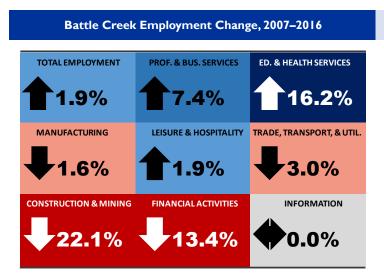
## BATTLE CREEK MSA

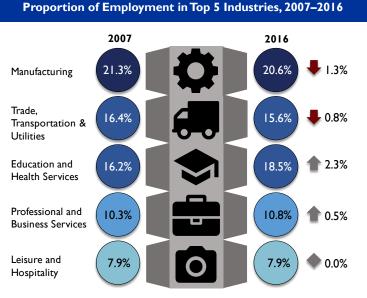
Battle Creek has largely recovered from the Great Recession: from 2007 to 2016, employment in the Battle Creek area grew by 1.9 percent, or 1,100 persons. That's a significant boost from the trough of the recession, which occurred in mid-2009, when Battle Creek had lost 5,500 workers. However, not every industry has regained employment losses. The construction industry is 22 percent below 2007 employment and the financial sector is down 13 percent. Balancing out losses from those two industries is the education and health services industry, which gained 16 percent. While not shown in the figure, durable goods employment is above the 2007 level, but nondurable goods is below.



Education and health services buoyed Battle Creek employment, while construction and financial activities dragged it down. Overall, the area came out ahead.

SOURCE: Bureau of Labor Statistics, Current Employment Statistics.

The composition of employment has shifted slightly in Battle Creek. Some of the biggest industries have contracted as a proportion of total employment. Manufacturing remains the largest industry, at 20.6 percent of employment, but it has fallen 0.7 points from 2007. Trade, transportation, and utilities employment is down by 0.8 percent.



SOURCE: Bureau of Labor Statistics, Current Employment Statistics.

Slight changes to the mix of industry employment in the Battle Creek area show manufacturing and trade yielding 0.7 and 0.8 percent share, respectively, while the education and health services sector picks up 2.3 percent and professional and business services 0.5 percent.

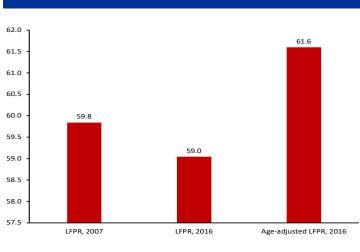


The new housing starts are markedly different for Battle Creek from those of the other parts of west Michigan: they are consistently high until the onset of the Great Recession, then they plummet and never recover.

The blue bars in the figure show average new housing starts per month in the Battle Creek MSA, as compiled by Dodge Data and Analytics. The figure's red line shows the home purchase price index from the Federal Housing Finance Agency (FHFA). The pace of construction from 2000 to 2006 was just under 30 units per month. During the same period, the price index was at 159, meaning prices were 59 percent above their level in 1995. In 2007, just as the recession was looming, the pace of construction was similar, and the price index had increased to 176 because of the housing bubble. In 2008, with the bursting of the bubble, new home construction dropped to single digits per month and has not recovered. Prices fell through 2011 and flattened until 2015, but rising prices in the most recent years have not been enough to spur new construction.

In previous issues of *Business Outlook*, we looked into labor-force participation, meaning the percentage of individuals employed or unemployed in the whole population 16 and over, and the effects of the aging workforce. In this issue, we examine the *relationship* of these two elements—in other words, the effect that the aging of the workforce has had on the labor-force participation rate. We accomplish this by using an age-adjusted rate.

The age-adjusted labor-force participation rate replaces the age distribution in 2016 with that of 2007, while still using the labor-force rates for each age cohort in 2016. In Battle Creek, labor-force participation fell from 59.8 in 2007 to 59.0 in 2016. However, if the age distribution had remained the same, the labor-force participation rate would have risen to 61.6, suggesting that the declining labor force is due to an aging population.



Labor-Force Rates-2007, 2016, and Age-Adjusted 2016

SOURCE: U.S. Census American Community Survey (ACS).

Battle Creek's age-adjusted labor-force participation rate increased nearly two points from the unadjusted 2007 rate when the 2007 population distribution was substituted for the 2016 distribution. This may indicate that Battle Creek's workforce was a bit older than those of other MSAs.