# Comparing Food Sector Employment Headcount and Sales Data in the National Establishment Time Series Database to Federal Data

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What Is the Issue

Interest in understanding the dynamics of the food environment is growing, due to the link with overall diet quality and health, an increase in mergers and acquisitions of food establishments, and the importance of employment and sales in the food industry. To facilitate research on these growing areas, USDA, Economic Research Service (ERS) invested in the National Establishment Time Series (NETS) Database, which provides time-series data on establishments across all sectors, including grocery stores and food service outlets. NETS provides annual information such as geographic locations, employment headcount, and total sales for each establishment across the United States.

This study compares NETS employment headcount with the U.S. Census Bureau's County Business Patterns (CBP) at the national and State levels and compares NETS sales with the Food Expenditure Series (FES) at the national level over time. CBP provides information about U.S. business establishments, including the number of establishments, number of employees, and industry type, using the North American Industry Classification System (NAICS), aggregated at the county level every year; however, CBP does not contain sales data. FES provides the most comprehensive measure of the value of food sales in the United States for different types of food retailers every year; however, FES is limited to the national level. By providing both sales and employee information on an annual basis, NETS enables researchers to study the changing food sector and environment in detail and address key research questions for which CBP or FES are not equipped.
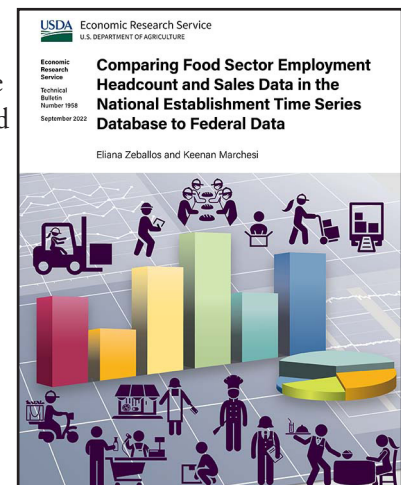
ERS is a primary source of economic research and analysis from the U.S. Department of Agriculture, providing timely information on economic and policy issues related to agriculture, food, the environment, and rural America.

What Did the Study Find?

- NETS is comparable with CBP in terms of employment—showing similar trends at the national and State levels for the largest sectors of food-at-home (FAH) and food-away-from-home (FAFH) retailers, such as grocery stores and restaurants.

  ○ CBP reports higher employment levels for most of the sample period for both FAH and FAFH, with differences never more than 13 percent.

- Results show that NETS is capturing more small establishments (five or fewer employees) than the CBP.

- Findings show that NETS sales trends are lower compared with FES sales trends for the food sector.

  ○ For FAH, results show that the percent difference between NETS and FES increased over time from less than 10 percent in the early 2000s to almost 30 percent in 2019.

  ○ For FAFH, results show a similar pattern with the percent difference increasing from less than 10 percent in the early 2000s to almost 50 percent in 2019.

- The report thus calculates new NETS sales information using a sales-per-employee ratio. The resulting estimates follow similar patterns and trends as FES and allows food industry researchers using NETS to better capture the local food environment's dynamics over time.

  ○ For FAH, the newly estimated NETS sales are higher than FES sales but the difference is never larger than 10 percent, and by 2019 is 3 percent.

  ○ For FAFH, the newly estimated NETS sales data are about 7 percent below FES in 1997, but the gap narrows to zero in 2012, and by 2019, the newly estimated NETS sales are 8 percent higher than FES.

How Was the Study Conducted?

To obtain a complete picture of the food sector information in NETS, the dataset was compared with CBP for employment at various geographies—State and national—and with FES for sales information at the national level. A sales-per-employee ratio was constructed at the State level using the last five rounds of the Economic Census (EC), which is a complete enumeration of all known employer establishments collected every 5 years, and applied this ratio to NETS using the number of employees to calculate new estimates for sales. By comparing the NETS database to these official datasets whenever available—spatially or temporally—a baseline understanding was created of how NETS estimates compare with Federal estimates for employment and sales.