

Massachusetts Industry Staffing Pattern

Technical Notes

The Massachusetts Department of Unemployment Assistance has produced occupational employment and wage industry staffing pattern data for the Commonwealth and for the 16 Workforce Development Areas (WDA's) for May 2020. The biannual survey is conducted over a three-year period. A complete set of technical notes for the OEWS survey is available on the BLS website at [Technical Notes for May 2020 OEWS Estimates](#).

Publication Criteria

Only industries with employment levels of 1,000 or higher are published. For the published industries, only occupations with employment of 50 or more are published. Occupations with employment from 50 to 90 are published with an employment relative standard error of less than 35 percent. The rest of the published occupations of 100 or more are published with an employment relative standard error up to 50 percent.

Classification of Industries

The occupational data produced uses definitions of industries found in the 2017 North American Industry Classification System (NAICS). The [NAICS structure](#) makes it possible to collect and calculate establishment data by broad industrial Sectors (labeled 11 through 92), Sub-sectors (the 3digit NAICS levels).

Industry-specific estimates are calculated with data collected from establishments in a particular industry. Industry-specific occupational employment estimates estimate the number of people employed in that occupation in a particular industry. Similarly, the industry-specific occupational wage estimates are calculated with data from establishments in one particular industry. Since different industries employ people in different occupations, the occupations in the staffing pattern for one industry will not be the same as the occupations in the staffing pattern for another industry.

Changes and Special Procedures in the May 2020 Estimates

Due to features of the OEWS methodology, the May 2020 estimates do not fully reflect the impact of the COVID-19 pandemic. Because five of the six survey panels used to produce the estimates date from before the COVID-19 pandemic, only the most recent (May 2020) survey panel will reflect changes in occupational proportions related to the pandemic.

In addition, because the OEWS employment estimates are benchmarked to the average of QCEW employment for November 2019 and May 2020, the estimates will reflect only part of the pandemic's impact on employment as of May 2020. Although the May 2020 QCEW data reflect the early employment effects of the COVID-19 pandemic, the November 2019 QCEW employment data precede the COVID-19 pandemic, and therefore do not reflect its impact. As a result of the pandemic, response rates for the November 2019 and May 2020 panels were lower in some areas. Lower response rates may negatively affect data availability and data quality.

For more information about the impact of the COVID-19 pandemic on OEWS, see the [OEWS COVID-19 impact statement](#).

Classification of Occupations

With the May 2019 estimates, the OEWS program has begun implementing the 2018 Standard Occupational Classification (SOC) system. OEWS estimates are calculated from six panels of survey data collected over three years. Because the May 2019 estimates are based on a combination of survey data collected using the 2010 SOC and survey data collected using the 2018 SOC, these estimates use a hybrid of the two classification systems that contains some combinations of occupations that are not found in either the 2010 or 2018 SOC. These combinations may include occupations from more than one 2018 SOC minor group or broad occupation. Therefore, OEWS will not publish data for some 2018 SOC minor groups and broad occupations in the May 2019 estimates. There are approximately 800 SOC occupations. The SOC structure and definitions can be found on the Bureau of Labor Statistics website at [Standard Occupational Classification \(SOC\) System](#).

Published Data Fields

Employment represents the estimate of total wage and salary employment in an occupation across the industries in which it was surveyed. Employment data are rounded to the nearest 10th.

Percent of Total Employment is the percent of total industry employment.

Employment RSE is the Relative Standard Error of the employment estimates, a measure of the reliability or precision of the employment estimates. The relative standard error is defined as the ratio of the standard error to the survey estimate. For example, a relative standard error of 10 percent implies that the standard error is one-tenth as large as the survey estimate.

Mean Wage is the estimated total wages for an occupation divided by its weighted survey employment. The wage is provided for hourly and annual wage rates. (Wages are defined as straight-time gross pay, exclusive of premium pay. Included are base rate, cost-of-living allowances, guaranteed pay, hazardous duty pay, tips, incentive pay including commissions and production bonuses, and on-call pay. Excluded are back pay, jury duty pay, overtime pay, severance pay, shift differentials, nonproduction bonuses, and tuition reimbursements).

Most employees are paid at an hourly rate by their employers and may work less than or more than 40 hours per week. The Mean Annual Wage is calculated by multiplying the mean hourly wage by a "year-round, full-time" hour's figure of 2,080 hours per year (52 weeks by 40 hours). Thus, the annual wage estimates may not represent the actual annual pay received by the employee.

Median Wage estimate is the boundary between the highest paid 50% and the lowest paid 50% of workers in that occupation. Half of the workers in a given occupation earn more than the median wage, and half the workers earn less than the median wage.

Entry Wage is defined as the mean of the lower third of the population.

Experienced Wage is defined as the mean of the upper two-thirds of the population.