

Employment Projections and Job Openings in Construction

Construction employment is expected to grow by 1.84 million wage-and-salary jobs, or 33%, between 2010 and 2020, according to the employment projections generated biennially by the U.S. Bureau of Labor Statistics (BLS).¹ The growth rate in construction is one of the highest of all industries, with more than double the 14% growth rate projected for the overall economy. In contrast, employment in agriculture is expected to decline 6%, losing 130,000 jobs over the 10-year period (chart 32a). Despite this positive outlook, the construction industry is not expected to regain all of the jobs lost during the 2007-2009 recession (*see* page 21).¹

Within construction, employment in several occupations is expected to increase faster than the overall construction industry between 2010 and 2020. For example, brickmason employment is projected to increase by 56%, adding almost 39,000 new jobs (chart 32b); heating, air conditioning, and refrigeration mechanics and installation workers are estimated to add more than 80,000 new jobs – a growth rate of 54% – and the number of roofers is expected to increase by 21,000 or 21.5%. Overall, about 1.3 million new wage-and-salary jobs are estimated to be added to Construction and Extraction occupations (Standard Occupational Classification [SOC] code 47-0000) during the 10-year period. Additionally, employment of construction managers (SOC 11-9021) is expected to grow by 35.2%, adding about 53,000 jobs between 2010 and 2020.

In addition to the growth from new jobs, there will also be job openings due to workers retiring or leaving the industry. From 2010 to 2020, boilermakers, plumbers, drywall installers, and electricians are the four construction occupations with the highest expected replacement rates (chart 32c). In contrast to job growth, the replacement rates for workers in heating, air conditioning, and refrigeration are relatively low at about 18%. The estimates of replacement needs for specific occupations are based on age cohorts and the replacement rates in previous years.² After combining job growth and replacement needs, it is

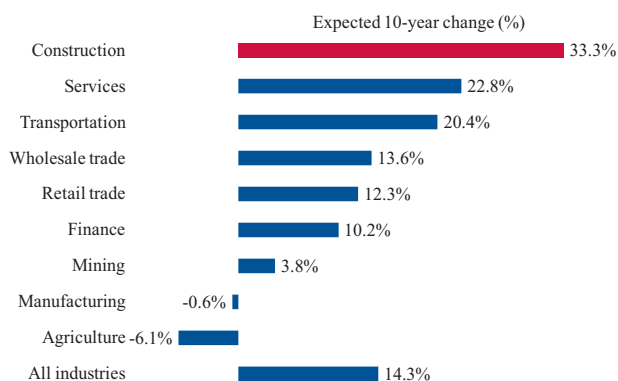
estimated that the occupations with the most job openings between 2010 and 2020 will be carpenters (408,300) and laborers (292,400; chart 32d).

In recent years, green construction and green jobs have increased dramatically (*see* pages 9 and 12). According to the current scope of green jobs and employment projections, it is estimated that almost 217,000 workers in Building Equipment Installation (NAICS 2382) will hold a green job in 2020 (chart 32e). Overall, there will be about half a million green jobs in the construction industry by 2020.

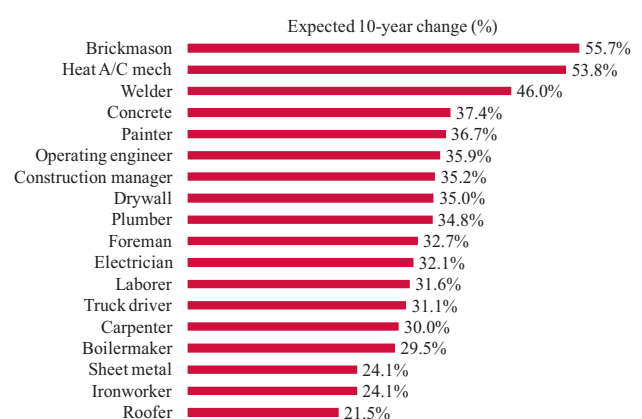
Given the number of new entrants expected in the construction industry in the next decade, and the industry's elevated separation rate (including quits, layoffs, discharges, retirements, and disabilities), there will be a high demand for training.

The Job Openings and Labor Turnover Survey (JOLTS) conducted by the BLS provides another way of tracking employment trends. The survey asks companies how many people they have hired, the number who have left their employment (separations), and the number of jobs that were unfilled at the end of the month (openings). Based on JOLTS data for the period 2001-2011, 65%–80% (about 4.1 to 5.5 million) of wage-and-salary construction workers left their employment voluntarily or involuntarily each year, much higher than 35%–50% for all nonfarm industries. Construction workers typically work for multiple employers in a year, therefore, this high number of separations is expected. The number of job openings reflects the economic cycle with the highest number (267,000) in February 2007 when construction employment was still strong, and the lowest number (21,000) in April 2009 during the recession (chart 32f). The number of job openings is an important measure of the tightness of labor markets. The lower number of job openings during recessions may represent a temporary or cyclical change, whereas higher job openings can be expected during economic recovery.

32a. Percentage of projected employment change, by industry, 2010-2020



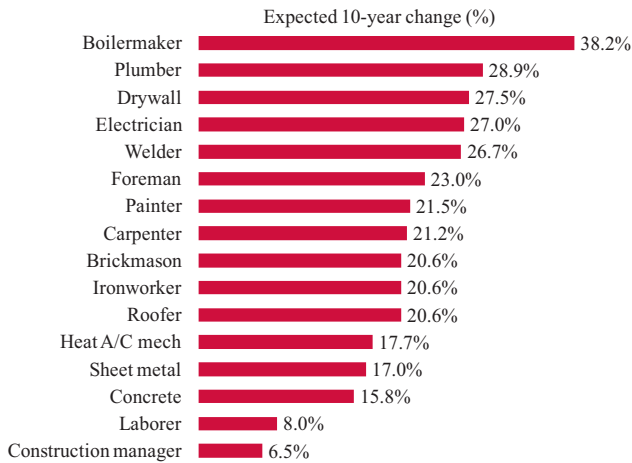
32b. Percentage of projected employment change, selected construction occupations, 2010-2020



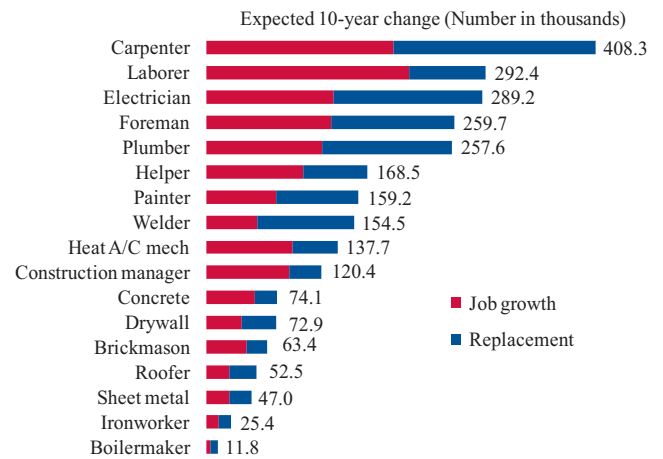
1. U.S. Bureau of Labor Statistics. *Employment Projections: 2010-2020*, <http://www.bls.gov/news.release/ecopro.nr0.htm> (Accessed February 2012).

2. U.S. Bureau of Labor Statistics. *Estimating Occupational Replacement Needs*, http://www.bls.gov/emp/ep_replacements.htm (Accessed May 2012).

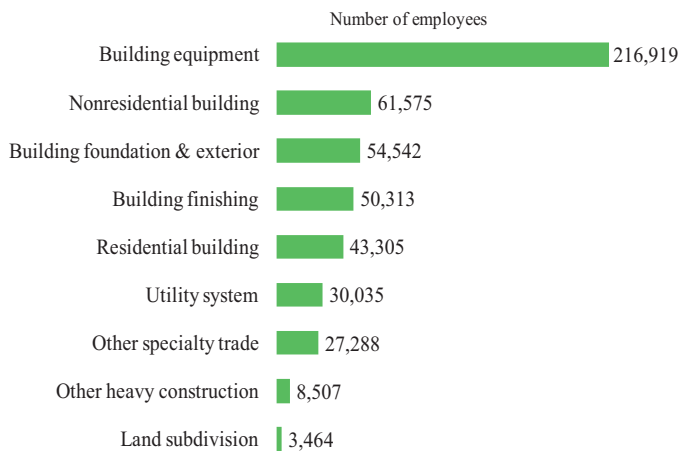
32c. Projected replacement needs, selected construction occupations, 2010-2020



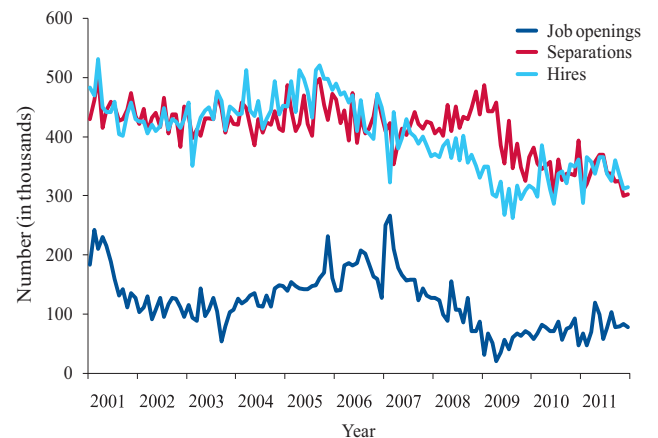
32d. Projected job growth and replacement needs, selected construction occupations, 2010-2020



32e. Projected green jobs, by construction subsector, 2010-2020



32f. Job openings, separations, and hires in construction, 2001-2011 (Seasonally adjusted)



Note: All charts - Cover wage-and-salary employment only.
 Charts 32a-32d - Employment projections include all occupations, but exclude the self-employed.
 Chart 32e - Average growth rate of construction (33.3%) was used to estimate jobs for Utility System (NAICS 2371), Building Foundation and Exterior (NAICS 2381), and Building Finishing (NAICS 2383).

Source: Chart 32a - U.S. Bureau of Labor Statistics. *Employment Projections: 2010-2020*, <http://www.bls.gov/news.release/ecopro.nr0.htm> (Accessed February 2012).
 Chart 32b - U.S. Bureau of Labor Statistics. *2010-2020 National Employment Matrix, Construction*, http://www.bls.gov/emp/ep_table_108.htm (Accessed February 2012).
 Chart 32c - U.S. Bureau of Labor Statistics. *Estimating Occupational Replacement Needs*, http://www.bls.gov/emp/ep_table_110.htm (Accessed May 2012).
 Chart 32d - U.S. Bureau of Labor Statistics. *Estimating Occupational Replacement Needs*, http://www.bls.gov/emp/ep_table_110.htm (Accessed May 2012) and *2010-2020 National Employment Matrix, Construction*, http://www.bls.gov/emp/ep_table_108.htm (Accessed February 2012). Calculations by CPWR Data Center.
 Chart 32e - U.S. Bureau of Labor Statistics. *2010-2020 National Employment Matrix, Construction*, http://www.bls.gov/emp/ep_table_108.htm (Accessed February 2012) and *Employment in Green Goods and Services - 2010*, <http://www.bls.gov/news.release/pdf/ggqcew.pdf> (Accessed October 2012). Calculations by CPWR Data Center.
 Chart 32f - U.S. Bureau of Labor Statistics. *Job Openings and Labor Turnover Survey*, <http://www.bls.gov/jlt/data.htm> (Accessed March 2012).