The pandemic has had many impacts on the labor market. The most prominent was the sharp job loss in the spring of 2020 and the yearlong recovery that has followed. The impact has been quite different across sectors of the economy, by gender, and in which types of jobs were able to transition to remote work. It also has impacted workers differently by level of educational attainment, which is the focus of this article.

The U.S. Census Bureau’s Quarterly Workforce Indicators (QWI) provide information on jobs by educational attainment for workers age 25 and over. It does not provide that information for younger workers because many have not yet completed their high school or college education. At 17.6 percent, workers under 25 experienced the sharpest job reduction in the year between the third quarter of 2019 (before the pandemic) and the third quarter of 2020.

Among those age 25 and over, the number of jobs was down ten percent for those who had not attained a diploma, 9.5 percent for those with a high school diploma or equivalent, 8.7 percent for those with some college or an associate’s degree, and 7.4 percent for those with a bachelor’s degree or higher. Because young people are not included, the decreases cited for each level of education understate the total. That is especially the case for those whose highest level of attainment was a high school diploma or no diploma.
Percent change in Employment over the year by Educational Attainment

Source: Census Bureau Quarterly Workforce Indicators, data from 2001 Q1 through 2020 Q3

Though QWI data on jobs by education currently is only available through the third quarter of 2020, we can estimate the trend for the succeeding months of the recovery by applying educational staffing patterns for sectors of the economy from the year before the pandemic to payroll jobs estimates for the period through June 2021.

Since the third quarter of 2020, job gains have been concentrated in the sectors that experienced the sharpest job losses that spring, especially the leisure and hospitality, retail trade, healthcare and social assistance, educational services, and professional and business services.

Staffing in the leisure and hospitality and retail trade sectors is more concentrated among young people under 25 and those with a diploma or less than most other sectors. During the 12-month period leading up to the pandemic, more than half of workers in the leisure and hospitality and retail trade sectors were under 25 or had a high school diploma or no diploma. Staffing in healthcare and social assistance, educational services, and professional and business services is less concentrated among young people, and more concentrated among those with some college or a degree.

Through June 2021, nonfarm payroll jobs have increased by about 28,000 since the third quarter of last year. Assuming that the staffing of industries by education has not changed from the 12-month period just before the pandemic, there would be about 5,150 (7.1%) fewer jobs among those under 25, 2,100 (4.5%) fewer among those with no high school diploma, 6,350 (4%) fewer among those with a high school diploma, 6,800 (4%) fewer among those with some college or associate’s degree, and 4,800 (3.4%) fewer among those with a bachelor’s degree or higher.
The reality, though, is that the staffing composition within industries has changed in ways that we cannot yet measure. Layoffs in educational services were more likely among bus drivers, crossing guards, cafeteria workers, janitorial and maintenance staff, and others who generally have lower levels of educational attainment than teachers and administrators, who were not laid off in large numbers. Similar patterns occurred in other industries: servers and housekeepers were laid off in larger proportions than managers in restaurants and hotels, and daycare workers were laid off in larger numbers than nurses in healthcare and social assistance, etc. Though precise data is not yet available, perhaps up to two-thirds (more than 18,000) of the net decrease in jobs from before the pandemic through June 2021 has been among young people and those with a high school diploma or less.

Estimated Employment by Sector by Educational Attainment
(prior to the pandemic)

Source: Census Bureau, Quarterly Workforce Indicators 1-year Average (2019Q2-2020Q1)
Unemployment insurance claims data align with the analysis above based on payroll jobs data and pre-pandemic staffing patterns. However, unemployment insurance claims data may not capture certain labor market dynamics, for example, as young people and those with lower educational attainment may be less likely to have the work history to qualify for benefits and therefore less likely to appear in the data. As such, better-educated people may be overrepresented in claims data relative to those with less education.

The number of claimants with 4 years of college or higher decreased from 24,600 in May to just over 7,000 by October.1 Over the same period, the number of claimants with a high school diploma or less filing a continued claim decreased from about 34,000 to 15,500. While the reduction in the number of claimants with lower levels of educational attainment indicates robust labor market recovery, the recovery has not occurred as quickly for this group.

The share of the total claimant population with 4 years of college or higher quickly increased from about 15 percent to 25 percent during the early months of the pandemic. Throughout the economic recovery that followed, the share of the total claimant population with 4 years of college or higher decreased while the share of claimants with a high school diploma or no diploma continued to climb, indicating that joblessness is persisting in this group at a higher rate than those with higher levels of educational attainment.

1 It is believed that a substantial number of claims filed since the beginning of the COVID-19 pandemic involve imposter fraud and are likely included in these counts. The volume of fictitious claims filed was particularly high in May of 2020. For this analysis, we included continued unemployment insurance claims from the regular state unemployment system, state extended benefits (available during periods of high unemployment) and temporary federal unemployment programs established under the CARES Act (Pandemic Unemployment Assistance and Pandemic Emergency Unemployment Compensation).
The consequences of the pandemic have been widespread across industries and communities in Maine. Today the recovery is continuing, though some groups of workers remain more impacted than others. It is clear that the lingering effects of job loss remain most concentrated among young people and those without a college education.

All CWRI publications and presentations can be found here. Future topics include reemployment and the challenge the pandemic has made for data collection and estimation.