

# Federal Reserve Bank of Boston

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# Life after Community College in New England: Earnings, Debt, and Cost

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### Abstract

New England's community colleges offer educational choices beyond four-year institutions. Compared to four-year institutions, community colleges offer lower costs and lower debt upon graduation, but lower expected earnings and higher default rates. Alternatively, compared to for-profit institutions in New England, community colleges lead to better outcomes on every measure (lower cost, less debt, lower default rates, and higher earnings).

### Key Data items

- There are almost 200,000 community college students in New England
- Eight years after enrolling, New England community college students earn \$32,000 on average
- The annual costs at a community college in New England are half as much as the average for-profit institution and 40% of the average four-year institution
- Community college completers have lower average debt amounts than both for-profit and four-year institutions
- 14% of community college student borrowers default on their loans within three years of completion

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*The views expressed in this paper are those of the author and do not necessarily represent those of the Federal Reserve Bank of Boston or the Federal Reserve System.*

## Introduction

New England is home to some of the world’s most prestigious universities and colleges, but the higher education opportunities are not limited to private four-year colleges or public flagships. There are 42 community colleges<sup>1</sup> in New England that offer associate’s degrees at a much lower price than the cost of conventional four-year degrees or certificates at other institutions. Table 1 shows how community colleges, conventional four-year institutions, and for-profit institutions are distributed throughout the New England states.

In addition to national proposals, there have been a range of statewide policies focused on making postsecondary education at community colleges even more accessible. Tennessee, Oregon, Kentucky, and Minnesota have either passed or implemented legislation that eliminates most of the tuition costs related to attending community college. According to the National Council of State Legislatures, 11 additional states, including Massachusetts, have introduced legislation aimed at making community college tuition free. In 2016, the city of Boston implemented its Tuition-Free Community College Plan, aimed at making community college free for eligible students.<sup>2</sup> The plan aims to make up to three years of community college at an eligible school free for low-income students.

Most research examining the financial returns to community college education has found positive results. The scope of much of that research, however, is either national<sup>3</sup> or at the state level.<sup>4</sup> Community colleges, at their very heart, are local institutions serving local communities, and there has been limited research to date examining earnings, debt, and/or the cost of attending them in the New England region. This report examines community college students’ earnings and debt and the costs associated with attending community colleges in New England using data

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<sup>1</sup> Community colleges are considered public institutions that predominantly grant associate’s degrees.

<sup>2</sup> “Boston Tuition-Free Community College Plan.” Boston Public Schools. Accessed January 3, 2017. <http://www.bostonpublicschools.org/tuition-free-college>

<sup>3</sup> Dave E Marcotte et al., “The Returns of a Community College Education: Evidence from the National Education Longitudinal Survey,” *Educational Evaluation and Policy Analysis* 27, no. 2 (2005): 157–75; Philip Oreopoulos and Uros Petronijevic, “Making College Worth It: A Review of Research on the Returns to Higher Education” (National Bureau of Economic Research, 2013).

<sup>4</sup> Mina Dadgar and Madeline Joy Trimble, “Labor Market Returns to Sub-Baccalaureate Credentials How Much Does a Community College Degree or Certificate Pay?,” *Educational Evaluation and Policy Analysis* 37, no. 4 (2015): 399–418; Christopher Jepsen, Kenneth Troske, and Paul Coomes, “The Labor-Market Returns to Community College Degrees, Diplomas, and Certificates,” *Journal of Labor Economics* 32, no. 1 (2014): 95–121; Vivian YT Liu, Clive R Belfield, and Madeline J Trimble, “The Medium-Term Labor Market Returns to Community College Awards: Evidence from North Carolina,” *Economics of Education Review* 44 (2015): 42–55.

from the College Scorecard.<sup>5</sup> Post-secondary education offers people more equitable access to better jobs. This report examines what costs are involved with the different types of post-secondary education available in New England.

**Table 1: Number of New England institutions included in analysis**

	Community colleges	Conventional four-year institutions	For-profit institutions
<b>Connecticut</b>	11	24	48
<b>Maine</b>	6	19	15
<b>Massachusetts</b>	16	76	69
<b>New Hampshire</b>	6	14	16
<b>Rhode Island</b>	1	10	10
<b>Vermont</b>	2	17	3
<b>New England</b>	42	160	161

Sources: U.S. Department of Education College Scorecard.

### Employment and earnings after community college

Forty-six percent of people living in New England have a post-secondary degree, and over 800,000 New Englanders have an associate’s degree. In 2014, 190,000 undergraduate students – approximately a quarter of the undergraduates in the region – were enrolled in community colleges. Most of those 190,000 students will not complete their degrees within four years,<sup>6</sup> but research suggests that just enrolling in some postsecondary courses can have a positive effect on employability and earnings.<sup>7</sup> If those students continue on and complete associate’s degrees, national data suggests they can expect 18% greater annual earnings relative to those with just a high school diploma.<sup>8</sup> Enrollment in community colleges nationwide has declined in recent years while growth in 4-year institutions has grown<sup>9</sup>.

<sup>5</sup> The College Scorecard is a dataset maintained by the U.S. Department of Education. Community colleges were identified in the dataset as public institutions that grant predominantly associate’s degrees, so some schools not typically considered community colleges (without “community college” in their name) may be included in the analysis.

<sup>6</sup> Calculated using 200% completion rates for community colleges in New England using 2013–2014 data from the U.S. Department of Education College Scorecard.

<sup>7</sup> Liu, Belfield, and Trimble, “The Medium-Term Labor Market Returns to Community College Awards: Evidence from North Carolina”; Marcotte et al., “The Returns of a Community College Education: Evidence from the National Education Longitudinal Survey.”

<sup>8</sup> Data are for persons 25 and older. Earnings are for full-time wage and salary workers. U.S. Department of Labor, Bureau of Labor Statistics, Current Population Survey, 2015.

<sup>9</sup> Jolanta Juskiewicz, “Trends in Community College Enrollment and Completion Data, 2015.,” *American Association of Community Colleges*, 2015.

Statistics show that community college attendees are better equipped than those with lower levels of education to find a job to begin with. Table 2 shows the difference in the unemployment figures for individuals with different levels of educational attainment in New England.

According to the American Community Survey, residents of New England with some college or an associate’s degree under their belts fare better in the job market than high school diploma holders and considerably better than those without a high school diploma. This report does not detail the possible differences in earnings, debt, or default rates between different majors at schools. Wide disparities based on major have been observed<sup>10</sup>, however this report focused on aggregate school earnings rather than individual majors.

**Table 2: Percent unemployed by educational attainment**

	New England	Connecticut	Maine	Massachusetts	New Hampshire	Rhode Island	Vermont
<b>Less than high school diploma</b>	11.3%	15.3%	13.8%	9.4%	7.1%	9.6%	14.2%
<b>High school diploma</b>	6.8%	7.7%	5.8%	7.5%	4.5%	7.4%	3.1%
<b>Some college or associate's degree</b>	5.2%	6.3%	4.6%	5.6%	3.7%	4.7%	2.1%
<b>Bachelor's degree or higher</b>	2.8%	3.6%	2.2%	2.7%	1.9%	2.6%	2.0%

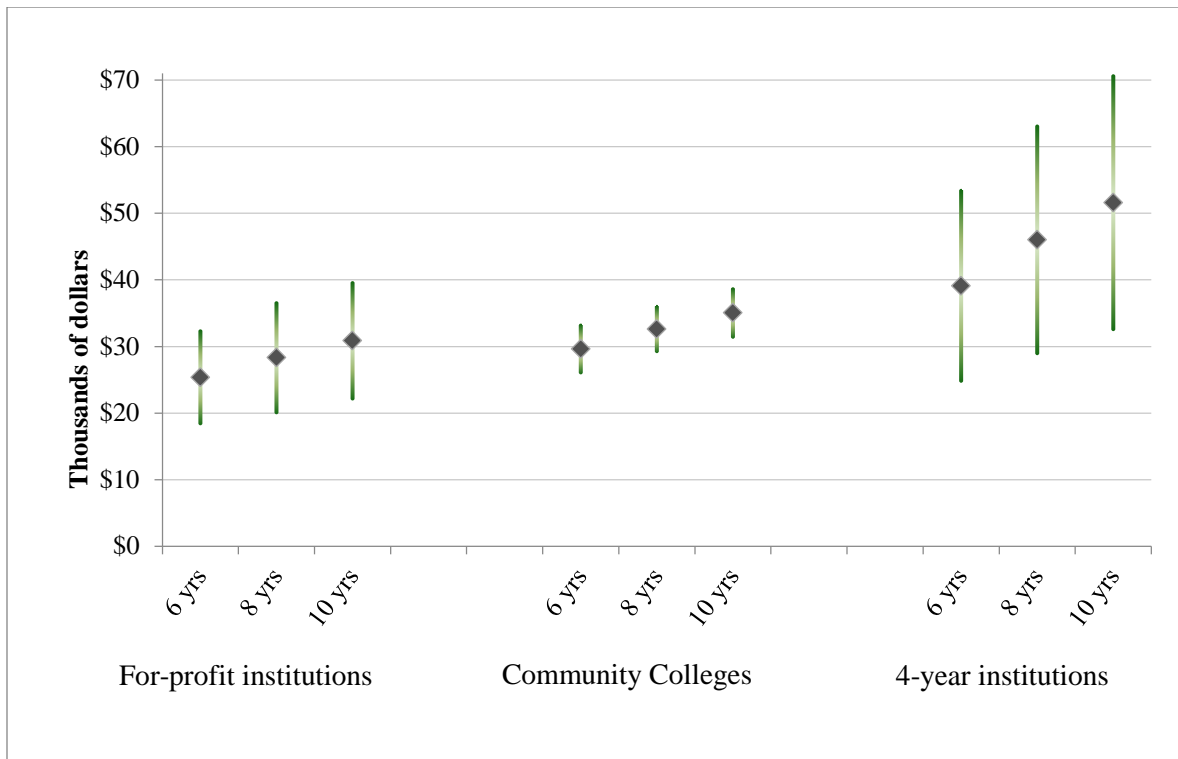
Source: U.S. Census Bureau, 2015 American Community Survey, one-year estimates.

Once they are employed, New England community college attendees also draw in greater annual earnings than those who hold a diploma or certificate from a for-profit institution. As shown in Figure 1, which compares earnings growth by institution type and post-enrollment time span,<sup>11</sup> students who attended for-profit institutions, which predominantly grant certificates as an alternative to associate’s degrees, had average earnings about \$5,000 lower than community college attendees, at six, eight, and 10 years after enrollment.

<sup>10</sup> Thomas and Zhang, “Post-Baccalaureate Wage Growth within Four Years of Graduation: The Effects of College Quality and College Major.”

<sup>11</sup> Earnings data is from 2011, reported in nominal dollars, and collected only from students who received federal financial aid (title IV students) in the specified time periods after enrollment, regardless of program completion.

**Figure 1. Average earnings by institution type and time span after enrollment**



Bars represent  $\pm 1$  standard deviation, a measure of the variance in average earnings across the different types of institutions. Source: U.S. Department of Education College Scorecard and author's calculations.

Also reflected in Figure 1, as one might expect, students who attended conventional four-year schools in New England showed higher average earnings than both community college and for-profit institution students, whether they earned a bachelor's degree or not, with the earnings gap between the three school types growing wider over the 10 years after enrollment. While community college students do earn less on average than those attending four-year institutions, community college attendees show far less variation<sup>12</sup> across their earnings averages than those who attended either conventional four-year institutions or for-profit institutions.<sup>13</sup> The variation seen in the earnings of four-year and for-profit institutions may reflect the higher number of schools in the sample, and consequently the diversity of program offerings at those institutions.

<sup>12</sup> Variation is not a positive or negative characteristic; in this case, it suggests greater certainty (vs. uncertainty) about earnings outcomes.

<sup>13</sup> This includes all institutions in New England that receive federal financial aid.

## Cost of an education

Even if community college attendees are more likely to be employed and bring in higher average earnings than those with lower levels of education, many potential students may still ask, is community college worth the up-front costs? In a 2011 Pew Research Center poll, 75% of respondents indicated that college was “too expensive for most Americans to afford.”<sup>14</sup> State and federal policymakers are taking note of this concern; several recent state and national proposals aim to make community college tuition free for students. Most of the policies seeking to increase the accessibility of community college center on a reduction in tuition; however, at public institutions in Massachusetts, tuition accounts for only 16–24% of the cost of attending school, with mandatory fees accounting for the remaining amount.<sup>15</sup> Because most other states do not share this fee-heavy model of postsecondary education, plans in Massachusetts should address the mandatory fees as well as tuition or risk decreased efficacy relative to other states.

Yet the costs of community college go beyond tuition and fees. As shown in Table 3, the “net price”<sup>16</sup> of attendance in New England – which includes tuition, fees, books, living expenses, and any federal and state financial aid offered to students – varies significantly across states and institution types. For community colleges, those states with more institutions have lower average net prices. While community colleges in New England do seem to reflect lower net prices relative to their higher-education peers in the region, research shows that students in New England’s community colleges face higher costs in fees and net tuition than community college students nationwide.<sup>17</sup>

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<sup>14</sup> Paul Taylor et al., “Is College Worth It? College Presidents, Public Assess Value, Quality and Mission of Higher Education,” *Pew Social and Demographic Trends*, 2011.

<sup>15</sup> Joshua Goodman, “Who Merits Financial Aid?: Massachusetts’ Adams Scholarship,” *Journal of Public Economics* 92, no. 10 (2008): 11.

<sup>16</sup> Net price reflects the current price and does not include future loan repayment, which may be significant at many postsecondary educational institutions.

<sup>17</sup> Robert Clifford, “Student-Loan Debt, Delinquency, and Default: A New England Perspective” (Federal Reserve Bank of Boston, 2016), 6.

**Table 3. Average net price of attendance by type of school as of 2014**

	Community college	Conventional four-year institution	For-profit institution
<b>Connecticut</b>	\$6,081	\$22,304	\$18,928
<b>Maine</b>	\$9,971	\$19,185	\$16,269
<b>Massachusetts</b>	\$8,630	\$25,485	\$19,491
<b>New Hampshire</b>	\$15,689	\$23,363	\$18,325
<b>Rhode Island</b>	\$6,552	\$27,951	\$16,220
<b>Vermont</b>	\$13,796	\$22,139	\$17,550
<b>New England</b>	\$9,376	\$23,815	\$18,743

Source: U.S. Department of Education College Scorecard 2013–2014 and author’s calculations.

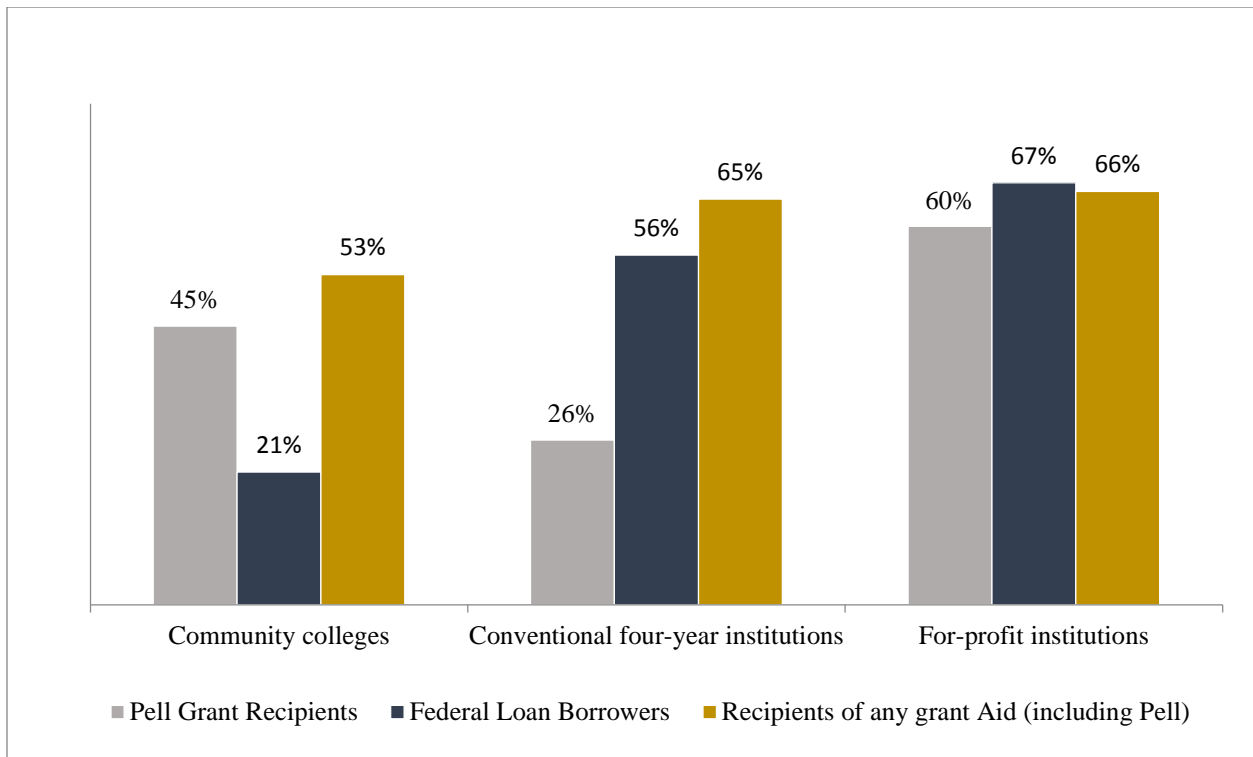
### **Paying for school**

While the aforementioned state and federal policy proposals are moving through the legislative process, postsecondary education is not yet free in New England. So how are community college students funding their courses of study? While it is still possible to work and attend community college without borrowing, the availability of low-interest-rate student loans has allowed many students to finance a full-time postsecondary education without working. Increased financing of postsecondary education with debt and the rising costs of most institutions have resulted in the total U.S. student debt inching up to \$1.23 trillion this year.<sup>18</sup> Breaking down federal loan numbers by state (not including private loans); there are over 2 million borrowers in New England with close to \$55 billion in loans outstanding.

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<sup>18</sup> “Household Debt and Credit Report” (Federal Reserve Bank of New York, 2016), <https://www.newyorkfed.org/microeconomics/hhdc.html>.

**Figure 2. Financial aid by type of school in New England**



Source: Integrated Postsecondary Education Data System (IPEDS), student financial aid and net price, 2013–14.

As reflected in Figure 2, above, a higher percentage of undergraduate students at community colleges in New England use grants than federal loans to help finance their education. Both for-profit and conventional four-year institutions have higher percentages of students taking out loans, with two-thirds of students at the former using federal loans to help pay for their education. The particular prevalence of loans as a funding source at for-profit institutions is likely correlated with the higher net prices students see at those types of institutions relative to public schools.

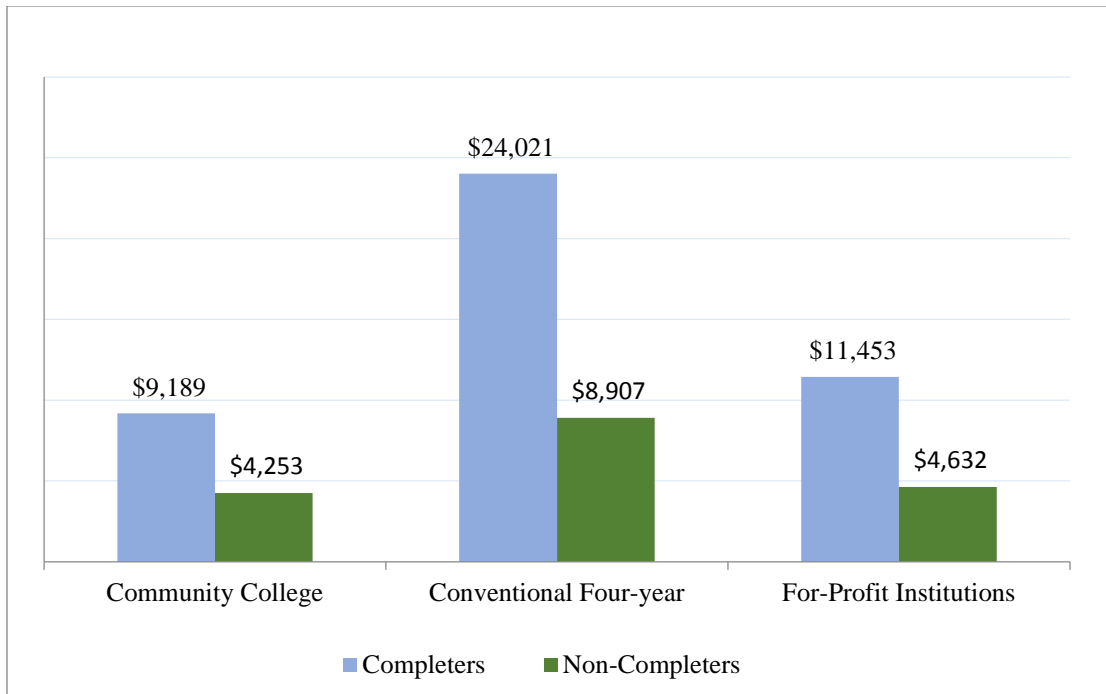
The amount of debt with which students leave school sticks with them, whether they complete their program or not, and it can impact every major financial decision they make in the years following college.<sup>19</sup> Community colleges come with lower price tags for students than both for-profit and conventional four-year institutions, and consequently show lower average debt numbers, as shown in Figure 3, below. Figure 3 also includes the average debt for students who did not complete their program. Research has confirmed that an unfinished community college

<sup>19</sup> William Elliott and IISung Nam, “Is Student Debt Jeopardizing the Short-Term Financial Health of US Households?,” *Review* 95 (2013).



education is less beneficial financially than a completed degree or certificate, and because the partial course of education was not free, a noncompleting student ultimately faces the burden of debt without the benefit of the degree.

**Figure 3. Average debt by school type in New England**



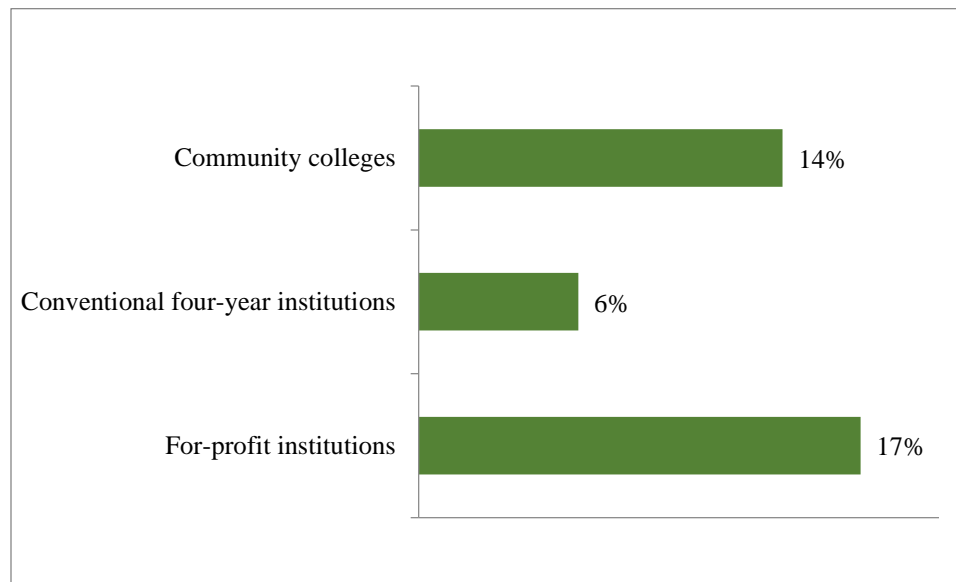
Source: U.S. Department of Education College Scorecard 2013–2014 and author’s calculations.

Perhaps the biggest differences, however, come in the default rates, shown below in Figure 4. Conventional four-year institutions in New England show far lower default rates than either community colleges or for-profit institutions. The default rates in figure 4. may be conservative given that the department of education notes that: “The [cohort default rate] is susceptible to gaming behavior that may push students toward forbearance and deferments, meaning they stay out of default but don’t make progress on repaying their loans and may continue to accrue interest.”<sup>20</sup> The differences could be due to the lower cohort numbers from community colleges, lending more weight to every defaulter. The differences may also suggest that there is some characteristic or benefit that attendees of conventional four-year institutions have that better equips them to deal with the higher debt amounts. This advantage could be higher post-program earnings, savings amounts,

<sup>20</sup> “Data Documentation for College Scorecard” (U.S. Department of Education, September 12, 2015), <https://collegescorecard.ed.gov/data/documentation/>.

more consistent earnings, or even better utilization of the debt-management tools offered along with many federal educational loans. Students that do not complete programs may never get the information on flexible repayment options since they also likely skipped the exit interview process that accompanies graduation and may offer them more information on the debt management tools.

**Figure 4. Average three-year default rates for institutions in New England**



Source: U.S. Department of Education College Scorecard 2013–2014 and author’s calculations.

### **Conclusion**

College costs have risen, but there are less-expensive alternatives to four-year colleges. Policies supporting community colleges have become more popular in recent years because of the accessibility they may offer. A look at the data on New England’s community colleges suggests that they yield greater earnings potential, lower average debt, and lower default rates than for-profit institutions, but they still trail the traditional four-year institutions in all but average debt amount. Nevertheless, for students who cannot afford the cost of a traditional college education, a community college education is an important and beneficial leg up as they enter the job market.

There are almost 200,000 community college students in New England, and each one of those students made the choice to attend a community college. But community college comes with an up-front cost or post education debt that may set many of those students back before they even complete their programs. Policy proposals to make community college free for students would

offer them the chance to start or continue their careers on more even financial footing with graduates of four-year institutions.

## Methodology

This report uses data from the College Scorecard, a dataset containing over 1,700 variables related to post-secondary education maintained by the U.S. Department of Education. The data is aggregated at the institution level; consequently, all calculations have been done at the institution level. Community colleges were identified in the dataset as public institutions that grant predominantly associate's degrees, so some schools not typically considered community colleges may be included in the analysis. This definition is based on that offered by Cohen and Brawer as "any not-for-profit institution regionally accredited to award the associate in arts or the associate in science as its highest degree."<sup>21</sup> Forty-two schools meet that criteria in New England, but most analysis was done with fewer because of lack of data from some schools for some data items. Unless otherwise noted, all averages are unweighted.

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<sup>21</sup> Arthur M Cohen and Florence B Brawer, *The American Community College* (John Wiley & Sons, 2003).