New England Fast Facts

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May 2019

What's the Value of Higher Education in New England?

Insights for State and Institutional Leaders, Part 1 in Series

The current generation of incoming college students differs in significant ways from those of earlier generations, not only demographically, but also in terms of what they expect from a college experience. These students—shaped by the Great Recession and the rise of social media—are **more skeptical and money-conscious**, and they tend to be **more focused on the value of a degree**.[1] At the same time, the value of higher education has come into question by Americans in recent years. According to a 2018 Gallup survey, **fewer than half (48%) of adults in the U.S. express confidence in higher education**, down from 57% in 2015.[2] No other American institution has shown as large a drop in confidence over the same period.

The rapid rise in college tuition rates has contributed significantly to the decline in public support for higher education. In another pair of surveys, four in 10 Americans affirmed that "for most high school students today, pursuing a college degree is not a worthwhile investment because it will lead to student debt with little chance of finding a good-paying job."[3] **The average New Englander graduates college with $32,433 in student loan debt** and takes **nine years and two months to repay that balance**.[4] A new study indicates that **36% of college graduates currently paying off loans say that the debt they incurred was not worth it**.[5] Postsecondary institutions in the region will need to be mindful of these shifts in Americans' expectations and perceptions as they continue to compete for a dwindling population of high-school graduates. The time is ripe, then, to reexamine the value of earning a college degree in New England.

The value of a college degree—from both the individual and the social perspectives—can be measured in a number of ways. On one hand, there are the tangible gains: increased lifetime earnings potential, higher tax revenues that are associated with these higher earnings, more stable employment, a network of classmates and fellow alumni, subject-matter expertise, and the ability to signal one's hard work and determination to potential employers, just to name a few. On the other hand, there are also the less concrete but equally important benefits: higher rates of civic engagement and participation, greater innovation and research, increased access to healthcare and retirement plans, and being part of a well-informed public.

Ultimately, there is no way around it: **Higher education expands people's horizons**. It is potentially *the* key propeller to advancement for most individuals, as well as a great benefit to the wider public. In March 2019 NEBHE's Board of Directors adopted four strategic priorities to guide our work for the next year—one of which is the value of individual and public investments in higher education in New England. This brief begins a series of reports in which we investigate this complex topic. It is our hope that this series is fair, thought-provoking, and sparks conversation.*

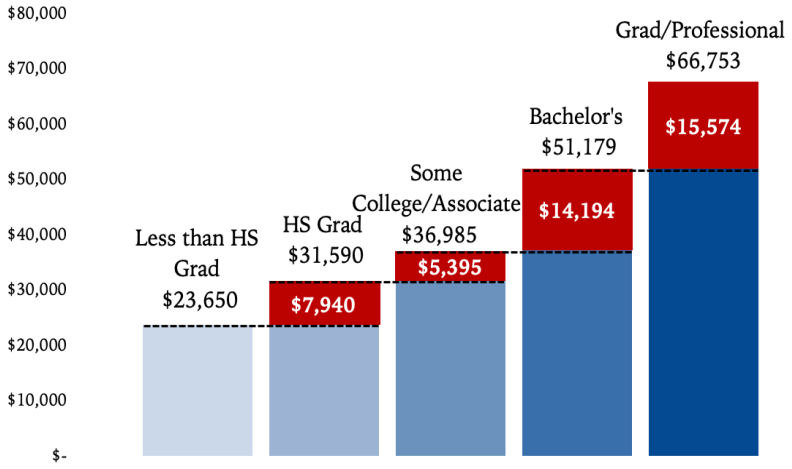
1. Selingo, Jefferey. "The New Generation of Students." *The Chronicle of Higher Education*, Feb. 2019.
2. Jones, Jeffrey. "Confidence in Higher Education Down Since 2015." *Gallup.com*, Oct. 2018.
3. Cited in Lederman, Doug. "Is Higher Education Really Losing the Public?" *Inside Higher Ed*, Dec. 2017.
4. NEBHE analysis of data from TICAS, U.S. Census Bureau, and Community College Review.
5. Merrill Lynch Wealth Management. *Early Adulthood: The Pursuit of Financial Independence*, 2019.

* There is a long history of American skepticism about higher education that has evolved over the decades. The most recent doubts about the value of higher education tend to fall into two distinct categories that should not be conflated: 1) one made on ideological grounds that the academy is extreme and one-sided and 2) the other made on an economic basis that college is not worth the high cost. This brief in particular—and this series in general—deals with the latter perspective and does not engage in the ideological debate.

Annual Earning Potential of a Degree

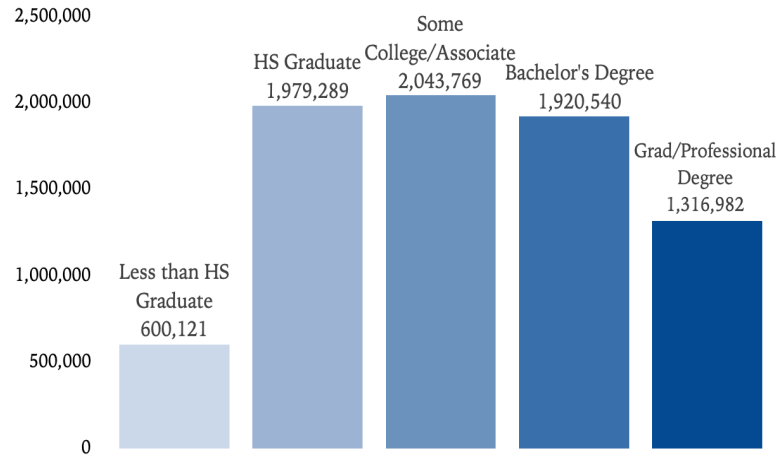
- The wage disparity between individuals with a postsecondary degree and those with a high school diploma—the **"college wage premium"**—is a well-documented phenomenon. The wage gap between these two groups has been growing for decades. As a college degree has become more valuable, a high school diploma has become worth less and less.
- In New England, the average individual with an associate degree can expect to earn **$5,395 (17%)** more annually than someone with a high school diploma (or equivalency) only and $**13,335 (56%)** more per year than someone without a high school diploma only.
- The premium is significantly higher for a four-year degree. The average bachelor's degree holder in New England can anticipate earning **$14,194 (38%)** more annually than someone with an associate degree, **$19,589 (62%)** more per year over someone with only a high school diploma, and **$27,529 (116%)** more annually than someone who has not earned a high school diploma.
- Across the region, approximately 2.5 million individuals between ages 25 and 64 do not have any postsecondary experience (some college/associate degree or higher). This number reflects a "sunk cost" in terms of lost wages. If just half of these individuals (1.25 million) earned an associate degree, this would mean an **additional $6.7 billion** annually in taxable wages in New England. If the same number earned a bachelor's degree, it would amount to an **added $17.7 billion** annually in taxable wages.

Median Annual Earnings By Educational Attainment for the Population Aged 25 Years and Over in New England: 2016



Source: U.S. Census Bureau, *American Community Survey*

Population of Residents Ages 25-64 at Each Level of Educational Attainment in New England: 2017



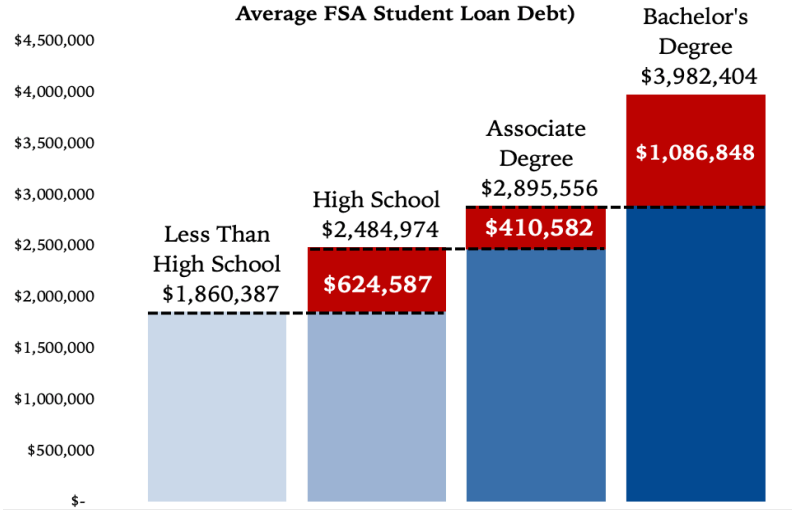
Source: Lumina Foundation, *A Stronger Nation: Learning Beyond High School Builds American Talent*

Lifetime Earning Potential of a Degree

Over a 40-year career, a college degree pays off even more. In New England, the expected career earnings at each level of attainment are:

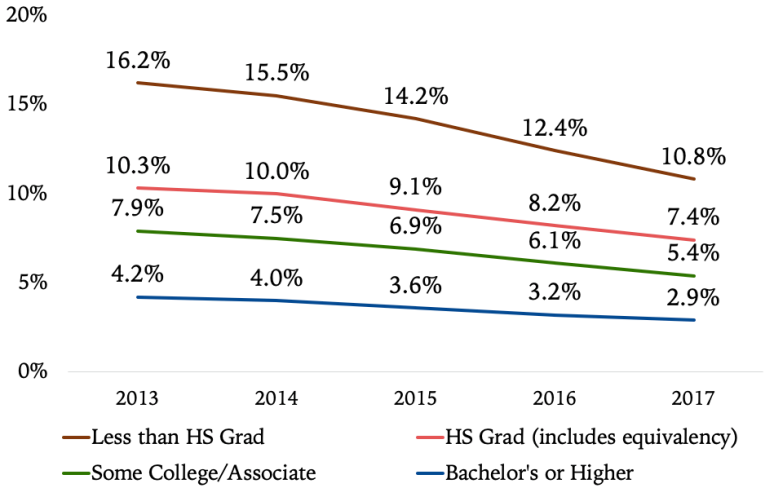
- **High school diploma (or equiv.)**: $2,484,974
- **Associate degree**: $2,895,556
  This figure is **$410,582 (17%)** more than the expected lifetime earning of an individual with a high school diploma only.
- **Bachelor's degree**: $3,982,404
  This figure is **$1,086,848 (38%)** more than the expected lifetime earning of an individual with an associate degree and **$1,497,430 (60%)** more than for someone with only a high school diploma.

Total Expected 40-Year Career Earnings in New England by Educational Attainment Level (Includes Repayment of Average FSA Student Loan Debt)



Source: NEBHE analysis of information from the Federal Reserve, U.S. Census Bureau, TICAS, and Community College Review. For methodology, see Appendix.

Unemployment Rate for Population Aged 25-64 by Level of Education in New England: 2013-2017



Source: U.S. Census Bureau, *American Community Survey*; Margin of error: +/-0.1

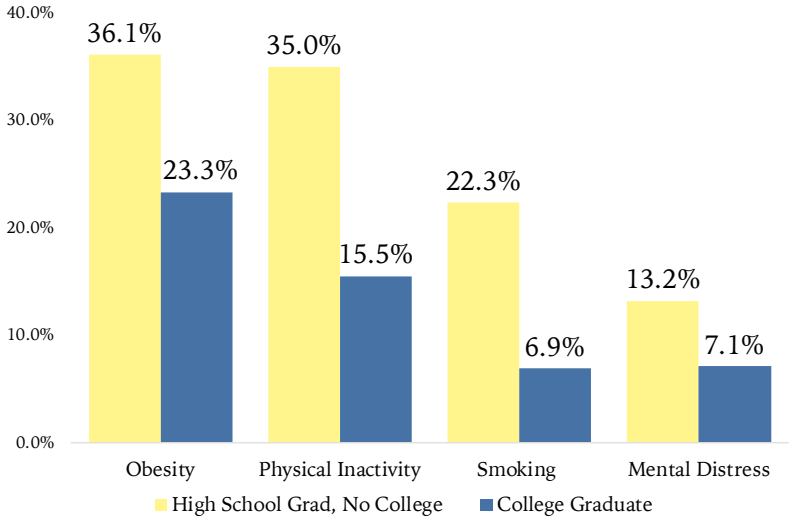
Unemployment Rates by Attainment Level

- Those who have a postsecondary credential enjoy a significantly reduced risk of unemployment. As of January 2017, the average rate of unemployment in New England for an individual with a bachelor's degree or higher was 2.9%, compared with 5.4% for individuals with some college or an associate degree, 7.4% for those with a high school diploma and no college, and 10.8% for those with less than a high school diploma.
- At the worst point of the Great Recession, unemployment among college degree holders was lower than it is today for job-seekers with only a high school diploma, even though we are in a prolonged period of record high employment.

The Non-Monetary Individual Payoff of a Postsecondary Education

- **POVERTY:** Poverty levels are inversely related to educational attainment. In 2017 across New England, only 3.9% of people with a bachelor's degree or higher and 8.4% of those with an associate degree were below the poverty level. By contrast, 11.7% of individuals with a high school diploma but no college and 24.3% of people with less than a high school education were living in poverty.[6]

Health Indicators by Level of Education in the U.S.: 2018 (Percentage of Sub-Population)



Source: United Health Foundation, *America's Health Rankings, Annual Report 2018*

- **HEALTH:** Education is a strong predictor of health disparities, including access to healthcare. In 2018, among American high school graduates with no college, ages 25 or older, roughly 36% are considered obese, 35% are physically inactive, 22% are smokers, and 13% experience frequent mental distress. By contrast, among college graduates, only 23% are obese, 16% are physically inactive, 7% smoke, 7% have frequent mental distress.[7] (See chart).

- **FINANCIAL LITERACY:** Financial literacy is significantly correlated with education. Greater financial literacy can help people manage consumer debt, as well as mitigate the vulnerabilities of living paycheck to paycheck. In 2018, a survey of consumer finances conducted by the Federal Reserve Bank of St. Louis found that respondents with a high school diploma scored an average of 1.8 on a range of 0 to 3—well below the overall average literacy score of 2.2—and those with at least a bachelor's degree earned the highest average score of 2.5.[8]

6. U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates.
7. United Health Foundation, *America's Health Rankings, Annual Report 2018*.
8. Federal Reserve Bank of St. Louis, 2018 Survey of Consumer Finances.

The Wider Social Benefits of a Postsecondary Education

In 2002, political scientist Robert Putnam wrote, "Education is one of the most important predictors—usually, in fact, *the* most important predictor—of many forms of social participation—from voting to associational membership, to chairing a local committee to hosting a dinner party to giving blood."[9] Today, Putnam's statement remains as true as ever. Postsecondary education is not just a private good. It also yields a variety of considerable benefits to society. The social benefits linked to higher levels of education include:

- **FISCAL EXTERNALITIES:** The benefits here are two-fold. First, the greater earnings associated with higher educational attainment lead to larger tax revenues, which can help fund public services. Second, the lower rates of unemployment, poverty, disability, etc. among the more highly educated reduce government spending on certain public assistance programs—allowing those government funds to be reallocated to other programs or for taxes to be reduced.
- **PHILANTHROPIC CONTRIBUTIONS:** Education has been found to be a strong predictor of altruistic behavior,[10] greater and more frequent individual charitable donations,[11] and volunteering.[12]
- **CIVIC ENGAGEMENT:** One of the most consistently documented relationships is the strong association between educational attainment and civic engagement. For more than 50 years, researchers have found that more educated citizens are more likely to participate in political campaigns and vote in elections,[13] whether because education is a causal agent that equips people with the skills and resources needed to participate in politics[14] or because education is a proxy that indicates an individual's motivation to participate.[15] Better educated adults are also more likely to be active in a community group or organization.[16]
- **INNOVATION AND RESEARCH:** Many American institutions of higher education are home to innovative research, conducted by faculty, students in master's or doctoral programs, and undergraduate students under faculty supervision. Many innovations that impact our daily lives are products of university research. Some significant innovations to come out of New England institutions include GPS navigation invented by MIT graduates Ivan Getting and Bradford Parkinson and rocket fuel developed by Robert Goddard at Clark University. Other important research university products developed in the U.S. include fluoride toothpaste, various chemotherapy drugs, the CAT Scan, Google, the polio vaccine, the flu shot, and countless other innovations.

TAKEAWAYS:

- New England's economy is becoming progressively dependent on increasing attainment rates. According to the U.S. Bureau of Labor Statistics, the region's states are among those that have the largest share of employment in occupations that typically require either an associate degree (**Massachusetts**, **Vermont**, **Rhode Island**, **Maine**) or a bachelor's degree (**Massachusetts**, **Connecticut**).[17]
- In New England, **Connecticut** has the highest average annual earnings gap between individuals with a bachelor's degree and those with only a high school diploma **($26,660)**. **Vermont** has the smallest gap **($11,216)**. The average annual earnings gap for **New England** is **$19,589**.
- In 2017, **Connecticut (8.8%)** had the highest unemployment rate for individuals with a high school diploma only, and **New Hampshire (5.0%)** had the lowest rate for this same group. During that same year, **Maine (2.0%)** had the lowest rate of unemployment for bachelor's degree holders, and **Connecticut (3.3%)** had the highest rate for this same group.

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10. Yen, S.T. "An Econometric Analysis of Household Donations in the USA." *Applied Economics Letters*, 9(13): 837-841. 2010.
11. Andreoni, J. et al. "Charitable Giving by Married Couples: Who Decides and Why Does it Matter?" *Journal of Human Resources*, 38(1): 111-33. 2003.
12. McPherson, J. and T. Rotolo. "Testing a Dynamic Model of Social Composition: Diversity and Change in Voluntary Groups." *American Sociological Review*, 179-202. Sundeen, R. and S. Raskoff. "Volunteering Among Teenagers in the United States." *Nonprofit and Voluntary Sector Quarterly*, 23(4): 383-403.
13. Campbell, A. et al. *The American voter*. Wiley. 1960. Wolfinger, R. and S. Rosenstone. *Who votes?*. Yale University Press. 1980. Hillygus, D. "The missing link: Exploring the relationship between higher education and political behavior." *Political Behavior*, 27(1): 25–47. 2005.
14. Verba, S. et al. *Voice and equality: Civic voluntarism in American politics*. Harvard University Press. 1995.
15. Kam, C. & C. Palmer. "Reconsidering the effects of education on political participation." *The Journal of Politics*, 70(3): 612–631. 2008.
16. Sandstrom, Aleksandra and Becka Alper. "Americans with higher education and income are more likely to be involved in community groups." *Pew Research Center*, 22 Feb. 2019.
17. U.S. Bureau of Labor Statistics, Occupational Employment Statistics survey (employment and wage data) and Employment Projections program (occupational education-level designations).

Stephanie M. Murphy, *Policy & Research Analyst*

May 2019

What's the Value of Higher Education in Connecticut?

Insights for State and Institutional Leaders, Part 1 in Series

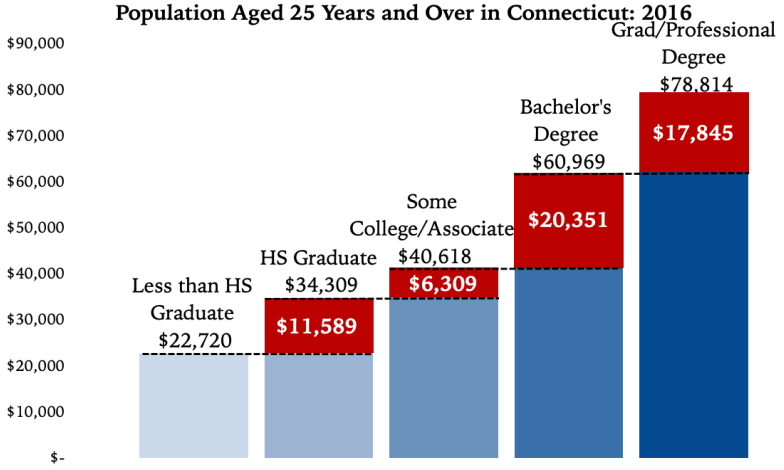
Overview

Public investments in higher education are valuable for individuals and the public because postsecondary credentials tend to grant people greater access to better, higher-paying jobs and more opportunities for stability and advancement within their chosen career track. According to the state's Department of Economic and Community Development, the fastest growing industries in Connecticut include, among others, advanced manufacturing, aerospace and defense, bioscience and healthcare, green energy, and technology innovation.[1] About 22% of all jobs in Connecticut typically require a bachelor's degree, and a high concentration of these occupations are actuaries, aerospace engineers, and marketing managers.[2]

Annual Earning Potential of a Degree

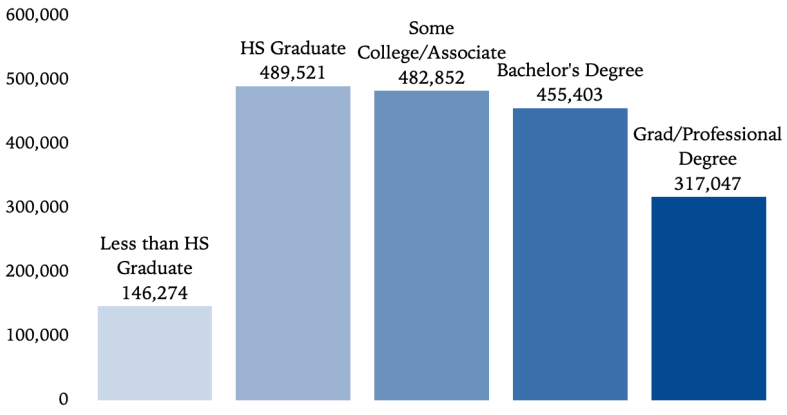
- In Connecticut, the average individual with an associate degree can expect to earn **$6,309 (18%)** more annually than someone with a high school diploma (or equivalency) only and **$17,898 (79%)** more per year than someone without a high school diploma.
- The premium is significantly higher for a four-year degree. The average bachelor's degree holder in Connecticut can anticipate earning **$20,351 (50%)** more annually than someone with an associate degree, **$26,660 (78%)** more per year than someone with a high school diploma only, and **$38,249 (168%)** more annually than someone who has not earned a high school diploma.
- Across Connecticut, approximately **635,000 adults** between ages 25 and 64 do not have any postsecondary experience (some college/associate degree or higher). This number reflects a "sunk cost" for the region in terms of lost wages. If about half of these individuals (317,000) earned an associate degree, this would mean an **additional $2 billion annually in taxable wages**. If the same number earned a bachelor's degree, it would amount to **an added $6.5 billion annually in taxable wages.**

Median Annual Earnings By Educational Attainment for the Population Aged 25 Years and Over in Connecticut: 2016



Source: U.S. Census Bureau, *American Community Survey*

Population of Residents Aged 25-64 at Each Level of Educational Attainment in Connecticut: 2017



Source: Lumina Foundation, *A Stronger Nation: Learning Beyond High School Builds American Talent*

1. https://portal.ct.gov/ChoosCT/Why-CT/Growing-Industries
2. U.S. Bureau of Labor Statistics, Occupational Employment Statistics survey and Employment Projections program.

Lifetime Earning Potential of a Degree in Connecticut

Over a 40-year career, a college degree pays off even more. In Connecticut, the expected career earnings at each level of attainment is:

High school diploma (or equivalency): $2,698,859

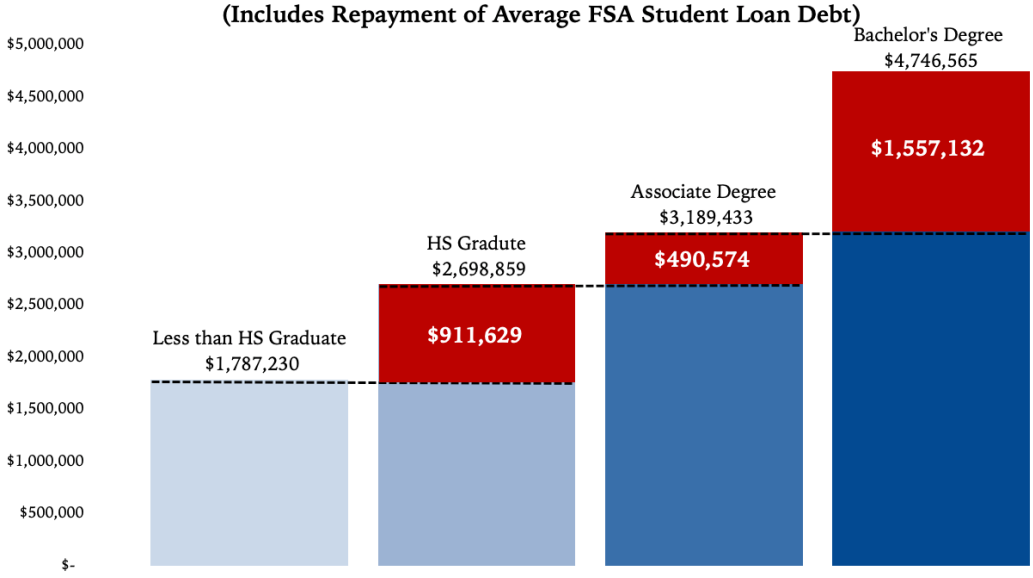
Associate degree: $3,189,433

This figure is **$490,574 (18%)** more than the expected lifetime earning of an individual with a high school diploma only. Someone with an associate degree in Connecticut can expect to earn $293,877 more in their career than the average associate degree holder in New England.

Bachelor's degree: $4,746,565

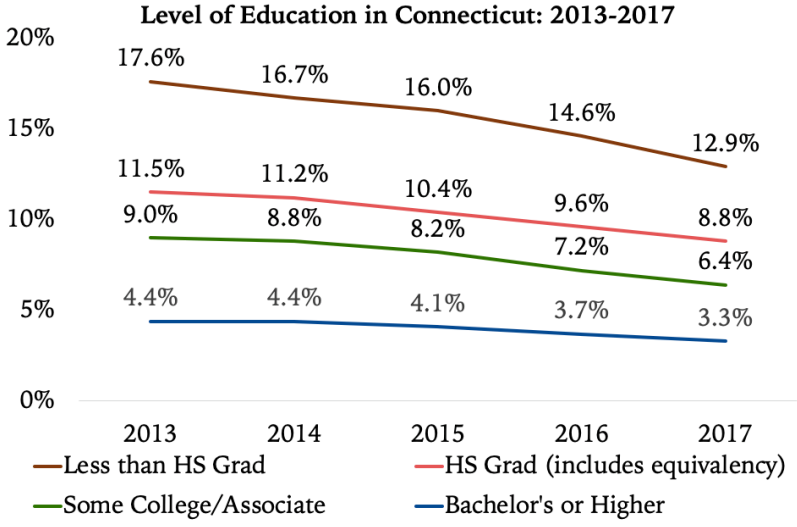
This figure is **$1,557,132 (49%)** more than the expected lifetime earning of an individual with an associate degree and **$2,047,706 (76%)** more than for someone with a high school diploma only. A bachelor's degree holder in Connecticut can expect to earn $494,161 more over the course of their career than the average individual with the same degree in New England.

Total Expected 40-Year Career Earnings in Connecticut by Level of Education (Includes Repayment of Average FSA Student Loan Debt)



Source: NEBHE analysis of information from the Federal Reserve, U.S. Census Bureau, TICAS, and Community College Review. For methodology, see Appendix.

Unemployment Rate for Population Aged 25-64 by Level of Education in Connecticut: 2013-2017



Source: U.S. Census Bureau, *American Community Survey*; Margin of error: +/-0.1

Unemployment Rates by Attainment Level

Those who have a postsecondary credential enjoy a significantly reduced risk of unemployment. As of January 2017, the average rate of unemployment in Connecticut for an individual with a bachelor's degree or higher was 3.3% (New England: 2.9%), compared with 6.4% for individuals with some college or an associate degree (New England: 5.4%), 8.8% for those with a high school diploma and no college (New England: 7.4%), and 12.9% for those with less than a high school diploma (New England: 10.8%).

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What's the Value of Higher Education in Maine?

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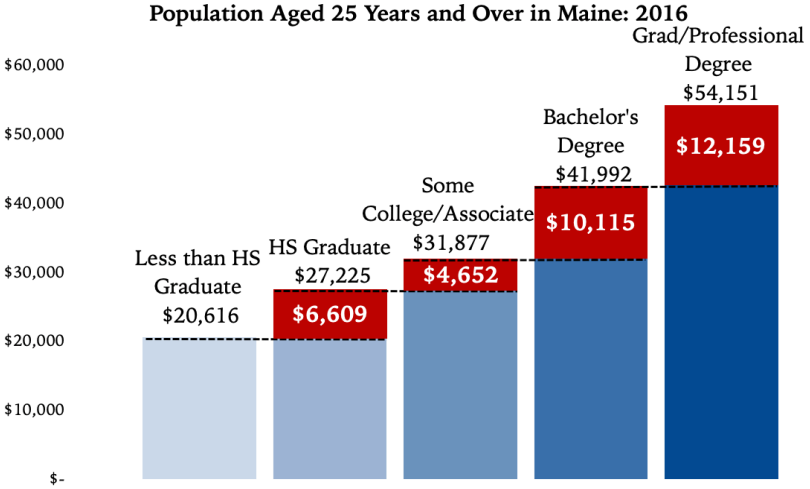
Overview

Public investments in higher education are valuable for individuals and the public because postsecondary credentials tend to grant people greater access to better, higher-paying jobs and more opportunities for stability and advancement within their chosen career track. According to the state's Department of Labor and Center for Workforce Research and Information, the fastest growing industries in Maine include, among others, company management, administrative and waste services, bioscience and healthcare, and education.[1] Many of the jobs in these industries require some form of education beyond high school. Maine has a particularly high concentration of occupations that typically require an associate degree.[2]

Annual Earning Potential of a Degree

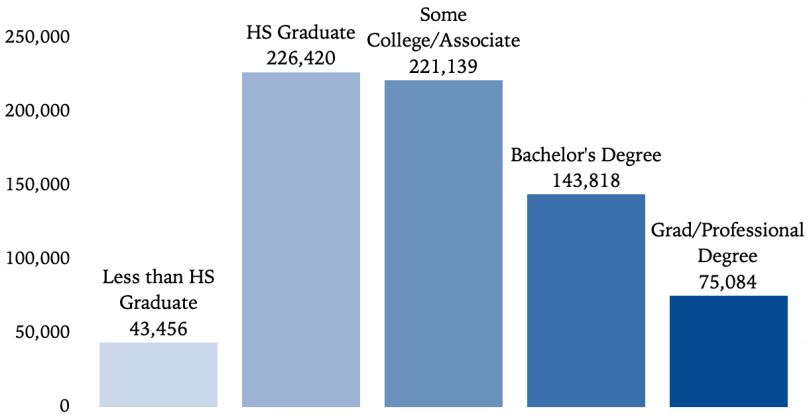
- In Maine, the average individual with an associate degree can expect to earn **$4,652 (17%)** more annually than someone with a high school diploma (or equivalency) only and **$11,261 (55%)** more per year than someone without a high school diploma.
- The premium is significantly higher for a four-year degree. The average bachelor's degree holder in Maine can anticipate earning **$10,115 (32%)** more annually than someone with an associate degree, **$14,767 (54%)** more per year than someone with only a high school diploma, and **$21,376 (104%)** more annually than someone who has not earned a high school diploma.
- Across Maine, approximately **270,000 adults** between ages 25 and 64 do not have any postsecondary experience (some college/associate degree or higher). This number reflects a "sunk cost" for the region in terms of lost wages. If about half of these individuals (135,000) earned an associate degree, this would mean an **additional $628 million annually in taxable wages**. If the same number earned a bachelor's degree, it would amount to **an added $1.4 billion annually in taxable wages.**

Median Annual Earnings By Educational Attainment for the Population Aged 25 Years and Over in Maine: 2016



Source: U.S. Census Bureau, *American Community Survey*

Population of Residents Aged 25-64 at Each Level of Educational Attainment in Maine: 2017



Source: Lumina Foundation, *A Stronger Nation: Learning Beyond High School Builds American Talent*

1. https://www.maine.gov/labor/cwri/industryChange.html
2. U.S. Bureau of Labor Statistics, Occupational Employment Statistics survey and Employment Projections program.

Lifetime Earning Potential of a Degree in Maine

Over a 40-year career, a college degree pays off even more. In Maine, the expected career earnings at each level of attainment is:

High school diploma (or equivalency): $2,141,608

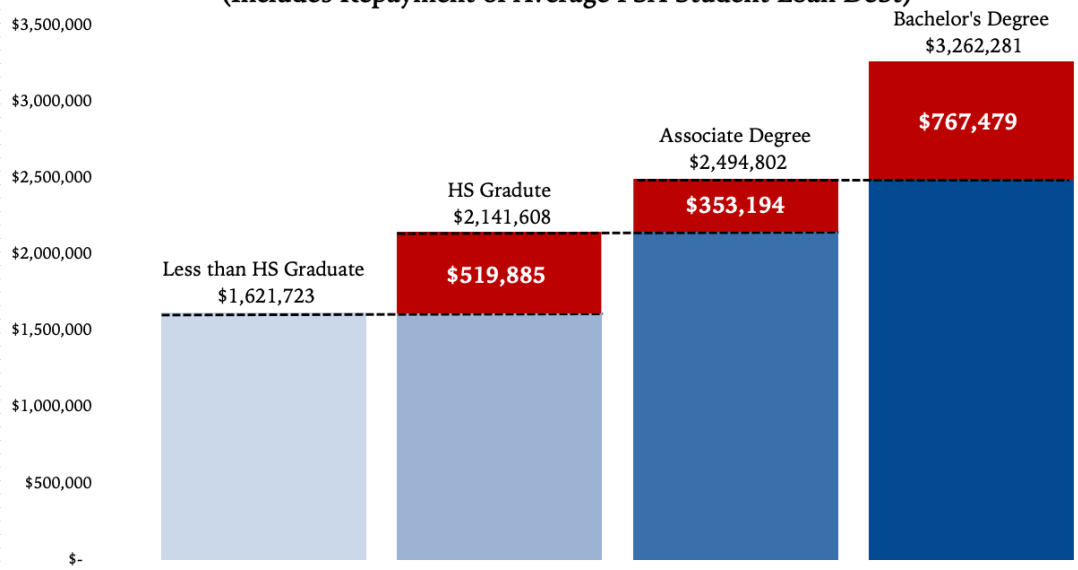
Associate degree: $2,494,802

This figure is **$353,194 (17%)** more than the expected lifetime earning of an individual with a high school diploma only. Someone with an associate degree in Maine can expect to earn $400,754 less in their career than the average associate degree holder in New England.

Bachelor's degree: $3,262,281

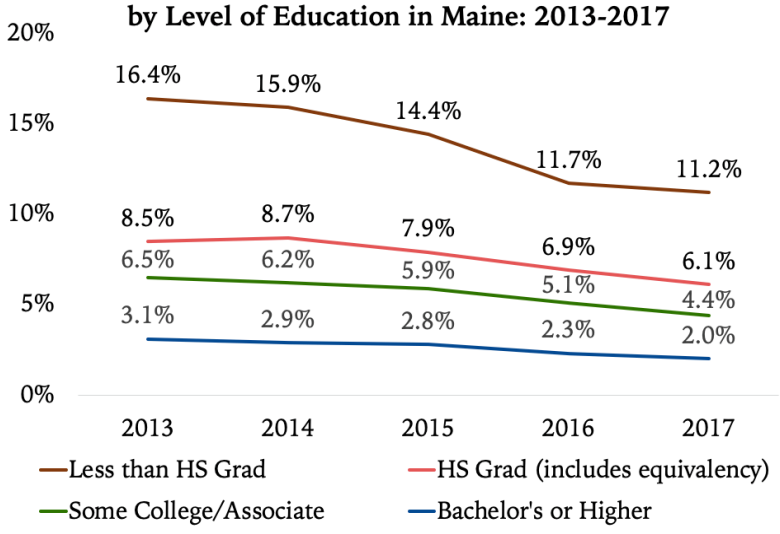
This figure is **$767,479 (31%)** more than the expected lifetime earning of an individual with an associate degree and **$1,120,673 (52%)** more than for someone with a high school diploma only. A bachelor's degree holder in Maine can expect to earn $720,123 less over the course of their career than the average individual with the same degree in New England.

Total Expected 40-Year Career Earnings in Maine by Level of Education (Includes Repayment of Average FSA Student Loan Debt)



Source: NEBHE analysis of information from the Federal Reserve, U.S. Census Bureau, TICAS, and Community College Review. For methodology, see Appendix.

Unemployment Rate for Population Aged 25-64 by Level of Education in Maine: 2013-2017



Source: U.S. Census Bureau, *American Community Survey*; Margin of error: +/-0.1

Unemployment Rates by Attainment Level

Those who have a postsecondary credential enjoy a significantly reduced risk of unemployment. As of January 2017, the average rate of unemployment in Maine for an individual with a bachelor's degree or higher was 2.0% (New England: 2.9%), compared with 4.4% for individuals with some college or an associate degree (New England: 5.4%), 6.1% for those with a high school diploma and no college (New England: 7.4%), and 11.2% for those with less than a high school diploma (New England: 10.8%).

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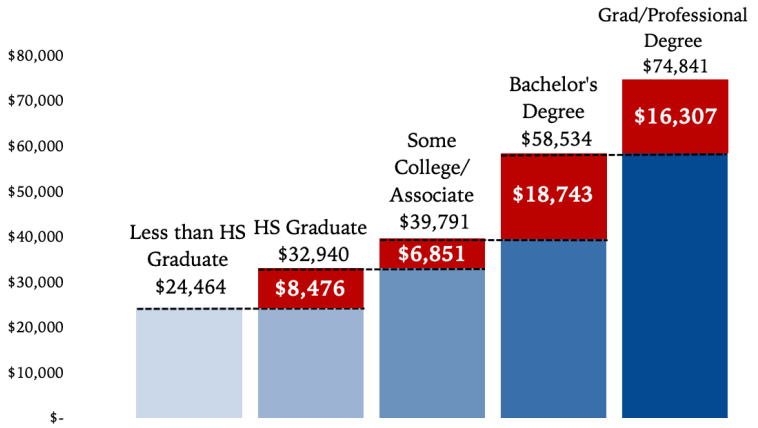
Annual Earning Potential of a Degree

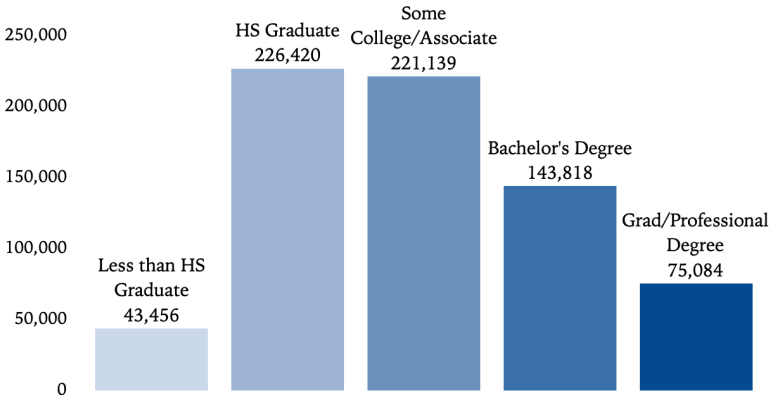
- In Massachusetts, the average individual with an associate degree can expect to earn **$6,851 (21%)** more annually than someone with a high school diploma (or equivalency) only and **$15,327 (63%)** more per year than someone without a high school diploma.
- The premium is significantly higher for a four-year degree. The average bachelor's degree holder in Massachusetts can anticipate earning **$18,743 (47%)** more annually than someone with an associate degree, **$25,594 (78%)** more per year than someone with only a high school diploma, and **$34,070 (139%)** more annually than someone who has not earned a high school diploma.
- Across Massachusetts, approximately **1.1 million adults** between ages 25 and 64 do not have any postsecondary experience (some college/associate degree or higher). This number reflects a "sunk cost" for the region in terms of lost wages. If about half of these individuals (565,000) earned an associate degree, this would mean an **additional $3.9 billion annually in taxable wages**. If the same number earned a bachelor's degree, it would amount to **an added $10.6 billion annually in taxable wages.**

Median Annual Earnings By Educational Attainment for the Population Aged 25 Years and Over in Massachusetts: 2016



Source: U.S. Census Bureau, *American Community Survey*

Population of Residents Aged 25-64 at Each Level of Educational Attainment in Maine: 2017



Source: Lumina Foundation, *A Stronger Nation: Learning Beyond High School Builds American Talent*

1. https://www.mass.gov/massachusetts-occupational-and-industry-projections
2. U.S. Bureau of Labor Statistics, Occupational Employment Statistics survey and Employment Projections program.

Lifetime Earning Potential of a Degree in Massachusetts

Over a 40-year career, a college degree pays off even more. In Massachusetts, the expected career earnings at each level of attainment is :

High school diploma (or equivalency): $2,591,169

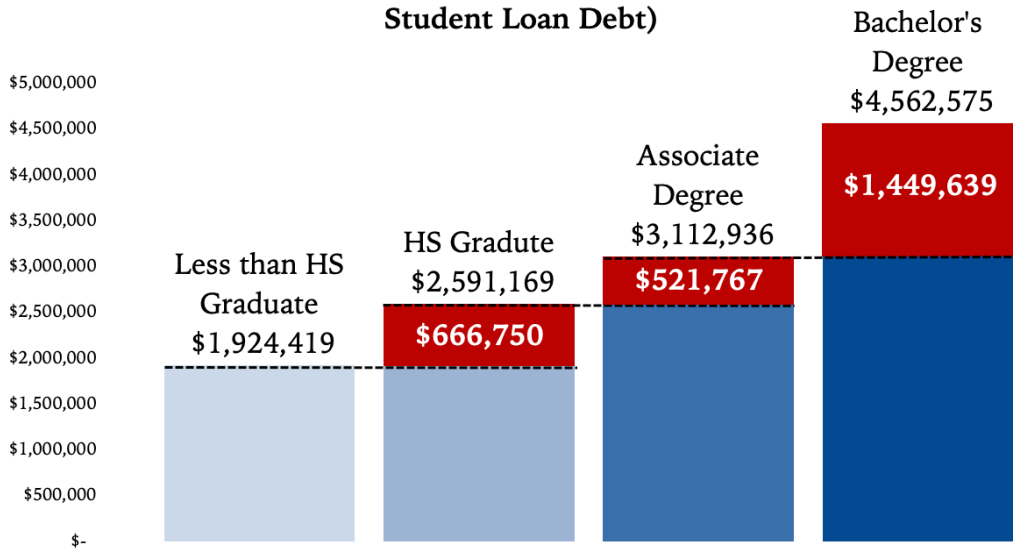
Associate degree: $3,112,936

This figure is **$521,767 (20%)** more than the expected lifetime earning of an individual with a high school diploma only. Someone with an associate degree in Massachusetts can expect to earn $1,217,380 more in their career than the average associate degree holder in New England.

Bachelor's degree: $4,562,575

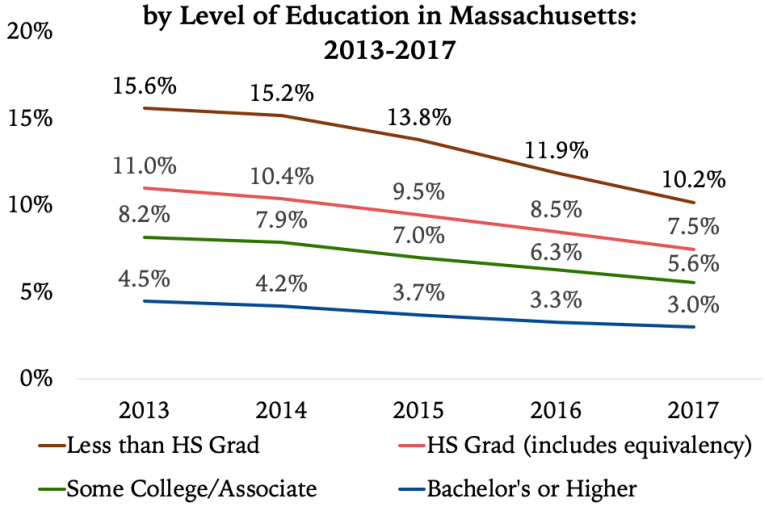
This figure is **$1,449,639 (47%)** more than the expected lifetime earning of an individual with an associate degree and **$1,971,406 (76%)** more than for someone with a high school diploma only. A bachelor's degree holder in Massachusetts can expect to earn $580,171 more over the course of their career than the average individual with the same degree in New England.

Total Expected 40-Year Career Earnings in Massachusetts by Level of Education (Includes Repayment of Average FSA Student Loan Debt)



Source: NEBHE analysis of information from the Federal Reserve, U.S. Census Bureau, TICAS, and Community College Review. For methodology, see Appendix.

Unemployment Rate for Population Aged 25-64 by Level of Education in Massachusetts: 2013-2017



Source: U.S. Census Bureau, *American Community Survey*; Margin of error: +/-0.1

Unemployment Rates by Attainment Level

Those who have a postsecondary credential enjoy a significantly reduced risk of unemployment. As of January 2017, the average rate of unemployment in Massachusetts for an individual with a bachelor's degree or higher was 3.0% (New England: 2.9%), compared with 5.6% for individuals with some college or an associate degree (New England: 5.4%), 7.5% for those with a high school diploma and no college (New England: 7.4%), and 10.2% for those with less than a high school diploma (New England: 10.8%).

Stephanie M. Murphy, *Policy & Research Analyst*

May 2019

What's the Value of Higher Education in New Hampshire? Insights for State and Institutional Leaders, Part 1 in Series

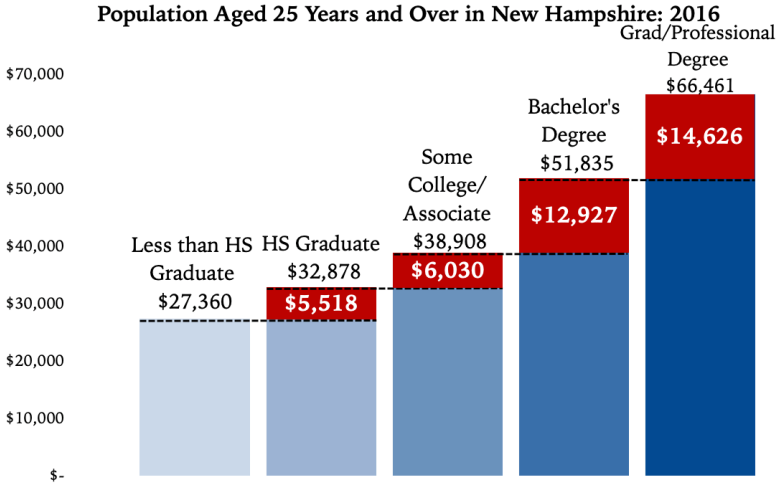
Overview

Public investments in higher education are valuable for individuals and the public because postsecondary credentials tend to grant people greater access to better, higher-paying jobs and more opportunities for stability and advancement within their chosen career track. According to state-issued employment projections, the industries that are projected to grow the most in New Hampshire though 2022 include, among others, healthcare and social services, scientific and technical services, construction, wholesale trade, and real estate.[1] Many of the jobs in these industries require some form of education beyond high school.

Annual Earning Potential of a Degree

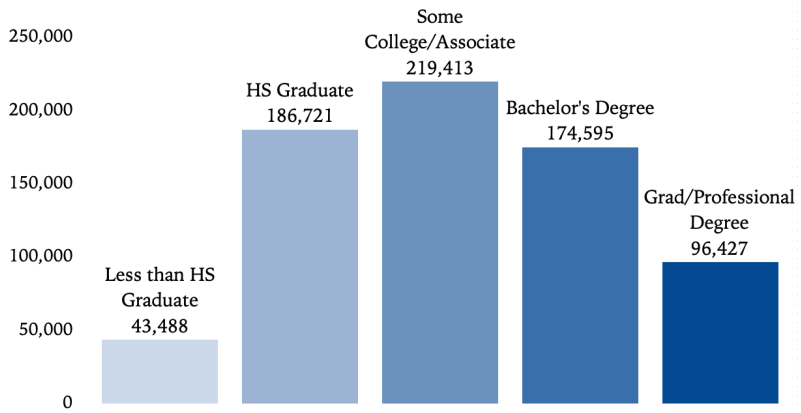
- In New Hampshire, the average individual with an associate degree can expect to earn **$6,030 (18%)** more annually than someone with a high school diploma (or equivalency) only and **$11,548 (42%)** more per year than someone without a high school diploma.
- The premium is significantly higher for a four-year degree. The average bachelor's degree holder in New Hampshire can anticipate earning **$12,927 (33%)** more annually than someone with an associate degree, **$18,957 (58%)** more per year than someone with only a high school diploma, and **$24,475 (90%)** more annually than someone who has not earned a high school diploma.
- Across New Hampshire, approximately **230,000 adults** between ages 25 and 64 do not have any postsecondary experience (some college/associate degree or higher). This number reflects a "sunk cost" for the region in terms of lost wages. If about half of these individuals (115,000) earned an associate degree, this would mean an **additional $693 million annually in taxable wages**. If the same number earned a bachelor's degree, it would amount to **an added $1.5 billion annually in taxable wages.**

Median Annual Earnings By Educational Attainment for the Population Aged 25 Years and Over in New Hampshire: 2016



Source: U.S. Census Bureau, *American Community Survey*

Population of Residents Aged 25-64 at Each Level of Educational Attainment in New Hampshire: 2017



Source: Lumina Foundation, *A Stronger Nation: Learning Beyond High School Builds American Talent*

1. https://www.nhes.nh.gov/elmi/products/documents/projections.pdf

Lifetime Earning Potential of a Degree in New Hampshire

Over a 40-year career, a college degree pays off even more. In New Hampshire, the expected career earnings at each level of attainment is:

High school diploma (or equivalency): $2,586,292

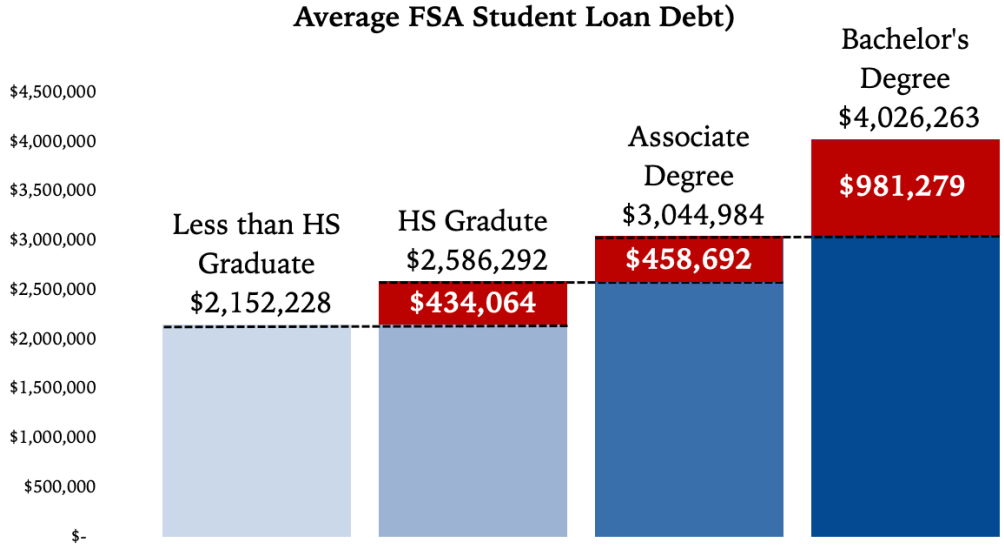
Associate degree: $3,044,984

This figure is **$458,692 (18%)** more than the expected lifetime earning of an individual with a high school diploma only. Someone with an associate degree in New Hampshire can expect to earn $149,428 more in their career than the average associate degree holder in New England.

Bachelor's degree: $4,026,263

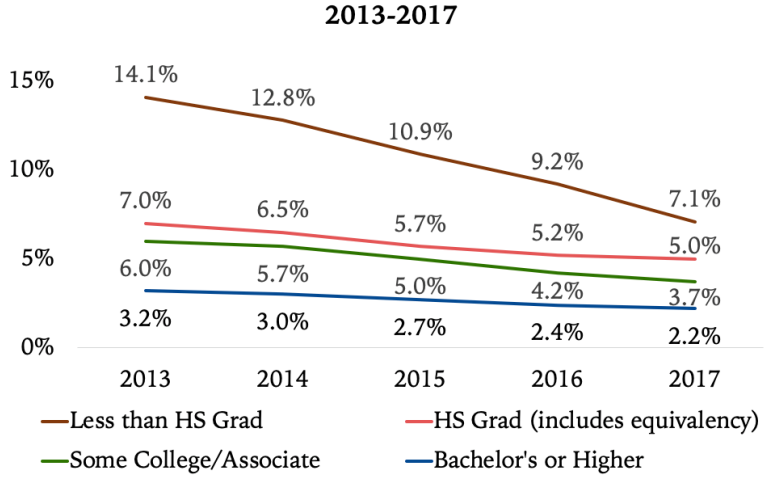
This figure is **$981,279 (32%)** more than the expected lifetime earning of an individual with an associate degree and **$1,439,971 (56%)** more than for someone with a high school diploma only. A bachelor's degree holder in New Hampshire can expect to earn $43,859 more over the course of their career than the average individual with the same degree in New England.

Total Expected 40-Year Career Earnings in New Hampshire by Level of Education (Includes Repayment of Average FSA Student Loan Debt)



Source: NEBHE analysis of information from the Federal Reserve, U.S. Census Bureau, TICAS, and Community College Review. For methodology, see Appendix.

Unemployment Rate for Population Aged 25-64 by Level of Education in New Hampshire: 2013-2017



Source: U.S. Census Bureau, *American Community Survey*; Margin of error: +/-0.1

Unemployment Rates by Attainment Level

Those who have a postsecondary credential enjoy a significantly reduced risk of unemployment. As of January 2017, the average rate of unemployment in New Hampshire for an individual with a bachelor's degree or higher was 2.2% (New England: 2.9%), compared with 3.7% for individuals with some college or an associate degree (New England: 5.4%), 5.0% for those with a high school diploma and no college (New England: 7.4%), and 7.1% for those with less than a high school diploma (New England: 10.8%).

Stephanie M. Murphy, *Policy & Research Analyst*

May 2019

What's the Value of Higher Education in Rhode Island?

Insights for State and Institutional Leaders, Part 1 in Series

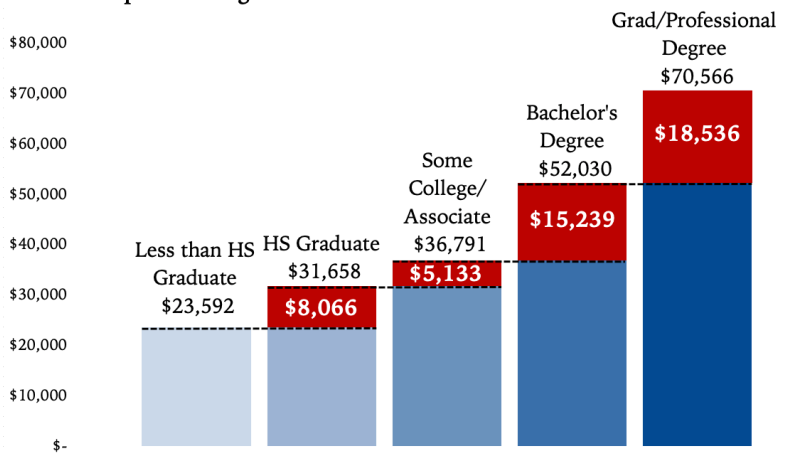
Overview

Public investments in higher education are valuable for individuals and the public because postsecondary credentials tend to grant people greater access to better, higher-paying jobs and more opportunities for stability and advancement within their chosen career track. According to state-issued labor market projections, the industries that are projected to grow the most in Rhode Island though 2022 include, among others, construction, manufacturing, retail trade, education, healthcare and social services, education, and business services.[1] Many of the jobs in these industries require some form of education beyond high school. Nearly 5% of all occupations in Rhode Island typically require an associate degree. Popular examples of such jobs include civil engineering technicians and magnetic resonance imaging technologists.[2]

Annual Earning Potential of a Degree

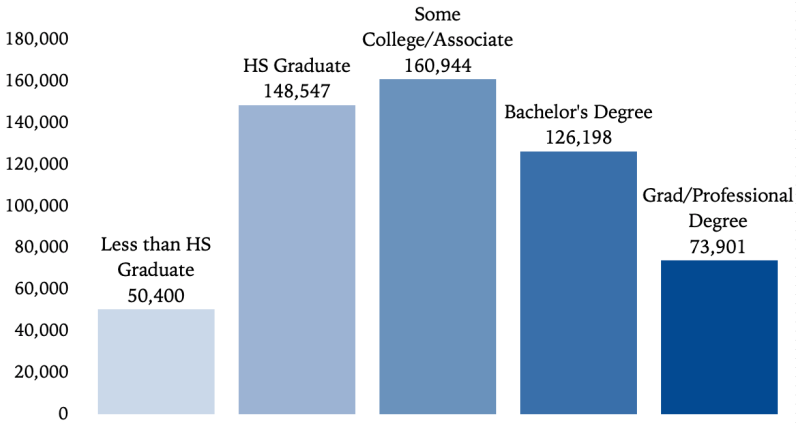
- In Rhode Island, the average individual with an associate degree can expect to earn **$5,133 (16%)** more annually than someone with a high school diploma (or equivalency) only and **$13,199 (56%)** more per year than someone with less than a high school diploma.
- The premium is significantly higher for a four-year degree. The average bachelor's degree holder in Rhode Island can anticipate earning **$15,239 (41%)** more annually than someone with an associate degree, **$20,372 (64%)** more per year than someone with only a high school diploma, and **$28,438 (121%)** more annually than someone who has not earned a high school diploma.
- Across Rhode Island, approximately **199,00 adults** between ages 25 and 64 do not have any postsecondary experience (some college/associate degree or higher). This number reflects a "sunk cost" for the region in terms of lost wages. If about half of these individuals (99,500) earned an associate degree, this would mean an **additional $510 million annually in taxable wages in Rhode Island**. If the same number earned a bachelor's degree, it would amount to **an added $1.5 billion annually in taxable wages.**

Median Annual Earnings By Educational Attainment for the Population Aged 25 Years and Over in Rhode Island: 2016



Source: U.S. Census Bureau, *American Community Survey*

Population of Residents Aged 25-64 at Each Level of Educational Attainment in Rhode Island: 2017



Source: Lumina Foundation, *A Stronger Nation: Learning Beyond High School Builds American Talent*

1. https://www.dlt.ri.gov/lmi/pdf/expedec.pdf
2. U.S. Bureau of Labor Statistics, Occupational Employment Statistics survey and Employment Projections program.

Lifetime Earning Potential of a Degree in Rhode Island

Over a 40-year career, a college degree pays off even more. In Rhode Island, the expected career earnings at each level of attainment is:

High school diploma (or equivalency): $2,490,323

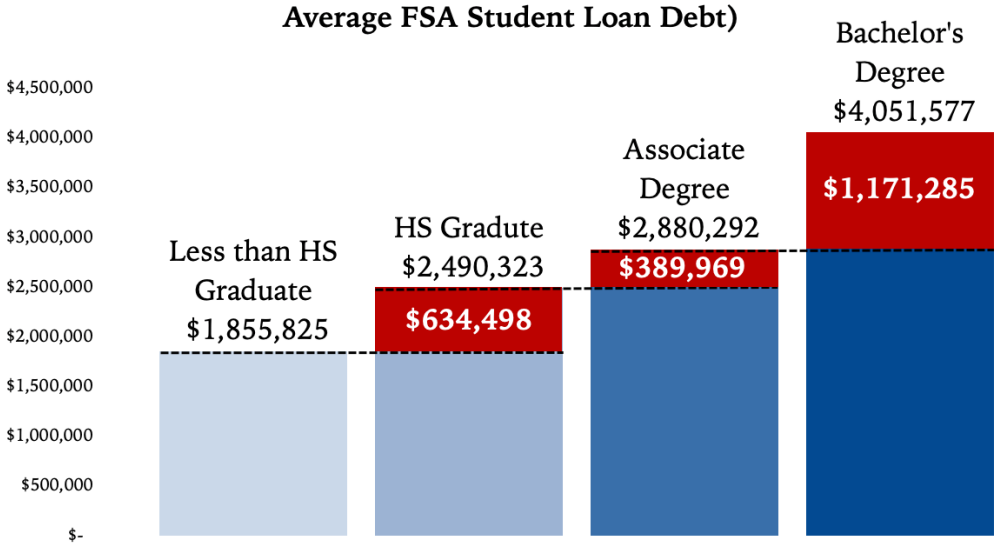
Associate degree: $2,880,292

This figure is **$389,969 (16%)** more than the expected lifetime earning of an individual with a high school diploma only. Someone with an associate degree in Rhode Island can expect to earn $15,264 less in their career than the average associate degree holder in New England.

Bachelor's degree: $4,051,577

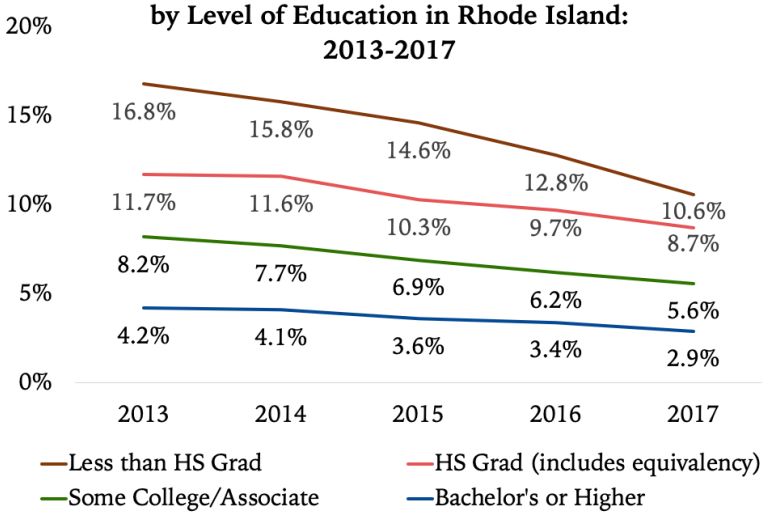
This figure is **$1,171,285 (41%)** more than the expected lifetime earning of an individual with an associate degree and **$1,561,254 (63%)** more than for someone with a high school diploma only. A bachelor's degree holder in Rhode Island can expect to earn $69,173 more over the course of their career than the average individual with the same degree in New England.

Total Expected 40-Year Career Earnings in Rhode Island by Level of Education (Includes Repayment of Average FSA Student Loan Debt)



Source: NEBHE analysis of information from the Federal Reserve, U.S. Census Bureau, TICAS, and Community College Review. For methodology, see Appendix.

Unemployment Rate for Population Aged 25-64 by Level of Education in Rhode Island: 2013-2017



Source: U.S. Census Bureau, *American Community Survey*; Margin of error: +/-0.1

Unemployment Rates by Attainment Level

Those who have a postsecondary credential enjoy a significantly reduced risk of unemployment. As of January 2017, the average rate of unemployment in Rhode Island for an individual with a bachelor's degree or higher was 2.9% (New England: 2.9%), compared with 5.6 for individuals with some college or an associate degree (New England: 5.4%), 8.7% for those with a high school diploma and no college (New England: 7.4%), and 10.6% for those with less than a high school diploma (New England: 10.8%).

Stephanie M. Murphy, *Policy & Research Analyst*

May 2019

What's the Value of Higher Education in Vermont?

Insights for State and Institutional Leaders, Part 1 in Series

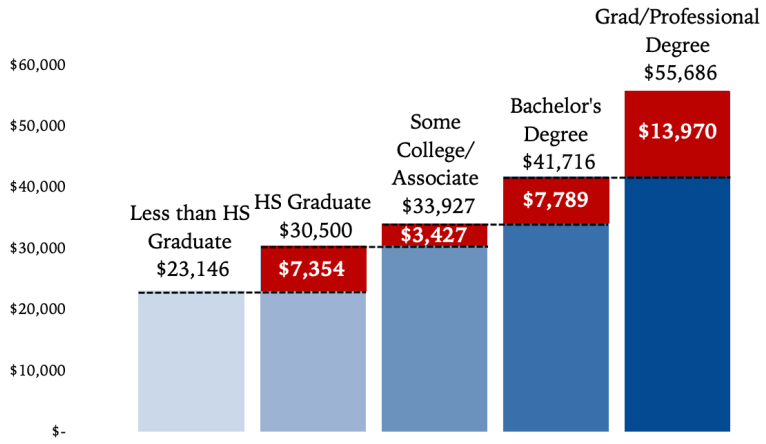
Overview

Public investments in higher education are valuable for individuals and the public because postsecondary credentials tend to grant people greater access to better, higher-paying jobs and more opportunities for stability and advancement within their chosen career track. According to state-issued labor market projections, the industries that are projected to grow the most in Vermont between 2018 and 2020 include, among others, beverage product manufacturing, data processing services, administrative support services, and wholesale electronic services.[1] Many of the jobs in these industries require some form of education beyond high school. Roughly 5% of all occupations in Vermont typically require an associate degree. Occupations with higher concentrations of jobs in Vermont than the U.S. include preschool teachers, dental hygienists, and respiratory therapy technicians.[2]

Annual Earning Potential of a Degree

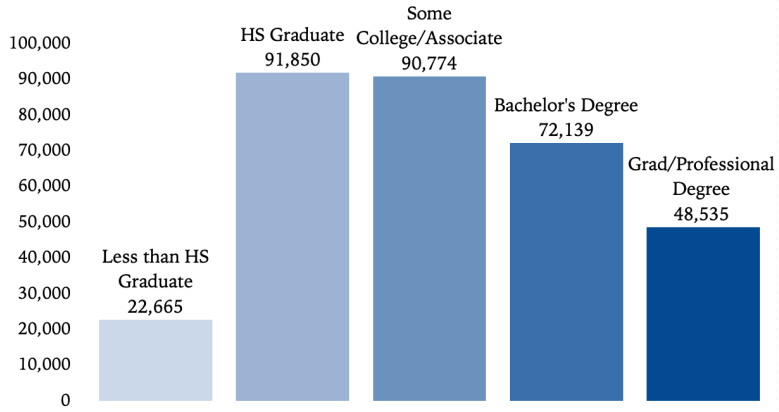
- In Vermont, the average individual with an associate degree can expect to earn **$3,427 (11%)** more annually than someone with a high school diploma (or equivalency) only and **$10,781 (47%)** more per year than someone without a high school diploma.
- The premium is significantly higher for a four-year degree. The average bachelor's degree holder in Vermont can anticipate earning **$7,789 (23%)** more annually than someone with an associate degree, **$11,216 (37%)** more per year than someone with only a high school diploma, and **$18,570 (80%)** more annually than someone who has not earned a high school diploma.
- Across the Vermont, approximately **114,500 adults** between the ages of 25 and 64 do not have any postsecondary experience (some college/associate degree or higher). This number reflects a "sunk cost" for the region in terms of lost wages. If about half of these individuals (57,250) earned an associate degree, this would mean an **additional $196 million annually in taxable wages in Vermont**. If the same number earned a bachelor's degree, it would amount to **an added $446 million annually in taxable wages.**

Median Annual Earnings By Educational Attainment for the Population Aged 25 Years and Over in Vermont: 2016



Source: U.S. Census Bureau, *American Community Survey*

Population of Residents Aged 25-64 at Each Level of Educational Attainment in Vermont: 2017



Source: Lumina Foundation, *A Stronger Nation: Learning Beyond High School Builds American Talent*

1. https://www.vtlmi.info/projst.pdf
2. U.S. Bureau of Labor Statistics, Occupational Employment Statistics survey and Employment Projections program.

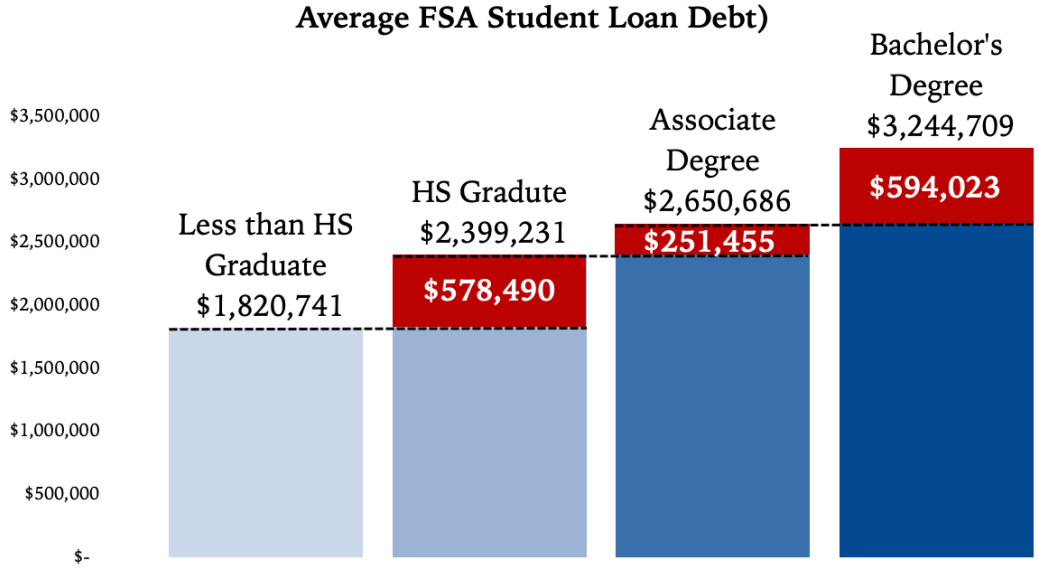
Lifetime Earning Potential of a Degree in Vermont

Over a 40-year career, a college degree pays off even more. In Vermont, the expected career earnings at each level of attainment is:

High school diploma (or equivalency): $2,399,231
Associate degree: $2,650,686
This figure is **$251,455 (11%)** more than the expected lifetime earning of an individual with a high school diploma only. Someone with an associate degree in Vermont can expect to earn $24,870 less in their career than the average associate degree holder in New England.

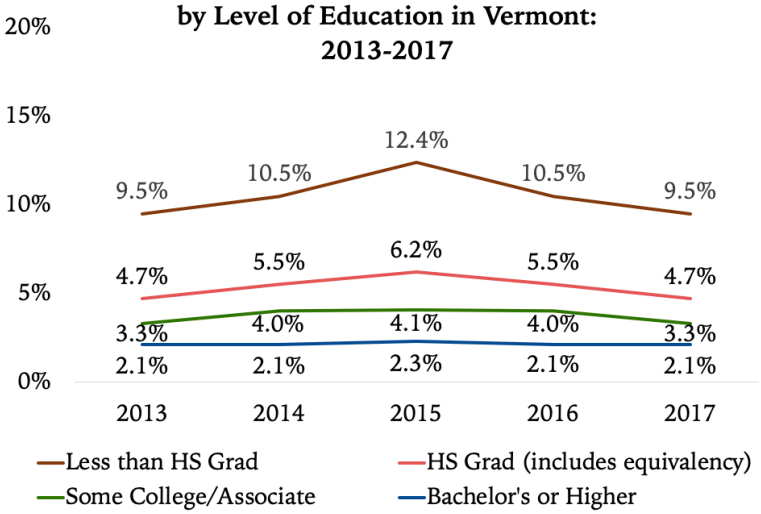
Bachelor's degree: $3,244,709
This figure is **$594,023 (22%)** more than the expected lifetime earning of an individual with an associate degree and **$845,478 (35%)** more than for someone with a high school diploma only. A bachelor's degree holder in Vermont can expect to earn $737,695 less over the course of their career than the average individual with the same degree in New England.

Total Expected 40-Year Career Earnings in Vermont by Level of Education (Includes Repayment of Average FSA Student Loan Debt)



Source: NEBHE analysis of information from the Federal Reserve, U.S. Census Bureau, TICAS, and Community College Review. For methodology, see Appendix.

Unemployment Rate for Population Aged 25-64 by Level of Education in Vermont: 2013-2017



Source: U.S. Census Bureau, *American Community Survey*; Margin of error: +/-0.1

Unemployment Rates by Attainment Level

Those who have a postsecondary credential enjoy a significantly reduced risk of unemployment. As of January 2017, the average rate of unemployment in Vermont for an individual with a bachelor's degree or higher was 2.1% (New England: 2.9%), compared with 3.3% for individuals with some college or an associate degree (New England: 5.4%), 4.7% for those with a high school diploma and no college (New England: 7.4%), and 9.5% for those with less than a high school diploma (New England: 10.8%).

APPENDIX	
Career Life:	
Age at career start	25
Retirement Age	65
Annual Income by Attainment Level (Source: U.S. Census Bureau, American Community Survey):	
Anticipated starting annual income (Less than HS diploma, based on actual current median income in 2016):	
New England Average	$23,650
Connecticut	$22,721
Maine	$20,616
Massachusetts	$24,464
New Hampshire	$27,360
Rhode Island	$23,592
Vermont	$23,146
Anticipated starting annual income (HS Graduate, based on actual current median income in 2016):	
New England Average	$31,590
Connecticut	$34,309
Maine	$27,225
Massachusetts	$32,940
New Hampshire	$32,878
Rhode Island	$31,658
Vermont	$30,500
Anticipated starting annual income (Associate Degree, based on actual current median income in 2016):	
New England Average	$36,985
Connecticut	$40,618
Maine	$31,877
Massachusetts	$39,791
New Hampshire	$38,908
Rhode Island	$36,791
Vermont	$33,927
Anticipated starting annual income (Bachelor's Degree, based on actual current median income in 2016):	
New England Average	$51,179
Connecticut	$60,969
Maine	$41,992
Massachusetts	$58,534
New Hampshire	$51,835
Rhode Island	$52,030
Vermont	$41,716
Expected Wage Growth (NEBHE analysis of data from the U.S. Census Bureau):	
Anticipated Annual Salary Growth (all postsecondary attainment levels)	3%
Anticipated Student Loan Debt (Average Amount Borrowed at Graduation/Average Total Amount Paid After Interest)	
New England Average (Associate degree holder only, Source: Community College Review)	$12,500/$13,806
New England Average (Bachelor's Degree Holder only, Source, TICAS)	$32,433/$43,505
Connecticut Average (Associate degree holder only)	$5,500/$5,713
Connecticut Average (Bachelor's Degree Holder only)	$35,494/$49,458
Maine Average (Associate degree holder only)	$12,000/$12,748
Maine Average (Bachelor's Degree Holder only)	$31,295/$40,948
Massachusetts Average (Associate degree holder only)	$15,250/$17,155
Massachusetts Average (Bachelor's Degree Holder only)	$31,563/$41,902
New Hampshire Average (Associate degree holder only)	$14,052/$15,648

New Hampshire Average (Bachelor's Degree Holder only)	$36,367/$551,249
Rhode Island Average (Associate degree holder only)	$12,500/$13,806
Rhode Island Average (Bachelor's Degree Holder only)	$31,217/$41,274
Vermont Average (Associate degree holder only)	$16,000/$18,124
Vermont Average (Bachelor's Degree Holder only)	$28,662/$36,809
Student Loan Interest (Source: U.S. Department of Education)	
FSA Fixed Rate Compounded Daily	6.8%
Monthly Loan Payment (Source: U.S. Federal Reserve Bank)	
Average Monthly Loan Payment in U.S.	$393

Methodology and Notes:
Annual Salary: **PYS*(1+3%)**, where PYS is the prior year's annual salary.

Salary data in the calculations are disaggregated by educational attainment but not by age due to unavailability of the former. Median income at each level of attainment was taken as the starting salary, which may skew the figures somewhat higher. We also acknowledge that disaggregating the data for individuals with some college but no degree and for those with an associate degree would yield a more robust picture of postsecondary attainment, earnings, and unemployment. Unfortunately, the data sources include only the aggregated data.

Student Loan Debt: For the first monthly payment, the U.S. average loan payment was deducted from the base average loan balance (**Balance+Payment**).

For each subsequent monthly payment, accrued interest was factored into the equation: **(SUM(BPP:I)+Payment)**, where BPP is the remaining balance after the most recent loan payment and I is accrued interest.

Loan debt was assumed only for individuals with some college/associate degree and bachelor's degree. The average interest rate of federal student loans dating back to 1992 is 6.8% compounded daily.

Projected Career Earnings: We modified the methodology originally used in the 2002 Census report on lifetime earnings. Our approach is as follows: For the sake of simplicity, it was assumed that people's careers begin at age 25 and all workers retire at 65. Synthetic estimates of work-life earnings were created by using the one-year annual earnings for each working population at each level of educational attainment and summing their education-specific earnings for 40 years while estimating an average of 3% annual earnings growth. Then we subtracted the total anticipated amount that an individual would pay for their student loan debt after accrued interest and average monthly payments if they obtained a postsecondary degree: **(SUM(Y1:Y20))-TL)**, where Y1 is estimated salary at year one, Y20 is the estimated salary at year 20, and TL is the total student loan debt paid including accrued interest.

Individuals who enter the labor market at a low point in the economic cycle (i.e., during a recession) are more likely to earn less over the course of their careers than a comparable individual who enters the workforce at a peak point of the business cycle (see, e.g., Kahn, Lisa 2010. "The Long-Term Labor Market Consequences of Graduating from a Bad Economy." Labour Economics*, 17: 303-316.).*

Our calculation is an estimate and is not based on real careers. Actual careers are characterized by some degree of variability and unpredictability. For the sake of calculating a conservative projection, it was assumed that all variables were held constant. Our approach is also an approximation, as wage growth can vary over time. Actual salary growth varies by state, career field, economic cycle, and individual choices. According to management consulting firm Aon Hewitt, a 3% annual raise for 2017 represents a relatively flat increase from 2.8% in 2016. This is supported with numbers from human resource organization World at Work, which saw 2016 salaries grow by 3% for the third consecutive year. According to the U.S. Bureau of Labor Statistics, these figures tended to be higher in the 1990s, with the average annual pay increasing 5.2% from 1997 to 1998, and 5.4% from 1991 to 1992. Yet, we have extended the 3% number back to 1987 as a conservative estimate.