

Educational Attainment of New Hampshire's Workforce



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The following **New Hampshire Employment Security** staff were instrumental in producing this publication:

Economic and Labor Market Information Bureau

Annette Nielsen, *Economist*

Cover design and pre-press layout, and web publishing

Deborah J. Dunn, *Informational/Website Representative*

Printing Services Provided by NHES Reproduction Department

For further information about this analysis contact:

Annette Nielsen
(603) 229-4427
Annette.Nielsen@nhes.nh.gov

Economic and Labor Market Information Bureau
New Hampshire Employment Security
45 South Fruit St
Concord, New Hampshire 03301
(603) 228-4124
elmi@nhes.nh.gov
www.nhes.nh.gov/elmi

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Educational Attainment of New Hampshire's Workforce



State of New Hampshire

Christopher T. Sununu, *Governor*

New Hampshire Employment Security

George N. Copadis, *Commissioner*

Economic and Labor Market Information Bureau

Katrina J. Evans, *Interim Director*

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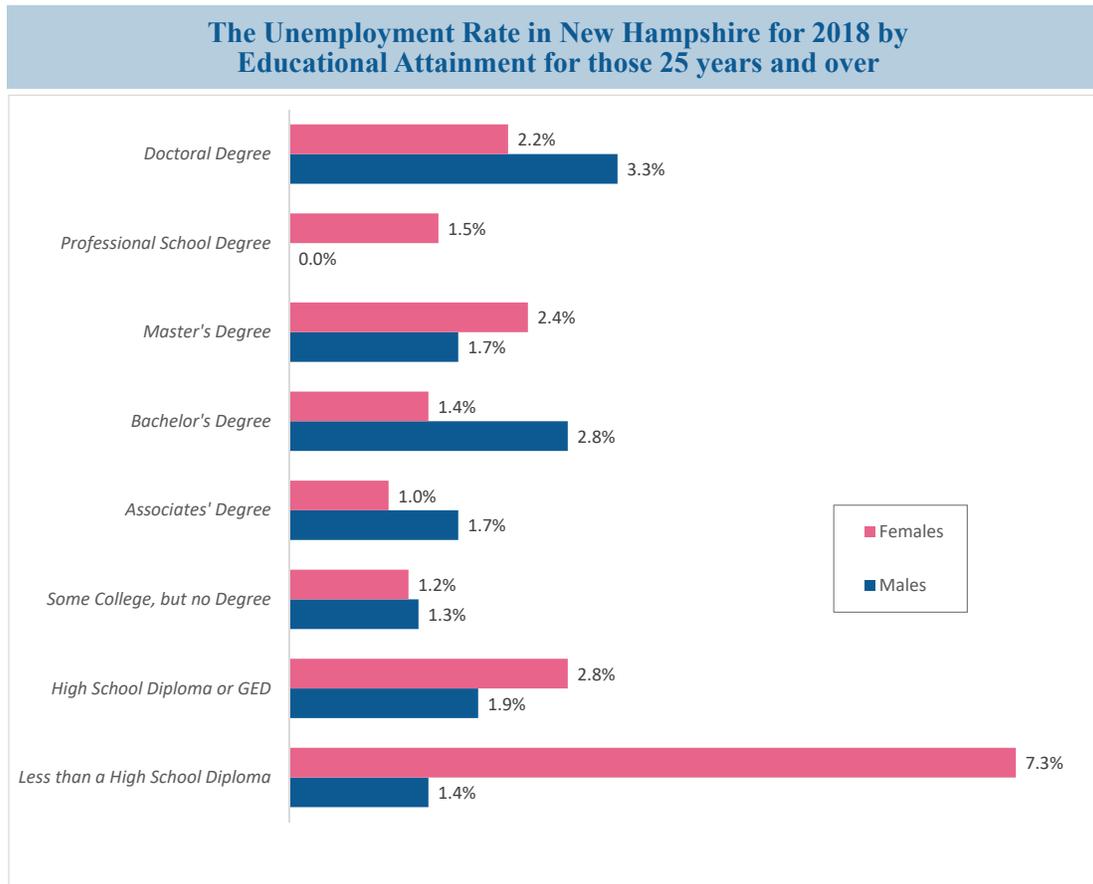
Note: Tables and charts are indented in the above Table of Contents

“Girls spend more time in school - The gap has closed

As of 2015, girls entering school were expected to complete a little over 12 years of schooling on average worldwide, outpacing their male classmates for the first time. Compare that to 1970, when boys spent almost two years longer in school, on average”¹

What does the Educational Attainment Picture look like for New Hampshire and why does it matter?

A high level of educational attainment is viewed as a positive indicator for the labor market. Generally, there is a strong relationship between high educational attainment level and low level of unemployment. Furthermore, 2017 data show that the employment rate (also known as the employment-to-population ratio)² increased incrementally, with higher levels of educational attainment nationally for young adults (age 25-34).³ Both attachment to and engagement in the labor market generally rise with an increase in educational attainment.



Source: US Census Bureau, unpublished Current Population Survey data (12 Months Average).

¹ <https://www.bloomberg.com/graphics/2019-bloomberg-new-economy/progress-women-made-worldwide-gender-gap/>

² A low level of participation in the labor force can result in a lower unemployment rate than expected. The employment to population ratio is sometimes used to show a fuller picture of the economic situation.

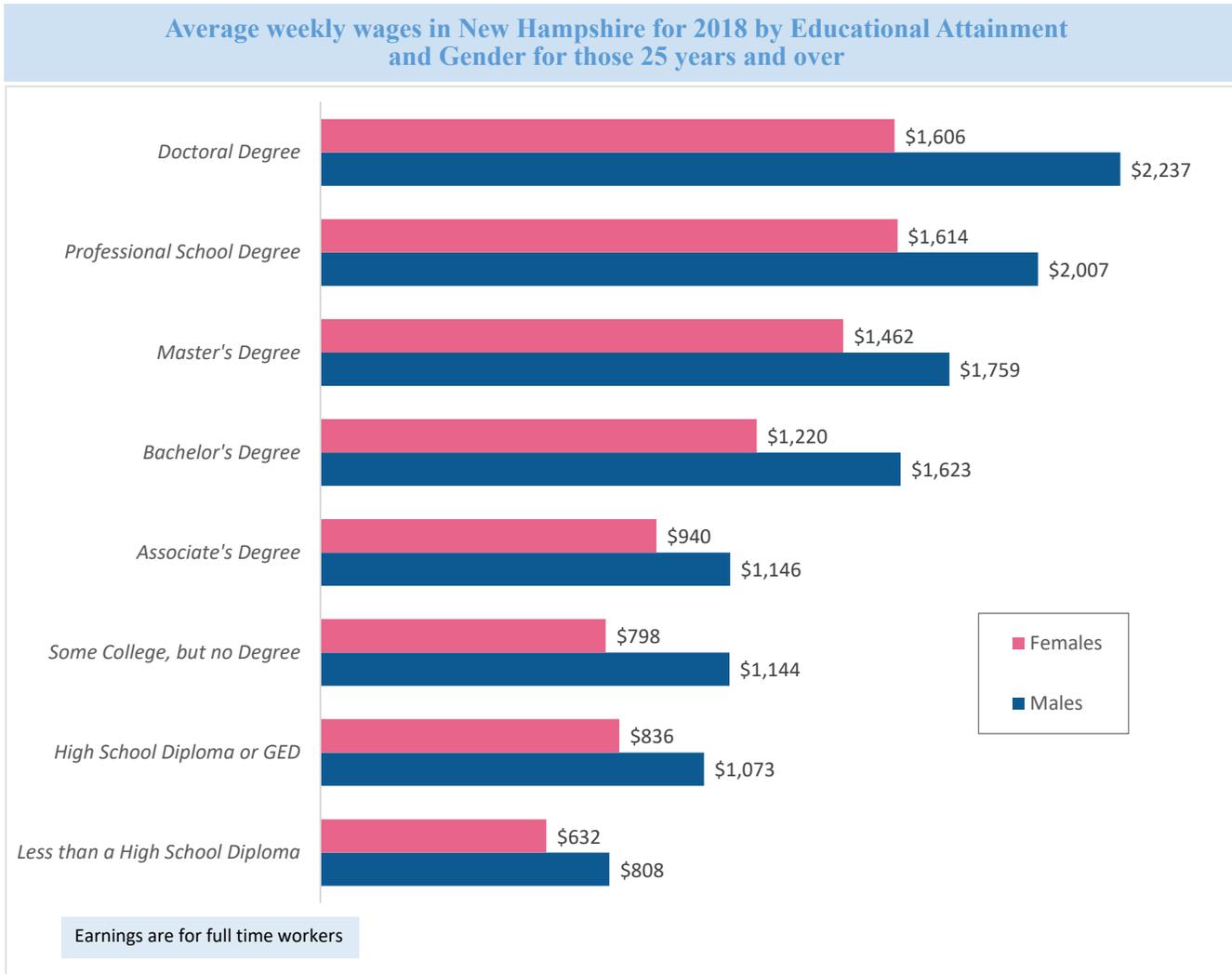
³ page 254 <https://nces.ed.gov/pubs2018/2018144.pdf>

In New Hampshire, the unemployment rate in 2018 for residents age 25 and over was very low at 2.0 percent, and there was no difference between males and females. Breaking the unemployment rate data down by educational attainment for males and females, however, depicts some variation.

Males had the highest level of unemployment at the bachelor's degree level and at the doctoral degree level. Reasons could be that the hiring process for educated workers tends to take longer for more professional level jobs or it could be related to the specialization of degree by knowledge area. This means workers may need to search a wider geographic area to find demand for their specific degree. Males at all other levels of educational attainment had very low unemployment.

The unemployment rate for females in New Hampshire by educational attainment differs from that of males. Females had the highest level of unemployment when no high school diploma was attained, at 7.3 percent. Even when no more than a high school diploma was attained, the unemployment rate was higher than the average for all females, which was 2.0 percent. In contrast, females with some college education or an associate's degree had a very low level of unemployment.

From a wage perspective, pursuing a higher level of educational attainment is beneficial. For males, wage progression is especially evident at the bachelor's degree level and at each level above the bachelor's degree. The incentive for males to achieve postsecondary education below the bachelor's degree might seem less essential, as there is little variation in earnings.



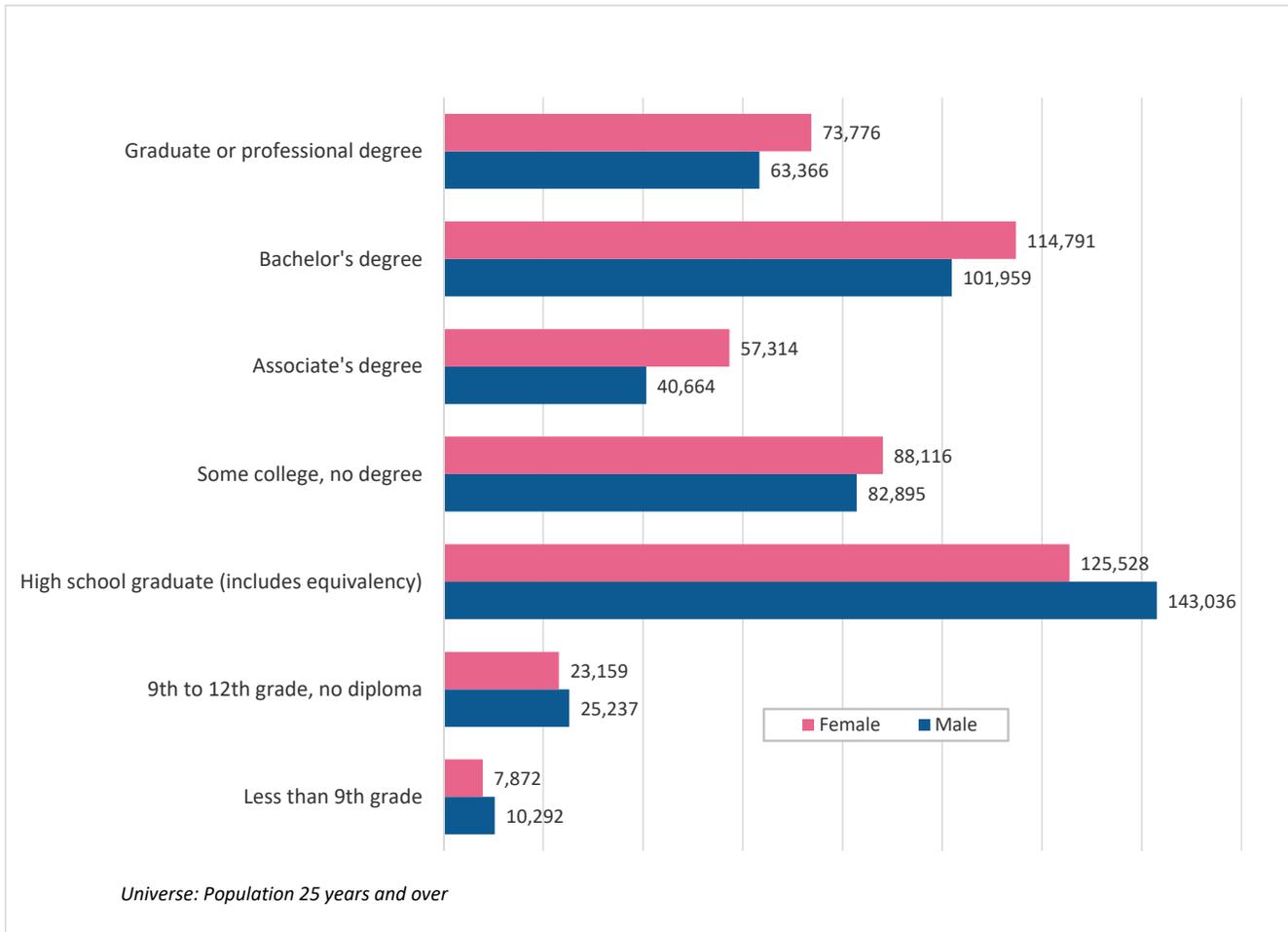
Source: US Census Bureau, unpublished Current Population Survey data (12 Months Average).

In comparison, a New Hampshire female working full time needs to have attained a bachelor's degree in order to earn more than a New Hampshire male with a high school diploma. The unemployment rate and earnings data by educational attainment suggest that there are fewer "good economic opportunities" for females who do not pursue at least some kind of postsecondary education.

Is it true that Females in New Hampshire are More Educated than Males?

According to the American Community Survey for 2017, educational attainment is higher for females than for males in New Hampshire. There were about 16,650 more females than males with an associate's degree, about 12,800 more females with a bachelor's degree and about 10,400 more females with a graduate or professional degree.

New Hampshire Residents Age 25 and over by Degree Level in 2017

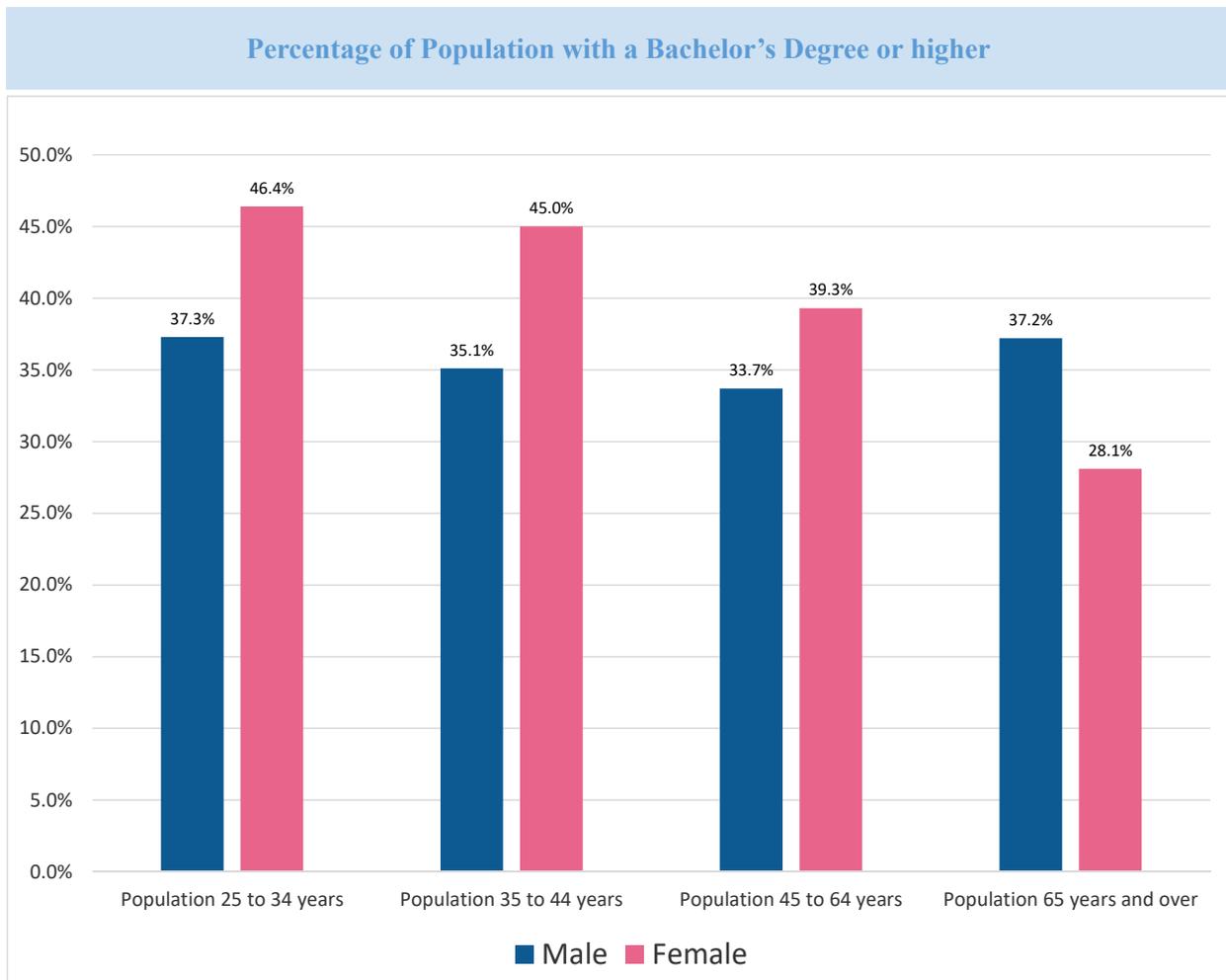


Source: U.S. Census Bureau, 2017 American Community Survey 1-Year Estimates.

Overall, the State of New Hampshire is highly educated compared to the nation. The share of females with a bachelor's degree or higher was 38.4 percent, compared to the nation at 32.6 percent. Males in New Hampshire were also more educated than males nationally, with 35.4 percent of males in New Hampshire holding a bachelor's degree or above in comparison with the nation at 31.3 percent. For the nation, the female share of population with a bachelor's degree or above was higher than the share of males, as it is in New Hampshire, but the gap in educational attainment between the two sexes for the nation was narrower than the gap in educational attainment between males and females in New Hampshire.

Comparing educational attainment at the bachelor's degree level and higher by age for New Hampshire, there was a larger disparity among age cohorts. The difference between males and females was the furthest apart in the age group 35 to 44 years. In this age cohort, the share of females with a bachelor's degree or higher was nearly ten percentage points higher than the share of males. While the educational attainment of females was higher in most age cohorts, among those age 65 and over, New Hampshire males had a vastly higher share of persons holding a bachelor's degree or higher than females. This might not be surprising, as females historically did not attend higher education at the same rate as males.

(Note: Those age 65 and over in 2018 were born in 1953 or earlier; the youngest members of this cohort would have reached age 18, usual college age, in 1971.)

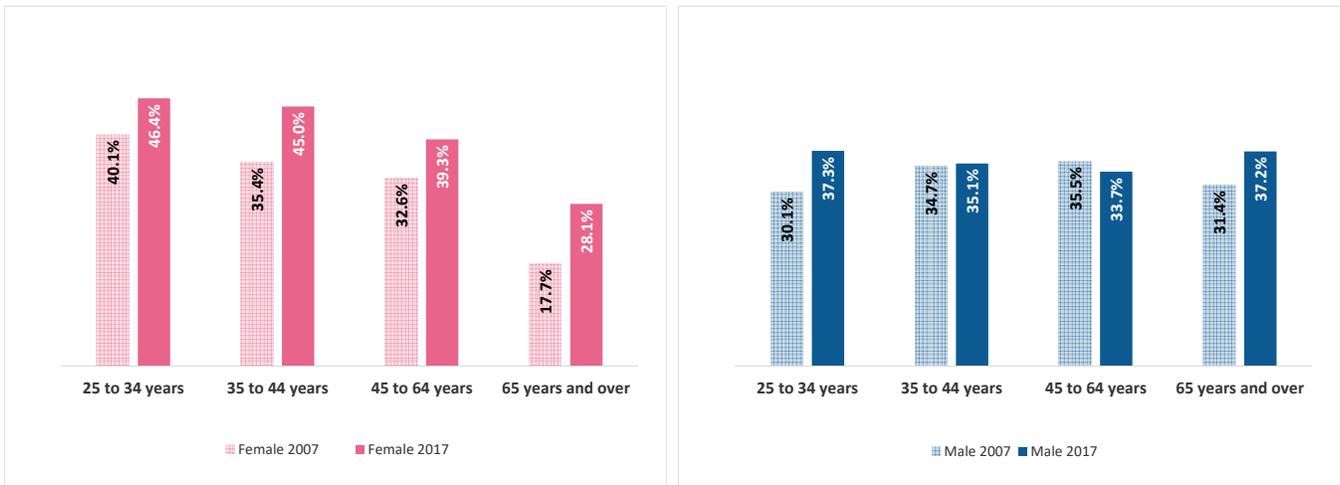


Source: U.S. Census Bureau, 2017 American Community Survey 1-Year Estimates.

What might seem surprising is that the educational attainment for the male population age 65 and over with a bachelor's degree and higher is nearly identical to the share of males in the youngest age cohort (25 to 34 years of age).

Over the last ten years, there has been an improvement in the educational attainment of New Hampshire residents. The share with a bachelor's degree or higher improved from 32.5 in 2007 to 36.9 percent in 2017. By gender, the share of females with a bachelor's degree or above improved from 31.4 percent to 38.4 percent, while the share of males improved from 33.7 percent to 35.4 percent. In 2007, the share of males with a bachelor's degree or above was actually higher than that of females in New Hampshire. That has changed over the last ten years.

Comparing the Shares of the New Hampshire Population with a Bachelor's Degree or higher over time



Source: U.S. Census Bureau, 2007 and 2017 American Community Survey 1-Year Estimates.

Data on educational attainment by gender and age show that the female share of the population with a bachelor's degree or higher improved significantly in all age categories, whereas the male share with bachelor's degree or higher displayed a more mixed picture. In the age cohort 35 to 45 years, males experienced no improvement in educational attainment and in the age cohort 45 to 64 years, the share of males with educational attainment at the bachelor's degree or above level declined slightly. The educational attainment of the 25 to 34 years and 65 years and over age cohorts improved significantly over the last ten years.

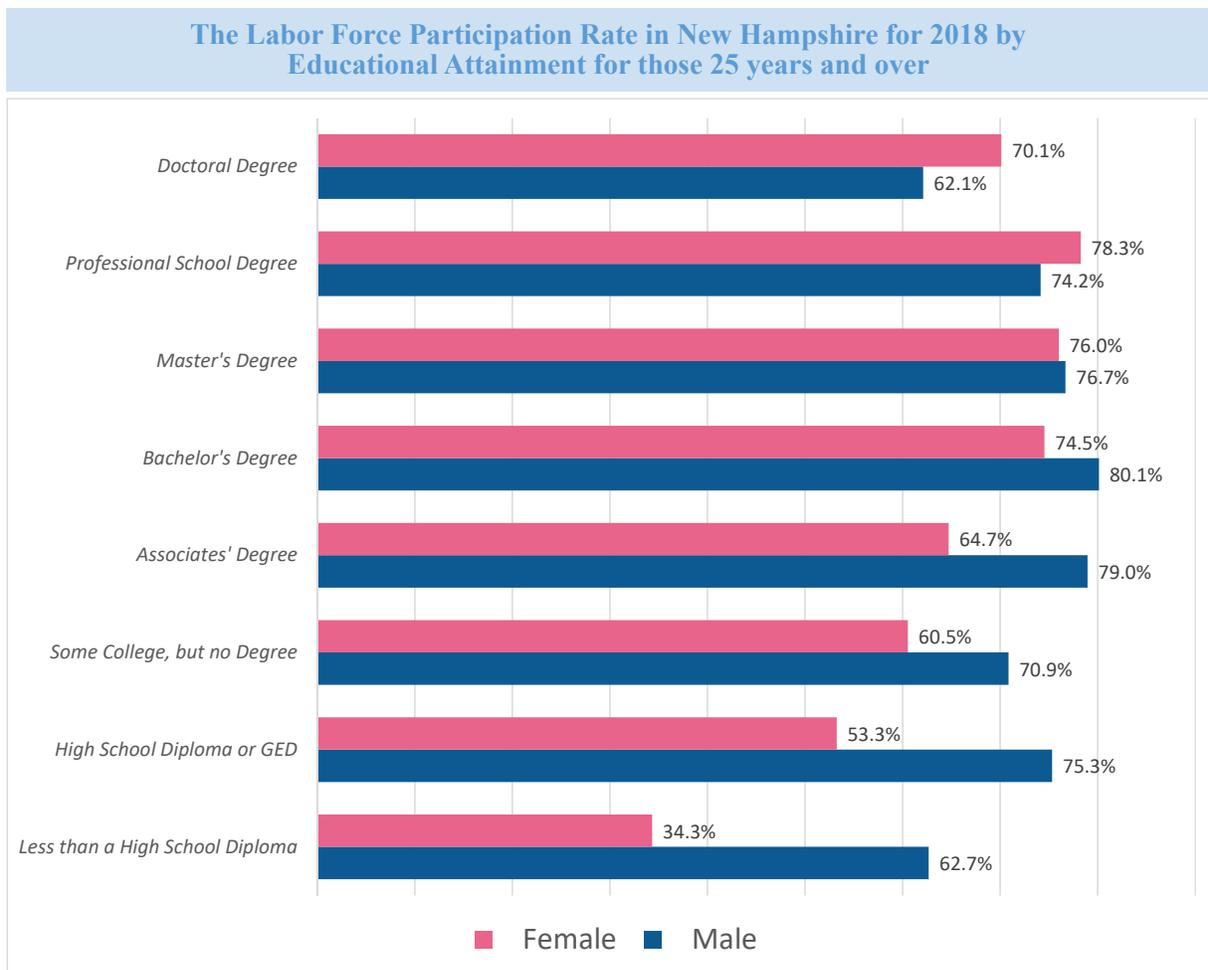
Educational attainment for a given year is based on the persons currently living in the state and changes are only partially determined by educational behavior of the native residents. In addition to a higher prevalence of postsecondary attendance and completion, migration into and out of the state for each of these age cohorts can alter the average educational attainment over time.

Overall, the data show that females are highly educated in New Hampshire, that they are more educated than males, and that their educational attainment has risen over the last ten years.

Labor Force Participation by Educational Attainment

Labor force participation tends to increase with a higher level of educational attainment. For the nation, the labor force participation rate for those with no more than a high school diploma was 57.5 percent, in comparison to those with a bachelor's degree at 73.4 percent. Similarly, in New Hampshire the labor force participation rate for those with no more than a high school diploma was 64.6 percent, in comparison to those with a bachelor's degree at 77.4 percent.

Despite females having a higher level of educational attainment, the labor force participation rate for New Hampshire females has generally been about ten percentage points lower than the labor force participation rate for New Hampshire males over the last ten years.



Source: US Census Bureau, unpublished Current Population Survey data (12 Months Average).

Although females with a bachelor's degree or higher in New Hampshire participate in the labor force at a very high level, the female participation rate for those with a lower level of educational attainment sags behind men in corresponding educational attainment categories.

As females earn less with little to no education attained, the cost of childcare weighs more heavily, and the incentive to participate in the workforce might therefore dissipate. Other barriers such as transportation and the lack of job opportunities for those with no education might also be factors in the decision whether or not to participate in the labor force.

Industry Employment by Sex

After determining that females are less attached to the labor force, though highly attached when a bachelor's degree or higher education is attained, an evaluation of differences in employment patterns by industry and gender might help explain why the female population is highly educated. Is there a link between the educational requirement of what is traditionally considered to be the "female" job market? From an employment perspective, it can be determined which industry sectors have a high concentration of females versus males. Quarterly Workforce Indicators (QWI)⁴ data show an overwhelming preference for females in a few industry sectors. Likewise, there were other sectors with a high concentration of male employment. This uneven pattern might create unintended consequences for how students and job seekers perceive possibilities for career paths. We will explore how occupational employment patterns are contributing to this gender mix and display the typical level of education required for entry into these occupations.

Several industry sectors in New Hampshire can be identified as employing uneven shares of either males or females. On one end, there are two industry sectors heavily dependent on female employment. These sectors are Health care and social assistance and Educational services. On the other end, there are three sectors with an overwhelming presence of male employment. These male-dominated industry sectors are Manufacturing, Construction and Wholesale trade. It is interesting to note that Retail trade has a near employment parity between males and females.

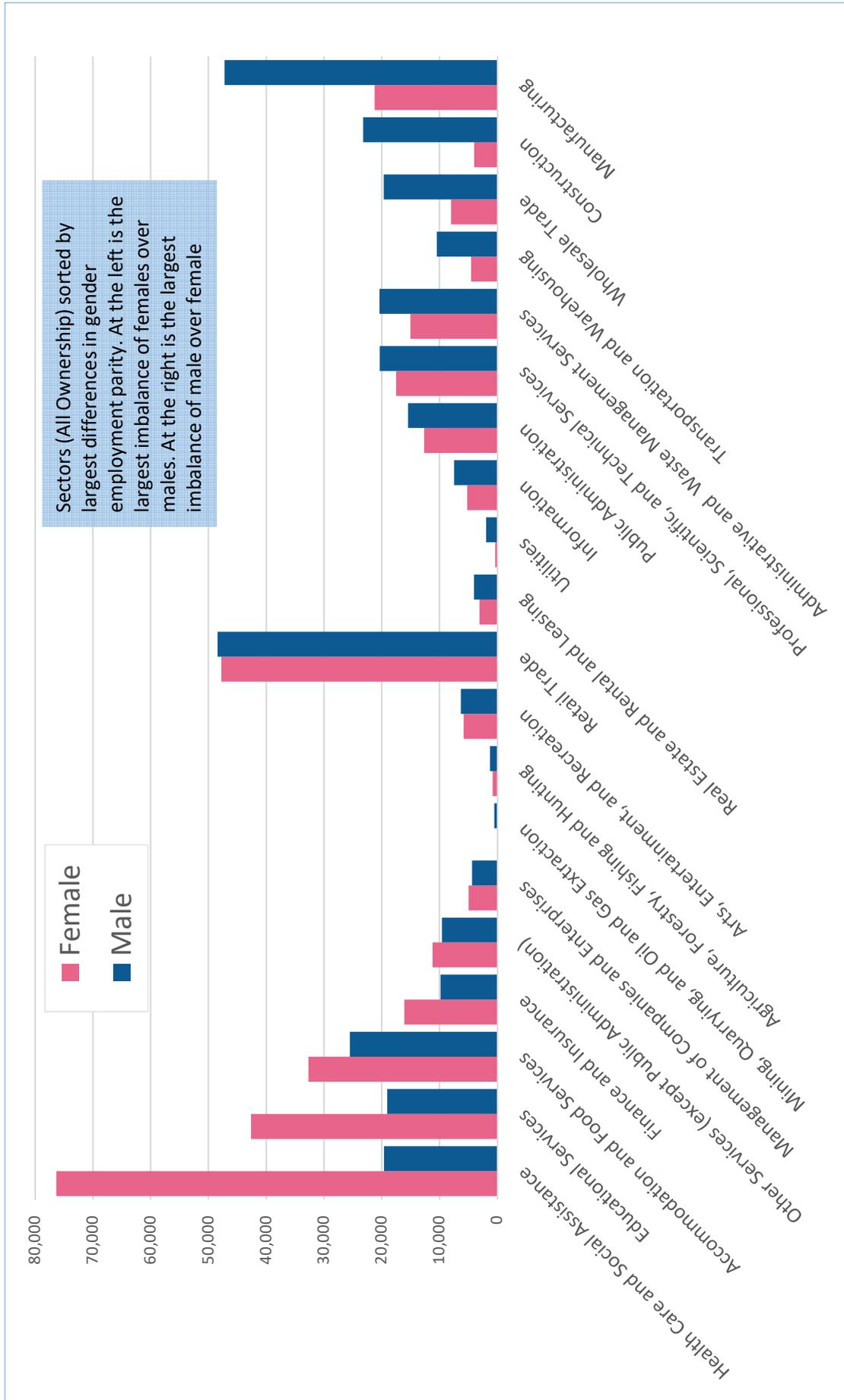
Methodology

The occupational staffing patterns for the five sectors were extracted and for each sector the staffing patterns were sorted by employment size. The most common occupations for each of these sectors are listed in the following. Attached to each of these occupations are New Hampshire licensing information and the usual entry-level education and training requirement. In addition, the share of males versus females in each of the occupations was included.⁵

⁵ Special Equal Employment Opportunity (EEO) Tabulation, 2010, US Census Bureau for New Hampshire was used to calculate these shares. These 2010 EEO tabulation were for New Hampshire, all industry sectors and not based on the individual sectors displayed.

⁴ US Census Bureau, Center for Economic Studies, Longitudinal Household-Employer Dynamics, Quarterly Workforce Indicators. <https://qwiexplorer.ces.census.gov/static/explore.html>

Covered employment (private and government) in New Hampshire (2017)



Source: 2017, Q1, Q2, Q3, Q4 Average, QWI Explorer application, U.S. Census Bureau, qwiexplorer.ces.census.gov.

How to read the Tables on pages 12 to 17

- Sector employment is based on occupational staffing patterns for that particular sector. Employment estimates are from the May 2017 Occupational Employment Statistics survey.
- Red italic numbering in the *Female* column indicates a high concentration (75 percent or higher) of female workers.
- Blue italic numbering in the *Male* column indicates a high concentration (75 percent or higher) of male workers.
- Olive green shading indicates that employed workers are likely to have a bachelor's degree or higher.
- Light green indicates that either a postsecondary non-degree certificate or an associate's degree is required for entry-level employment.
- Each table includes an indication of whether or not an occupational license is required by the State of New Hampshire and whether or not an apprenticeship program is available as a training option.

Health Care and Social Assistance

- Employment for the listed occupations represents 65.0 percent of total employment in the Health care and social assistance sector.
- For a large majority of these occupations, a very high level of female employment is evident, no matter what degree type is required for entry into the occupation.
- In this group of occupations, there is a large range in educational attainment requirements, from no formal educational credential to the doctorate degree level. None of these occupations had a majority of male workers, except for Physicians and surgeons, all other and Emergency medical technicians and paramedics.
- A New Hampshire license is required for many of the occupations in the Healthcare and Social Assistance sector, and often the licensure requirements dictate the educational degree level needed.
- For many of the occupations not requiring a bachelor's degree or higher, apprenticeship is available as a training option.

| SOC title | Occupational Title | Sector Employment | Female | Male | Education and Training (typical for entry level position) | NH License | Apprentice |
|-----------|---|-------------------|--------|-------|---|------------|------------|
| 29-1141 | Registered Nurses | 11,550 | 92.2% | 7.8% | Associate's degree / Bachelor's degree | ★ | ★ |
| 31-1014 | Nursing Assistants | 6,770 | 89.0% | 11.0% | Postsecondary non-degree | ★ | ★ |
| 39-9021 | Personal Care Aides | 6,690 | 78.9% | 21.1% | High school or equivalent | | |
| 25-2011 | Preschool Teachers, Except Special Education | 2,840 | 97.8% | 2.2% | Associate's degree | ★ | |
| 43-9061 | Office Clerks, General | 2,560 | 85.4% | 14.6% | High school or equivalent | | ★ |
| 31-9092 | Medical Assistants | 2,550 | 92.5% | 7.5% | Postsecondary non-degree | | ★ |
| 43-6013 | Medical Secretaries | 2,490 | - | - | High school or equivalent & Moderate OJT | | ★ |
| 43-4171 | Receptionists and Information Clerks | 2,130 | 90.8% | 9.2% | High school or equivalent | | |
| 21-1093 | Social and Human Service Assistants | 1,870 | 74.3% | 25.7% | High school or equivalent | | ★ |
| 29-2061 | Licensed Practical and Licensed Vocational Nurses | 1,850 | 91.7% | 8.3% | Postsecondary non-degree | ★ | ★ |
| 21-1018 | Substance abuse, behavioral disorder, and mental health counselors | 1,640 | - | - | Bachelor's degree / Master's degree | ★ | |
| 39-9011 | Childcare Workers | 1,610 | 94.5% | 5.5% | High school or equivalent | ★ | ★ |
| 29-1069 | Physicians and Surgeons, All Other | 1,540 | 34.3% | 65.7% | Doctorate Internship or residency | ★ | |
| 43-6014 | Secretaries and Administrative Assistants, Except Legal, Medical, | 1,470 | 96.5% | 3.5% | High school or equivalent | | ★ |
| 29-1123 | Physical Therapists | 1,350 | 68.8% | 31.3% | Doctorate | ★ | |
| 11-9111 | Medical and Health Services Managers | 1,320 | 71.9% | 28.1% | Bachelor's degree | ★ | ★ |
| 31-9091 | Dental Assistants | 1,290 | 98.0% | 2.0% | Postsecondary non-degree | | ★ |
| 29-2021 | Dental Hygienists | 1,230 | 97.4% | 2.6% | Associate's degree | ★ | |
| 43-1011 | First-Line Supervisors of Office and Administrative Support Workers | 1,090 | 73.1% | 26.9% | High school or equivalent | | |
| 29-1171 | Nurse Practitioners | 1,090 | 98.0% | 2.0% | Master's degree | ★ | |
| 29-2041 | Emergency Medical Technicians and Paramedics | 980 | 26.1% | 73.9% | Postsecondary non-degree | ★ | ★ |
| 37-2012 | Maids and Housekeeping Cleaners | 970 | 89.0% | 11.0% | No formal educational credential | | ★ |
| 43-4111 | Interviewers, Except Eligibility and Loan | 920 | 77.6% | 22.4% | High school or equivalent | | |
| 43-3021 | Billing and Posting Clerks and Machine Operators | 910 | 95.8% | 4.2% | High school or equivalent & Moderate OJT | | |
| 29-1062 | Family and General Practitioners | 900 | - | - | Doctorate & Internship or residency | ★ | |

Educational Services

- Employment for the listed occupations represents 67.5 percent of total employment in the Educational Services sector.
- For the majority of these occupations, a very high level of female employment is evident.
- The vast majority of the occupations in Educational Services require a bachelor's degree or higher.
- Janitors and cleaners, except maids and housekeeping cleaners, is the only occupation with a high level of male employment. No formal educational credential is required for entry into this occupation.
- A New Hampshire license is required for many of the occupations in Educational Services. In most instances, the licensure requirements dictate the educational attainment level needed.

| SOC title | Occupational Title | Sector Employment | Female | Male | Education and Training (typical for entry level position) | NH License | Apprentice |
|-----------|---|-------------------|--------|-------|---|------------|------------|
| 25-9041 | Teacher Assistants | 8,310 | 91.3% | 8.7% | Some college | ★ | ★ |
| 25-2021 | Elementary School Teachers, Except Special Education | 5,710 | 80.4% | 19.6% | Bachelor's degree | ★ | |
| 25-2031 | Secondary School Teachers, Except Special and Career/Technical Education | 5,360 | 61.2% | 38.8% | Bachelor's degree | ★ | |
| 25-2022 | Middle School Teachers, Except Special and Career/Technical Education | 3,530 | 80.4% | 19.6% | Bachelor's degree | ★ | |
| 43-6014 | Secretaries and Administrative Assistants, Except Legal, Medical, Substitute Teachers | 2,570 | 96.5% | 3.5% | High school or equivalent | | ★ |
| 25-3098 | Substitute Teachers | 2,530 | - | - | Bachelor's degree | | |
| 37-2011 | Janitors and Cleaners, Except Maids and Housekeeping Cleaners | 2,360 | 23.4% | 76.6% | No formal educational credential | | ★ |
| 11-9032 | Education Administrators, Elementary and Secondary School | 1,450 | 61.7% | 38.3% | Master's degree | ★ | |
| 25-3021 | Self-Enrichment Education Teachers | 1,210 | - | - | High school or equivalent | ★ | |
| 27-2022 | Coaches and Scouts | 1,070 | - | - | Bachelor's degree | | |
| 21-1012 | Educational, Guidance, School, and Vocational Counselors | 1,020 | - | - | Master's degree | ★ | ★ |
| 25-2052 | Special Education Teachers, Kindergarten and Elementary School | 940 | 91.3% | 8.7% | Bachelor's degree & Internship or residency | ★ | |
| 43-9061 | Office Clerks, General | 920 | 85.4% | 14.6% | High school or equivalent | | ★ |
| 35-3021 | Combined Food Preparation and Serving Workers, Including Fast Food | 910 | 69.5% | 30.5% | No formal educational credential | | |
| 25-2054 | Special Education Teachers, Secondary School | 700 | 91.3% | 8.7% | Bachelor's degree & Internship or residency | ★ | |
| 25-3097 | Teachers and Instructors, All Other, Except Substitute Teachers | 700 | - | - | Bachelor's degree | | |
| 11-9033 | Education Administrators, Postsecondary | 690 | 61.7% | 38.3% | Master's degree | | |
| 25-1121 | Art, Drama, and Music Teachers, Postsecondary | 620 | - | - | Master's degree | | |
| 25-1071 | Health Specialties Teachers, Postsecondary | 620 | - | - | Doctorate | | |
| 25-1011 | Business Teachers, Postsecondary | 590 | - | - | Doctorate | | |
| 43-3031 | Bookkeeping, Accounting, and Auditing Clerks | 580 | 88.8% | 11.2% | Some college & Moderate OJT | | ★ |
| 25-2053 | Special Education Teachers, Middle School | 580 | 91.3% | 8.7% | Bachelor's degree & Internship or residency | ★ | |
| 25-9031 | Instructional Coordinators | 550 | - | - | Master's degree | ★ | |
| 29-1141 | Registered Nurses | 550 | 92.2% | 7.8% | Associate's degree / Bachelor's degree | ★ | |

Manufacturing

- Employment for the listed occupations represents 62.8 percent of total employment in the Manufacturing sector. Due to a higher degree of occupational specialization in Manufacturing, each of these occupations represent fewer jobs in comparison with the two prior industry sectors, hence a larger number of individual occupations are displayed.
- For a large majority of these occupations, a very high level of male employment is evident, no matter what degree type is required for entry into the occupation.
- Most of these occupations require either a bachelor's degree or a high school diploma and some on-the-job training (OJT). For those occupations requiring a high school diploma and some OJT, apprenticeship is available as a training option. This shows that another career path is available in Manufacturing for those not seeking a formal postsecondary degree.
- Very few of these occupations need to have a New Hampshire license. New Hampshire licensure is required for Professional Engineers and for Certified Public Accountants. The licensure requirements for both of these occupations include a bachelor's degree or higher (150 credit hours for Accountants). Females make up a larger share of Accountants and auditors, whereas males make up very large share of all the different types of engineers.

(Please see table on next page)

Manufacturing

| SOC title | Occupational Title | Sector Employment | Female | Male | Education and Training (typical for entry level position) | NH License | Apprentice |
|-----------|---|-------------------|--------|--------|---|------------|------------|
| 51-2098 | Assemblers and fabricators, all other, including team assemblers | 4,300 | - | - | High school or equivalent & Moderate OJT | | |
| 51-2028 | Electrical, electronic, and electromechanical assemblers, except coil winders, tapers, and finishers | 3,380 | 61.5% | 38.5% | High school or equivalent & Moderate OJT | | ★ |
| 51-9061 | Inspectors, Testers, Sorters, Samplers, and Weighers | 3,120 | 48.3% | 51.7% | High school or equivalent & Moderate OJT | | ★ |
| 51-4011 | Computer-Controlled Machine Tool Operators, Metal and Plastic | 2,570 | - | - | Postsecondary non-degree & Moderate OJT | | ★ |
| 51-1011 | First-Line Supervisors of Production and Operating Workers | 2,400 | 24.2% | 75.8% | High school or equivalent | | |
| 51-4041 | Machinists | 1,780 | 6.1% | 93.9% | High school or equivalent & Long OJT | | ★ |
| 17-2141 | Mechanical Engineers | 1,390 | 5.0% | 95.0% | Bachelor's degree | ★ | ★ |
| 17-2112 | Industrial Engineers | 1,360 | 14.0% | 86.0% | Bachelor's degree | ★ | ★ |
| 11-1021 | General and Operations Managers | 1,350 | 29.5% | 70.5% | Bachelor's degree | | |
| 17-2071 | Electrical Engineers | 1,260 | 5.3% | 94.7% | Bachelor's degree | ★ | |
| 49-9041 | Industrial Machinery Mechanics | 1,250 | - | - | High school or equivalent & Long OJT | | ★ |
| 51-4072 | Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders, Metal and Plastic | 1,110 | 14.7% | 85.3% | High school or equivalent & Moderate OJT | | ★ |
| 51-9198 | Helpers--Production Workers | 1,090 | 8.3% | 91.7% | No formal educational credential | | |
| 41-4012 | Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products | 1,010 | 23.3% | 76.7% | High school or equivalent & Moderate OJT | | |
| 11-3051 | Industrial Production Managers | 1,000 | 19.4% | 80.6% | Bachelor's degree | | ★ |
| 43-5071 | Shipping, Receiving, and Traffic Clerks | 990 | 23.5% | 76.5% | High school or equivalent | | |
| 43-5061 | Production, Planning, and Expediting Clerks | 980 | 66.1% | 33.9% | High school or equivalent & Moderate OJT | | ★ |
| 53-7062 | Laborers and Freight, Stock, and Material Movers, Hand | 910 | 18.9% | 81.1% | No formal educational credential | | |
| 43-9061 | Office Clerks, General | 900 | 85.4% | 14.6% | High school or equivalent | | ★ |
| 13-1020 | Buyers and Purchasing Agents | 850 | 0.0% | 100.0% | Bachelor's degree & Moderate OJT | | |
| 51-9041 | Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders | 850 | 23.5% | 76.5% | High school or equivalent & Moderate OJT | | ★ |
| 43-4051 | Customer Service Representatives | 830 | 68.1% | 31.9% | High school or equivalent | | |
| 51-5112 | Printing Press Operators | 790 | 13.0% | 87.0% | High school or equivalent & Moderate OJT | | ★ |
| 43-5081 | Stock Clerks and Order Fillers | 780 | 36.9% | 63.1% | No formal educational credential | | |
| 11-9041 | Architectural and Engineering Managers | 770 | 8.3% | 91.7% | Bachelor's degree | | |
| 51-4121 | Welders, Cutters, Solderers, and Brazers | 730 | 19.8% | 80.2% | High school or equivalent & Moderate OJT | | ★ |
| 51-9111 | Packaging and Filling Machine Operators and Tenders | 700 | 54.5% | 45.5% | High school or equivalent & Moderate OJT | | |
| 41-4011 | Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products | 690 | 23.3% | 76.7% | Bachelor's degree & Moderate OJT | | |
| 15-1133 | Software Developers, Systems Software | 690 | 21.1% | 78.9% | Bachelor's degree | | |
| 15-1132 | Software Developers, Applications | 660 | 21.1% | 78.9% | Bachelor's degree | | |
| 43-6014 | Secretaries and Administrative Assistants, Except Legal, Medical, Accountants and Auditors | 640 | 96.5% | 3.5% | High school or equivalent | | ★ |
| 13-2011 | Accountants and Auditors | 630 | 62.5% | 37.5% | Bachelor's degree | ★ | |
| 51-7042 | Woodworking Machine Setters, Operators, and Tenders, Except Sawing | 620 | 26.3% | 73.7% | High school or equivalent & Moderate OJT | | ★ |
| 51-4033 | Grinding, Lapping, Polishing, and Buffing Machine Tool Setters, Operators, and Tenders, Metal and Plastic | 600 | 12.3% | 87.7% | High school or equivalent & Moderate OJT | | ★ |

Construction

- Employment for the listed occupations represent 78.5 percent of total employment in the Construction sector.
- For a large majority of these occupations, a very high level of male employment is evident, no matter what degree type is required for entry into the occupation
- Only a few of the occupations in Construction require any postsecondary education, but there are substantial opportunities for apprenticeship. In some of the occupations, apprenticeship is a requirement for entry, while in other occupations, apprenticeship is available as a training option.
- There are three occupations with a high level of female employment: Office clerks, general; Secretaries and administrative assistants; and Bookkeeping, accounting, and auditing clerks. These occupations have a high presence across all industry sectors.
- There are a handful of occupations commonly found in this industry requiring a New Hampshire license. In contrast to most of the other licensed occupations mentioned in this analysis, licensure requirements for the construction-related occupations do not require a specific postsecondary degree. Instead, the licensure requirements are associated with proven time of practical experience and some schooling but no degree.

| SOC title | Occupational Title | Sector Employment | Female | Male | Education and Training (typical for entry level position) | NH License | Apprentice |
|-----------|---|-------------------|--------|--------|---|------------|------------|
| 47-2061 | Construction Laborers | 2,850 | 4.0% | 96.0% | No formal educational credential | | ★ |
| 47-2031 | Carpenters | 2,750 | 0.8% | 99.2% | High school or equivalent & Apprenticeship | | ★ |
| 47-2111 | Electricians | 1,800 | 1.3% | 98.7% | High school or equivalent & Apprenticeship | ★ | ★ |
| 47-1011 | First-Line Supervisors of Construction Trades and Extraction Work | 1,640 | 1.2% | 98.8% | High school or equivalent | ★ | |
| 47-2152 | Plumbers, Pipefitters, and Steamfitters | 1,320 | 0.8% | 99.2% | High school or equivalent & Apprenticeship | ★ | ★ |
| 43-9061 | Office Clerks, General | 1,240 | 85.4% | 14.6% | High school or equivalent | | ★ |
| 49-9021 | Heating, Air Conditioning, and Refrigeration Mechanics and Installers | 1,160 | 0.0% | 100.0% | Postsecondary non-degree & Long OJT | ★ | ★ |
| 53-3032 | Heavy and Tractor-Trailer Truck Drivers | 950 | 4.0% | 96.0% | Postsecondary non-degree | | ★ |
| 11-1021 | General and Operations Managers | 800 | 29.5% | 70.5% | Bachelor's degree | | |
| 11-9021 | Construction Managers | 750 | 7.0% | 93.0% | Bachelor's degree & Moderate OJT | | |
| 47-2141 | Painters, Construction and Maintenance | 690 | 7.7% | 92.3% | No formal educational credential & Moderate OJT | | ★ |
| 47-2073 | Operating Engineers and Other Construction Equipment Operators | 660 | - | - | High school or equivalent & Moderate OJT | | ★ |
| 43-6014 | Secretaries and Administrative Assistants, Except Legal, Medical, | 660 | 96.5% | 3.5% | High school or equivalent | | ★ |
| 13-1051 | Cost Estimators | 580 | 24.1% | 75.9% | Bachelor's degree & Moderate OJT | | ★ |
| 43-3031 | Bookkeeping, Accounting, and Auditing Clerks | 560 | 88.8% | 11.2% | Some college & Moderate OJT | | ★ |
| 47-2081 | Drywall and Ceiling Tile Installers | 500 | 0.0% | 100.0% | No formal educational credential & Moderate OJT | | ★ |
| 41-3099 | Sales Representatives, Services, All Other | 330 | 29.5% | 70.5% | High school or equivalent & Moderate OJT | | |
| 47-2021 | Brickmasons and Blockmasons | 300 | 0.9% | 99.1% | High school or equivalent & Apprenticeship | | ★ |
| 49-1011 | First-Line Supervisors of Mechanics, Installers, and Repairers | 280 | 10.2% | 89.8% | High school or equivalent | | |
| 47-2131 | Insulation Workers, Floor, Ceiling, and Wall | 280 | 1.0% | 99.0% | No formal educational credential | | ★ |
| 47-2181 | Roofers | 230 | 0.0% | 100.0% | No formal educational credential & Moderate OJT | | ★ |
| 49-9051 | Electrical Power-Line Installers and Repairers | 220 | 2.1% | 97.9% | High school or equivalent & Long OJT | ★ | ★ |
| 47-2211 | Sheet Metal Workers | 220 | 6.2% | 93.8% | High school or equivalent & Apprenticeship | | ★ |

Wholesale trade

- Employment for the listed occupations represents 68.1 percent of total employment in the Wholesale trade sector.
- For a large majority of these occupations, a very high level of male employment is evident, no matter what degree type is required for entry into the occupation.
- In this industry sector, there are many occupations requiring a bachelor's degree and there are many requiring only a high school diploma. Yet only a few of these occupations may utilize apprenticeship as a career training option.
- Only one of these occupations require a New Hampshire license — Certified Public Accountant. The licensure requirements for this occupation include 150 credit hours of postsecondary education. As mentioned under the Manufacturing staffing patterns, females make up a larger share of Accountants and auditors than males.

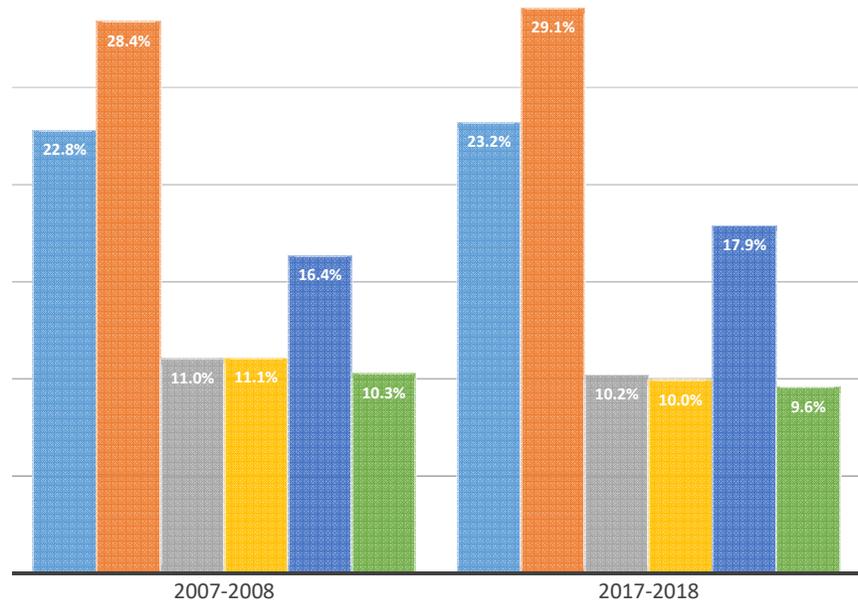
| SOC title | Occupational Title | Sector Employment | Female | Male | Education and Training (typical for entry level position) | NH License | Apprentice |
|-----------|--|-------------------|--------|--------|---|------------|------------|
| 41-4012 | Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products | 5,170 | 23.3% | 76.7% | High school or equivalent & Moderate OJT | | |
| 43-5081 | Stock Clerks and Order Fillers | 1,610 | 36.9% | 63.1% | No formal educational credential | | |
| 41-4011 | Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products | 1,510 | 23.3% | 76.7% | Bachelor's degree & Moderate OJT | | |
| 43-9061 | Office Clerks, General | 1,130 | 85.4% | 14.6% | High school or equivalent | | ★ |
| 11-1021 | General and Operations Managers | 1,000 | 29.5% | 70.5% | Bachelor's degree | | |
| 43-4051 | Customer Service Representatives | 860 | 68.1% | 31.9% | High school or equivalent | | |
| 53-3032 | Heavy and Tractor-Trailer Truck Drivers | 750 | 4.0% | 96.0% | Postsecondary non-degree | | ★ |
| 53-3033 | Light Truck or Delivery Services Drivers | 670 | 4.0% | 96.0% | High school or equivalent | | |
| 15-1132 | Software Developers, Applications | 660 | 21.1% | 78.9% | Bachelor's degree | | |
| 53-7062 | Laborers and Freight, Stock, and Material Movers, Hand | 650 | 18.9% | 81.1% | No formal educational credential | | |
| 53-3031 | Driver/Sales Workers | 630 | 4.0% | 96.0% | High school or equivalent | | |
| 41-1012 | First-Line Supervisors of Non-Retail Sales Workers | 620 | 26.0% | 74.0% | High school or equivalent | | |
| 43-3031 | Bookkeeping, Accounting, and Auditing Clerks | 500 | 88.8% | 11.2% | Some college & Moderate OJT | | ★ |
| 43-5071 | Shipping, Receiving, and Traffic Clerks | 490 | 23.5% | 76.5% | High school or equivalent | | |
| 13-1020 | Buyers and Purchasing Agents | 430 | 0.0% | 100.0% | Bachelor's degree & Moderate OJT | | |
| 43-1011 | First-Line Supervisors of Office and Administrative Support Workers | 420 | 73.1% | 26.9% | High school or equivalent | | |
| 43-6014 | Secretaries and Administrative Assistants, Except Legal, Medical, and Executive | 420 | 96.5% | 3.5% | High school or equivalent | | ★ |
| 11-2022 | Sales Managers | 350 | - | - | Bachelor's degree | | |
| 13-2011 | Accountants and Auditors | 340 | 62.5% | 37.5% | Bachelor's degree | ★ | |
| 49-9041 | Industrial Machinery Mechanics | 320 | - | - | High school or equivalent & Long OJT | | ★ |
| 13-1161 | Market Research Analysts and Marketing Specialists | 300 | 58.7% | 41.3% | Bachelor's degree | | |

Current Trends in Attending College

Are males more likely to pursue a career path that does not include postsecondary education than females? Data from the New Hampshire Department of Education can shed light on some of the differences in intentions for future educational attainment among male and female high school completers.⁶

The Postsecondary Intentions of New Hampshire's High School Completers

Over the last ten years, the share of both males and females attending a 4-year college has increased, whereas the share going to a less than 4-year postsecondary institution has decreased. The share of male high school completers that are not attending college has increased the most.



| | | |
|--|-------|-------|
| ■ Four Year College or University (Male) | 22.8% | 23.2% |
| ■ Four Year College or University (Female) | 28.4% | 29.1% |
| ■ Other Than A Four Year College (Male) | 11.0% | 10.2% |
| ■ Other Than A Four Year College (Female) | 11.1% | 10.0% |
| ■ Total Non-College (Male) | 16.4% | 17.9% |
| ■ Total Non-College (Female) | 10.3% | 9.6% |

Source: New Hampshire Department of Education, Division of Education Analytics and Resources - Bureau of Educational Statistics, State Total Completers by Categories

What kind of postsecondary preferences have there been among graduating high school students over the last ten years in New Hampshire? Females are to a larger degree intending to enter a four-year college while males are more likely to opt for a non-college career pathway. As the economy has improved gradually over the last ten years, there have been more employment opportunities for male high school completers in industry sectors such as Construction and Manufacturing. Fewer jobs in these sectors require postsecondary education for entry-level employment.

⁶ New Hampshire Department of Education collects high school completer data. The postsecondary intentions of the high school completers are reported each fall by guidance counselors using the best available information. <https://www.education.nh.gov/data/dropouts.htm#complete>

The preference for attending college or not is, to some degree, impacted by what other opportunities are available. Overall, though, the largest shares of both male and female high school completers planned to attend a four-year college or university. This pattern has changed little over the last ten years. The largest difference between male and female high school completers was for those not planning to attend any type of college. Among the high school class of 2018, 17.9 percent of males were not planning to attend college, while only 9.6 percent of females did not plan to go to college. Both the past and current pattern of intent to attend college is an early indicator of the differences in educational attainment between males and females.

Conclusion

Are females more educated than males in New Hampshire? Examination of occupational employment trends by industry and gender indicate that career choice is more significant in the decision to attain postsecondary education than a simple desire to attend school for potential financial gain.

Larger number of females are employed in occupations commonly found in Healthcare and social assistance or Educational services industries. These occupations are distinctly more likely to require postsecondary education for entry-level employment. These occupations are also more likely to require an occupational license by the State of New Hampshire, which specifies educational achievement to qualify for examination or licensure.

On the other hand, larger numbers of males are employed in occupations commonly found in the Manufacturing, Construction, or Wholesale trade industries. In these industries, there are many more occupations with less specific entry-level educational requirements. Frequently, there is an option to enter the occupation via apprenticeship, or just by attaining a high school diploma or equivalent and obtaining training and experience on the job.

For many male-dominated occupations, there is variety of options for entering and gaining proficiency in job performance, while for many female-dominated occupations, attainment of postsecondary education is required prior to entering employment.

Other publications from the Economic and Labor Market Information Bureau available online at www.nhes.nh.gov/elmi

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