

Work in Progress Construction in New Hampshire



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Introduction



Construction employment in New Hampshire was up over 300 jobs from 2012 to 2013, and future employment is expected to grow by around 3,900 new jobs by the year 2022. These improvements provoke a review of the status of the Construction industry in the state.

The *Construction* industry includes all aspects of building, from a simple backyard fence to road and bridges. There are three arms of the industry:

- Construction of buildings including building of both residential and nonresidential structures;
- Heavy and civil engineering construction including construction of water and sewer lines, power and communication lines, highway, street and bridge construction and paving; and
- Specialty trade contractors including poured and precast concrete foundations and structures, structural steel, framing, masonry, roofing, glass and siding specialties, and electrical, plumbing, drywall, tile and flooring contractors.

In 2013, New Hampshire's Construction sector had 22,500 workers employed by 3,600 business establishments, accounting for 4.2 percent of private covered employment. In 2012, there were 16,780 Construction businesses without employees, representing self-employed persons and partnerships, accounting for 16.4 percent of all nonemployer establishments.

This analysis examines the *Construction* industry in New Hampshire and the impact on the state's economy. In light of expected employment growth in the industry, the supply pipeline for construction-related occupations is also explored.

Trends in New Hampshire Construction Employment ¹



In New Hampshire, the *Construction* industry employs a relatively small share of workers in covered employment. Regardless of the share, however, *Construction* employment is important for the state's economy, and is sensitive to recessionary cycles. For example, housing starts are a leading economic indicator which eventually affects employment in the industry. *Construction* employment in New Hampshire also has a distinct seasonal employment pattern. These seasonal employment changes can mask shifts in the industry's employment trends.

Rapid growth in New Hampshire Construction employment experienced in the late 1980's was partly in response to population increases of two percent or higher annually from 1984 through 1989.² Construction employment in New Hampshire peaked at 40,370 workers in August 1987.

Changes in commercial real estate tax benefits of the early 1980s, with increased early depreciation and reduced capital gains taxes upon sale, also spurred a surplus of real estate investing. Additionally, loosened collateral guidelines and flawed appraisals contributed to the boom in commercial real estate investing. In the early 1990s, when the commercial real estate boom came to an end, loan collateral values declined, and loan quality deteriorated. These circumstances contributed to the failure of many banks and funding for construction projects ceased. Construction employment in New Hampshire declined to a low of 13,249 workers in spring 1992, the lowest point since spring of 1977.

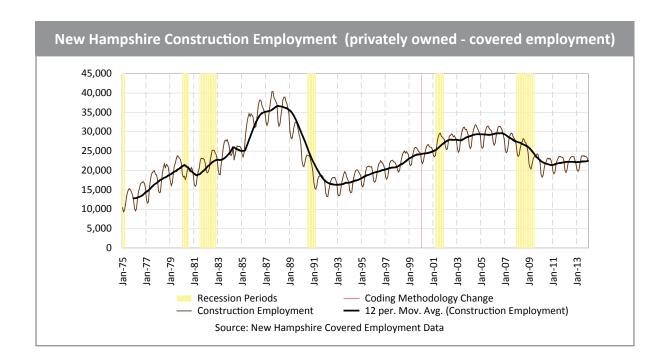
Construction employment began a gradual increase through the end of the 1990s, leveling off over the next decade. Industry employment climbed to a recent high of 31,650 workers in August 2004, which represented 5.5 percent of private employment. Starting in 2005, Construction employment dropped until March 2010, with 18,681 workers. From 2011 through 2013, the industry averaged about 22,100 workers, representing 4.2 percent of covered private employment.

Prior to 2000, industries were classified according to the Standard Industrial Classification (SIC) system. Since 2000, the North American Industrial Classification System (NAICS) has been used. The difference between the two industrial coding systems is that NAICS focuses on how products and services are created, as opposed to the SIC focus on what was produced. The change in methodology, combined with the addition of new industry sectors, made significant employment changes in many industry sectors.

After the final definitions were set and coding changes were completed, Construction was one of the few industries relatively unchanged. The minimal change allows for a comparison of employment data over a more extensive time period.

Monthly Labor Review. U.S. Department of Labor. December 2001. NAICS Employment and Wages, A first look at employment and wages using NAICS. Hiles, David.

- ². U.S. Census Bureau. Population Estimates 1970s, 1980s, and 1990s. <www.census.gov>.
- 3. Chapter 3, Commercial Real Estate and the Banking Crises of the 1980s and Early 1990s. Federal Deposit Insurance Corporation (FDIC). www.fdic.gov/bank/historical/history/137_165.pdf.

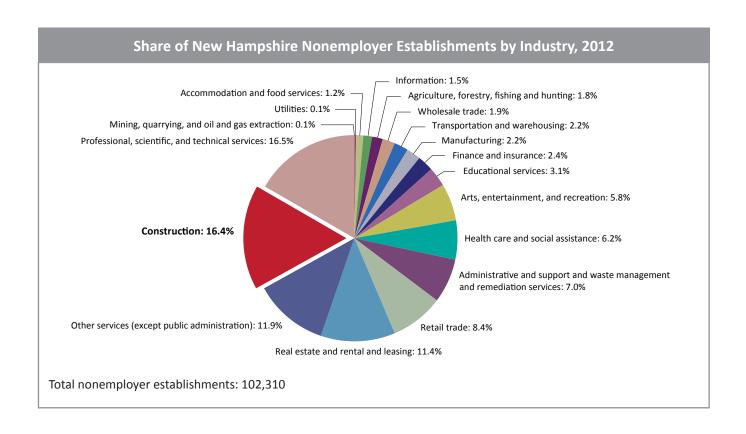


Determining who is counted in *Construction* covered employment in New Hampshire can sometimes be confusing, specifically involving workers of companies from other states. New England states are small territories and there is a high frequency of companies crossing borders for work. State law determines if a company is defined as a New Hampshire employer based on length of time the work takes and gross wages paid for employment services.⁴

^{4.} State of New Hampshire, Revised Statutes Online. CHAPTER 282-A UNEMPLOYMENT COMPENSATION. Sections 8 – 9. www.gencourt.state.nh.us/rsa/html/xxiii/282-a/282-a-mrg.htm.

New Hampshire's Nonemployer Construction Businesses

In the *Construction* industry, there are many nonemployer businesses, largely the self-employed. Self-employed workers are not included in covered employment statistics because they are not covered by unemployment insurance and do not contribute to the unemployment trust fund. In 2012, the most recent data available, over 16,780 nonemployer establishments in New Hampshire were reported as *Construction* entities. That accounted for 16.4 percent of all nonemployer establishments, the second largest share following behind the *Professional and technical services* sector, which held 16.5 percent. New Hampshire's *Construction* sector had the largest share of nonemployer establishments from 1997 through 2011, indicating that a significant number of workers in the industry are not captured in covered employment statistics.



^{5.} A nonemployer establishment represents a business tax return for which there are no paid employees. Each return is counted as a nonemployer firm and may operate from the owner's home address or a separate physical location. Nonemployer Statistics originate from tax return information of the Internal Revenue Service. The universe of this file is all firms with no paid employees or payroll with receipts of \$1,000 or more or \$1 for the Construction sector and is subject to federal income tax. Nonemployer statistics for Sector 55 – Management of companies and enterprises were not reported. For specific exclusions and inclusions, see http://www.census.gov/econ/nonemployer/methodology.htm.

There are three types of organization for nonemployer businesses. An *individual proprietorship* refers to an unincorporated business that is owned by an individual, and includes self-employed persons. A *partnership* represents an unincorporated business which is owned by two or more persons with a shared financial interest. A *corporation* is a legally incorporated business. Among Construction nonemployer establishments, 94.2 percent were sole proprietorships, compared to 88.0 percent of all nonemployer establishments in New Hampshire. The three industries with the largest number of nonemployer firms each had a similar distribution of sole proprietorships, partnerships, and corporations.

Nonemployer Businesses Establishments in New Hampshire, 2012						
	Number of Nonemployer	Corporations	Individual Proprietorships	Partnerships	Share of all nonemployer establishments	
Professional, scientific, and technical services	16,929	3.1%	93.5%	3.3%	16.5%	
Construction	16,782	2.4%	94.2%	3.5%	16.4%	
Other services (except public administration)	12,140	1.8%	95.6%	2.7%	11.9%	
Real estate and rental and leasing	11,702	11.1%	43.8%	45.1%	11.4%	

In 2012, Construction represented 4.2 percent of all covered employment at privately owned establishments in New Hampshire, ranking ninth largest in share of employment among the 19 industry sectors. Joining nonemployer estimates to covered employment figures provides a more representative distribution of industry employment.

To estimate the count of nonemployer workers based on the number of establishments, assume that each sole proprietorship or incorporated nonemployer establishment represents one worker, and that each nonemployer partnership represents two workers. This assumes that a corporation is only one worker and that a partnership is only two workers.

In Construction, the nonemployer estimates include: 583 partnerships, representing an assumed 1,166 workers, plus 396 corporations and 15,803 sole proprietor. These nonemployer estimates for employment in Construction would indicate 17,365 workers. Combining those workers with 22,156 covered employees results in an estimated 39,520 workers in Construction.

^{6.} U.S. Census Bureau. Nonemployer Statistics. Nonemployer Definitions. <www.census.gov/epcd/nonemployer/view/define.html>.

To provide a comparative ranking, the share of New Hampshire covered employment by industry was ranked. Construction held 4.2 percent of covered employment and ranked as ninth largest industry. A second comparison of industry employment was done after similar adjustments for nonemployer statistics were made to each industry. Construction then ranked as the sixth largest employing industry and held 6.2 percent of employment in the state.

Distribution of New Hampshire Industry Employment							
2012 Covered Employment	Share of Private	Rank	2012 Covered Employment + Nonemployer Estimates	Share of Private	Rank		
Retail Trade	17.9%	1	Retail Trade	16.2%	1		
Health Care and Social Assistance	16.1%	2	Health Care and Social Assistance	14.3%	2		
Manufacturing	12.5%	3	Manufacturing	10.7%	3		
Accommodation and Food Services	10.1%	4	Accommodation and Food Services	8.6%	4		
Professional and Technical Service	5.8%	5	Professional and Technical Service	7.5%	5		
Administrative and Waste Services	5.6%	6	Construction	6.2%	6		
Finance and Insurance	5.2%	7	Administrative and Waste Services	5.8%	7		
Wholesale Trade	5.1%	8	Other Services Except Public Admin	5.0%	8		
Construction	4.2%	9	Finance and Insurance	4.7%	9		
Other Services Except Public Admin	3.7%	10	Wholesale Trade	4.5%	10		
Educational Services	3.4%	11	Real Estate and Rental and Leasing	3.7%	11		
Transportation and Warehousing	2.3%	12	Educational Services	3.3%	12		
Information	2.3%	13	Arts, Entertainment, and Recreation	2.7%	13		
Arts, Entertainment, and Recreation	2.1%	14	Transportation and Warehousing	2.3%	14		
Management of Companies/Enterprises	1.5%	15	Information	2.1%	15		
Real Estate and Rental and Leasing	1.2%	16	Management of Companies/Enterprises	1.3%	16		
Utilities	0.5%	17	Agriculture/Forestry/Fishing	0.6%	17		
Agriculture/Forestry/Fishing	0.3%	18	Utilities	0.4%	18		
Mining	0.1%	19	Mining	0.1%	19		

Economic Impact of Construction



New construction projects represent potential job growth in the sector. Each construction project started creates a need for workers, such as carpenters, electricians, plumbers, and roofers. Yet, the economic effect of construction activity spreads beyond the industry itself. Along with job growth in the *Construction* sector are the secondary effects of construction activity. There will be requirements for equipment and materials for the project. Infrastructure improvements such as roads and sewer lines may be needed to accommodate the project. Banks or mortgage companies may have to provide financing of materials and equipment purchases, as well as finance the buyer of the structure. In the case of building construction, it is likely that heating and cooling systems will be installed and furnishings will be purchased. *Construction* workers themselves need fuel, groceries and housing.

Using an econometric input-output model, the effect of each new *Construction* job on the economy in New Hampshire can be estimated. The impact of each new *Construction* job created in the New Hampshire is 1.8 jobs, including the *Construction* job. For example, to estimate the impact of a project which creates ten new *Construction* jobs, multiply by 1.8 for a total impact of 18 jobs – ten *Construction* jobs plus eight jobs in other industries. A multiplier above 1.0 indicates that there will be more than just the *Construction* job created, which is a positive sign.

^{7.} CONNECT Northern New England, Economic Scenario Model, Version 2.2. FairPoint Communications.

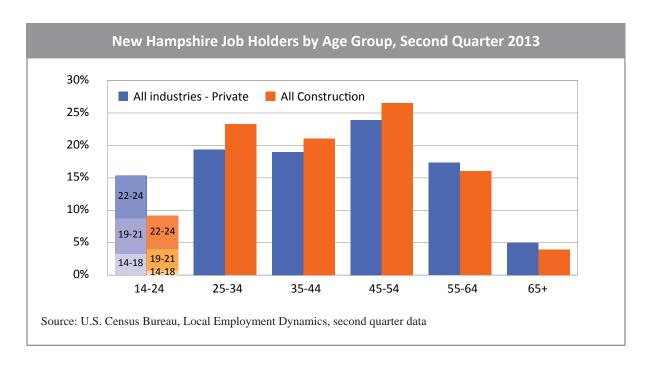
Quarterly Workforce Indicators

There are interesting differences in the age of workers in *Construction* versus other industry groups. Quarterly Workforce Indicators data provide demographic details of job holders in New Hampshire.⁸ Data used represent second quarter 2013. The second quarter is valuable because it is the peak seasonal employment quarter for the *Construction* industry.

Job Holders by Age in New Hampshire

Construction has a distinctly different distribution of job holders by age than in all private industries. Larger shares of job holders age 25 to 34 years, 35 to 44 years and 45 to 54 years were employed in the Construction industry than the average for all private industries.

Among all private industries, Construction had the third largest share of job holders age 25 to 34 years, 22.8 percent. Accommodation and food services had the largest share, 24.6 percent, followed by Administrative and support and waste management and remediation services with 23.4 percent of job holders in the age group. Construction had a larger supply of workers age 25 to 34 years than did Manufacturing and Educational services, with 15.6 percent each.



^{8.} LED Extraction Tool – Quarterly Workforce Indicators (QWI), Local Employment Dynamics. US Census Bureau. http://lehd.ces.census.gov/doc/QWI_101.pdf This is a data series established by a state partnership with the Longitudinal Employer-Household Dynamics (LEHD) program from the Census Bureau, a combination of worker and employer data that provide local labor force demographic information, such as gender, age, and educational attainment of job holders, for all 50 states, the District of Columbia, Puerto Rico, and the U.S. Virgin Islands. Quarterly workforce indicators are based on covered employment and do not include those self-employed.



The share of job holders age 55 to 64 years in Construction was 16.0 percent, compared to 17.3 percent for all industries. Accommodation and food services had the smallest share of workers age 55 to 64 years. Utilities had the largest share of older workers, with 30.0 percent of workers age 55 to 64 years.

The share of job holders age 14 to 18 years in the Construction industry was less than one percent. This is not particularly surprising, as the Occupational and Safety and Health Administration (OSHA) has strict guidelines that dictate a minimum age for workers in the industry. Workers must be at least 16 years of age. There are also restrictions on the type of jobs that workers age 16 and 17 years can perform, with limits on the types of equipment that can be used. The OSHA rules reduce job opportunities for workers in the youngest age cohort.

^{9.} US Department of Labor. Occupational Safety & Health Administration. Young Workers in Construction. <www.osha.gov/SLTC/teenworkers/residentialconstruction/general.html>.

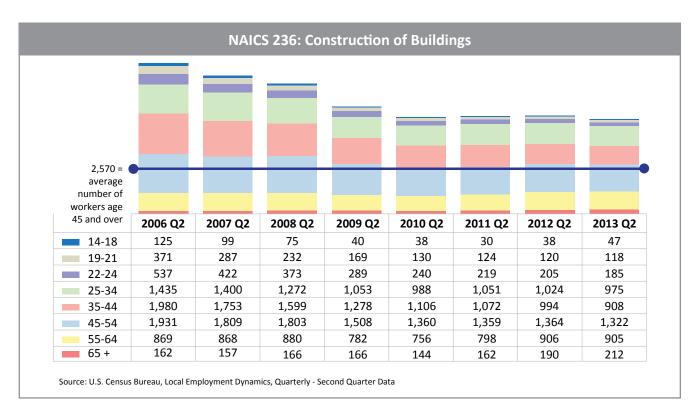
Challenges and Opportunities in Construction

Between 2006 and 2013, New Hampshire lost roughly 23 percent of covered employment in the private *Construction* sector, declining from 29,410 jobs to 22,490 jobs. Yet, over the same period, the number of workers age 45 and over remained fairly stable in all three *Construction* subsectors. The changes in overall employment levels were primarily among younger workers.¹⁰

Construction of Buildings in New Hampshire

This subsector lost a substantial number of younger workers, which has not been recovered. In second quarter 2006, 40.0 percent of jobs held in *Construction of buildings* were workers age 45 and over, with 7,400 total workers. Workers less than 35 years of age accounted for 33.3 percent of jobs.

By second quarter 2013, the number of job holders dropped to 4,670 and the share of job holders age 45 and over increased to 52.2 percent, while the share of workers under age 35 years shrank to 28.4 percent. The number of job holders age 45 and over stayed fairly stable, averaging 2,570 workers over the time period. Only about 520 of the 2,730 jobs lost from 2006 to 2013 were workers age 45 or over. The number of jobholders under age 35 years dropped from 2,468 workers in 2006 to 1,325 workers in 2013.

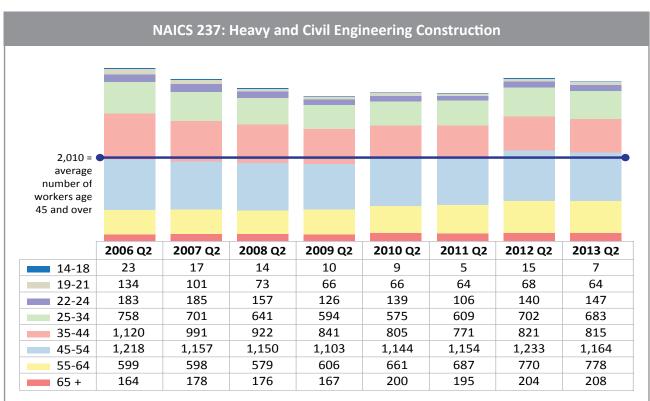


Workers by age group based on data from Quarterly Workforce Indicators, Local Employment Dynamics program, U.S. Census Bureau. Second quarter data was used for annual representation.

Heavy and Civil Engineering Construction in New Hampshire

Over time, this subsector gained job holders in the older age groups. In second quarter 2006, *Heavy and civil engineering construction* firms employed roughly 4,200 workers, of which, 47.2 percent of workers were age 45 and over, and 26.1 percent of workers were under age 35.

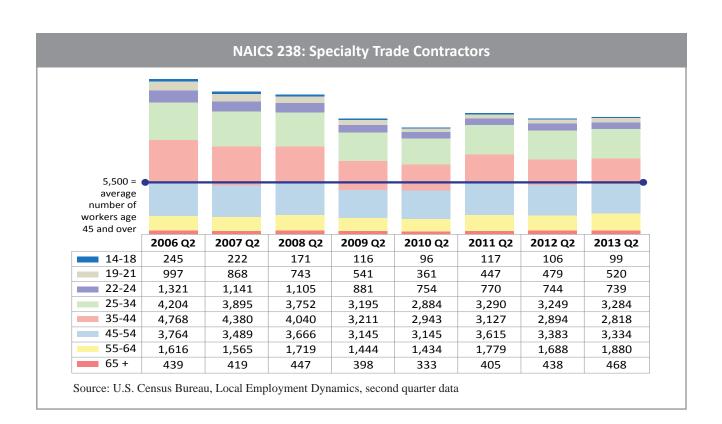
By second quarter 2013, the total number of *Heavy and civil engineering construction* jobs had dropped to under 3,900 and the share of job holders age 45 and older had increased to 55.6 percent, and the share of workers under age 35 declined to 23.3 percent. The number of job holders age 45 and over averaged 2,010 workers over the time period, increasing by about 170 workers between second quarter 2006 and second quarter 2013, while the number of job holders under age 35 decreased by almost 200 workers.



Specialty Trade Contractors in New Hampshire

Primarily it was the younger workers who lost jobs in *Specialty trade contracting* from 2006 to 2010, while the number of older workers remained stable. Recent job gains have been mostly younger workers. In second quarter 2006, *Specialty trade contracting* had about 17,350 workers. About one-third of job holders were age 45 and over, and 39.0 percent were under age 35.

By second quarter 2013, the number of job holders dropped to around 13,100 workers and the share of job holders age 45 and over had increased to over 40 percent, while the share of job holders under age 35 dropped to 35.3 percent. The number of job holders age 45 and over averaged around 5,500 workers during second quarter each year over the time period. From second quarter 2006 to 2013, the number of workers age 45 or over declined by about 140 workers, while job holders under age 35 dropped 2,125 workers.



Gender of Job Holders



In New Hampshire, females account for half of all job holders in all private industries. However, in the *Construction* industry, over 85 percent of job holders are male and less than 15 percent of job holders are female. Among the three *Construction* subsectors, there were small differences in the share of female job holders. The largest share of female job holders, 15.6 percent, worked in *Construction of buildings*. In *Specialty trade contracting*, the subsector with the largest number of workers, 13.6 percent of job holders were female, and in *Heavy and civil engineering construction*, the subsector with the smallest number of workers, 13.0 percent of job holders were female.

Workers in *Construction* can face serious hazards, such as exposure to harmful chemicals like asbestos and silica dust, falling from rooftops or high elevations, or being injured by equipment. According to the U.S. Department of Labor, Occupational Safety and Health Administration, in 2011, the *Construction* industry nationally had an injury incidence rate of 3.8, the sixth highest among all industries. ¹¹ The incidence rate represents the number of injuries per 100 full-time workers. These conditions can be challenging for any individual seeking employment in the industry, but may be viewed as deterrents for females. ¹²

Though the trades have attracted more females, female workers sometimes encounter industry-specific safety and health issues. As an example, where protective clothing or gear is necessary, many times employer-supplied equipment is not available in the correct size or fit to accommodate females, and ill-fitting gear increases the chance for injury. Sanitary facilities are often temporary, and may not meet reasonable levels of cleanliness or privacy. These extra safety and health requirements have sometimes contributed to hostile work environments for female workers. ¹³

^{11.} U.S. Department of Labor, Occupational Safety & Health Administration. https://www.osha.gov/oshstats/ Data and Statistics. To calculate the incidence rate, the number of injuries is divided by the total number of hours worked by all employees in the industry during the calendar year, then divided by 200,000, which is equivalent to the number of hours 100 full-time workers would have if they worked 40 hours per week for 50 weeks (assuming two weeks vacation).

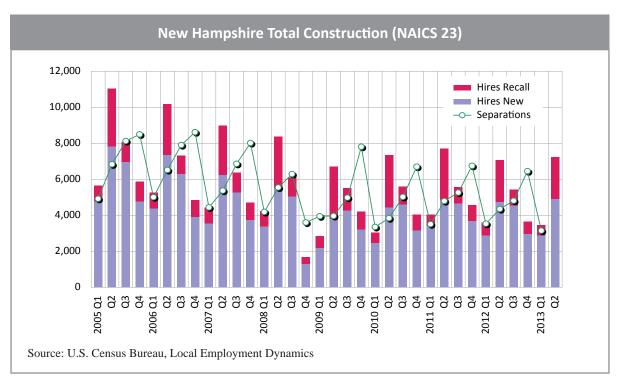
^{12.} US Department of Labor. Occupational Safety & Health Administration. Women in Construction. www.osha.gov/doc/topics/women/index.html.

¹³. Ibid.

Hiring Patterns in Construction

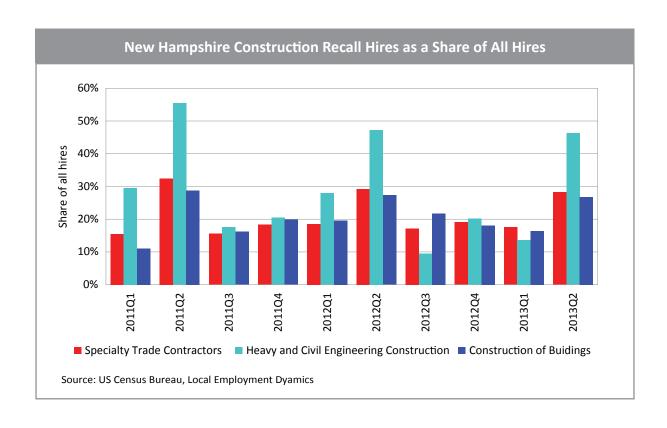
New Hampshire's changes in climate from summer to winter play a big role in Construction hiring patterns. Many outdoor Construction workers have limited work hours or are temporarily laid off during the state's inclement winters. New Hampshire's Construction industry has distinct seasonal hiring patterns, with the largest number of hires occurring in the second quarter of each year and the largest number of separations (layoffs or quits) occurring annually in the fourth quarter. This strong pattern of increased hires followed by increased separations a quarter or two later is common among industries identified as seasonal. For example, another tourism-related industry in New Hampshire, Accommodation and food services, also displays seasonal hiring patterns.

A large number of *Construction* workers are recalled to the same employer in the next construction season. Using Quarterly Workforce Indicators data, the movement of job holders in the workforce can be examined. These data track hiring activity, including whether workers are new hires or have been recalled by a previous employer. ¹⁴ A worker is considered a *new hire* if they were not employed by the hiring employer at any time during the previous four quarters. A hire is considered a *recall* if the worker returns to the same employer for whom they had worked within the previous year, but not the previous quarter.



^{14.} US Census Bureau. Longitudinal Employer-Household Dynamics. Quarterly Workforce Indicators 101. http://lehd.ces.census.gov/doc/QWI_101.pdf.

Heavy and civil engineering construction had the largest share of recall hires from the previous year, typically recalling between 40 and 50 percent of total hires during the second quarter. The small total number of workers in the subsector may also contribute to the reason why the recall hires account for such a large share of all hires. ¹⁵



^{15.} U.S. Census Bureau. Longitudinal Employer-Household Dynamics. http://lehd.ces.census.gov/>.

New Hampshire Construction Industry Staffing Patterns: Employment by Occupation

Over 60 percent of employment in the *Construction* industry is in the Construction and extraction occupational group. The next largest share of employment, 10.9 percent, was in Office and administrative support occupations. Installation, maintenance, and repair occupations contributed 7.5 percent of the industry employment and Management occupations accounted for 6.0 percent. Each of the remaining occupational groups held less than five percent of *Construction* employment. ¹⁶

Share o	Share of Construction Employment by Occupational Group 2012					
		Share of Industry				
47-0000	Construction and Extraction Occupations	61.1%				
43-0000	Office and Administrative Support Occupations	10.9%				
49-0000	Installation, Maintenance, and Repair Occupations	7.5%				
11-0000	Management Occupations	6.0%				
53-0000	Transportation and Material Moving Occupations	4.8%				
13-0000	Business and Financial Operations Occupations	4.2%				
41-0000	Sales and Related Occupations	2.3%				
	All Other Occupational Groups	3.1%				

Source: Employment Projections by Industry and Occupation, base year 2012 to projected year 2022

While there are other occupations commonly associated with construction activities, for example, engineers and architects, larger shares of workers in these occupations are employed in the *Professional*, *technical and scientific services* industry.

¹⁶. Staffing patterns data include the self-employed

Share of Construction Industry Subsector Employment by Occupational Groups

The largest share of employment in each of the three *Construction* subsectors, was in Construction and extraction occupations, however, there were slight differences in the proportion of employment among the subsectors. *Construction of buildings* and *Specialty trade contractors* had similar proportions of employment in Construction and extraction occupations, 62.1 and 62.0 percent, respectively. *Heavy and civil engineering construction* had 54.9 percent of employment in Construction and extraction occupations.

	Share of Industry Employment by Occupational Group, 2012						
		Construction of Buildings (236)	Heavy and Civil Engineering Construction (237)	Specialty Trade Contractors (238)			
47-0000	Construction and Extraction Occupations	62.1%	54.9%	62.0%			
43-0000	Office and Administrative Support Occupations	11.5%	7.3%	11.4%			
49-0000	Installation, Maintenance, and Repair Occupations	1.2%	15.7%	8.0%			
11-0000	Management Occupations	10.4%	7.5%	4.3%			
53-0000	Transportation and Material Moving Occupations	1.8%	8.3%	5.2%			
13-0000	Business and Financial Operations Occupations	6.3%	2.4%	3.9%			
41-0000	Sales and Related Occupations	2.6%	1.5%	2.3%			
	All Other Occupational Groups	4.2%	2.5%	2.9%			

Source: Job Outlook and Locator by Industry and Occupation, base year 2012 to projected year 2022

Share of Occupational Employment by Industry

Detailed Occupations in the Construction and Extraction Occupational Group

In 2012, ten occupations in the Construction and extraction occupational group accounted for more than 11,800 workers in the *Construction* industry, making up over half of the industry's employment. ¹⁷

Two-thirds of Construction laborers (SOC 47-2061) were employed in the Construction industry, holding over 2,200 positions. Firms in

	Share of Occupations by Industry, 2012								
		Constru	ction (23)	Construction of Buildings (236)		Heavy and Civil Engineering Construction (237)			de Contractors 238)
SOC Code	Occupation	2012 Employment	Share of Occupation in Construction	2012 Employment	Share of Occupation in Subsector	2012 Employment	Share of Occupation in Subsector	2012 Employment	Share of Occupation in Subsector
47-2061	Construction Laborers	2,213	67.0%	579	26.2%	595	26.9%	1,039	46.9%
47-2031	Carpenters	1,903	52.3%	1343	70.6%	39	2.0%	521	27.4%
47-2111	Electricians	1,840	77.3%	n	n	n	n	1,787	97.1%
47-1011	First-Line Supervisors of Construction Trades and Extraction Workers	1,617	56.5%	629	38.9%	305	18.9%	683	42.2%
47-2152	Plumbers, Pipefitters, and Steamfitters	1,277	75.3%	n	n	n	n	1,185	92.8%
47-2073	Operating Engineers and Other Construction Equipment Operators	691	73.1%	100	14.5%	194	28.1%	397	57.5%
47-2141	Painters, Construction and Maintenance	680	54.5%	n	n	n	n	586	86.2%
47-2211	Sheet Metal Workers	392	60.7%	0	0.0%	0	0.0%	392	100.0%
47-2021	Brickmasons and Blockmasons	214	77.5%	n	n	n	n	176	82.2%
47-2181	Roofers	209	68.8%	0	0.0%	0	0.0%	209	100.0%

n = not publishable Source: Job Outlook and Locator by Industry and Occupation, base year 2012 to projected year 2022

^{17.} Occupational employment data by industry subsectors is from published staffing patterns in New Hampshire produced by the Occupational Employment and Wages Program, New Hampshire Employment Security. Detailed tables available in Appendix A.



Specialty trade contracting employed 46.9 percent of these workers and the remainder were distributed almost evenly between *Heavy and civil* engineering construction, 26.9 percent, and Construction of buildings with 26.2 percent.

Slightly more than half of all Carpenters (SOC 47-2031) were employed in the Construction industry, with 1,900 workers. Firms in Construction of buildings employed 70.6 percent of these workers, and 27.4 percent were employed in Specialty trade contracting. The remaining two percent were in Heavy and civil engineering construction. Over three-quarters of all Electricians (SOC 47-2111), 1,840 workers, were employed in Construction; nearly all of them worked for Specialty trade contracting firms.

Supervisors of construction trades and extraction workers (SOC 47-1011) held roughly 1,610 positions in the Construction industry, almost 60 percent of employment in the occupation. Specialty trade contracting firms employed 42.2 percent of that share, followed closely by Construction of buildings with 38.9 percent, and Heavy and civil engineering construction businesses employed 18.9 percent.

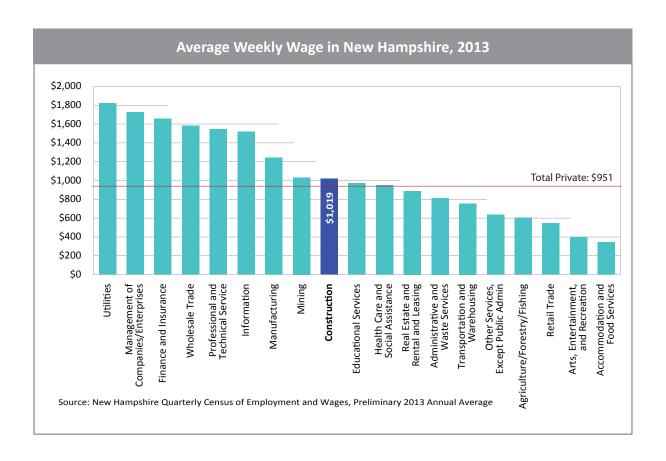
Over three-quarters of Plumbers, pipefitters, and steamfitters (SOC 47-2152) in New Hampshire were employed in the *Construction* industry. *Specialty trade contracting* firms employed more than 90 percent of that share.

Construction Wages in New Hampshire

Private Industry Average Weekly Wage

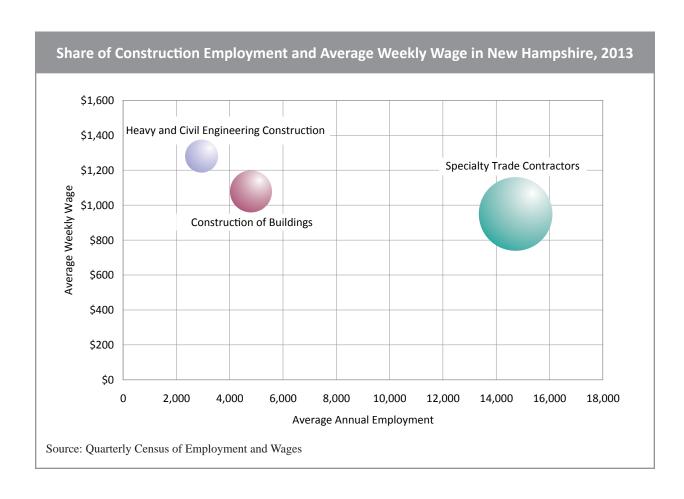
Average weekly wages for the *Construction* industry are about midpoint when compared to other industries. In 2013, the average weekly wage for *Construction* workers in privately owned businesses was \$1,019, compared to an average of \$951 for all industries. ¹⁸

Average weekly wages varied among the three subsectors in the Construction industry. There was a difference of over \$300 per week from the highest to the lowest wages between the subsectors. *Heavy and civil engineering construction* had the highest average weekly wage



^{18.} Covered private employment from New Hampshire Quarterly Census of Employment and Wages, 2013 preliminary .

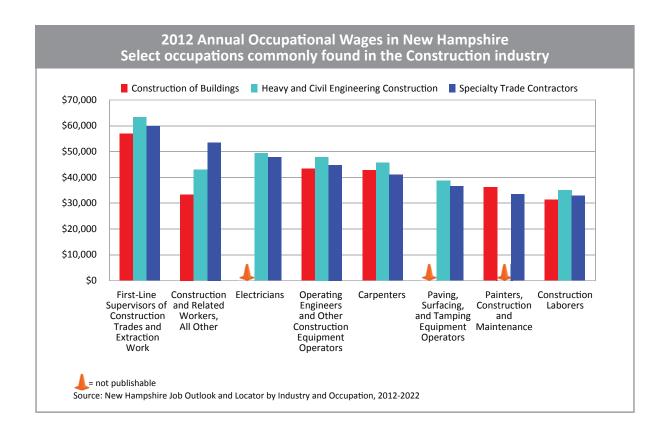
of \$1,267 per week, and had the smallest share of employment among the three subsectors. The average weekly wage in *Construction* of buildings of \$1,079 was closest to the *Construction* industry average of \$1,019, and held roughly 21 percent of *Construction* employment. Specialty trade contractors had the largest share of employment, and had the lowest average weekly wage, \$949.



Occupational Wages

In general, workers in occupations employed in *Heavy and civil* engineering construction earned higher wages than workers in the same occupation employed in the other two subsectors. ¹⁹ For example, Supervisors of construction and trades workers employed in *Heavy* and civil engineering construction were paid an annual average of \$63,298. This was about \$3,400 a year more than workers in the same occupation employed in *Specialty trades contracting*, and over \$6,300 more than those in *Construction of buildings*. ²⁰

Carpenters employed in *Heavy and civil engineering construction* were paid an annual average of \$45,758, about \$2,900 per year more than those in *Construction of buildings* and \$4,800 more than those employed in *Specialty trades contracting*. Electricians employed in *Heavy and civil engineering construction* earned \$49,319 compared to \$47,761 for those employed in *Specialty trades contracting*.



^{19.} Wage information at the three digit NAICS industry level detail is not available for all occupations because of confidentiality. Average hourly wage of Construction and extraction occupations for all industries in New Hampshire is available in Appendix B

^{20.} Average annual wage is based on 40 hours per week and 52 weeks per year.

Future Demand for Construction Workers in New Hampshire

Industry Employment Projections, 2012 to 2022

Looking forward, what can be expected from the Construction industry?

The demand for Construction workers in New Hampshire is expected to grow from 2012 to 2022. Statewide, total employment is expected to grow by about 1.0 percent annually over the next ten years, a growth rate of 10.3 percent from 2012 to 2022. Construction employment is expected to show more strength, growing by 1.6 percent annually, increasing 17.7 percent over the projection period. This is expected to boost Construction employment from 22,100 to over 26,000 jobs. The increase will be carried by Specialty trade contractors with 2,740 new jobs, followed by Construction of buildings which is projected to add 950 jobs. Heavy and civil engineering construction is expected to add 230 jobs. ²¹

New Hampshire Long-term Industry Projections, 2012 to 2022								
		2012 Estimated Employment	2022 Projected Employment	Change	Percent Change	Average Annual Growth	Share of 2012 Employment	Share of 2022 Employment
Total	Employment	668,268	736,999	68,731	10.3%	1.0%	100.0%	100.0%
23	Construction	22,157	26,079	3,922	17.7%	1.64%	3.3%	3.5%
236	Construction of Buildings	4,851	5,801	950	19.6%	1.80%	0.7%	0.8%
237	Heavy and Civil Engineering Construction	2,873	3,105	232	8.1%	0.78%	0.4%	0.4%
238	Specialty Trade Contractors	14,433	17,173	2,740	19.0%	1.75%	2.2%	2.3%

Source: Employment Projections by Industry and Occupation, base year 2012 to projected year 2022

^{21.} New Hampshire Employment Projections by Industry and Occupation: base year 2012 to projected year 2022. Economic and Labor Market Information Bureau, New Hampshire Employment Security. Industry Projections Statewide, 2012 – 2022. www.nhes.nh.gov/elmi/products/documents/nh-ind-projections.xls>.

Occupational Employment Projections, 2012 to 2022

Projections of *Construction* industry employment estimate that over 3,900 new workers will be needed over the ten-year projection period. Construction and extraction occupations account for just over 60 percent of the jobs in the industry, and employment in those occupations are expected to grow by 14.5 percent in New Hampshire from 2012 to 2022.

Among the Construction and extraction occupations with the highest employment in the *Construction* industry, estimated annual openings are fairly evenly distributed between openings from replacement needs and openings created from new growth.²² The good news is that as many openings are expected from new job growth as there are for replacements of workers leaving. Among most other occupations, total annual openings are driven more by replacement needs and less by new job growth.

	New Hampshire Long-term Industry Projections, 2012 to 2022							
soc		Estimated E	mployment*	Percent	Averaç	ge Annual Openi	ngs	
Code	Occupation Title	2012	2022	Change	Growth	Replacements	Total	
47-0000	Construction and Extraction Occupations	23,401	26,787	14.5%	339	376	715	
47-2061	Construction Laborers	3,302	3,821	15.7%	52	71	123	
47-2031	Carpenters	3,637	4,267	17.3%	63	45	108	
47-2111	Electricians	2,381	2,778	16.7%	40	45	85	
47-1011	First-Line Supervisors of Construction Trades and Extraction Workers	2,180	2,322	6.5%	14	59	73	
47-2152	Plumbers, Pipefitters, and Steamfitters	1,697	1,986	17.0%	29	21	50	
47-2073	Operating Engineers and Other Construction Equipment Operators	945	1,075	13.8%	13	21	34	
47-2141	Painters, Construction and Maintenance	1,248	1,442	15.5%	19	19	38	
47-2211	Sheet Metal Workers	646	729	12.8%	8	12	20	
47-2081	Drywall and Ceiling Tile Installers	436	470	7.8%	3	4	7	
47-2181	Roofers	304	322	5.9%	2	6	8	

^{*} Estimated employment includes all industries and not just Construction

Projections are produced for all occupations and are based on employment from all industries. Projections data for each occupation include the net job change and percent change, as well as an annual number of projected openings. The projected number of annual openings has two components – openings due to the need to replace workers who retire or leave their occupation, and openings created by new growth of that occupation. These detailed employment projections provide more insight to the demand for workers.

^{22.} A detailed list of employment projections for Construction and Extraction occupations and Installation, Maintenance and Repair occupations commonly found in the Construction industry can be found in Appendix C

New Worker Supply: Training and Education Occupational projections data include the minimum education and training usually needed to enter employment in each specific job. With overall employment in the Construction industry expected to increase by over 17 percent from 2012 to 2022, filling the pipeline with new workers will be important. The challenge presented to the industry will be replacing current workers as they retire or otherwise leave Construction occupations, while at the same time, developing a labor pool to meet the demand of filling new jobs from growth.

	Training and Education for Entry-Level Employment by Occupation					
SOC Code		Education	Work /Experience	Job Training		
47-0000	Construction and Extra	ction Occupations				
47-2061	Construction Laborers	Less than high school	None	Short-term on-the-job training		
47-2031	Carpenters	High school diploma or equivalent	None	Apprenticeship		
47-2111	Electricians	High school diploma or equivalent	None	Apprenticeship		
47-1011	First-Line Supervisors of Construction Trades and Extraction Workers	High school diploma or equivalent	5 years or more	None		
47-2152	Plumbers, Pipefitters, and Steamfitters	High school diploma or equivalent	None	Apprenticeship		
47-2073	Operating Engineers and Other Construction Equipment Operators	High school diploma or equivalent	None	Moderate-term on-the-job training		
47-2141	Painters, Construction and Maintenance	Less than high school	None	Moderate-term on-the-job training		
47-2211	Sheet Metal Workers	High school diploma or equivalent	None	Apprenticeship		
47-2081	Drywall and Ceiling Tile Installers	Less than high school	None	Moderate-term on-the-job training		
47-2181	Roofers	Less than high school	None	Moderate-term on-the-job training		

Source: Employment Projections by Industry and Occupation, base year 2012 to projected year 2022



Apprenticeship Programs

Many occupations in the *Construction* industry do not require formal college degree programs for individuals to gain the skills and knowledge needed for the job. One way the skills and abilities for these occupations are attained is through apprenticeship. Work-based learning like apprenticeship is a key training path to employment. Registered apprenticeship training combines job related technical instruction with structured on-the-job learning experiences. Apprentices start working from day one with incremental wage increases as they become more proficient on the job, providing an 'earn while they learn' environment.²³ Upon completion of the training, the apprentice receives an industry issued, nationally recognized credential that certifies occupational proficiency.

The apprentice must complete a combination of education and a specific number of hours of on-the-job experience to meet the industry-approved achievement level. The required training periods for many occupations have minimum and maximum ranges of time required to gain occupational proficiency. The length of time to complete the selected apprenticeship program depends on the complexity of the program. There are three ways an apprentice may attain proficiency. Time-based requirements include occupations that need a minimum of 2,000 hours, which includes an outline of the specific work process and the estimated time for each individual work process in the occupation. Competency/performance apprenticeship programs are based on the attainment of observable and measurable competencies. In these programs, apprentices may accelerate or take additional time to gain the competencies to do the job. Competency, as defined by the Employment and Training Administration, is "an observable, measurable pattern of skills, knowledge, abilities, behaviors and other characteristics that an individual needs to perform work roles or occupational functions successfully."²⁴ The third type of program, a combination of the competency-based and the time-based programs, is the hybrid.

There can be several different established apprenticeship programs for a single occupation. Programs may focus on specialized tools and job duties, and not just provide generalized training. For example, there are 28 established apprenticeship training programs that qualify

^{23.} United States Department of Labor, Employment and Training Administration, Registered Apprenticeship. http://doleta.gov/OA/apprenticeship.cfm.

^{24.} FAQs, Employment & Training Administration (ETA) – U.S. Department of Labor. <www.dolets.gov/OA/faqs.cfm>.

completers as a Carpenter (the occupational title). Each specialized training program focuses on the skills needed, such as those skills needed to become a finish carpenter, cabinet maker, form builder, framer, or residential carpenter. Each specialty may require a different period of training, and may have more than one option for type of training as well.

Apprenticeship Programs for Carpenters					
Apprentice Occupational Title	Type of Training	Term Length (Hours)			
Boatbuilder, Wood	Time-Based	8,000			
Carpenter	Hybrid	5,200-8,000			
Carpenter	Time-Based	8,000			
Carpenter Advance Systems Spect. Lv 2	Hybrid	2,600-4,000			
Carpenter Commercial Interior Spec	Time-Based	5,000			
Carpenter Forms & Concrete Level 2	Hybrid	2,600-4,000			
Carpenter Framing & Finishing Level 1	Hybrid	2,760-4,000			
Carpenter Manufacturing	Time-Based	7,328			
Carpenter, Interior Systems	Time-Based	8,000			
Carpenter, Interior Systems	Hybrid	5,200-8,000			
Carpenter, Mold	Time-Based	2,000			
Carpenter, Piledriver	Time-Based	8,000			
Carpenter, Piledriver	Hybrid	5,200-8,000			
Carpenter, Rough	Time-Based	8,000			
Carpenter, Ship	Time-Based	8,000			
Casket Assembler	Time-Based	6,000			
Form Builder (Const)	Time-Based	4,000			
Form Builder (Const)	Hybrid	3,350-4,600			
Insulation Worker	Time-Based	8,000			
Joiner (Ship & Boat Bldg)	Time-Based	8,000			
Lather	Time-Based	6,000			
Lathing Specialist	Hybrid	3,900-8,000			
Prop Maker (Amuse & Rec)	Time-Based	8,000			
Residential Carpenter	Time-Based	4,000			
Residential Carpenter	Hybrid	3,645-4,000			
Residential Carpenter Specialist	Hybrid	3,900-6,000			
Shipwright (Ship & Boat)	Time-Based	8,000			
Timber Framer	Hybrid	5,000-7,000			

Source: Apprenticeship Crosswalk Search - O*NET OnLine http://www.onetonline.org/crosswalk/RAPIDS/

Registered Apprenticeship

Registered apprenticeship is a way to learn a great career while working and getting paid. There are over 1,000 career opportunities — and not just in the construction trades. Many apprentices work in traditional building trades like plumbing, electricity, ironwork, and carpentry. But today's apprentices also learn trades like biotechnology, child development, health care, information technology, environmental services, food services, geospatial technologies, military, maritime, and hundreds of other fields.

Registered apprenticeship connects job seekers looking to learn new skills with employers looking for qualified workers. Apprentices benefit from a combination of hands-on and classroom training, while earning pay. Employers benefit from connecting with workers who have the knowledge, skills, and experience they need. The result is a workforce with industry-driven training and employers with a competitive edge.

What are the benefits of an apprenticeship program?

Earn.

Success in learning new skills is achieved without racking up debt. From day one, a paycheck is earned that increases as skills improve. Most apprenticeships require 2,000 to 8,000 hours of on-the-job training, depending on the occupation.

Learn.

Along with hands-on learning on the job, apprentices attend a minimum of 144 hours of classroom training to supplement their knowledge. Many apprentices apply classroom time towards college credits, even earning an associate's or bachelor's degree.

Succeed.

Completion of an apprenticeship program establishes a career with a competitive salary, and no educational debt. An apprentice receives a nationally recognized certification that is valid throughout the U.S.

How to become an apprentice?

- * Be at least 16 years old.
- * Have a high school diploma or GED.
- * Must be a U.S. citizen or have permanent residency status.
- * Pass an entrance exam.
- * Be physically able to perform the required tasks.

Still in high school?

A Registered Youth Apprenticeship program allows students to begin an apprenticeship program while still in the final years of high school. Contact the school guidance counselor for help in getting started.

For more information on becoming an apprentice, contact the New Hampshire Department of Education, Bureau of Career Development at (603) 271-3893, or visit their web site at <www.education.nh.gov/career/career/apprenticeship.htm>. Also visit the U.S. Department of Labor, Office of Apprenticeship on the web at <www.doleta.gov/oa>.²⁵

Source: U.S. Department of Labor, http://www.doleta.gov/oa/data_statistics.cfm>.

^{25.} U.S. Department of Labor, Employment and Training Administration. Office of Apprenticeship. "What is Registered Apprenticeship?" www.doleta.gov/OA/apprenticeship.cfm>.

Occupational Licensing and Certification

Although most occupations in Construction do not require postsecondary education, some Construction occupations must be licensed, certified, or otherwise registered in New Hampshire.²⁶

Related occupations such as surveyors, architects, engineers, and landscaping architects also require licensure or certification. While these jobs are frequently associated with construction activities, the majority of those workers are employed in *Professional*, *technical* and *scientific* services industry sector.

New Hampshire Licensed, Certified and Registered Occupations for Construction and Extraction Occupations and Installation, Maintenance, and Repair Occupations					
Occupational Title	Certification/License Information				
	Asbestos Abatement Site Supervisor				
First Line Supervisors of Construction Trades and Extraction Workers	Lead Abatement Contractor				
	Lead Abatement Supervisor				
	Asbestos Abatement Worker				
Hazardous Materials Removal Workers	Asbestos Disposal Site Worker				
	Lead Abatement Worker				
Construction and Duilding Inconstruc	Boiler and Pressure Vessel Inspector				
Construction and Building Inspectors	Home Inspector				
	Electrician, Apprentice				
Electricians Helpers - Electricians	Electrician, Journeyman				
Ticipoto Licotriolario	Electrician, Master				
Floatrical Davier Line Installers and Danairers	Electrician, High Medium Voltage				
Electrical Power Line Installers and Repairers	Electrician, High Medium Voltage, Trainee				
Elevator Installers and Repairers	Elevator or Accessibility Lift Mechanic and Inspector				
Explosives Workers, Ordnace Handling Experts, and Blasters	Explosives Worker/Blaster				
	Plumber, Apprentice				
Plumbers	Plumber, Journeyman				
Helpers - Pipelayers, Plumbers, Pipefitters, and Steamfitters	Plumber, Master				
	Water Treatment Technician				
Pipefitters and Steamfitters Home Appliance Repairers	Fuel Gas Fitter				
Water/Wastewater Engineers Septic Tank Servicers and Sewer Pipe Cleaners	Subsurface Sewage Disposal System Designer/ Installer				
Heating and Air Conditioning Mechanics and Installers	Heating Equipment Technician				
Installation, Maintenance, and Repair Workers, All Other	Water Pump Installer				
Earth Drillers, Except Oil and Gas	Water Well Contractor				
Manufactured Building and Mobile Home Installers	Manufactured Housing Installer				

 $Source: U.S.\ Department\ of\ Labor, < http://www.doleta.gov/oa/data_statistics.cfm>.$

^{26. 2013} Licensed, Certified, and Registered Occupations in New Hampshire, New Hampshire Employment Security, Economic and Labor Market Information Bureau.



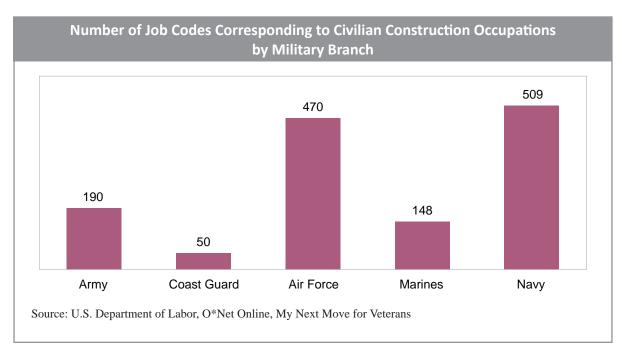
The State of New Hampshire regulates nearly 150 occupational activities by requiring licensure, certification, or registration with a state board or agency. Requirements range from submitting an application to extensive educational preparation, passing an examination, obtaining years of experience, and regular completion of continuing education.

Veterans in Construction

In February 2014, the U.S. Secretary of Labor announced that a coalition of 100 *Construction* employers and associations had pledged to hire more than 100,000 veterans over the next five years.²⁷ With the recent pledge, it is noteworthy to explore connections between military experience and construction occupations.

The responsibilities and experience of most military job codes correspond to civilian occupations; there are some that are specific to the military. There can be multiple positions within each military branch that correspond to a civilian occupation, and these military positions require different degrees of training and experience. Most managerial or supervisory positions are designated as commissioned or warrant officers, while construction and office support positions are typically held by enlisted personnel. Among all military jobs, about half (50.8 percent) were jobs held by enlisted personnel compared to those with an officer rank. Among the jobs commonly found in the *Construction* industry, almost 59 percent were jobs for which enlisted members would qualify.

The Employment and Training Administration (ETA) also provides information on an apprenticeship program exclusively designed for military personnel to enter *Construction* occupations called "Helmets to Hardhats." Although the program is not directly funded by the ETA, it is a national, nonprofit program that connects National Guard, Reserve, retired and transitioning active-duty military service



^{27.} United States Department of Labor, Secretary of Labor Thomas E. Perez, News Release Number 14-0202-NAT. 2/10/2014. Construction industry pledges to hire more than 100,000 veterans in announcement with Joining Forces and US Labor Department. www.dol.gov/opa/media/press/vets/vets/20140202.htm.



members with skilled training and quality career opportunities in the construction industry. Most career opportunities offered by the program are connected to federally-approved apprenticeship training programs.²⁸ The benefit of the program is the ability for veterans to use their G.I. Bill benefits to supplement their apprentice-level earnings during training.²⁹

^{28.} U.S. Department of Labor. Employment and Training Administration. Veterans in Apprenticeship. <www.doleta.gov/OA/usmap_apprenticeship_programs_veterans.cfm>.

 $^{^{29.}}$ Helmets to hardhats. www.helmetstohardhats.org .

Summary



In closing, New Hampshire's *Construction* industry has had recent improvements, with covered employment increasing over-the-year. Nonemployer statistics boost the industry employment numbers further, indicating the importance that self-employment has to the *Construction* workforce. Projected industry employment expects 3,900 new openings in the next decade.

Hiring patterns show that many New Hampshire Construction workers are hired and rehired in the second quarter each year, emphasizing the seasonality of the industry in this geographic region. Age demographics show that younger workers in the industry were most affected by employment changes within the industry. The numbers of job holders under age 35 were more vulnerable during lean times, while jobholders age 45 and over remained relatively stable.

Going forward, the challenge for the industry will be to build a labor pool that possesses the necessary experience and training to not only replace older workers leaving the industry, but also to fill the new positions that will become available from industry growth. Apprenticeship is the driver behind the pipeline for jobs in the Construction industry.

Employment in New Hampshire's Construction industry is expected to grow by over 17 percent from 2012 to 2022, a stronger growth rate than total employment in the state. With the expected increase in Construction employment, there is a promise of increased opportunities for the local economy to grow.

	Appendix A: Occupational Employment by Industry - Staffing Patterns							
		Construction of Buildings	Heavy and Civil Engineering Construction	Special Trade Contractors	2012 Total Construction Employment	2012 Share of Occupation Employed in Construction		
	Total, All Occupations	4,851	2,873	14,433	22,157			
47-2061	Construction Laborers	579	595	1,039	2,213	67.0%		
47-2031	Carpenters	1,343	39	521	1,903	52.3%		
47-2111	Electricians	n	n	1,787	1,840	77.3%		
47-1011	First-Line Supervisors of Construction Trades and Extraction Workers	629	305	683	1,617	56.5%		
47-2152	Plumbers, Pipefitters, and Steamfitters	n	n	1,185	1,277	75.3%		
43-9061	Office Clerks, General	261	97	789	1,147	8.5%		
53-3032	Heavy and Tractor-Trailer Truck Drivers	n	220	420	n	10.6%		
47-2073	Operating Engineers and Other Construction Equipment Operators	100	194	397	691	73.1%		
47-2141	Painters, Construction and Maintenance	51	n	586	n	54.5%		
11-9021	Construction Managers	337	97	220	654	37.3%		
13-1051	Cost Estimators	103	n	293	n	52.1%		
11-1021	General and Operations Managers	107	62	237	406	5.2%		
43-6014	Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	96	32	268	396	3.6%		
47-2211	Sheet Metal Workers	n	n	392	392	60.7%		
43-3031	Bookkeeping, Accounting, and Auditing Clerks	109	41	236	386	4.5%		
47-2081	Drywall and Ceiling Tile Installers	n	n	346	353	81.0%		
49-9051	Electrical Power-Line Installers and Repairers	n	320	n	320	44.3%		
13-1199	Business Operations Specialists, All Other	118	n	173	n	5.3%		
49-9021	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	n	n	245	266	24.1%		
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	n	n	n	258	3.9%		
49-2097	Electronic Home Entertainment Equipment Installers and Repairers	n	n	n	228	67.7%		
47-2021	Brickmasons and Blockmasons	n	n	176	214	77.5%		

	Appendix A: Occupational Employment by Industry - Staffing Patterns (continued)							
		Construction of Buildings	Heavy and Civil Engineering Construction		2012 Total Construction Employment	2012 Share of Occupation Employed in Construction		
47-2181	Roofers	n	n	209	209	68.8%		
47-4099	Construction and Related Workers, All Other	n	n	115	190	39.6%		
47-2221	Structural Iron and Steel Workers	n	n	162	181	97.3%		
47-3011	HelpersBrickmasons, Blockmasons, Stonemasons, and Tile and Marble Setters	n	n	142	179	95.2%		
47-2051	Cement Masons and Concrete Finishers	n	n	162	170	90.0%		
49-9052	Telecommunications Line Installers and Repairers	n	n	n	170	22.3%		
47-2131	Insulation Workers, Floor, Ceiling, and Wall	26	n	139	165	98.2%		
47-2071	Paving, Surfacing, and Tamping Equipment Operators	n	95	68	n	75.8%		
47-2151	Pipelayers	n	n	n	131	83.4%		
47-3012	HelpersCarpenters	111	n	n	130	88.4%		
37-3011	Landscaping and Groundskeeping Workers	n	n	n	126	1.9%		
43-1011	First-Line Supervisors of Office and Administrative Support Workers	n	n	80	118	1.7%		
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	n	n	91	114	5.2%		
47-5021	Earth Drillers, Except Oil and Gas	0	59	55	114	80.3%		
37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	70	n	34	n	1.1%		
41-3099	Sales Representatives, Services, All Other	46	n	51	n	4.3%		
49-3042	Mobile Heavy Equipment Mechanics, Except Engines	n	52	n	105	19.3%		
11-9199	Managers, All Other	n	n	n	105	1.1%		
53-7061	Cleaners of Vehicles and Equipment	n	n	n	92	8.3%		
53-7032	Excavating and Loading Machine and Dragline Operators	n	n	73	89	22.4%		
11-1011	Chief Executives	n	n	44	77	4.3%		
53-7021	Crane and Tower Operators	n	n	60	74	48.1%		
47-3015	HelpersPipelayers, Plumbers, Pipefitters, and Steamfitters	n	n	n	73	100.0%		
47-3013	HelpersElectricians	n	n	71	71	100.0%		

n = not publishable

	Appendix A: Occupational E	mployment by	y Industry - S	taffing Patte	erns (continu	ed)
		Construction of Buildings	Heavy and Civil	Special Trade	2012 Total Construction	2012 Share of Occupation
49-9071	Maintenance and Repair Workers, General					
		n	n	48	71	1.4%
11-3031	Financial Managers	n	n	45	64	1.9%
47-2121	Glaziers	n	n	61	61	39.6%
49-9099	Installation, Maintenance, and Repair Workers, All Other	n	n	n	60	5.2%
43-5081	Stock Clerks and Order Fillers	n	n	n	56	0.5%
47-2011	Boilermakers	n	n	n	56	54.4%
47-2041	Carpet Installers	n	n	53	53	49.1%
47-5081	HelpersExtraction Workers	0	52	0	52	100.0%
13-2011	Accountants and Auditors	n	n	31	51	1.1%
47-2022	Stonemasons	n	n	50	50	44.6%
43-4171	Receptionists and Information Clerks	n	n	37	50	1.0%

n = not publishable

Source: Employment Projections by Industry and Occupation, base year 2012 to projected year 2022

	Total, All Ocupations	Entry wage	Mean wage	Median wage	Exp. wage
47-0000	Construction and Extraction Occupations	\$14.19	\$20.66	\$19.53	\$23.89
47-1011	First-Line Supervisors of Construction Trades and Extraction Workers	\$19.67	\$28.30	\$27.19	\$32.62
47-2011	Boilermakers	\$17.93	\$27.13	\$28.59	\$31.74
47-2021	Brickmasons and Blockmasons	\$15.58	\$21.83	\$21.71	\$24.95
47-2022	Stonemasons	\$18.07	\$22.29	\$21.81	\$24.40
47-2031	Carpenters	\$15.23	\$20.06	\$19.83	\$22.47
47-2041	Carpet Installers	\$14.25	\$19.10	\$17.91	\$21.53
47-2042	Floor Layers, Except Carpet, Wood, and Hard Tiles	n	n	n	n
47-2043	Floor Sanders and Finishers	\$14.62	\$16.81	\$16.65	\$17.90
47-2044	Tile and Marble Setters	\$13.57	\$23.43	\$21.87	\$28.36
47-2051	Cement Masons and Concrete Finishers	\$10.36	\$17.54	\$16.75	\$21.13
47-2061	Construction Laborers	\$12.27	\$15.76	\$15.51	\$17.51
47-2071	Paving, Surfacing, and Tamping Equipment Operators	\$14.54	\$17.99	\$17.79	\$19.71
47-2072	Pile-Driver Operators	n	n	n	n
47-2073	Operating Engineers and Other Construction Equipment Operators	\$16.37	\$21.60	\$20.82	\$24.22
47-2081	Drywall and Ceiling Tile Installers	\$16.01	\$20.57	\$20.68	\$22.85
47-2082	Tapers	\$19.15	\$25.92	\$25.96	\$29.30
47-2111	Electricians	\$16.97	\$23.25	\$23.82	\$26.39
47-2121	Glaziers	\$13.98	\$18.24	\$18.13	\$20.38
47-2131	Insulation Workers, Floor, Ceiling, and Wall	\$12.43	\$16.75	\$16.02	\$18.91
47-2132	Insulation Workers, Mechanical	n	n	n	n
47-2141	Painters, Construction and Maintenance	\$12.89	\$16.62	\$16.30	\$18.48
47-2142	Paperhangers	n	n	n	n
47-2151	Pipelayers	\$14.39	\$19.18	\$19.92	\$21.58
47-2152	Plumbers, Pipefitters, and Steamfitters	\$17.48	\$24.08	\$24.03	\$27.38
47-2161	Plasterers and Stucco Masons	n	n	n	n
47-2171	Reinforcing Iron and Rebar Workers	n	n	n	n
47-2181	Roofers	\$15.25	\$20.87	\$19.58	\$23.69
47-2211	Sheet Metal Workers	\$15.76	\$22.36	\$23.07	\$25.66
47-2221	Structural Iron and Steel Workers	\$16.50	\$22.60	\$22.02	\$25.64
47-3011	HelpersBrickmasons, Blockmasons, Stonemasons, and Tile and Marble Setters	\$12.17	\$15.20	\$14.47	\$16.72
47-3012	HelpersCarpenters	\$11.20	\$14.60	\$15.43	\$16.30
47-3013	HelpersElectricians	\$10.08	\$14.07	\$11.50	\$16.07
47-3014	HelpersPainters, Paperhangers, Plasterers, and Stucco Masons	n	n	n	n

Appendix B: Hourly Wages of Construction and Extraction Occupations In New Hampshire, 2013 (continued) **Total, All Ocupations Entry wage** Mean wage Median wage Exp. wage 47-3015 Helpers--Pipelayers, Plumbers, Pipefitters, and \$14.44 \$16.09 \$11.14 \$14.17 Steamfitters 47-3016 Helpers--Roofers \$9.19 \$12.35 \$12.56 \$13.93 47-3019 Helpers, Construction Trades, All Other \$10.19 \$11.35 \$11.11 \$11.93 47-4011 Construction and Building Inspectors \$24.93 \$17.13 \$24.94 \$28.83 47-4021 Elevator Installers and Repairers n 47-4031 Fence Erectors \$13.90 \$16.61 \$16.54 \$17.97 47-4041 Hazardous Materials Removal Workers \$15.72 \$17.46 \$16.87 \$18.32 47-4051 **Highway Maintenance Workers** \$11.31 \$15.92 \$15.83 \$18.23 47-4061 Rail-Track Laying and Maintenance Equipment \$17.23 \$20.41 \$20.43 \$21.99 Operators 47-4071 Septic Tank Servicers and Sewer Pipe Cleaners \$17.86 \$13.26 \$18.05 \$20.16 47-4099 Construction and Related Workers, All Other \$15.76 \$23.28 \$21.11 \$27.03 47-5021 Earth Drillers, Except Oil and Gas \$16.48 \$18.96 \$17.91 \$20.20 47-5031 Explosives Workers, Ordnance Handling Experts, and Blasters n n n n 47-5051 Rock Splitters, Quarry n n n n 47-5081 \$10.81 \$14.00 \$14.42 Helpers--Extraction Workers \$15.59

Source: New Hampshire Occupational Employment & Wages - May 2013

Please note that the wage data provided in this table does not meet the legal requirements for use in Prevailing Wage Determinations for the permanent labor certification program or the temporary H-1B program. For information on obtaining Foreign Labor Certification prevailing wage data, please visit the NHES Foreign Certification page.

	Appendix C: New Hamp	oshire Long	g-term Oc	cupation	al Projec	tions, 20	012-2022	
soc		2012	2022		Percent	Avera	age Annual Oper	nings
Code	Occupation Title	Estimated	Projected	Change	Change	Growth	Replacements	Total
	Total, All Occupations	668,268	736,999	68,731	10.3%	7,131	15,721	22,852
47-0000	Construction and Extraction Occupations	23,401	26,787	3,386	14.5%	339	376	715
47-1011	First-Line Supervisors of Construction Trades and Extraction Workers	2,864	3,265	401	14.0%	40	31	71
47-2011	Boilermakers	103	96	-7	-6.8%	0	5	5
47-2021	Brickmasons and Blockmasons	276	350	74	26.8%	7	3	10
47-2022	Stonemasons	112	134	22	19.6%	2	1	3
47-2031	Carpenters	3,637	4,267	630	17.3%	63	45	108
47-2041	Carpet Installers	108	112	4	3.7%	0	2	2
47-2042	Floor Layers, Except Carpet, Wood, and Hard Tiles	32	35	3	9.4%	0	1	1
47-2043	Floor Sanders and Finishers	75	82	7	9.3%	1	1	2
47-2044	Tile and Marble Setters	81	89	8	9.9%	1	2	3
47-2051	Cement Masons and Concrete Finishers	189	232	43	22.8%	4	2	6
47-2053	Terrazzo Workers and Finishers	n	n	n	n	n	n	n
47-2061	Construction Laborers	3,302	3,821	519	15.7%	52	71	123
47-2071	Paving, Surfacing, and Tamping Equipment Operators	215	238	23	10.7%	2	3	5
47-2072	Pile-Driver Operators	n	n	n	n	n	n	n
47-2073	Operating Engineers and Other Construction Equipment Operators	945	1,075	130	13.8%	13	21	34
47-2081	Drywall and Ceiling Tile Installers	436	470	34	7.8%	3	4	7
47-2082	Tapers	38	40	2	5.3%	0	0	0
47-2111	Electricians	2,381	2,778	397	16.7%	40	45	85
47-2121	Glaziers	154	172	18	11.7%	2	4	6
47-2131	Insulation Workers, Floor, Ceiling, and Wall	168	200	32	19.0%	3	2	5
47-2132	Insulation Workers, Mechanical	n	n	n	n	n	n	n
47-2141	Painters, Construction and Maintenance	1,248	1,442	194	15.5%	19	19	38
47-2142	Paperhangers	n	n	n	n	n	n	n
47-2151	Pipelayers	157	185	28	17.8%	3	2	5
47-2152	Plumbers, Pipefitters, and Steamfitters	1,697	1,986	289	17.0%	29	21	50
47-2161	Plasterers and Stucco Masons	44	47	3	6.8%	0	0	0

	Appendix C: New Hampshire Long-term Occupational Projections, 2012-2022							
soc		2012	2022		Percent	Avera	age Annual Open	ings
Code	Occupation Title	Estimated	Projected	Change	Change	Growth	Replacements	Total
47-2171	Reinforcing Iron and Rebar Workers	n	n	n	n	n	n	n
47-2181	Roofers	304	322	18	5.9%	2	6	
47-2101	Sheet Metal Workers	646	729	83	12.8%	8	12	20
47-2211	Structural Iron and Steel	040	123	0.5	12.070	0	12	
71-2221	Workers	186	211	25	13.4%	2	6	8
47-2231	Solar Photovoltaic Installers	n	n	n	n	n	n	n
47-3011	HelpersBrickmasons, Blockmasons, Stonemasons, and Tile and Marble Setters	188	244	56	29.8%	6	3	9
47-3012	HelpersCarpenters	147	173	26	17.7%	3	2	5
47-3013	HelpersElectricians	71	93	22	31.0%	2	1	3
47-3014	HelpersPainters, Paperhangers, Plasterers, and Stucco Masons	n	n	n	n	n	n	n
47-3015	HelpersPipelayers, Plumbers, Pipefitters, and Steamfitters	73	88	15	20.5%	2	1	3
47-3016	HelpersRoofers	n	n	n	n	n	n	n
47-3019	Helpers, Construction Trades, All Other	56	66	10	17.9%	1	1	2
47-4011	Construction and Building Inspectors	343	381	38	11.1%	4	8	12
47-4021	Elevator Installers and Repairers	n	n	n	n	n	n	n
47-4031	Fence Erectors	180	196	16	8.9%	2	4	6
47-4041	Hazardous Materials Removal Workers	108	128	20	18.5%	2	2	4
47-4051	Highway Maintenance Workers	1,837	1,953	116	6.3%	12	27	39
47-4061	Rail-Track Laying and Maintenance Equipment Operators	94	92	-2	-2.1%	0	2	2
47-4071	Septic Tank Servicers and Sewer Pipe Cleaners	96	120	24	25.0%	2	2	4
47-4099	Construction and Related Workers, All Other	480	510	30	6.3%	3	9	12
47-5021	Earth Drillers, Except Oil and Gas	142	157	15	10.6%	2	4	6
47-5031	Explosives Workers, Ordnance Handling Experts, and Blasters	n	n	n	n	n	n	n
47-5051	Rock Splitters, Quarry	n	n	n	n	n	n	n
47-5081	HelpersExtraction Workers	52	58	6	11.5%	1	1	2
47-5099	Extraction Workers, All Other	n	n	n	n	n	n	n

n = not publishable

Source: Employment Projections by Industry and Occupation, base year 2012 to projected year 2022

Appendix D: Apprentice Programs for Construction and Extraction Occupations and Installation,
Maintenance, and Repair Occupations commonly found in the Construction Industry

Occupational Title	Apprentice Training Program Title	Type of Training	Term Length (Hours)
Boilermakers	Boilermaker Fitter	Time-Based	8,000
	Boilermaker I	Time-Based	6,000
	Boilermaker li	Time-Based	6,000
Brickmasons and	Bricklayer	Hybrid	4,500-8,000
Blockmasons	Bricklayer (Brick & Tile)	Time-Based	8,000
	Bricklayer (Construction)	Time-Based	6,000
	Bricklayer, Firebrick & Refractory	Time-Based	8,000
	Bricklayers	Hybrid	4,500-8,000
	Bricklayers & Mason	Hybrid	4,500-6,000
	Chimney Repairer	Time-Based	2,000
Stonemasons	Marble Setter	Time-Based	6,000
Ctoriomacono	Monument Setter (Const)	Time-Based	8,000
	Stonemason	Time-Based	6,000
	Stonemason	Hybrid	4,500-8,000
Carpenters	Boatbuilder, Wood	Time-Based	8,000
Carponioro	Carpenter	Hybrid	5,200-8,000
	Carpenter	Time-Based	8,000
	Carpenter Advance Systems Spect. Lv 2	Hybrid	2,600-4,000
	Carpenter Commercial Interior Spec	Time-Based	5,000
	Carpenter Forms & Concrete Level 2	Hybrid	2,600-4,000
	Carpenter Framing & Finishing Level 1	Hybrid	2,760-4,000
	Carpenter Manufacturing	Time-Based	7,328
	Carpenter, Interior Systems	Time-Based	8,000
	Carpenter, Interior Systems	Hybrid	5,200-8,000
	Carpenter, Mold	Time-Based	2,000
	Carpenter, Piledriver	Time-Based	8,000
	Carpenter, Piledriver	Hybrid	5,200-8,000
	Carpenter, Rough	Time-Based	8,000
	Carpenter, Ship	Time-Based	8,000
	Casket Assembler	Time-Based	6,000
	Form Builder (Const)	Time-Based	4,000
	Form Builder (Const)	Hybrid	3,350-4,600
	Insulation Worker	Time-Based	8,000
	Joiner (Ship & Boat Bldg)	Time-Based	8,000
	Lather	Time-Based	6,000
	Lathing Specialist	Hybrid	3,900-8,000
	Prop Maker (Amuse & Rec)	Time-Based	8,000
	Residential Carpenter	Time-Based	4,000
	Residential Carpenter	Hybrid	3,645-4,000
	Residential Carpenter Specialist	Hybrid	3,900-6,000
	Shipwright (Ship & Boat)	Time-Based	8,000
	Timber Framer	Hybrid	5,000-7,000

Appendix D: Apprentice Programs for Construction and Extraction Occupations and Installation, Maintenance, and Repair Occupations commonly found in the Construction Industry

Occupational Title	Apprentice Training Program Title	Type of Training	Term Length (Hours)
Carpet Installers	Carpet Layer	Time-Based	6,000
Tile and Marble	Marble Setter	Hybrid	4,500-8,000
Setters	Mosaic Worker	Time-Based	6,000
	Mosaic Worker	Hybrid	4,500-8,000
	Tile Setter	Time-Based	6,000
	Tile Setter	Hybrid	4,500-8,000
Cement Masons and	Cement Mason	Time-Based	4,000
Concrete Finishers	Cement Mason	Hybrid	4,500-8,000
Construction Laborers	Construction Craft Laborer	Time-Based	4,000
	Construction Craft Laborer	Hybrid	4,000-5,100
	Maintenance Tech Municipal	Time-Based	4,000
	Pointer Cleaner, Caulker	Hybrid	4,500-8,000
	Tuckpointer, Cleaner, Caulker	Time-Based	6,000
Paving, Surfacing, and Tamping Equipment Operators	Asphalt Paving Machine Operator	Time-Based	6,000
Operating	Elevating-Grader Operator	Time-Based	4,000
Engineers and	Motor-Grader Operator	Time-Based	6,000
Other Construction	Operating Engineer	Hybrid	4,000-6,000
Equipment Operators	Operating Engineer	Time-Based	6,000
Drywall and Ceiling	Acoustical Carpenter	Time-Based	8,000
Tile Installers	Carpenter, Acoustical Specialist	Hybrid	3,900-6,000
	Dry-Wall Applicator	Time-Based	4,000
	Dry-Wall Applicator	Hybrid	3,900-6,000
Tapers	Dry-Wall Finisher (Taper)	Hybrid	2,482-4,442
Electricians	Electrician	Time-Based	8,000
	Electrician	Hybrid	8,000
	Electrician (Ship & Boat)	Time-Based	8,000
	Electrician (Water Trans)	Time-Based	8,000
	Electrician, Maintenance	Time-Based	8,000
	Neon-Sign Servicer	Time-Based	8,000
	Protective-Signal Repairer	Time-Based	6,000
	Residential Wireman	Time-Based	4,800
	Street-Light Servicer	Time-Based	8,000
Glaziers	Architural Glazier	Time-Based	4,000
	Glazier	Time-Based	6,000
	Glazier	Hybrid	2,512-4,192
	Glazier, Stained Glass	Time-Based	8,000

Appendix D: Apprentice Programs for Construction and Extraction Occupations and Installation,
Maintenance, and Repair Occupations commonly found in the Construction Industry

Occupational Title	Apprentice Training Program Title	Type of Training	Term Length (Hours)
Insulation Workers,	Cork Insulator, Refrigerator Plt	Time-Based	8,000
Floor, Ceiling, and	Insulation Worker	Time-Based	8,000
Wall			
Painters, Construction	, ,	Time-Based	6,000
and Maintenance	Painter (Const)	Time-Based	6,000
	Painter-Decorator (Painter Const)	Hybrid	4,572-7,052
	Painter, Indust Coating And Lining App Specialist	Hybrid	4,632-6,032
	Painter, Shipyard	Time-Based	6,000
	Pavement Striper	Time-Based	4,000
Plumbers, Pipefitters,	Coppersmith (Ship & Boat)	Time-Based	8,000
and Steamfitters	Gas-Main Fitter	Time-Based	8,000
	Pipe Fitter	Hybrid	8,500-10,000
	Pipe Fitter - Sprinkler Fitter	Time-Based	8,000
	Pipe Fitter - Sprinkler Fitter	Hybrid	8,500-10,000
	Pipe Fitter - Sprinkler Fitter 1st Year Level I	Hybrid	1,700-2,000
	Pipe Fitter - Sprinkler Fitter 2nd Year Level li	Hybrid	3,400-4,000
	Pipe Fitter - Sprinkler Fitter 3rd Year Level Iii	Hybrid	5,100-6,000
	Pipe Fitter (Const)	Time-Based	8,000
	Pipe Fitter (Ship & Boat)	Time-Based	8,000
	Pipe Fitter 1st Year Level I	Hybrid	1,700-2,000
	Pipe Fitter 2nd Year Level li	Hybrid	3,400-4,000
	Pipe Fitter 3rd Year Level Iii	Hybrid	5,100-6,000
	Pipefitting	Time-Based	7,328
	Plumber	Time-Based	7,328
	Plumber	Time-Based	8,000
	Plumber	Hybrid	8,500-10,000
	Plumber, 1st Year Level I	Hybrid	1,700-2,000
	Plumber, 2nd Year Level Ii	Hybrid	3,400-4,000
	Plumber, 3rd Year Level lii	Hybrid	5,100-6,000
	Steam Service Inspector	Time-Based	8,000
Plasterers and Stucco	Plasterer	Time-Based	4,000
Masons	Plasterer	Hybrid	4,500-8,000
Roofers	Roofer	Time-Based	4,000
Sheet Metal Workers	Sheet Metal Worker	Hybrid	6,400-7,200
	Sheet Metal Worker	Time-Based	8,000
	Sheet Metal Worker	Hybrid	8,000-9,000
	Sheet Metal Worker & Tinsmith	Time-Based	7,328

Appendix D: Apprentice Programs for Construction and Extraction Occupations and Installation, Maintenance, and Repair Occupations commonly found in the Construction Industry

Occupational Title	Apprentice Training Program Title	Type of Training	Term Length (Hours)
Structural Iron and	Assembler, Metal Building	Time-Based	4,000
Steel Workers	Structural Steel/Ironworker	Time-Based	6,000
	Structural Steel/Ironworker	Hybrid	6,000-8,000
	Structural Steel/Ironworker	Hybrid	4,200-6,000
	Structural Steel/Ironworker	Hybrid	5,600-8,000
	Tank Setter (Petrol Prod)	Time-Based	4,000
HelpersBrickmasons,	Marble Finisher	Time-Based	4,000
Blockmasons,	Marble Finisher	Hybrid	3,500-4,000
Stonemasons, and Tile	Tile Finisher	Time-Based	4,000
and Marble Setters	Tile Finisher	Hybrid	3,500-4,000
Elevator Installers and	Elevator Constructor	Time-Based	6,800
Repairers	Elevator Constructor Mechanic	Time-Based	8,000
·	Elevator Repairer	Time-Based	8,000
Construction and	Hazardous-Waste Material Technician	Time-Based	4,000
Related Workers, All	Ornamental Iron Worker	Time-Based	6,000
Other	Ornamental Ironworker	Hybrid	5,600-8,000
	Ornamental Ironworker/Architect	Hybrid	4,200-6,000
	Ornamental Ironworker/Architect	Hybrid	6,000-8,000
	Sign Erector I	Time-Based	6,000
Earth Drillers, Except	Geothermal And Welldrilling Operator	Hybrid	4,000-6,000
Oil and Gas	Well Drill Operator (Const)	Time-Based	8,000
	Miner I (Mine & Quarry)	Time-Based	2,000
Mobile Heavy	Construction Equipment Mechanic	Time-Based	8,000
Equipment Mechanics,	Logging-Equipment Mechanic	Time-Based	8,000
Except Engines	Mechanic, Endless Track Veh	Time-Based	8,000
Mechanical Door	Automated Access Systems Technician	Time-Based	3,520
Repairers	Door-Closer Mechanic	Time-Based	6,000
Heating, Air	Air & Hydronic Balancing Technician	Time-Based	6,000
Conditioning,	Environ. Control Syst. Instal/Services	Time-Based	8,000
and Refrigeration	Furnace Installer	Time-Based	6,000
Mechanics and	Furnace Installer & Repairer	Time-Based	8,000
Installers	Heating & Air-Conditioner Install/Ser	Time-Based	6,000
	Heating & Air-Conditioner Install/Ser	Hybrid	8,500-10,000
	Heating & Air-Conditioner Install/Ser 1st Year Level I	Hybrid	1,700-2,000
	Heating & Air-Conditioner Install/Ser 2nd Year Level Ii	Hybrid	3,400-4,000
	Heating & Air-Conditioner Install/Ser 3rd Year Level Iii	Hybrid	5,100-6,000
	Oil Burner-Servicer & Installer	Time-Based	4,000
	Refrig And Air Conditioning Maint	Time-Based	7,328
	Refrigeration Mechanic (Any Ind)	Time-Based	6,000
	Refrigeration Unit Repairer	Time-Based	6,000
	Refrigration & Air Condition Mech	Hybrid	7,480-8,800

Appendix D: Apprentice Programs for Construction and Extraction Occupations and Installation, Maintenance, and Repair Occupations commonly found in the Construction Industry

Occupational Title	Apprentice Training Program Title	Type of Training	Term Length (Hours)
Maintenance Workers, Machinery	Pinsetter Mech, Automatic	Time-Based	4,000
Millwrights	Automated Equipment Enginer-Tech	Time-Based	8,000
	Machine Erector	Time-Based	8,000
	Millwright	Time-Based	8,000
	Millwright	Time-Based	7,328
	Millwright	Hybrid	5,200-8,000
Electrical Power- Line Installers and Repairers	Cable Installer-Repairer	Time-Based	6,000
	Cable Splicer	Time-Based	8,000
	Line Maintainer	Time-Based	8,000
	Line Maintainer	Time-Based	7,000
	Line Repairer	Time-Based	6,000
	Power-Line Distribution Erector	Time-Based	6,000
	Trouble Shooter li	Time-Based	6,000
Telecommunications Line Installers and Repairers	Building Maintenance Repairer	Time-Based	4,000
	Cable Television Installer	Time-Based	2,000
	Line Installer-Repairer	Time-Based	8,000
HelpersInstallation, Maintenance, and Repair Workers	Facilities Locator	Time-Based	4,000
	Service Planner (Light, Heat)	Time-Based	8,000
	Service Planner (Light, Heat)	Hybrid	7,500-8,000
Installation, Maintenance, and Repair Workers, All Other	Aviation Safety Equipment Technician	Time-Based	8,000
	Lubrication Ser Material Disposal Tech	Time-Based	4,000
	Wind Turbine Technician	Hybrid	4,000-6,000

United States Department Of Labor, Employment and Training Administration, Registered Apprenticeship, http://www.doleta.gov/oa/

Appendix E: Number of Military Job Codes that Correspond to Civilian Occupations Found in the Construction Industry

	Army	Coast Guard	Air Force	Marines	Navy
Accountants and Auditors		1	3	6	5
Boilermakers		1			1
Bookkeeping, Accounting, and Auditing Clerks	3	2	1	2	9
Brickmasons and Blockmasons			3	2	3
Business Operations Specialists, All Other	8	1	14	6	9
Carpenters	3	3	3	2	2
Cement Masons and Concrete Finishers	2	1	3	2	3
Chief Executives	1		15	2	
Construction and Related Workers, All Other	7	3	2		4
Construction Managers	3			1	19
Cost Estimators			3		1
Crane and Tower Operators	2				
Earth Drillers, Except Oil and Gas					1
Electrical Power-Line Installers and Repairers	3		6		5
Electricians	3		4	1	8
Elevator Installers and Repairers			_	_	3
Financial Managers	4	4	3	5	6
Financial Specialists, All Other			5		
First-Line Supervisors/Managers of Construction Trades and Extraction Workers	13		8	2	4
First-Line Supervisors/Managers of Mechanics, Installers, and Repairers	56	5	147	31	112
First-Line Supervisors/Managers of Office and Administrative Support Workers	4	3	35	4	11
First-Line Supervisors/Managers of Transportation and Material-Moving Machine and Vehicle Operators	2		3	1	5
General and Operations Managers	2	4	36	4	99
Heat Treating Equipment Setters, Operators, and Tenders, Metal and Plastic					1
Heating, Air Conditioning, and Refrigeration Mechanics and Installers	3	1	4	2	5
Helpers, Construction Trades, All Other					1
Installation, Maintenance, and Repair Workers, All Other	10	3	38	6	41
Maintenance and Repair Workers, General			32	4	22
Maintenance Workers, Machinery					6
Managers, All Other	7	4	61	30	60
Mobile Heavy Equipment Mechanics, Except Engines	16	2	9	2	9
Office Clerks, General	1		1	6	10
Operating Engineers and Other Construction Equipment Operators	9	3		2	5

Appendix E: Number of Military Job Codes that Correspond to Civilian Occupations Found in the Construction Industry

	Army	Coast Guard	Air Force	Marines	Navy
Paving, Surfacing, and Tamping Equipment Operators	3		3		1
Payroll and Timekeeping Clerks	1		4	2	3
Pipelayers		1			
Plumbers, Pipefitters, and Steamfitters	3	2		1	6
Purchasing Agents, Except Wholesale, Retail, and Farm Products			3	5	
Secretaries, Except Legal, Medical, and Executive	1		2		
Sheet Metal Workers		1			1
Stock Clerks and Order Fillers	7	1	5	8	12
Structural Iron and Steel Workers	1	3	3		4
Structural Metal Fabricators and Fitters	1				5
Switchboard Operators, Including Answering Service	1				
Telecommunications Line Installers and Repairers	5	1	4	4	1
Truck Drivers, Heavy and Tractor-Trailer	2		3	3	
Welders, Cutters, Solderers, and Brazers	3		4	2	6

For more information, go to My Next Move for Veterans: www.mynextmove.org/vets/