

An Analysis of Labor Supply and Demand in Utah

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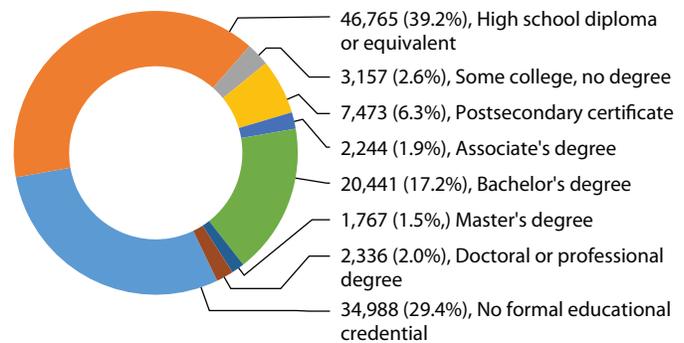
The Governor’s Office of Economic Development reports that workforce is the number one concern they hear from businesses. Firms talk of difficulty finding an adequate supply of skilled labor. Private-sector employment has grown 3.5 percent annually since 2010. Unemployment rates are at historical lows: 2.8 percent in August 2019. However, wage growth has been sluggish at best, averaging just 1.1 percentage points above inflation since 2010. A tight labor market should lead to faster wage growth as employers compete for the available supply.

Nearly 70 percent of annual job openings between now and 2026 are for occupations typically requiring at most a high school diploma; 20 percent of openings typically require a bachelor’s degree or higher.

Utah is producing a skilled workforce. Almost three-quarters, 73 percent, of “homegrown” new labor force entrants have a postsecondary certificate or higher degree; more than half have a bachelor’s degree or higher.

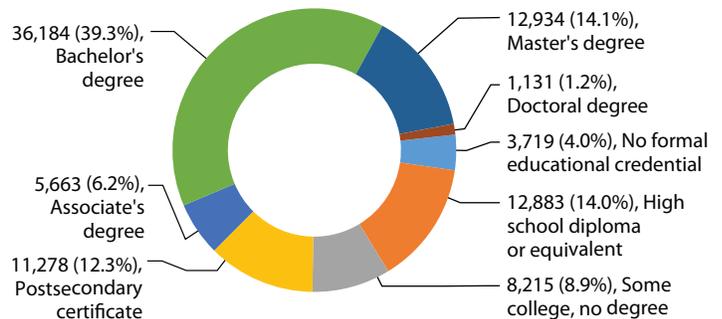
These individuals are responding to the wage premium provided by additional education. The median wage for a position requiring at least an associate’s degree is 45 percent higher than that for a position requiring a high school diploma. This premium grows with increasing education. Jobs requiring a bachelor’s degree average 60 percent higher wages than for a position requiring a high school diploma; master’s degree jobs pay 80 percent more; and Ph.D. positions pay more than double.

Annual Labor Demand by Minimum Education Level, 2016–2026



Source: Kem C. Gardner Policy Institute analysis of data from the Utah Department of Workforce Services.

Annual Labor Supply by Educational Attainment, 2016–2026



Note: Bachelor’s degrees include postbaccalaureate certificates and master’s degrees include post-master’s certificates. The skilled labor supply is derived from 2017 degree completion data. We assumed this was representative of annual supply through 2026. Source: Kem C. Gardner Policy Institute analysis of data from Utah State Board of Education and National Center for Education Statistics.

Utah Median Wage by Education Level, 2017



Source: Kem C. Gardner Policy Institute analysis of data from the Utah Department of Workforce Services.

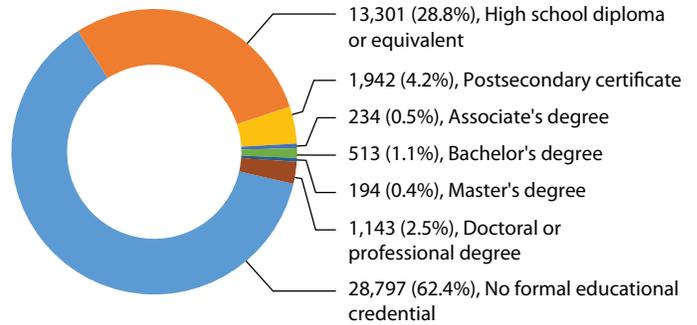
We found an expected labor shortage in Utah, with roughly two out of five jobs lacking a suitable supply. However, 90 percent of this unfilled demand is for occupations requiring at most a high school diploma. Skilled occupations, those requiring at least a certificate, account for just 9 percent of the unmet demand.

The largest skilled shortages are for truck drivers; technical and scientific product sales representatives; heating, air conditioning, and refrigeration mechanics and installers; telecommunications equipment installers and repairers; and securities, commodities, and financial services sales agents.

Many new graduates may have difficulty finding jobs for which they are well prepared. Our analysis matched graduates to job openings for which their degrees directly prepared them. This left a large surplus of unmatched supply, so we relaxed our criteria and allowed overqualified graduates to take jobs that required a lower level of education than they had obtained. We also assigned some of our unmatched supply to occupations for which they were not directly prepared, but which were in the same group of occupations. Nonetheless, we were unable to match more than one-third of postsecondary graduates to suitable jobs.

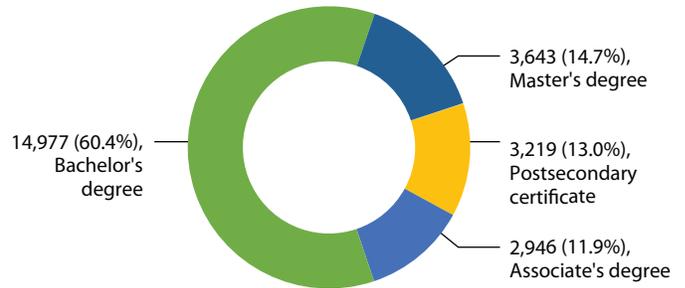
This analysis is based on Utah Department of Workforce Services 2016–2026 occupational employment projections (for labor demand) and high school graduation rates from the Utah State Board of Education plus postsecondary completions from the National Center for Education Statistics (for new labor supply). Individual occupations have an associated typical entry-level education requirement. Our process for assigning postsecondary graduates or “completers” to job openings was based on a crosswalk linking higher education degree fields to occupations for which those majors “directly prepare” individuals. We incorporated some flexibility to permit matches of “overqualified” graduates to jobs, and graduates who were not “directly prepared” for particular occupations. Nonetheless, our analysis does not capture the full dynamism of labor markets and the often unusual employment trajectories that individuals follow.

Potential Annual Unfilled Demand by Minimum Education Level, 2016–2026



Source: Kem C. Gardner Policy Institute analysis of data from the Utah Department of Workforce Services, Utah State Board of Education, National Center for Education Statistics, U.S. Census Bureau American Community Survey, and Utah Population Committee.

Potential Annual Unmatched Supply by Educational Attainment, 2016–2026



Source: Kem C. Gardner Policy Institute analysis of data from the Utah Department of Workforce Services, Utah State Board of Education, National Center for Education Statistics, U.S. Census Bureau American Community Survey, and Utah Population Committee.

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