

EDUCATION

The State of Granite State Colleges

The Cost, and Benefit, of Postsecondary Education in New Hampshire

The fact that a postsecondary education can lead to better employment and higher income is not a secret. However, higher education comes with a higher price tag. Just under 150,000 students enrolled in a postsecondary institution in New Hampshire for the 2018 academic year. Of those enrolled, an estimated¹ 29,000 will graduate. These graduates will then face the reality of the cost of their education and determine if it was really worth it.

What Does a College Education Cost?²

Annual data provided by the National Center for Education Statistics (NCES), displayed in Figure 1, shows the national average for tuition and fees increased over the last four years. There was also a significant difference between the cost of public, private non-profit, and private for-profit schools. These costs do not include books, supplies, room, and board, although those costs are also increasing.³

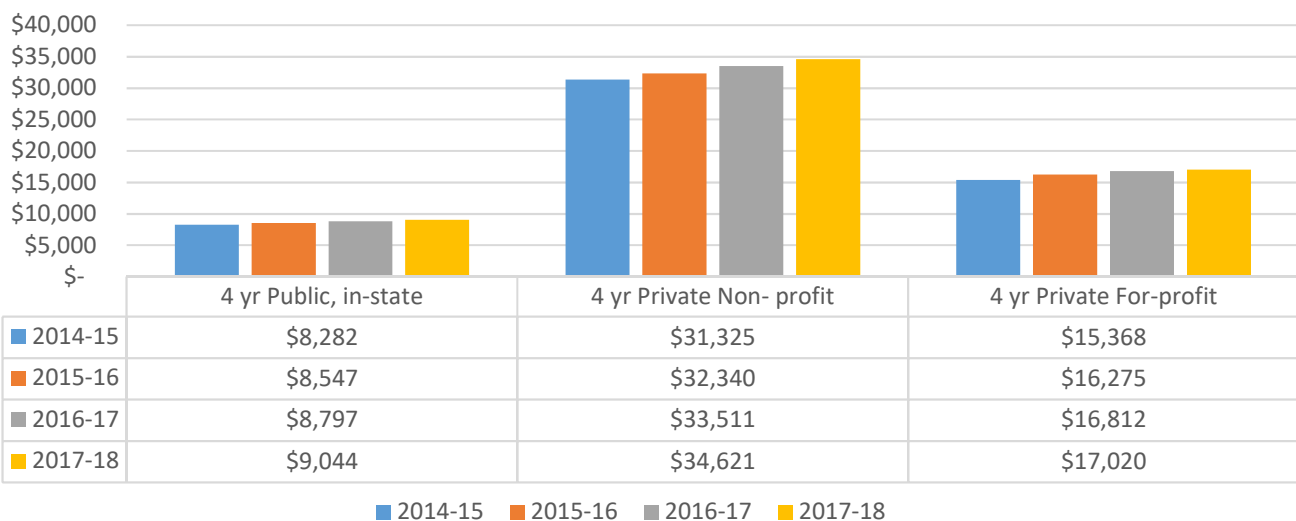
While the amount and trend of costs matter, how students pay for a college education matters more.

How Do Students Pay for Postsecondary Education?

Student loans are almost as common as going to college. Nationwide, just under 70 percent of graduates had student debt in 2017 and the average debt amount was \$29,800. The actual amount of debt will vary depending on the type of school. On a national average, public school graduates had a median debt of \$28,650, private nonprofit school graduates had a median debt of \$32,300, and private for-profit school graduates had a median debt of \$39,950.⁴ That is a significant sum to a young adult just starting their career path.

Of course, the dollar amount of debt is only half of the equation, as interest rates are a significant determinant in the total cost of debt. Federal loans

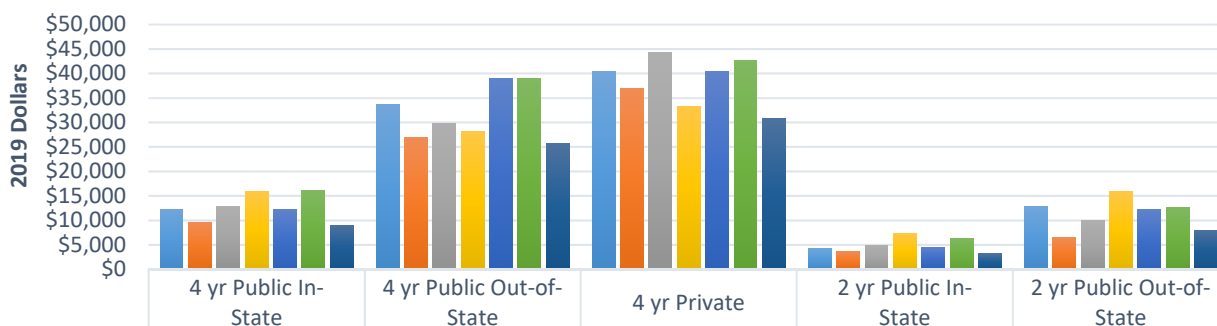
NATIONAL AVERAGE TUITION AND FEES BY ACADEMIC YEAR



Source: National Center for Education Statistics (NCES) Digest of Education Statistics, Table 330.40

1 Estimate is determined by taking the number of degrees conferred divided by the number of fall enrollments for the prior four years, summing the results and dividing by four to determine average percentage graduation and multiplying by 2017-2018 fall enrollments
 2 The quality of the education cannot be discussed in such broad terms as each school is unique and often changes regularly, thus it will not be included in the discussion
 3 National Center for Education Statistics (NCES) Digest of Education Statistics, "Table 330.40: Average total cost of attendance for first-time, full-time undergraduate students in degree-granting postsecondary institutions, by control and level of institution, living arrangement, and component of student costs: Selected years, 2010-11 through 2017-18". National Center for Education Statistics (NCES), https://nces.ed.gov/programs/digest/d18/tables/dt18_330.40.asp
 4 Student Loan Hero, "A look at the shocking student loan debt statistics for 2019". Student Loan Hero, <https://studentloanhero.com/student-loan-debt-statistics/>

2017 - 2018 AVERAGE COLLEGE TUITION AND FEES IN CURRENT DOLLARS



	4 yr Public In-State	4 yr Public Out-of-State	4 yr Private	2 yr Public In-State	2 yr Public Out-of-State
■ Connecticut	\$12,355	\$33,741	\$40,410	\$4,312	\$12,879
■ Maine	\$9,664	\$26,939	\$37,043	\$3,698	\$6,498
■ Massachusetts	\$12,778	\$29,774	\$44,384	\$4,991	\$10,006
■ New Hampshire	\$15,949	\$28,130	\$33,322	\$7,337	\$15,907
■ Rhode Island	\$12,239	\$39,013	\$40,361	\$4,564	\$12,156
■ Vermont	\$16,103	\$38,968	\$42,637	\$6,414	\$12,678
■ National Average	\$9,037	\$25,657	\$30,731	\$3,243	\$7,971

Source: National Center for Education Statistics (NCES) Digest of Education Statistics, Table 330.20

are the primary source for most students funding their education. During the 2017 to 2018 academic year, the interest rate for Direct Subsidized and Unsubsidized loans for undergraduate students was 4.45 percent, while the rate for graduate students was 6.00 percent.^{5,6} Another option available to students are the Direct PLUS loans, which require a parent as a cosigner, which had a rate of 6.31 percent.⁷ It is worth noting that of the 2018 graduates with student debt, just under 15 percent had parents who took out Direct PLUS loans. Those parents had an average debt of \$35,600 when their student graduated.⁸ Even with all federal money available, there are limits to loan amounts and as costs continue to rise, students may find shortfalls.

Student loans from private sources are also available. These loans typically have higher interest rates than federal loans, with some interest rates over ten percent.⁹ With rates like that, it is not surprising that student debt can be onerous.

With that much debt at those rates, what can students expect for repayment? A student with an

average amount of debt at a 4.45 percent interest rate would pay \$313.07 every month for ten years for a grand total of \$37,568.40. Student loan debt can have a negative impact on a recent graduate's finances, preventing them from achieving other financial goals, such as saving for a down payment on a house.¹⁰

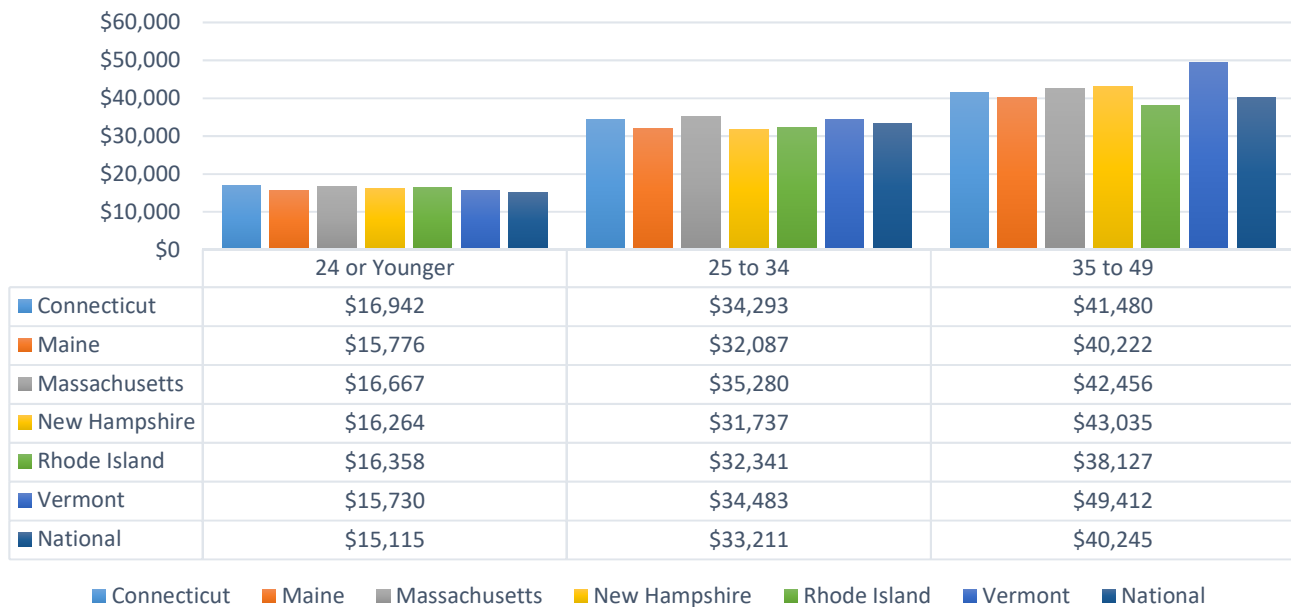
These are national considerations. The more important question is: how does student loan debt in New Hampshire compare to the rest of the nation?

How New Hampshire Compares

According to data for 2017-2018 academic year, provided by the NCES, New Hampshire schools are expensive compared to the rest of the nation. As show in Figure 2, New Hampshire, as does most of New England, sits above the national average in every aspect. New Hampshire's four-year public schools are pricey even by New England standards, less expensive than only Vermont and not by much. In fact, New Hampshire is the second most expensive state for four-year and first for two-year

5 Only unsubsidized loans are available for graduate level students
 6 Fay, Max, "Interest Rates on Student Loans", Debt.org, <https://www.debt.org/students/financial-aid-process/interest-rates/>
 7 Federal Student Aid (FSA), "Understand how interest is calculated and what fees are associated with your federal student loan", Federal Student Aid and Office of the US Department of Education, <https://studentaid.ed.gov/sa/types/loans/interest-rates>
 8 Student Loan Hero, "A look at the shocking student loan debt statistics for 2019", Student Loan Hero, <https://studentloanhero.com/student-loan-debt-statistics/>
 9 Fay, Max, "Interest Rates on Student Loans", Debt.org, <https://www.debt.org/students/financial-aid-process/interest-rates/>
 10 Federal Student Aid (FSA), "The Standard Repayment Plan is the basic repayment plan for loans from William D. Ford Federal Direct Loan (Direct Loan) Program and Federal Family Education Loan (FFEL) Program", Federal Student Aid and Office of the US Department of Education, <https://studentaid.ed.gov/sa/repay-loans/understand/plans/standard>

AVERAGE DEBT PER STUDENT BY AGE GROUP



Source: Federal Student Aid (FSA), "Federal Student Loan Portfolio: Portfolio by Location and Age"

average in-state public school tuition and fees in the nation.¹¹ A most inauspicious title to be sure.

In terms of the amount of student debt for borrowers residing in the state, New Hampshire ranks high as well. New Hampshire borrowers 24 and younger had an average debt of approximately \$16,300, tenth in the nation. It gets better in the 25 to 34 years age bracket, ranking thirty-sixth in the nation, then worse for those ages 35 to 49 where New Hampshire is twenty-eighth. The '2017-2018 Average College Tuition and Fees in Current Dollars' graph displays further details comparing NH to its neighbors and the nation.¹²

There are several reasons for the increasing amounts of debt by age group. First, the number of those who still owe money decreases in each age group, i.e. through pay offs, faster than the amount outstanding. Second, continued interest accumulation adds to the outstanding debt. Third, students who attend graduate school, or other post-baccalaureate college education, will be older when they complete their schooling. Fourth, there are a significant number of non-traditional students,

such as adults seeking to further their education later in life, who are not included in the younger age brackets. Fifth, students over the age of 25 have a greater propensity to select private for-profit schools than public or non-profit schools, which tends to be the more expensive option.¹³

To put some perspective on average debt, based upon national averages, 18,377 of New Hampshire's 2017 graduates had student loans with an average loan amount around \$30,000.¹⁴ That is an estimated \$547.6 million in student loans for New Hampshire graduates that academic year. A staggering number to be sure. However, as those numbers are based upon national averages and New Hampshire sits above the average, it is likely that estimate is low. Given the costs of New Hampshire postsecondary education, there is only one question to ask.

Is It Worth It?

According to a study published in 2015 called "Education and Lifetime Earnings in the United States," it is. In comparing lifetime earnings of high school graduates to bachelor's degree graduates, the

11 National Center for Education Statistics (NCES) Digest of Education Statistics, "Table 330.20: Average undergraduate tuition and fees and room and board rates charged for full-time students in degree-granting postsecondary institutions, by control and level of institution and state or jurisdiction: 2016-17 and 2017-18". National Center for Education Statistics (NCES), https://nces.ed.gov/programs/digest/d18/tables/dt18_330.20.asp

12 Federal Student Aid (FSA), "Federal Student Loan Portfolio: Portfolio by Location and Age", Federal Student Aid and Office of the US Department of Education, <https://studentaid.ed.gov/sa/about/data-center/student/portfolio>

13 NCES, "Characteristics of Postsecondary Students" NCES, https://nces.ed.gov/programs/coe/indicator_csb.asp

14 Student Loan Hero, "A look at the shocking student loan debt statistics for 2019" Student Loan Hero, <https://studentloanhero.com/student-loan-debt-statistics/>

numbers are significant. The results of the analysis showed that, accounting for socio-demographic variables, men will earn approximately \$655,000 more in lifetime earnings with a bachelor's degree, while women will earn approximately \$445,000 more. To put the money in more usable terms, a net present value calculation shows the value of receiving a bachelor's education the day a student graduates at \$259,000 for men and \$180,000 for women.^{15,16} U.S. Census Bureau data shows a more concentrated view for New Hampshire. The 2017 estimated earnings per year for men age 25 years and older, with a Bachelor's degree is \$28,617 more than men age 25 and older with a high school diploma. The same 2017 statistic for women, 25 years and older, shows a \$20,024 difference between educational attainment levels.¹⁷ A significant sum of money given the average debt that students take on.

As much as the degree level can affect a student's annual income, different fields of study also provide different income levels. PayScale provides a ranking for majors, and schools, with the best earning potential. The top five 4-year degrees with the highest early career pay,¹⁸ as of 2019, are Petroleum Engineering (\$94,500), Physician Assistant Studies (\$91,100), Electrical Engineering & Computer Science (EECS) (\$88,000), Pharmacy (\$79,600), and Metallurgical Engineering (\$78,100).¹⁹ There is some shift when considering mid-career pay. For workers with at least ten years of work experience, the five highest paying occupations for 2019 are Petroleum Engineering (\$176,900), Electrical Engineering & Computer Sciences (EECS) (\$142,200), Applied Economics and Management (\$140,000), Operations Research (\$137,100), and Political Economy (\$136,200).²⁰

These estimates provide a comfort that the average college graduate is making a sound investment but lifetime earnings is only part of the equation.

For many people, the purpose behind postsecondary education is to get a job. Looking at national percentages of employment by education level, in 2017, 78 percent of young adults (25 to 34) who had attained a bachelor's degree worked full-time, year round. That is seven percent higher than young adults with only a high school education. In fact, since 2000, young adults with a bachelor's degree had the highest percentage of year-round full-time employment by education level.²¹

Ultimately, an education's purpose is to improve an individual's quality of life. Increased wages and job security will partly address this. However, there are many other factors to consider. According to "Education and Quality of Life" by Jason D. Edgerton, Lance W. Roberts, and Susanne von Below, there are three main areas where education improves quality of life: 1. *Enhancing Knowledge and Cognitive Development*, 2. *Changing Preferences*, and 3. *Lessening Constraints and Increasing Opportunities*. The first factor addresses how knowledge affects the ability to understand and an individual's awareness of their environment. This increased level of understanding and access to information helps with maintaining health, greater understanding of "expert" recommendations, and fostering a general appreciation of learning. The second factor addresses how personal traits, habits, ethics, and other lifestyle choices change as people gain more knowledge. Perhaps of greatest importance in this factor is the fostering and development of personal agency that teaches individuals to be responsible and self-reliant in their lives. The third factor address the more typical expectations of higher education such as better jobs, higher earnings, and more fulfilling living situations.²² In short, each area expresses reasons why people get a formal education in the first place: to better their knowledge, better themselves, and better their future.

15 Based on a 20 year-old with 50 years lifetime earnings at a 4 percent (equivalent to inflation) discount rate

16 Tamborini, Christopher R., ChangHwan Kim, and Arthur Sakamoto. 2015. "Education and Lifetime Earnings in the United States."

17 U.S. Census Bureau, *Educational Attainment*, https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_17_5YR_S1501&prodType=table

18 Representing median salary of alumni with degrees in this subject with 0-5 years of work experience

19 PayScale, *2019 College Salary Report: Highest Paying Jobs with a Bachelor's Degree*, <https://www.payscale.com/college-salary-report/majors-that-pay-you-back/bachelors?orderBy=EarlyCareerPay&ascending=false>

20 PayScale, *2019 College Salary Report: Highest Paying Jobs with a Bachelor's Degree*, <https://www.payscale.com/college-salary-report/majors-that-pay-you-back/bachelors?orderBy=MidCareerPay&ascending=false>

21 National Center for Education Statistics (NCES) Fast Facts, "Fast Facts: Income of Young Adults" National Center for Education Statistics (NCES), <https://nces.ed.gov/fastfacts/display.asp?id=77>

22 Edgerton, Jason D., Roberts, Lance W., Susanne von Below, (Jan 2012) "Education and Quality of Life" Handbook of Social Indicators and Quality of Life Research (pp. 265-296), https://www.researchgate.net/publication/259486414_Education_and_Quality_of_Life

The State of the Granite State

Since the 2015 academic year, more than 70 percent of New Hampshire's high school graduates intended to go onto some form of college after graduation.

New Hampshire has five public universities, seven technical community colleges, and eleven private institutions, an impressive number for its size.

However, the data shows residents pay a premium for their use. Forbes provided a list of the top²³ 650 colleges in the nation for 2019. Among the colleges on this list, ten were in Connecticut, six in Maine, 31 in Massachusetts, three in New Hampshire, seven in Rhode Island, and five in Vermont. The three schools from New Hampshire were Dartmouth College (#10), University of New Hampshire (UNH) (#246), and Saint Anselm College (#319).²⁴ U.S.

News has their own 2020 list of the top²⁵ 399 schools across the nation. That list includes seven schools

in Connecticut, three in Maine, 16 in Massachusetts, two in New Hampshire, two in Rhode Island, and one in Vermont. The two New Hampshire schools are Dartmouth College, ranked #12, and UNH, ranked #125.²⁶ While simply getting a school on these lists is a feat in and of itself, given the number of schools, and the average cost of schools in New Hampshire, perhaps it is a sign. Getting a degree is valuable and over time will pay for itself in quality of life, job security, and through higher earnings. However, with the cost in New Hampshire above the national average and the substantial debt of its graduates, New Hampshire may soon face the question: who can *afford* to attend New Hampshire colleges?

- Marek Rivero

²³ These rankings were based upon Alumni Salary (20%), Student Satisfaction (20%), Debt (20%), American Leaders (15%), On-Time Graduation Rate (12.5%), and Academic success (12.5%)
²⁴ Maria Clara Cobo, Julie Coleman, Madison Fernandez, Grace Kay, and Derek Saul, "America's Top Colleges 2019", Forbes, August 15, 2019, <https://www.forbes.com/top-colleges/#679161a41987>

²⁵ These rankings were based upon graduation and retention (22%), graduate rate performance (8%), social mobility (5%), Class size (8%), faculty salary (7%), proportion of full-time faculty with the highest degree in their fields (3%), student0faculty ratio (1%), proportion of faculty who are full time (1%), Expert Opinion (20%), Financial Resources (10%). Student Excellence (10%) and Alumni Giving (5%)- Morse, Robert; Brooks, Eric; Mason, Matt "How U.S. News Calculated the 2020 Best Colleges Rankings", U.S. News, Sept 8, 2019, <https://www.usnews.com/education/best-colleges/articles/how-us-news-calculated-the-rankings>

²⁶ U.S. News Education (2019) "National University Rankings 2020", U.S. News, <https://www.usnews.com/best-colleges/rankings/national-universities>

Fall Enrollments, New Hampshire Public and Private Schools	2014-15	2015-16	2016-17	2017-18	2018-19	Source
Total public school enrollments (includes preschool)	183,604	181,339	179,734	178,328	177,365	DE
Total nonpublic school enrollments	17,518	17,042	16,852	16,342	16,154	DE
Total, all elementary and secondary enrollments	201,122	198,381	196,586	194,670	193,519	DE/NHES
Annual percent change, all enrollments	-1.1%	-1.4%	-0.9%	-1.0%	-0.6%	DE/NHES
First grade enrollments, total public	13,157	12,898	12,377	12,678	12,351	DE
First grade nonpublic enrollments	832	773	762	758	699	DE
Total first grade enrollments	13,989	13,671	13,139	13,436	13,050	DE/NHES
Annual percent change, first grade all enrollments	-2.5%	-2.3%	-3.9%	2.3%	-2.9%	DE/NHES
Twelfth grade enrollments, total public	13,671	13,752	13,338	13,235	13,073	DE
Twelfth grade nonpublic enrollments	1,999	1,995	2,096	1,984	1,931	DE
Total twelfth grade enrollments	15,670	15,747	15,434	15,219	15,004	DE/NHES
Annual percent change, twelfth grade all enrollments	-1.8%	0.5%	-2.0%	-1.4%	-1.4%	DE/NHES

Scholastic Assessment Test	2014-15	2015-16	2016-17	2017-18	2018-19	Source
SAT Scores of College-Bound Seniors ^a						
Evidence-Based Reading and Writing (formerly Critical Reading)						
New Hampshire	525	527	532	535	533	TCB
United States	495	494	533	536	531	TCB
Math						
New Hampshire	530	531	520	528	526	TCB
United States	511	508	527	531	528	TCB
Writing (Optional after 2016)						
New Hampshire	511	510	-	-	-	TCB
United States	497	482	-	-	-	TCB
Percent of high school graduates taking the SAT						
New Hampshire	70.0%	*	96.0%	96.0%	95.0%	NCES
United States	49.0%	*	48.0%	58.0%		NCES

* statistics not released due to change in SAT test format

^a Reflects mean score for all graduates from an academic year who took the SAT at any point during high school. If a student took the SAT more than once, only the most recent result is included in mean score.

Graduates, New Hampshire Public Schools and Public Academies	2013-14	2014-15	2015-16	2016-17	2017-18	Source
Total number of graduates (standard and non-standard diplomas, and GED)	14,250	13,813	13,847	13,511	13,301	DE
Annual percent change	-2.9%	-3.1%	0.2%	-2.4%	-1.6%	DE/NHES
Postsecondary Intentions of Graduates						
Entering a four-year college or university	48.4%	49.5%	50.2%	50.0%	52.3%	DE
Entering a postsecondary instruction other than four-year	24.6%	23.4%	22.8%	22.3%	20.2%	DE
Not entering a postsecondary institution:						
Enlisting in the Armed Forces	3.8%	3.2%	3.2%	3.1%	3.3%	DE
Employment	17.0%	17.0%	17.1%	17.5%	17.8%	DE
All other	6.1%	6.9%	6.7%	7.1%	6.4%	DE

New Hampshire School District Expenditures and Revenue	2013-14	2014-15	2015-16	2016-17	2017-18	Source
Current operating expenses, elementary and secondary schoolsb (\$ millions of current dollars)	\$2,679.9	\$2,723.2	\$2,793.1	\$2,845.3	\$2,934.5	DE
Annual percent change	2.5%	1.6%	2.6%	1.9%	3.1%	DE/NHES
Average daily membership, public elementary and secondary schools	173,355	171,412	169,158	167,394	166,321	DE
Annual percent change	-1.4%	-1.1%	-1.3%	-1.0%	-0.6%	DE/NHES
Cost per pupil, current operating expenses ^b (current dollars)	\$15,459.00	\$15,887.17	\$16,511.56	\$16,997.50	\$17,643.33	DE
Annual percent change	4.0%	2.8%	3.9%	2.9%	3.8%	DE/NHES
Average salary of teachers, public elementary and secondary schools (in current dollars)	\$54,712	\$55,986	\$56,616	\$57,522	\$58,278	DE
Total net revenue (\$ millions of current dollars)	\$2,929.2	\$2,964.7	\$3,040.7	\$3,096.4	\$3,166.1	DE
Annual percent change	3.1%	1.2%	2.6%	1.8%	2.3%	DE/NHES
Percent of total school district revenues from:						
State funds	34.3%	33.8%	33.1%	32.5%	31.6%	DE
Local and other funds	60.0%	60.6%	61.2%	61.9%	63.1%	DE
Federal funds	5.5%	5.6%	5.7%	5.6%	5.3%	DE

^b Includes tuition and transportation

New Hampshire Postsecondary Institutions	2013-14	2014-15	2015-16	2016-17	2017-18	Source
Fall enrollments, public and private degree-granting institutions (students age 18 years and over)	92,440	106,984	123,508	133,159	149,184	NCES
By attendance status:						
Full-time students	60,037	64,814	69,034	70,777	68,251	NCES
Part-time students	32,403	42,170	54,474	62,382	80,933	NCES
By gender:						
Male	38,975	44,645	49,994	52,338	57,797	NCES
Female	53,465	62,339	73,514	80,821	91,387	NCES
Degrees conferred by public and private degree-granting institutions in NH						
Degree Awarded: °	17,734	21,138	23,166	26,634	31,389	NCES
Associate's degrees	2,988	3,034	3,079	3,699	4,190	NCES
Bachelor's degrees	9,960	11,832	12,629	14,869	17,198	NCES
Graduate degrees, including doctorates	4,786	6,272	7,458	8,066	10,001	NCES
By selected academic majors, Associate's and higher degrees: °						
Biological and Biomedical Sciences	604	664	614	633	630	NCES
Business, Management, Marketing, and Support	4,224	5,327	6,116	7,071	8,979	NCES
Communication and Journalism	439	533	648	766	926	NCES
Computer and Information Sciences and Support Services	593	957	1,418	1,823	2,053	NCES
Education	1,565	1,558	1,370	1,436	1,505	NCES
Engineering and Engineering Technologies	894	836	819	963	975	NCES
English Language and Literature	607	921	1,101	1,231	1,397	NCES
Health Professions and Clinical Sciences	2,275	2,531	3,013	3,537	4,253	NCES
Liberal Arts and Sciences, General Studies and Humanities	716	1,109	1,385	1,909	2,023	NCES
Natural Resources and Conservation	371	345	310	385	444	NCES
Parks, Recreation, Leisure and Fitness Studies	456	471	535	529	630	NCES
Psychology	898	1,143	1,385	1,665	2,107	NCES
Security and Protective Services	362	485	615	808	1,053	NCES
Social Sciences	948	1,004	988	1,041	1,118	NCES
Visual and Performing Arts	547	555	554	610	684	NCES

° Includes first majors only; post-baccalaureate and post-masters certificate program completers were excluded