

## Graduate Employment Opportunities: Comparing Bachelor's Degree Completions to Occupational Requirements

In 2015, 23,694 students received a postsecondary degree or certificate from a college, university, or career school in New Hampshire. Many of these students began looking to join New Hampshire's workforce, and start a career.

In what programs of study do New Hampshire students earn degrees most frequently? For those entering New Hampshire's workforce, for what occupations are they qualified?

New Hampshire postsecondary educational institutions conferred bachelor's degrees to 11,832 students in 2015.<sup>1</sup> The 15 most common degrees had a combined 6,334 completers in 2015, slightly over half of all graduates.

To see what occupations these programs are likely to lead to, educational completer data needs to be compared to occupational data. Occupations are classified using the 2010 Standard Occupational Classification (SOC). The CIP-SOC crosswalk<sup>2</sup> is used to detail the relationship between educational programs and occupations. According to the National Center for Educational Statistics, "A CIP-SOC relationship indicates that programs classified in the CIP category prepare individuals directly for jobs classified in the SOC category."<sup>3</sup>

### Inside this issue

#### Seasonally

##### Adjusted Estimates

Unemployment Rates. . . . . 5

Current Employment Statistics. . . . . 5

#### Not Seasonally

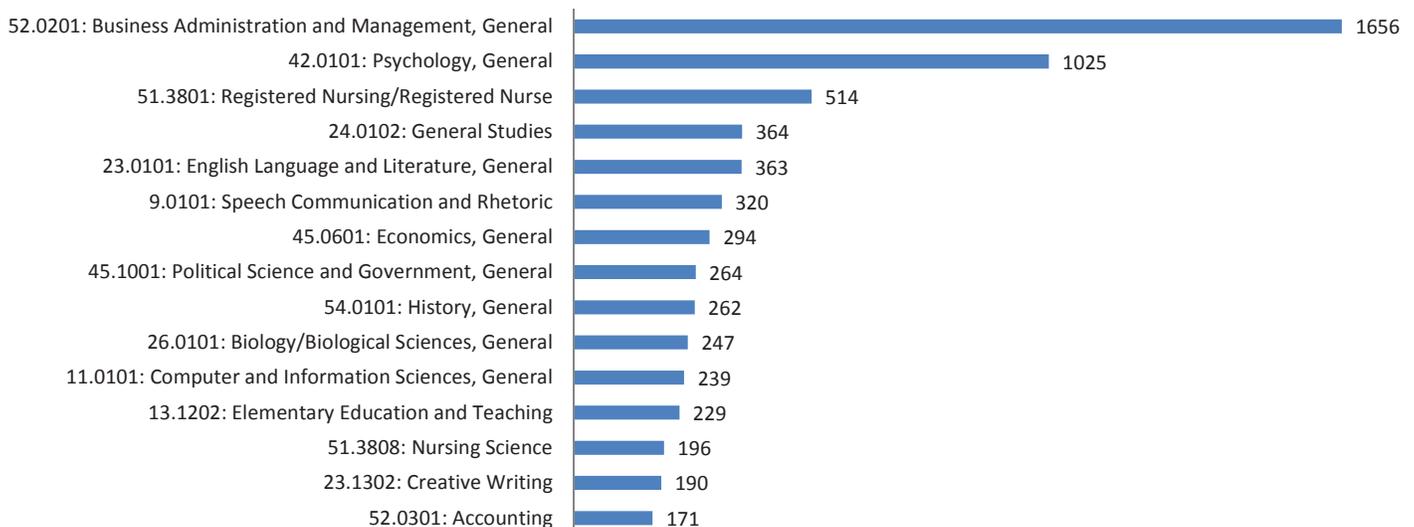
##### Adjusted Estimates

Unemployment Rates. . . . . 6

Current Employment Statistics. . . . . 6

Claims Activity . . . . . 10

**Number of Bachelor's Degree Completers in New Hampshire in 2015**



<sup>1</sup> Data about postsecondary educational program completers are reported to and compiled by the Integrated Postsecondary Educational Data System (IPEDS). IPEDS uses the 2010 Classification of Instructional Programs (CIP) to classify educational program completers

<sup>2</sup> The CIP-SOC crosswalk used was jointly developed by the Bureau of Labor Statistics and the National Center for Educational Statistics. For more information, visit the NCES website: <https://nces.ed.gov/ipeds/cipcode/crosswalk.aspx?y=55>

<sup>3</sup> National Center for Educational Statistics, "Guidelines for Using the CIP-SOC Crosswalk:" <https://nces.ed.gov/ipeds/cipcode/resources.aspx?y=55>

An excerpt of this crosswalk is included below, for the four of the most common programs of study. Also included in the chart are the typical level of education and the typical amount of experience or on-the-job training needed for an entry level position for these positions. It also includes the estimated number of annual openings in each field, as estimated by long-term occupational employment projections.<sup>4</sup>

The requirements for the occupation Registered Nurses matched the education and experience expected for bachelor’s degree completers from a Registered Nursing/Registered Nurse program. For this occupation,

there were 491 projected annual openings, compared to 514 degree completers in 2015. There were also 196 completers from Nursing Science programs in 2015 qualified to work in a Registered Nurse position.

In contrast, most of the occupations related to Business Administration and Management, General, required more years of experience than likely achieved by a recent program completer. Similarly, nearly all of the entry-level occupations related to an educational program in Psychology, General, required at least a Master’s degree. This leaves Bachelor’s degree completers from both of these programs with either insufficient

education or experience to qualify for entry-level employment. In addition, the number of completers was significantly higher than the number of projected annual openings, an indication of heavy competition for positions for which these graduates do qualify.

Occupations corresponding to degrees in Speech Communication and Rhetoric usually required a Bachelor’s degree for entry-level employment, but the number of annual projected openings for these occupations was also much smaller than the number of degree completers from 2015.

CIP 2010 Code and Title	SOC 2010 Code and Title	Entry-Level Education	Experience/ On-the-Job Training	Projected Annual Openings <sup>1</sup>
52.0201: Business Administration and Management, General	11-1011: Chief Executives	Bachelor's degree	5+ yrs	25
	11-1021: General and Operations Mgrs.	Bachelor's degree	5+ yrs	296
	11-2022: Sales Managers	Bachelor's degree	< 5 yrs	62
	11-3011: Administrative Services Mgrs.	Bachelor's degree	< 5 yrs	18
	11-3051: Industrial Production Mgrs.	Bachelor's degree	5+ yrs	23
	11-3071: Transportation, Storage, and Distribution Managers	High school diploma or equivalent	5+ yrs	9
	11-9021: Construction Managers	Bachelor's degree	Moderate OJT	22
	11-9151: Social and Community Service Managers	Bachelor's degree	5+ yrs	21
	11-9199: Managers, All Other	Bachelor's degree	< 5 yrs	264
	13-1051: Cost Estimators	Bachelor's degree	none	25
	13-1111: Management Analysts	Bachelor's degree	< 5 yrs	76
42.0101: Psychology, General	11-9199: Managers, All Other	Bachelor's degree	< 5 yrs	264
	19-3031: Clinical, Counseling, and School Psychologists	Doctoral or professional degree	Intern/Residency	19
	19-3039: Psychologists, All Other	Master's degree	Intern/Residency	0
51.3801: Registered Nursing/ Registered Nurse	29-1141: Registered Nurses	Bachelor's degree	none	491
23.1302: Creative Writing	27-3041: Editors	Bachelor's degree	< 5 yrs	15
	27-3043: Writers and Authors	Bachelor's degree	Moderate OJT	17
09.0101: Speech Communication and Rhetoric	27-3011: Radio and Television Announcers	Bachelor's degree	Short OJT	4
	27-3031: Public Relations Specialists	Bachelor's degree	none	21
	27-3043: Writers and Authors	Bachelor's degree	Moderate OJT	17

<sup>4</sup>Economic and Labor Market Information Bureau, New Hampshire Employment Security, New Hampshire Long-term Occupational Projections, 2014 to 2024

<sup>5</sup>Total annual openings are an estimated number of new workers needed annually for each occupation. It is the sum of openings due to new job growth and openings due to replacement needs. A replacement is a job opening created by a worker who permanently leaves an occupation because of retirement, death, or exiting the workforce. The estimate does not include turnover, or workers moving from one job to another within the same occupation.

The programs of study shown in this chart demonstrate well the challenges and opportunities that degree completers will face when entering the workforce. For some programs of study, such as Accounting, Elementary Education and Teaching, and Computer and Information Sciences, General, Bachelor’s degree completers are well positioned to obtain entry-level jobs related to their program of study, and should find plenty of entry-level jobs in these fields available.

But for many others, there are a limited number of entry-level opportunities for bachelor’s degree completers within occupations related to their program of study. Bachelor’s degree completers that have a difficult time finding work within their fields may need to pursue an advanced degree to qualify for employment outside of New Hampshire, or may take a job that is not directly related to their program of study.

Another estimation of how qualified postsecondary graduates are to enter the workforce can be made by comparing field of study to level of education specified in job ads. Online job postings<sup>6</sup> can be used to determine what jobs are available to bachelor’s degree completers that may not be directly related to their program of study. Using the Labor/Insight tool from Burning Glass Technologies, jobs advertisements posted for employment in New Hampshire were examined for the level of education and amount of experience required.<sup>7</sup>

**Educational Completers as a Proxy for Labor Supply**

The count of students completing an educational program at a New Hampshire postsecondary educational institution in 2015 is used as a proxy for the labor supply to establish a point-in-time estimate of labor available to fill occupations. There are no data available on the exact numbers of students entering the labor force, the state in which they obtained employment, the occupation in which they became employed, or even if they entered the labor force at all. The following items are not taken into account when looking at that number of completers:

1. Students awarded degrees from New Hampshire postsecondary institutions in 2015 that do not enter the labor force, for reasons such as continuing their education to earn a higher degree, entering the military, or choosing an entirely different line of work.
2. The number of students awarded degrees in New Hampshire in specific educational programs who enter the labor force in a different state, as well as those who are awarded degrees in other states and enter the New Hampshire labor force.
3. Only primary majors of dual-major graduates were considered, to avoid double-counting a single graduate.

Job postings were categorized into Standard Occupational Classification (SOC) codes; those SOC codes that appeared most frequently were then examined to determine what level of education was typically required and, if postings specified that candidates needed a bachelor’s degree, the programs of study requested.

indicates which of the most common programs of study were preferred or required in job ads for each of these occupations.

The occupations requiring a bachelor’s degree that appeared most frequently in jobs postings are shown in the chart below. The chart also

SOC Code	Occupation Description	Projected Annual Openings	Labor Insight Job Postings, 2016
29-1141	Registered Nurse	491	1,132
15-1132	Software Developers, Applications	148	410
13-2011	Accountants and Auditors	185	279
41-4000	Sales Representatives, Wholesale and Manufacturing	284	416
41-1011	First-Line Supervisors of Retail Sales Workers	243	273
13-1071	Human Resources Specialists	62	154
11-9199	Managers, All Other	264	236
13-1161	Market Research Analysts and Marketing Specialists	55	104

<sup>6</sup> Annual openings are not the same as job postings, which are advertisements for jobs

<sup>7</sup> Labor/Insight, Burning Glass Technologies, New Hampshire results from January 1st, 2016 through December 31st, 2016, looking for candidates with either 0-2 years of experience or unspecified experience



Employers trying to fill some occupations, such as Software Developers, Applications, were looking for candidates with one specific program of study, such as Computer and Informational Sciences, General. Employers trying to fill other occupations, such as Market Research Analysts and Marketing Specialists, were looking for candidates with one of several programs of study, including Speech Communication and Rhetoric, Business Administration and Management, General, and Marketing/Marketing Management, General. Employers trying to fill other occupations requested a candidate with a Bachelor’s degree, but did not request a specific program of study.

Comparing projected annual job openings from long-term employment projections to job ads for 2016 show that there will be ample employment opportunities for anyone seeking to enter these occupations.

**Summary**

The 15 most common Bachelor’s degree programs in New Hampshire made up about half of all bachelor’s degrees conferred in 2015. These programs give an indication of the jobs workers entering the New Hampshire workforce will be qualified for.

Some of the top Bachelor’s degree programs showed a strong relationship between program of

study and occupation, providing completers with a clear path from degree to job. For many other programs, job opportunities directly related to the program of study are limited. Fortunately, this does not mean that job opportunities for these workers are also limited. There were many job postings that indicated employers were looking for candidates with a Bachelor’s degree of any kind. Almost all of these jobs fell within the occupational groups of Sales and Related Occupations and Office and Administrative Support Occupations.

*Greg David, Labor Market Analyst*