly seasonal. About 56% of all hired farm workers work in crop agriculture (USDA, 2016) For the purpose of this paper, farm workers employed for less than 150 days a year are considered part-time while those employed for 150 days or more per year are considered full-time. In Tennessee, about 12,574 farms had 32,739 workers working less than 150 days a year. Approximately 4,323 farms had 9,998 workers working 150 days or more (USDA, 2012). A total of 15,071 farms (6%) reported hiring 42,737 workers for \$252,642,000 in payroll. In 2012, there were 68,050 farms in Tennessee.

In May 2016, an average of 480 to 780 people were employed as farm workers and laborers in the crop, nursery and greenhouse sector in Tennessee, according to the Bureau of Labor Statistics (Figure 2). Using these figures as average monthly employment in 2016, the total average annual employment in crops, nursery and greenhouse sub-sector in Tennessee would equal 5,760 to 9,360. While it is difficult to estimate the exact number of workers in the Tennessee greenhouse and nursery crop industry, it is reasonable to assume that the number of workers will show a downward trend as witnessed in the last century for U.S. agricultural farm workers. As noted earlier in this paper, part-time workers continue to play an important role in U.S. agricultural workforce. This should be equally true for the nursery and greenhouse sector in Tennessee. Based on approximately 34:66 ratio of part-time to full-time employment of farm workers in the agricultural sector, it can be estimated that crops, nursery and greenhouse will employ an average of 2,016 to 3,182 part-time workers per year in Tennessee. A more detailed primary data could provide better estimates of part-time and full-time utilization of labor in the nursery, greenhouse and floriculture industry in Tennessee. Primary data would make it possible to separate employment in the different agricultural sub-sectors of interest.

Literature Cited

1. USDA, Economic Research Service. 2016. Farm Labor. Available at: <https://www.ers.usda.gov/topics/farm-economy/farm-labor/background/>
2. USDA, National Agricultural Statistics Service. 2016. State Agricultural Overview, Tennessee. Available at: https://www.nass.usda.gov/Quick_Stats/Ag_Overview/stateOverview.php?state=TENNESSEE . Washington, D.C.
3. United States Department of Agriculture, Census of Agriculture (2012) Hired Farm Labor – Workers and Payroll, State Level Data, Volume 1, Chapter 2. Available at https://www.agcensus.usda.gov/Publications/2012/Full_Report/Volume_1,_Chapter_2_US_StateLevel/st99_2_007_007.pdf

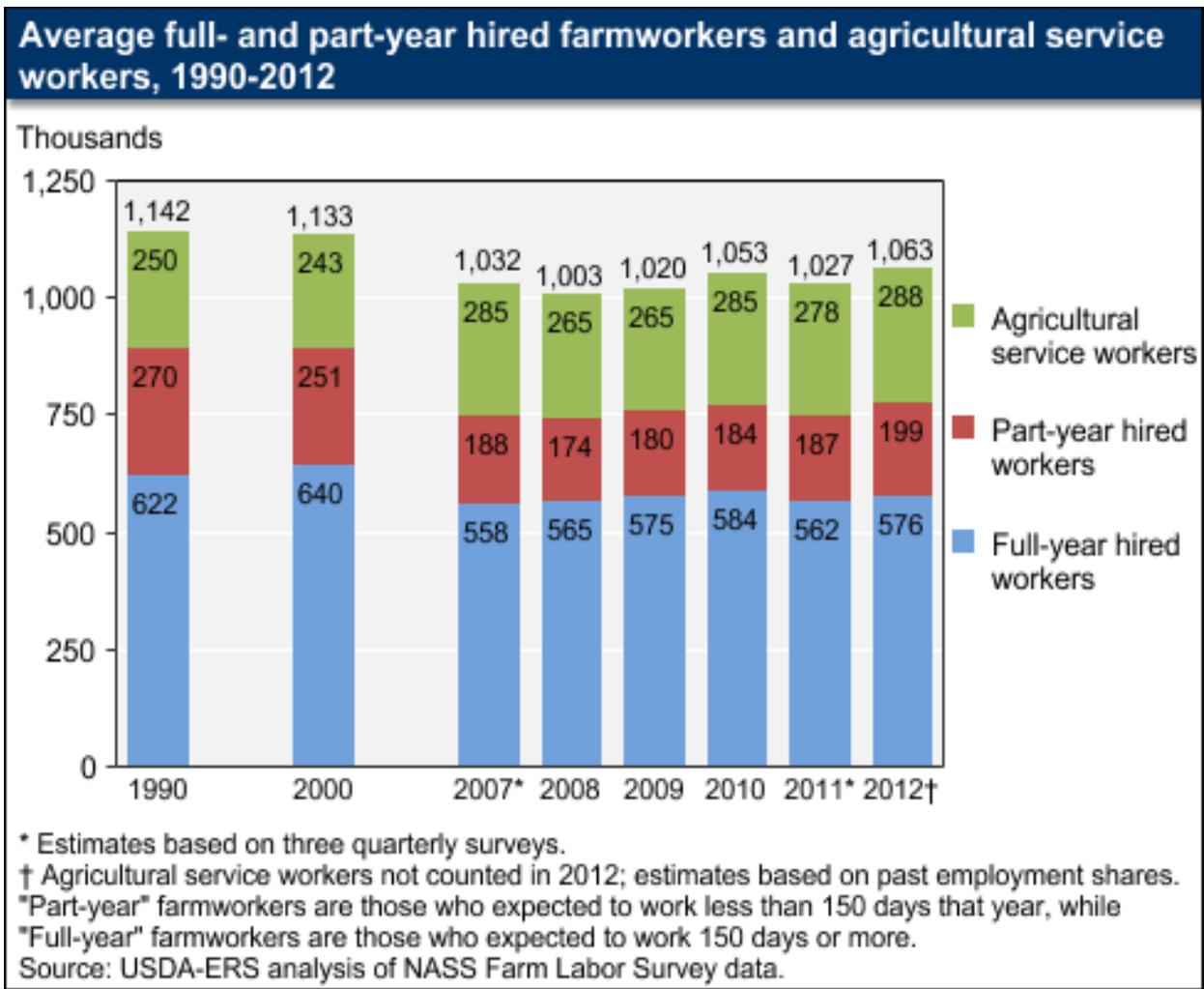


Figure 1: Average full-year and part-year hired farm workers and agricultural service workers, 1990-2012

