

# Buyer Beware

FIRST-YEAR EARNINGS AND DEBT FOR  
37,000 COLLEGE MAJORS AT 4,400 INSTITUTIONS

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GEORGETOWN UNIVERSITY



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on Education  
and the Workforce

McCourt School of Public Policy

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# Introduction

**Surprise! You can make more money** with an associate's degree in nursing<sup>1</sup> from Santa Rosa Junior College in California than with a graduate degree from some programs at Harvard University. Graduates who earn an associate's degree from Pierpont Community and Technical College in West Virginia to become an electrical and power transmission installer can expect to make \$6,700 per month (\$80,400 per year) in their first year after graduation. That's a lot of money, especially when you consider that the median first-year earnings for all programs at the bachelor's degree level is \$2,900 per month (\$34,800 per year).

New data in the College Scorecard<sup>2</sup> reveal many more surprising details of post-college outcomes. For the first time, the public can find out the amount that graduates earn from 37,459 programs at 4,434 colleges and universities,<sup>3</sup> along with the overall level of federal student loan debt and monthly loan payments for those who took out federal student loans.

These data offer important, previously unavailable, insights for students and families about that all-important first year after graduation.<sup>4</sup> The first job after college can have a long-term impact on graduates' careers,<sup>5</sup> and the amount of debt graduates face makes a big difference to their finances.

On average, workers with more education tend to earn more than workers with less education, but averages do not tell the whole story. The data show a great deal of overlap in median earnings across levels of educational attainment. For example, while 44 percent of bachelor's degree programs lead to first-year earnings between \$4,000 and \$8,000 per month, so do 10 percent of associate's degree programs.

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1 These degrees are categorized as registered nursing, nursing administration, nursing research, and clinical nursing in the College Scorecard.

2 The College Scorecard is an information tool published online by the US Department of Education. It provides data on institutions and fields of study within the institutions, including earnings of a specific cohort of students. The data can be found at <https://collegescorecard.ed.gov/>.

3 We use the terms "major" to refer to a specific field of study and "program" to refer to a major at a specific institution. Many smaller programs are omitted from the data, but these data still cover programs from which the majority (80% to 84%) of federal student aid recipients graduate. The majority (more than 60%) of all graduates receive credentials in the covered fields. The earnings data only include graduates who are employed during the first year after graduating from their program (though not necessarily for the full year) and exclude graduates who were deceased, performing military service, pursuing additional education, or unemployed for the full year after graduation. US Department of Education, "Technical Documentation: College Scorecard Data by Field of Study," 2019.

4 The College Scorecard combines earnings from two cohorts of students to increase sample size as well as to minimize suppression of data due to privacy. Students who were still enrolled in a postsecondary institution were excluded.

5 Research by Burning Glass and Strada Institute for the Future of Work, for instance, has found that the vast majority of workers who started out with jobs commensurate with their degrees remained in jobs that matched their level of education five and 10 years down the road; meanwhile, workers who started out underemployed were more likely to remain underemployed five and even 10 years later. Burning Glass Technologies and Strada Institute for the Future of Work, "Permanent Detour," 2018.

In some cases, a worker with an associate's degree can earn as much as someone with a graduate degree. For instance, the first-year earnings of a person who is awarded an associate's degree in nursing from City University of New York (CUNY) LaGuardia Community College are \$5,017 per month, which is about \$800 higher than the median monthly earnings of graduates from master's degree programs at all institutions. Mostly because of differences in field of study, this overlap can also be observed among degree recipients at a macroeconomic level. For example, among full-time, full-year workers, 25 to 64 years old:

- ▶ **27 percent of workers with an associate's degree** earn more than the median for workers with a bachelor's degree,
- ▶ **35 percent of workers with a bachelor's degree** earn more than the median for workers with a master's degree,
- ▶ **31 percent of workers with a master's degree** earn more than the median for workers with a doctoral degree, and
- ▶ **22 percent of workers with a master's degree** earn more than the median for workers with a professional degree.<sup>6</sup>

When it comes to choosing what to study and where to study it, **buyer beware.**

Future earnings can depend more on the major pursued than on the level of the degree. Students also need to be aware of differences in earnings, by college, for the same degree in the same field of study.<sup>7</sup> In general, graduates from more selective colleges with more familiar names tend to have higher earnings. But even that supposed truism is often incorrect. For example, the bachelor's degree in business administration, management, and operations with the highest first-year earnings is not from Harvard or Stanford, but rather a bachelor of applied science in energy management from Bismarck State College, a public institution in North Dakota. First-year graduates of that program make, on average, more than \$100,000 per year.

This report and the accompanying interactive web tool are a first step toward helping students sort through the 37,000 programs in the College Scorecard data to learn which programs offer a pathway to good earnings and which threaten more debt. Part 1 examines earnings differences across different institutions. Just as there is overlap in earnings, there is also overlap in federal student loan debt payments, as examined in Part 2. Part 3 ties these two strands together by focusing on the overlap in monthly earnings net of federal student loan debt. These data help graduates to see how much money they will have available to spend on items such as rent, food, and credit card bills after paying their federal student loan obligations for various programs at various credential levels.

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6 Georgetown University Center on Education and the Workforce analysis of data from the Current Population Survey, 2019.

7 Because the US Department of Education aggregates a variety of programs into broader major and field of study categories, the differences in first-year earnings in the College Scorecard data reflect not only institutional factors but also differences in program specializations at various colleges. In addition, geographic variation in cost of living and local labor markets, including overall employment conditions and the demand for specific skill sets, contributes to the variation in earnings for graduates with the same major from different institutions.



The release of the program-level data eventually will have profound consequences for the creation and evaluation of college programs. Until recently, earnings were available only on an institutional basis. Those data did not tell the whole story, however, because comprehensive universities offer as many as 200 majors, ranging from high-paying fields like engineering and nursing to low-paying fields like education and social work. Earnings for students were averaged across all majors, which provided little insight about the situation for students in specific programs.

Beyond the obvious advantages for consumers in knowing the earnings outcomes of programs before they sign up, the more detailed data create new program-based metrics for higher education. For example, students who might be trying to choose among five colleges offering the same degree in the same major will be able to find out exactly how much people earn after graduating from each of the programs they are considering, as well as the expected level of debt they will have after graduation.

Employers' increased focus on specific skills is contributing to the large variation in earnings among different graduates in different programs of study. Higher education is now our nation's largest job training program, and its role in building the workforce following the current COVID-19

pandemic crisis will only increase. This country has shifted from a 1970s-style economy when two in three jobs required only a high school diploma to the present economy where two in three jobs require at least some postsecondary education and training.<sup>8</sup> If current expectations that the pandemic will lead to more automation hold true,<sup>9</sup> jobs requiring a college education will continue to gain importance.

Sorting through the data on potential earnings is complicated. When looked at across the board, earnings and student loan payments demonstrate the vastness and complexity of choices that students and families face (Figure 1). For example, higher-level degrees generally lead to higher earnings, but not always. The information on earnings and debt for specific programs is critical for those trying to pursue a career that pays well without running up excessive debt.



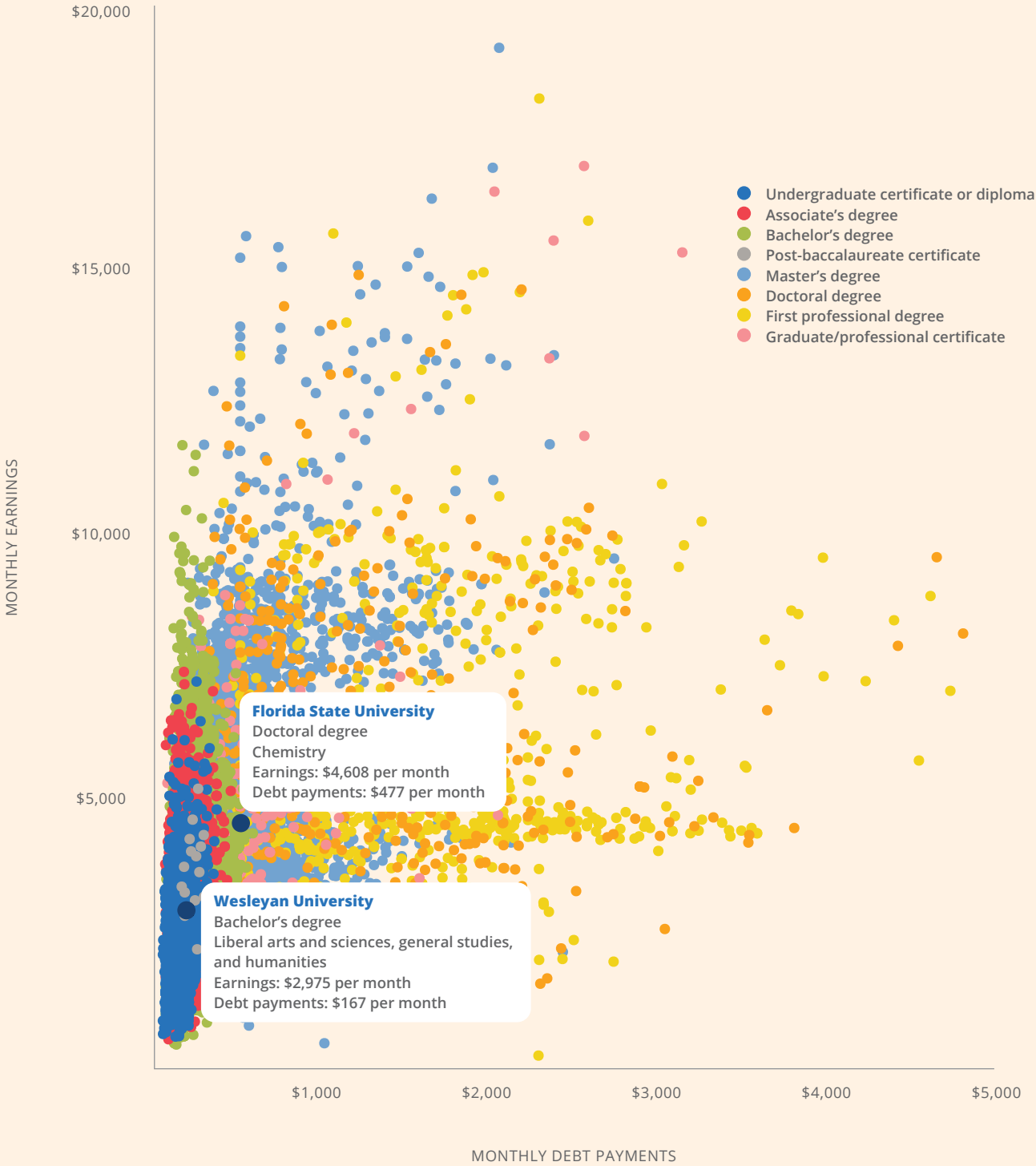
### Explore the Data

See [cew.georgetown.edu/EarningsOverlap](http://cew.georgetown.edu/EarningsOverlap) for data on first-year earnings and student loan debt for more than 37,000 postsecondary degrees at 4,400 colleges. The web tool allows readers to compare degree programs they choose with other programs at the same college or similar programs at different institutions.

8 Carnevale et al., *Recovery*, 2013; Carnevale and Rose, *The Economy Goes to College*, 2015.

9 Corkery and Gelles, "Robots Welcome to Take Over, as Pandemic Accelerates Automation," 2020.

**Figure 1. Higher-level degree programs (bachelor's degrees and higher) generally lead to higher earnings, but there is tremendous overlap in both expected earnings and debt.**



Source: Georgetown University Center on Education and the Workforce analysis of US Department of Education College Scorecard data, 2020.

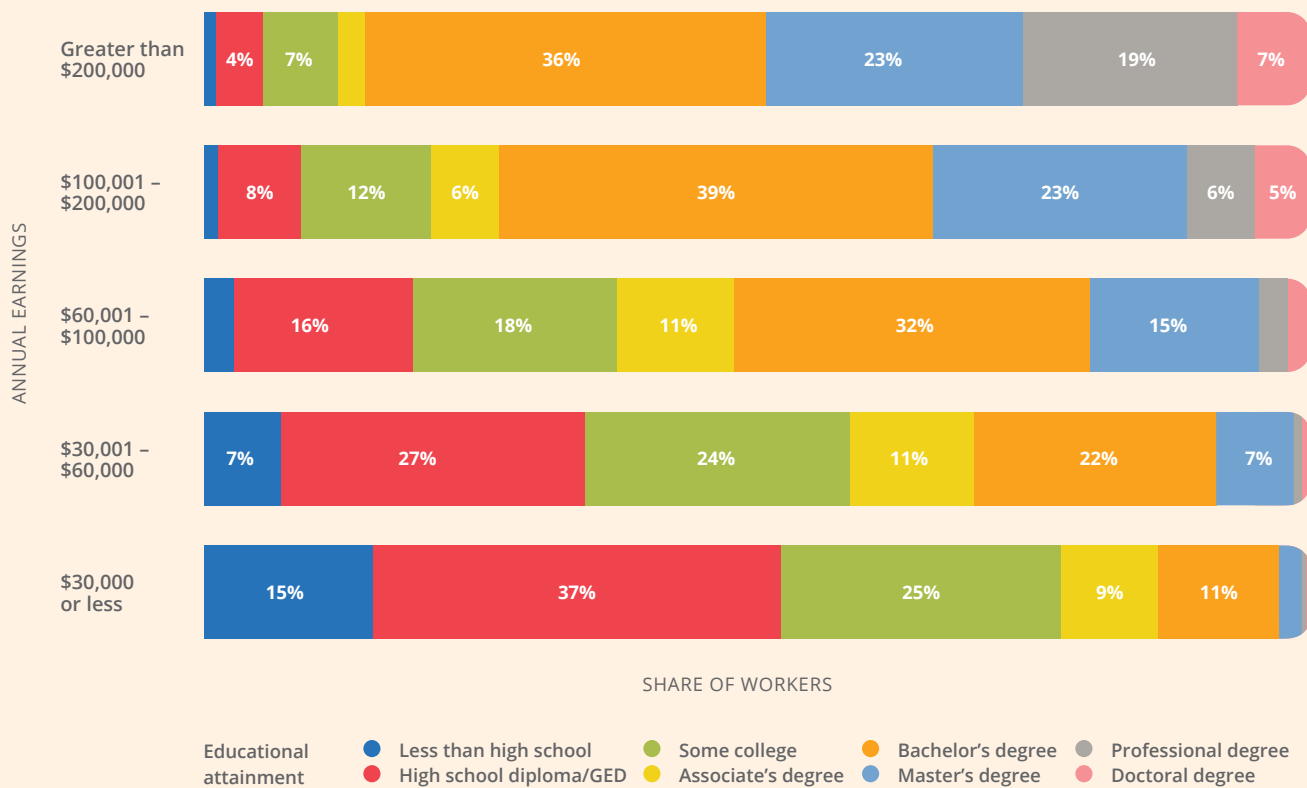


## Part 1

# More education usually results in greater earnings, but not always.

**Among prime-age workers**, the share with higher levels of education increases at each earnings level, yet there are workers with a variety of educational credentials across different annual earnings ranges. For example, while 23 percent of workers who earn between \$100,001 and \$200,000 have a master's degree, 39 percent have a bachelor's degree, and 18 percent have only an associate's degree or some college (Figure 2).

**Figure 2. There is a high degree of overlap in earnings across education levels—for example, while 22 percent of workers earning from \$30,000 to \$60,000 are bachelor’s degree holders, 27 percent have a high school diploma or equivalent.**



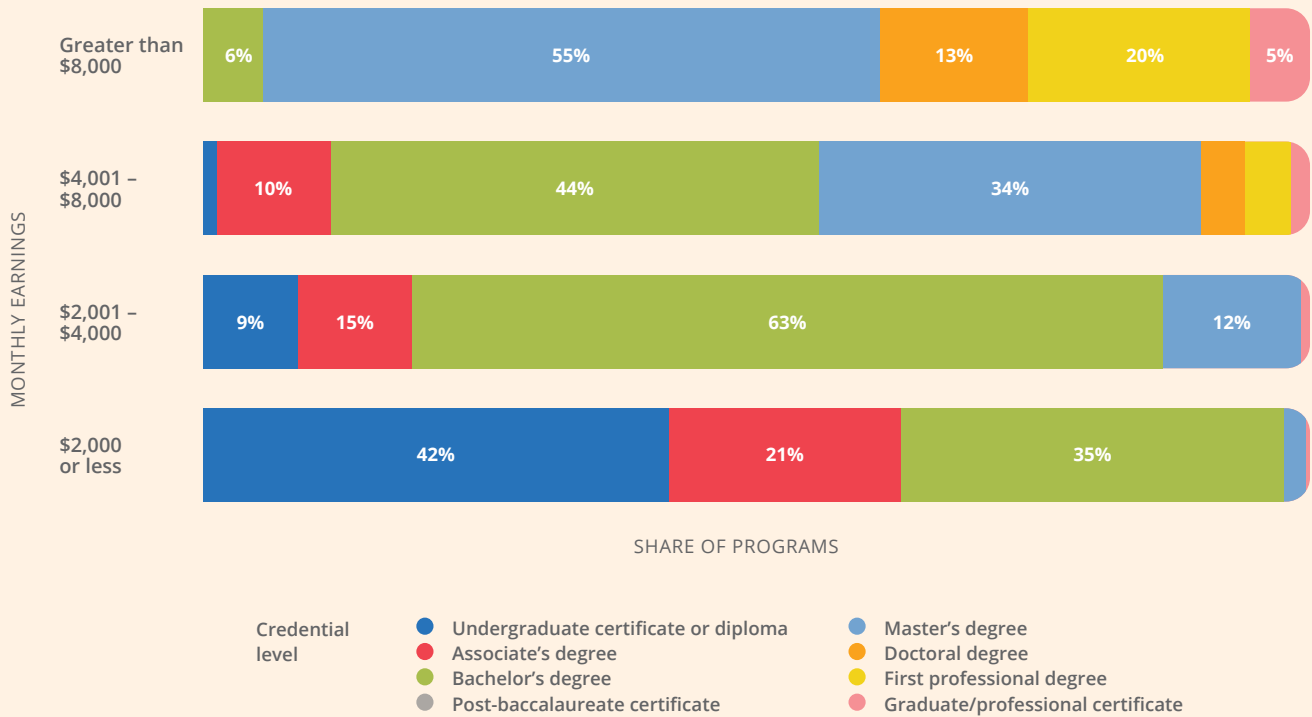
Source: Georgetown University Center on Education and the Workforce analysis of data from American Community Survey, 2017, for full-year workers aged 25 to 64.

Note: The data labels for each bar may not sum to 100 percent due to rounding and because percentages for some smaller groups are not listed.

**There is a great amount of overlap in earnings across degree levels within and across institutions.**

The academic majors selected by students have a significant impact on their earnings. In some cases, the major is more determinative of earnings than the degree level. The College Scorecard demonstrates the extent of the variation in first-year earnings. It shows that while 63 percent of students who earn from \$2,001 to \$4,000 per month in their first year after graduation completed a bachelor’s degree program, 12 percent of people at that earnings level completed a master’s degree program and 15 percent completed an associate’s degree program (Figure 3).

**Figure 3. Programs at a higher degree level do not always pay off. While 34 percent of programs with median first-year earnings from \$4,000 to \$8,000 a month are at the master's degree level, 44 percent of programs in that earnings range are at the bachelor's degree level.**



Source: Georgetown University Center on Education and the Workforce analysis of US Department of Education College Scorecard data, 2020.

Note: The data labels for each bar may not sum to 100 percent due to rounding and because percentages for some smaller groups are not listed.

The first-year earnings by degree level vary considerably. The median first-year earnings for workers who received associate's degrees is \$2,600 a month (\$31,200 per year). However, 42 percent of all associate's degree programs led to higher median first-year earnings than the median for bachelor's degree programs (\$2,883 per month, or \$34,800 per year). Some associate's degree recipients made more than \$7,000 per month (\$84,000 annually) their first year after graduation, and others made less than \$1,000 per month (\$12,000 per year).

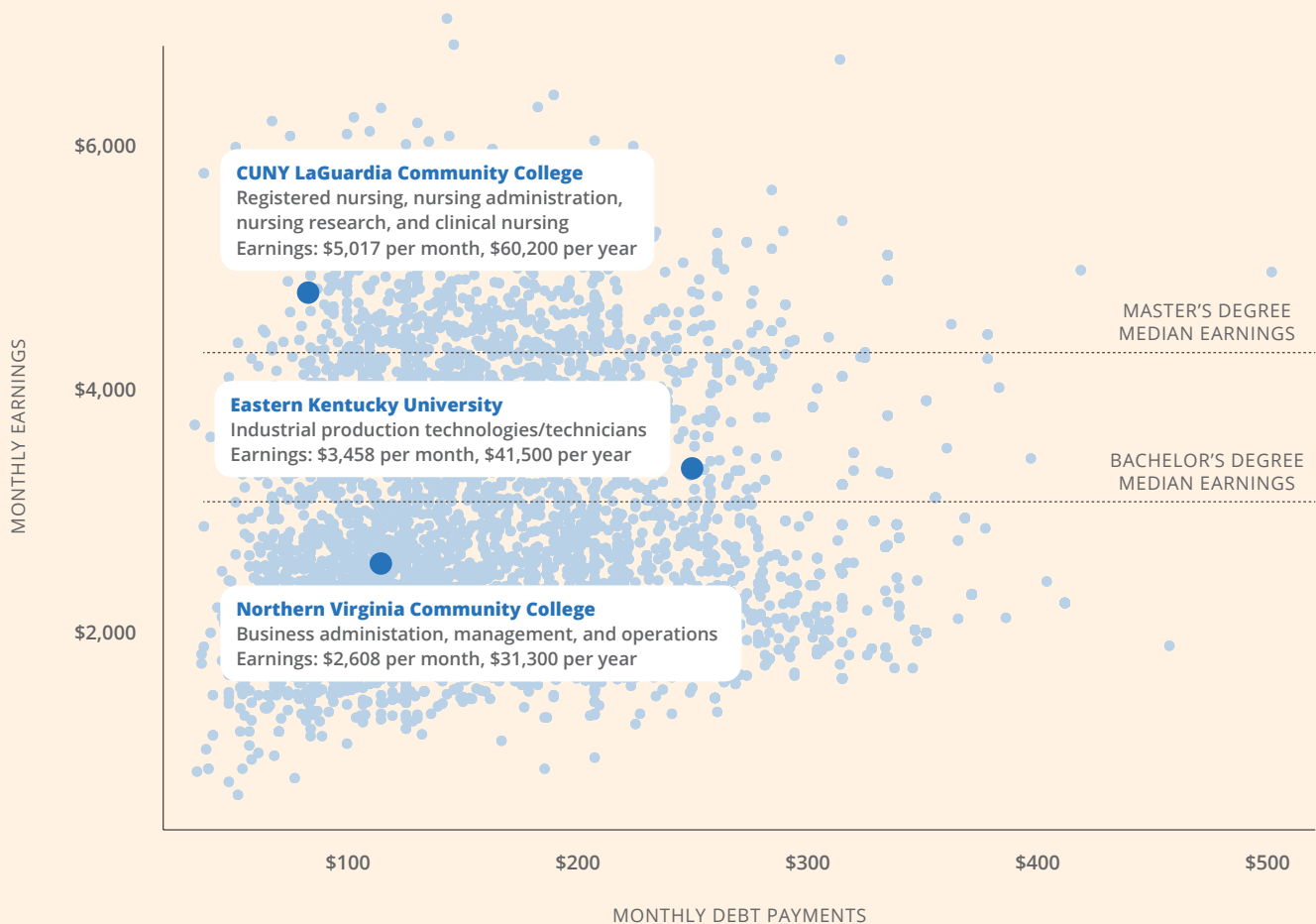
That disparity in earnings can be seen across fields of study. For example, graduates of the nursing associate's degree program from CUNY-LaGuardia Community College in New York earn a median of \$5,017 per month (\$60,200 per year)<sup>10</sup> their first year after graduating. On the other hand, graduates of the business associate's degree program<sup>11</sup>

<sup>10</sup> This report lists the exact amount of earnings, expected federal loan debt, and earnings net of federal loan debt per month for each institution. We round the data to the nearest \$100 for the annual totals.

<sup>11</sup> These degrees are categorized as business administration, management, and operations in the College Scorecard.

from Northern Virginia Community College earn a median of \$2,608 per month (\$31,300 per year). Meanwhile, graduates of the industrial production technologies associate's degree program from Eastern Kentucky University earn more than the median for bachelor's degree programs but less than the median for master's degree programs (\$3,458 per month, or \$41,500 per year) (Figure 4).

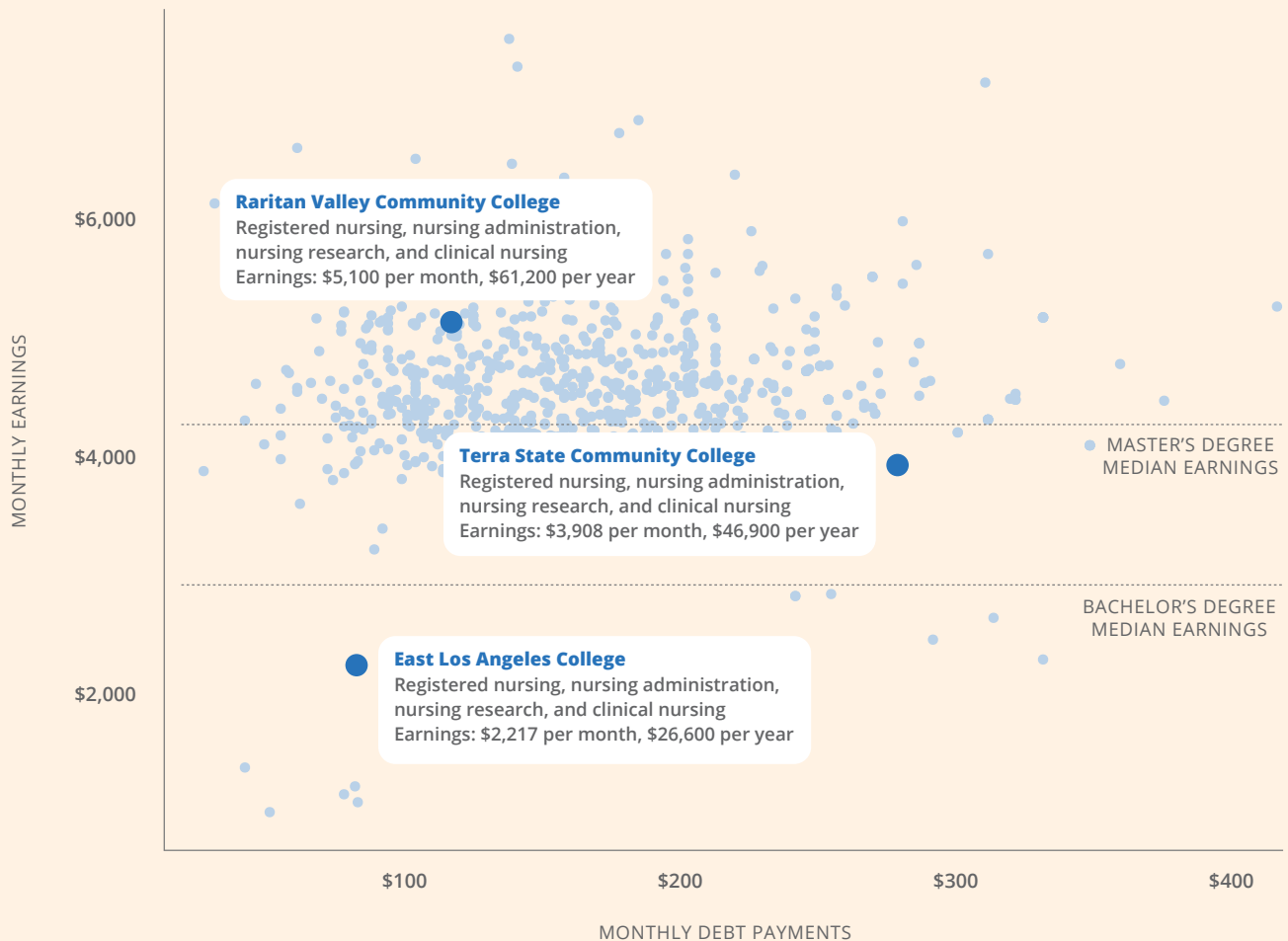
**Figure 4. Some associate's degree programs lead to higher median first-year earnings than the median first-year earnings for master's degree programs.**



Source: Georgetown University Center on Education and the Workforce analysis of US Department of Education College Scorecard data, 2020.

While the academic major is one reason for the differences in first-year post-graduation earnings, it is not the only factor. Often, earnings for the same major can be quite different, depending on the college at which the degree was obtained. For example, an associate's degree in nursing yields a range of earnings that vary by college. An associate's degree in nursing from East Los Angeles College leads to median first-year earnings of \$2,217 per month (\$26,600 per year) compared to \$3,908 per month (\$46,900 per year) at Terra State Community College in Ohio, and \$5,100 per month (\$61,200 per year) at Raritan Valley Community College in New Jersey (Figure 5).

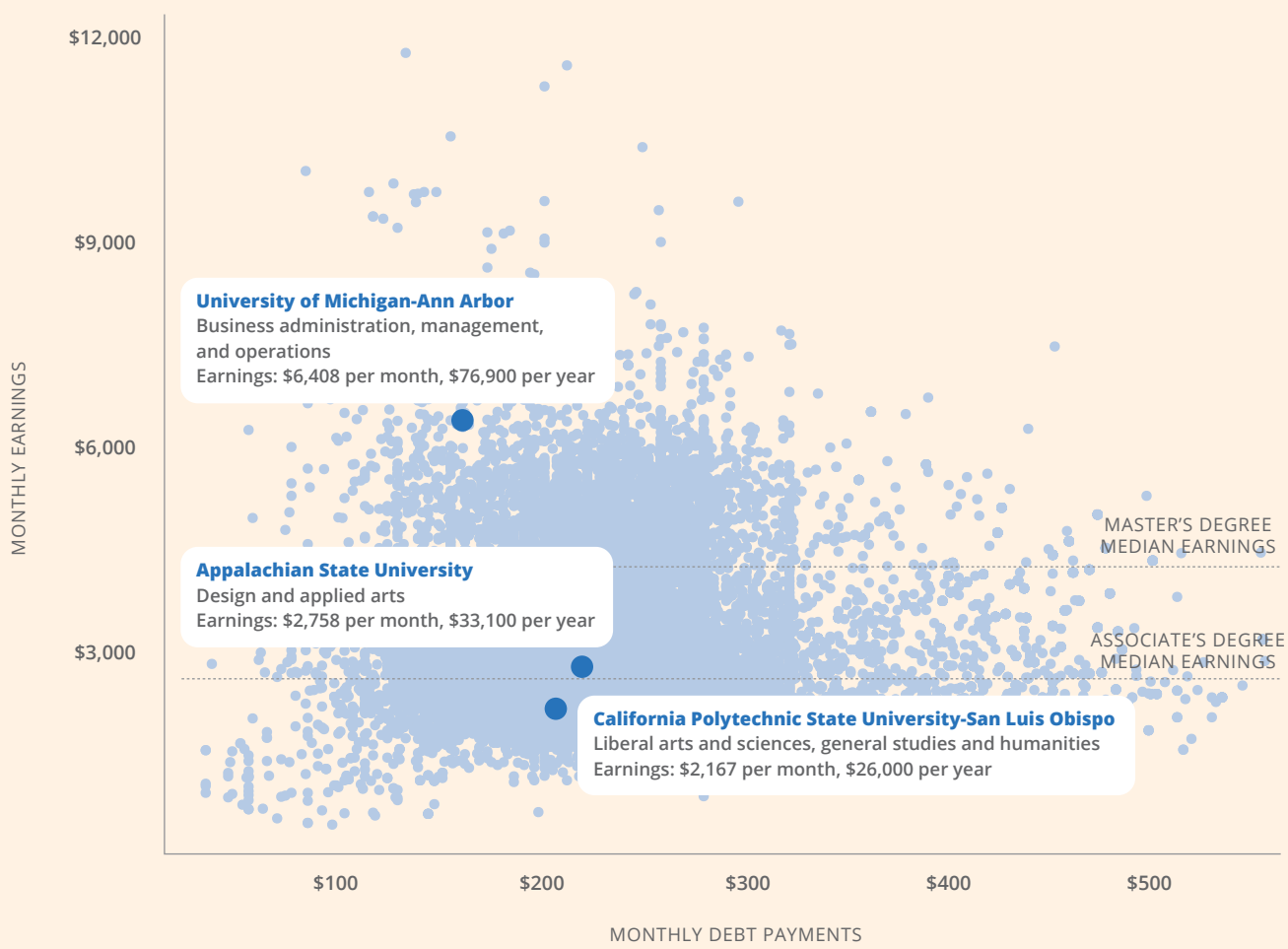
**Figure 5. Median earnings vary greatly for graduates with the same major from different colleges. Nursing graduates with associate's degrees from Raritan Valley Community College in New Jersey earn more than twice as much as graduates with the same degree from East Los Angeles College.**



Source: Georgetown University Center on Education and the Workforce analysis of US Department of Education College Scorecard data, 2020.

A similar range of earnings occurs at the bachelor's degree level. The bachelor's degree program in business from the University of Michigan-Ann Arbor leads to higher median first-year earnings (\$6,408 per month, or \$76,900 per year) than many bachelor's degree programs in other majors. For example, a bachelor's degree in liberal arts from California Polytechnic State University-San Luis Obispo has first-year median earnings of \$2,167 per month (\$26,000 per year), less than the median for associate's degree programs. The bachelor's degree program in design and applied arts from Appalachian State University in North Carolina has median first-year earnings of \$2,758 per month (\$33,100 per year), which is higher than the median for associate's degree programs but lower than the median for master's degree programs (Figure 6).

**Figure 6. Some bachelor's degree programs can lead to first-year earnings that are below the median for associate's degree programs, while others can lead to earnings that are above the median earnings for master's degree programs.**



Source: Georgetown University Center on Education and the Workforce analysis of US Department of Education College Scorecard data, 2020.



Earnings vary widely at the bachelor's degree level even within a specific field of study. Take business degrees, for example. Median monthly earnings for first-year graduates can be as high as \$8,375 (\$100,500 per year) for a person who earns a bachelor of applied science in energy management at Bismarck State College in North Dakota.<sup>12</sup> A bachelor's degree in business from Mitchell College in Connecticut, meanwhile, has first-year median earnings of only \$1,742 per month (\$20,900 per year), lower than the median for associate's degree programs. In between, the bachelor's degree in business from Tennessee State University leads to median first-year earnings of \$3,042 per month (\$36,500 per year), higher than the median for associate's degree programs but lower than the median for master's degree programs (Figure 7).

Wide spreads in first-year earnings are not limited to undergraduate degrees. In fact, they can be even more extreme for master's degrees.

For example, graduates of the master's degree program in educational administration<sup>13</sup> from The College of Saint Rose in New York earn a median of \$8,783 per month (\$105,400 per year), significantly higher than the median for doctoral degree programs. These earnings are more than double the first-year median earnings of graduates from a master's degree program in architecture from the Illinois Institute of Technology, which are \$4,275 a month (\$51,300 per year). These earnings, in turn, are more than double the first-year median earnings of graduates of Yale University's master's degree program in theater arts<sup>14</sup> (\$2,083 per month, or \$25,000 per year). This is a prime example of the student's major overshadowing the institution's name in determining post-graduation earnings. Even the prestige of Yale is not enough to offset the low pay in the early careers of students who study theater arts (Figure 8).

However, within specific majors, the institution that a student attends can matter a great deal. For example, compare the median earnings of graduates of the educational administration and supervision master's degree program from Mercy College in New York (\$7,975 per month, or \$95,700 per year) to those of graduates of a similar program from Pittsburg State University in Kansas (\$3,767 per month, or \$45,200 per year), or Valdosta State University in Georgia (\$2,525 per month, or \$30,300 per year) (Figure 9).

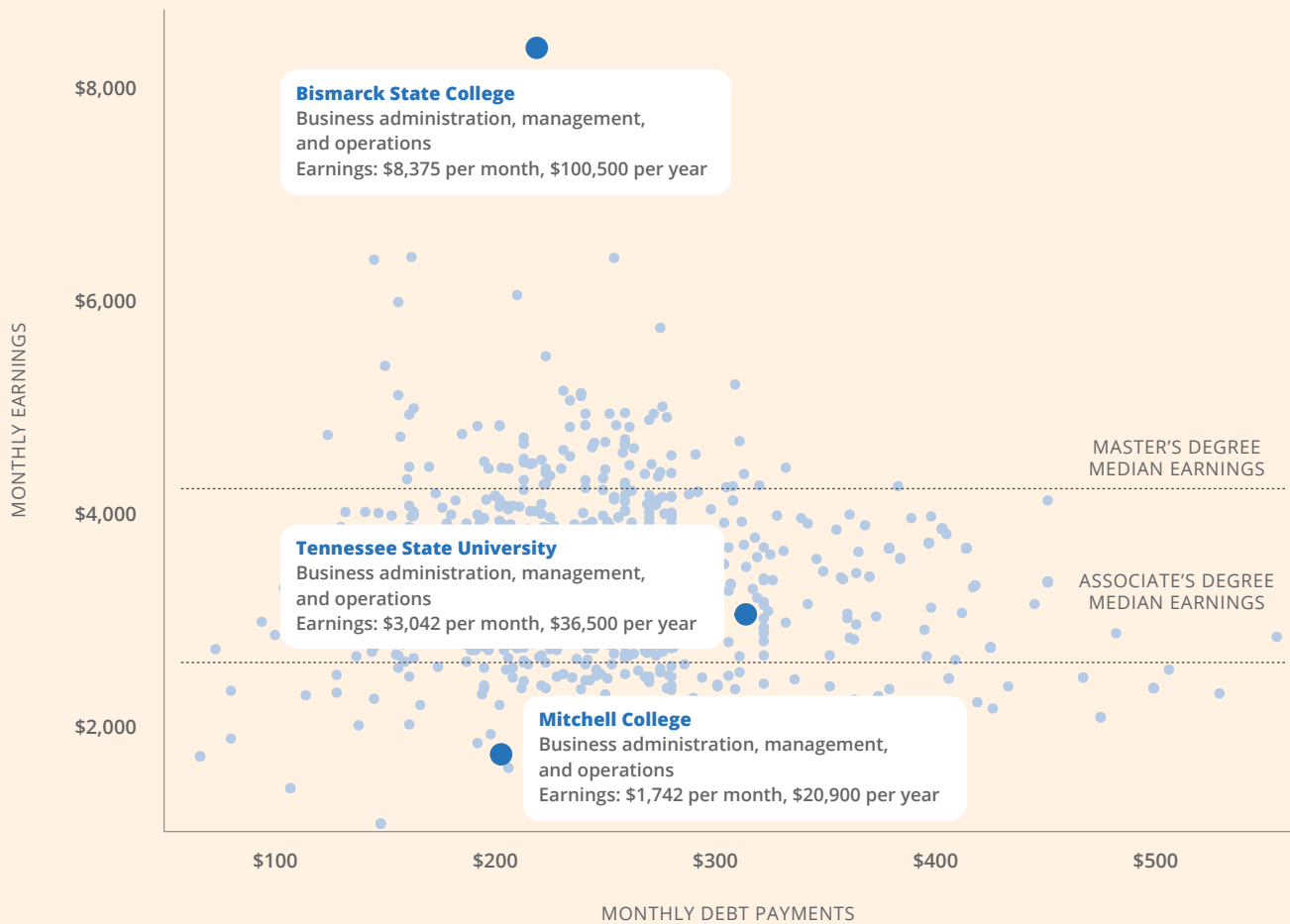
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12 We excluded programs from US territories (Puerto Rico, Guam, and the Virgin Islands) for this comparison, although data for these institutions are included in the web tool that accompanies this report. The US Department of Education aggregates unique programs across colleges into broader major and field-of-study categories. This diversity in specializations partially accounts for the differences in first-year earnings within the same fields of study. One example is Bismarck State College's bachelor's degree in business, which specializes in energy management.

13 These degrees are categorized as educational administration and supervision in the College Scorecard.

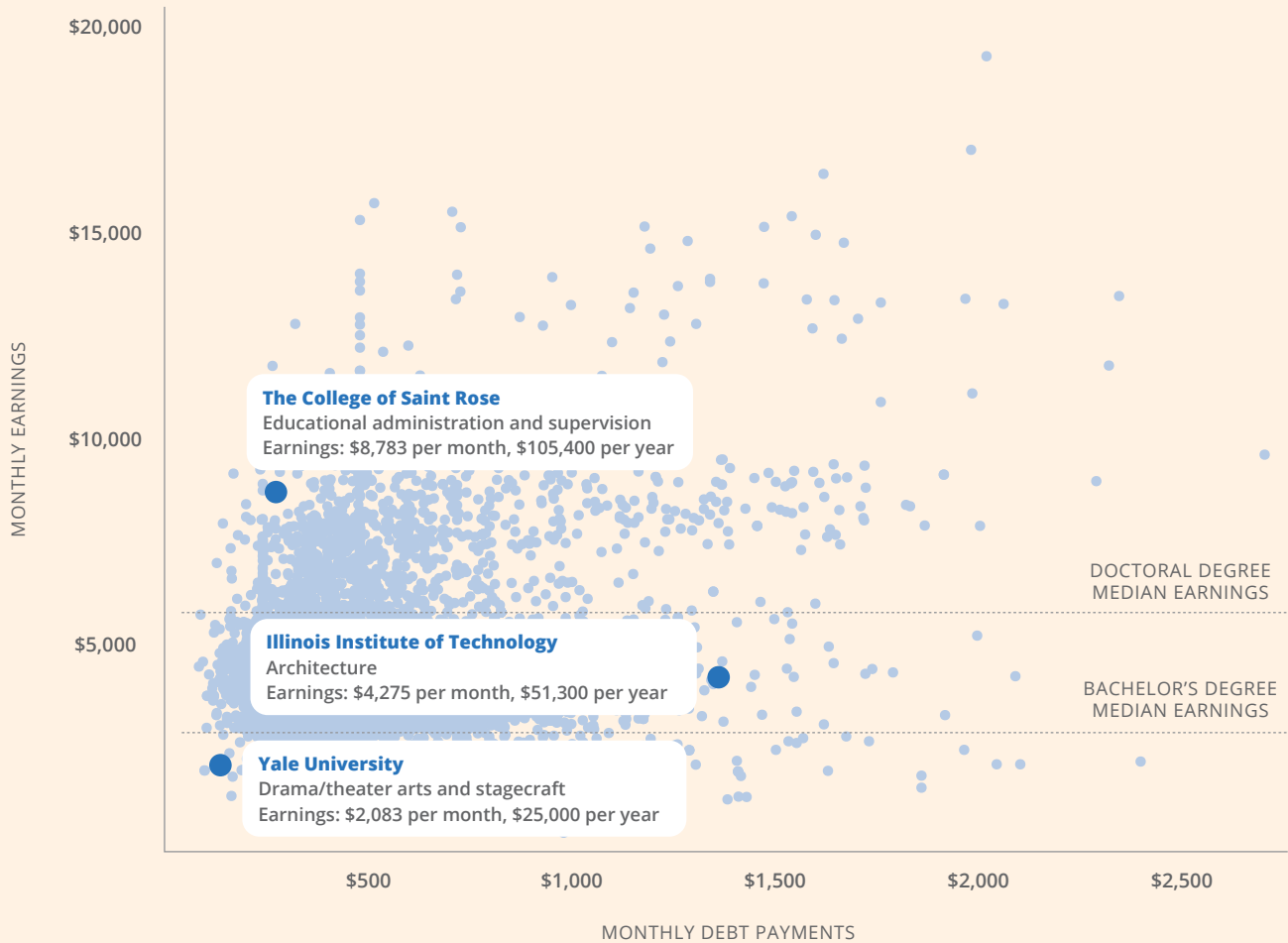
14 These degrees are categorized as drama/theater arts and stagecraft in the College Scorecard.

**Figure 7. Business administration, a popular bachelor's degree major, has median first-year earnings that range from less than \$20,000 to more than \$100,000.**



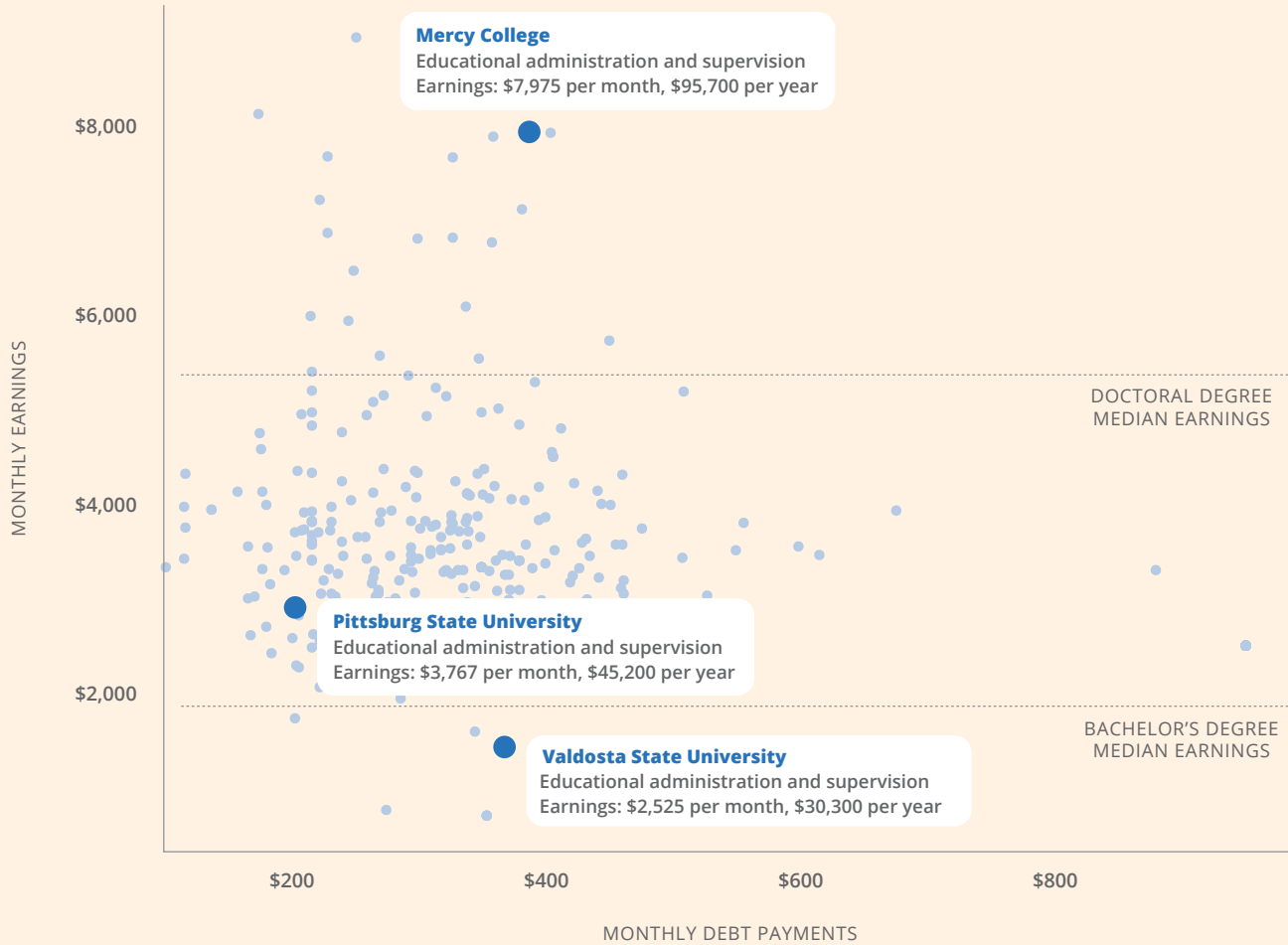
Source: Georgetown University Center on Education and the Workforce analysis of US Department of Education College Scorecard data, 2020.

**Figure 8.** While master's degree programs generally pay more, some master's degree programs lead to first-year median earnings below those for most bachelor's degree programs.



Source: Georgetown University Center on Education and the Workforce analysis of US Department of Education College Scorecard data, 2020.

**Figure 9. Earnings for students who earn a master’s degree in educational administration and supervision from Mercy College in New York are more than triple the earnings associated with the same degree from Valdosta State University in Georgia.**



Source: Georgetown University Center on Education and the Workforce analysis of US Department of Education College Scorecard data, 2020.

There is even greater variation in median earnings across all degree levels. For example, 16 percent of associate's degree programs (849 out of 5,342 programs) lead to first-year earnings that exceed the median for all master's degrees (\$4,200 per month, or \$50,000 annually). These proportions of programs at different degree levels also pay a minimum of \$50,000 in the first year after college:

- ▶ **20 percent** (3,953 out of 19,817) of bachelor's degree programs,
- ▶ **52 percent** (3,386 out of 6,519) of master's degree programs,
- ▶ **90 percent** (492 out of 549) of doctoral degree programs, and
- ▶ **84 percent** (518 out of 615) of professional degree programs, such as medical and law degrees.

The variation depends a great deal on students' major course of study. For example:

- ▶ **First-year graduates with associate's degrees in nursing** from five colleges in California earn more than first-year graduates from 12 graduate degree programs from highly selective Harvard University. The California colleges and associated earnings levels are Santa Rosa Junior College (\$89,700 per year), Butte College (\$86,900 per year), Carrington College-Sacramento (\$85,300 per year), Mount Saint Mary's University (\$81,500 per year), and Unitek College (\$80,200 per year). The lower-paying Harvard programs include master's and professional degrees in theological and ministerial studies (\$33,000 and \$41,000 per year, respectively), master's degrees in international and comparative education (\$53,200 per year), master's degrees in landscape architecture (\$53,600 per year), master's degrees in education (\$55,400 per year), master's degrees in city/urban, community, and regional planning (\$62,000 per year), and master's degrees in public policy analysis (\$75,900 per year).
- ▶ **Other high-earning associate's degree programs** include electrical and power transmission installers from Pierpont Community and Technical College in West Virginia (\$80,100 per year), industrial production technologies from Baton Rouge Community College in Louisiana (\$79,100 per year), electromechanical instrumentation and maintenance technologies from Lee College in Texas (\$77,300 per year), and physical science technologies from College of the Mainland in Texas (\$77,100 per year).

Across all programs, the highest first-year median earnings are commanded by graduates with master's degrees in dentistry from Ohio State University (\$19,000 per month, or \$231,200 per year). In fact, nine of the top 10 programs are related to dentistry. Other programs close to the top in median earnings include graduate degrees in nursing, law, and financial and business administration from various colleges and universities. The 10 highest-paying programs are all related to healthcare (Table 1).

The lowest median pay is earned by first-year graduates with undergraduate certificates in cosmetology and related personal grooming services from Career Beauty College in Tennessee (\$580 per month, or \$7,000 per year).<sup>15</sup> Other undergraduate certificates in cosmetology and undergraduate and graduate degrees and certificates in music and other visual and performing arts from various colleges and universities dominate the bottom of the earnings distribution for students in the first year after completion.

**Table 1. The 10 credentials with the highest first-year earnings are all graduate degrees in healthcare programs.**

Field of study	Credential	College or university	Annual earnings
Dentistry	Master's degree	Ohio State University-Main Campus, Columbus, OH	\$231,200
Advanced/graduate dentistry and oral sciences	First professional degree	University of Colorado Denver/Anschutz Medical Campus, Denver, CO	\$219,700
Advanced/graduate dentistry and oral sciences	Graduate/professional certificate	Tufts University, Medford, MA	\$204,400
Advanced/graduate dentistry and oral sciences	Master's degree	University of Michigan-Ann Arbor, Ann Arbor, MI	\$204,000
Dental residency programs	Graduate/professional certificate	Augusta University, Augusta, GA	\$198,600
Advanced/graduate dentistry and oral sciences	Master's degree	University of Washington-Seattle Campus, Seattle, WA	\$197,000
Advanced/graduate dentistry and oral sciences	First professional degree	New York University, New York, NY	\$192,000
Dental residency programs	First professional degree	Louisiana State University Health Sciences Center-New Orleans, New Orleans, LA	\$189,100
Registered nursing, nursing administration, nursing research, and clinical nursing	Master's degree	Central Connecticut State University, New Britain, CT	\$188,500
Advanced/graduate dentistry and oral sciences	Graduate/professional certificate	Nova Southeastern University, Fort Lauderdale, FL	\$187,500

Source: Georgetown University Center on Education and the Workforce analysis of US Department of Education College Scorecard data, 2020.

<sup>15</sup> We excluded programs from US territories (Puerto Rico, Guam, and the Virgin Islands) for these comparisons, although data for these colleges are included in the web tool that accompanies this report. We also excluded a chiropractic professional degree program from Parker University in Texas because we suspect a data error. (Annual earnings were reported to be \$2,700, which appear to be too low.) These institutions are included, however, in the computation of overall medians.



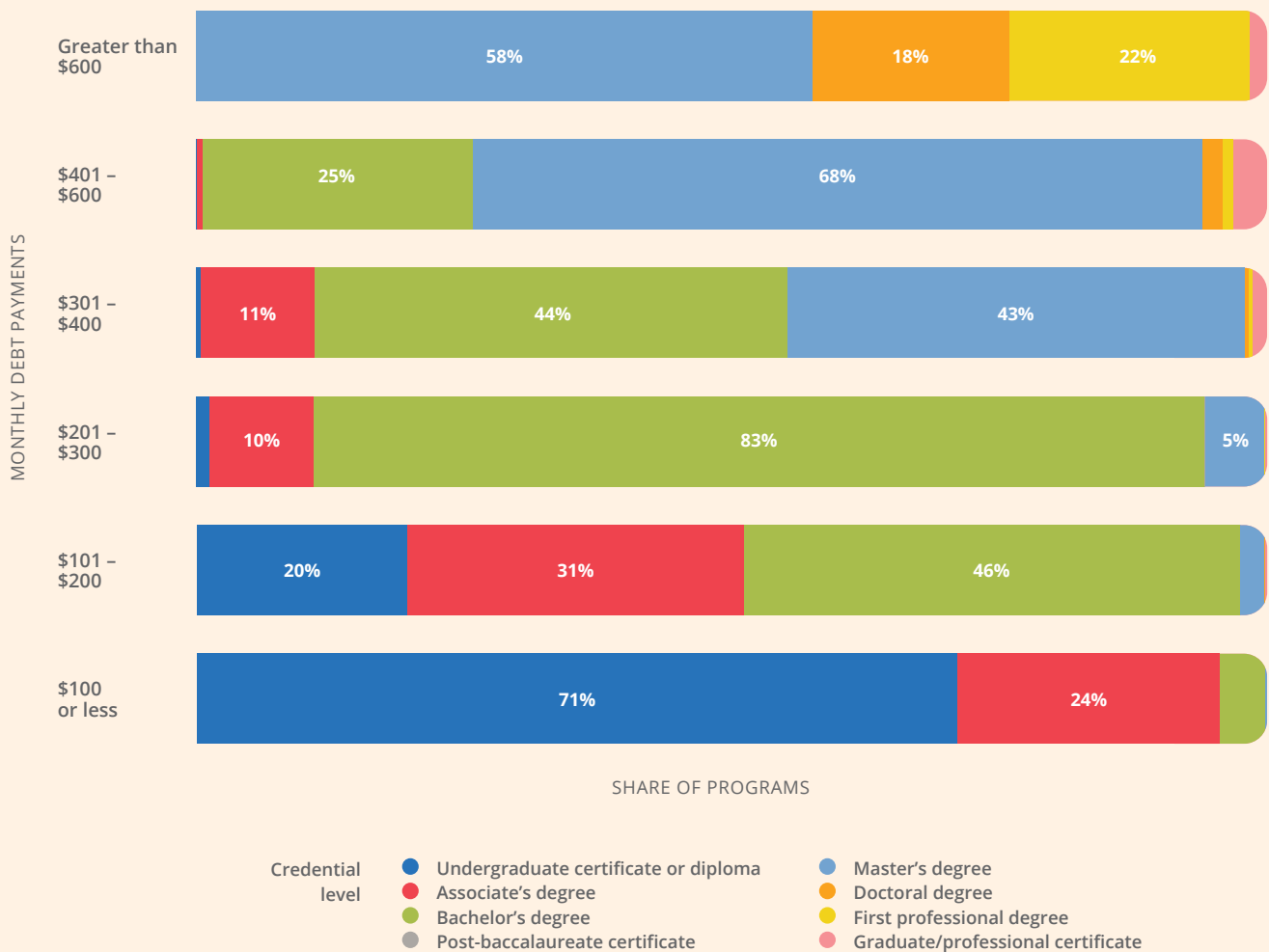
## Part 2

# Advanced-degree programs do not necessarily have higher federal student loan payments than programs at lower degree levels.

**Earnings should not be students' only financial concern** for their lives after graduation. They also must consider their debt load. Many students take out federal student loans to pay for their education. They must start making monthly payments on those loans once they complete their programs, usually after a six-month grace period. Graduate programs typically cost more than undergraduate programs and therefore generally lead to higher monthly federal student loan repayments after graduation.

However, that is not the case across the board. Some bachelor's degree and even associate's degree programs lead to monthly student loan payments that are similar to or higher than those for some graduate degree programs. For example, among graduates with monthly federal student loan payments from \$301 to \$400, 43 percent have completed a master's degree program, while 44 percent have completed a bachelor's degree program, and 11 percent have completed an associate's degree program (Figure 10).

**Figure 10. Among programs with monthly student loan payments of \$300 to \$400, bachelor's degrees (44%) and master's degrees (43%) make up similar shares.**



Source: Georgetown University Center on Education and the Workforce analysis of US Department of Education College Scorecard data, 2020.

Note: The data labels for each bar may not sum to 100 percent due to rounding and because percentages for some smaller groups are not listed.



Some programs lead to high first-year earnings as well as high monthly federal student loan payments. For example, the professional degree program in dentistry from the University of Southern California leads to median first-year earnings of \$7,117 per month (\$85,400 per year), which seems quite good. However, it also results in federal student loan payments of \$4,704 per month (\$56,400 per year), one of the highest federal student loan payment levels in the College Scorecard. On the other hand, an undergraduate certificate for electrical and power transmission installers from Moraine Park Technical College in Wisconsin leads to first-year earnings of \$3,683 per month (\$43,800 per year), but associated monthly federal student loan payments for program completers of only \$36 per month (\$432 per year) may make it an affordable option for students to boost their earnings potential.

Student debt is a major issue in the United States, with overall federal student loan debt totaling more than \$1.5 trillion.<sup>16</sup> The average federal student loan debt per student at graduation from a four-year college is nearly \$30,000.<sup>17</sup> Thus, potential students and their families should be mindful of the amount of student loan debt they will have to assume to complete their chosen program.

- ◆ **The lowest federal student loan payments**, at \$18 per month (\$216 per year), are for undergraduate certificates in cosmetology from Grace International Beauty School in New York and for undergraduate certificates in allied health and medical assisting from Spartanburg Community College in South Carolina.
- ◆ **The highest federal student loan payments**, at \$4,780 per month (\$57,400 per year), are for doctoral degrees in dentistry from Roseman University of Health Sciences in Nevada.
- ◆ **Overall, 309 bachelor's degree programs** lead to higher monthly federal student loan payments than the median of monthly federal student loan payments for master's degree programs (\$457 per month).
- ◆ **Two associate's degree programs** result in higher federal student loan payments than the median for all master's degree programs (\$457 per month). They are the allied health diagnostic, intervention, and treatment professions program from Goodwin College in Connecticut (\$506 per month) and a program in film/video and photographic arts from Academy of Art University in California (\$461 per month).
- ◆ **There are 922 associate's degree programs** that lead to higher monthly federal student loan payments than the median for bachelor's degree programs (\$249 per month).

The monthly student loan payments for graduates vary substantially among programs at the same degree level and even for the same major. Thus, students potentially can save a lot of money by shopping around for an affordable program, as long as that program succeeds at graduating students and helping them get jobs with sufficient earnings. For example, graduates with an associate's degree in nursing from Lee College in Texas pay just \$118 per month (\$1,400 per year) in student loans, whereas graduates

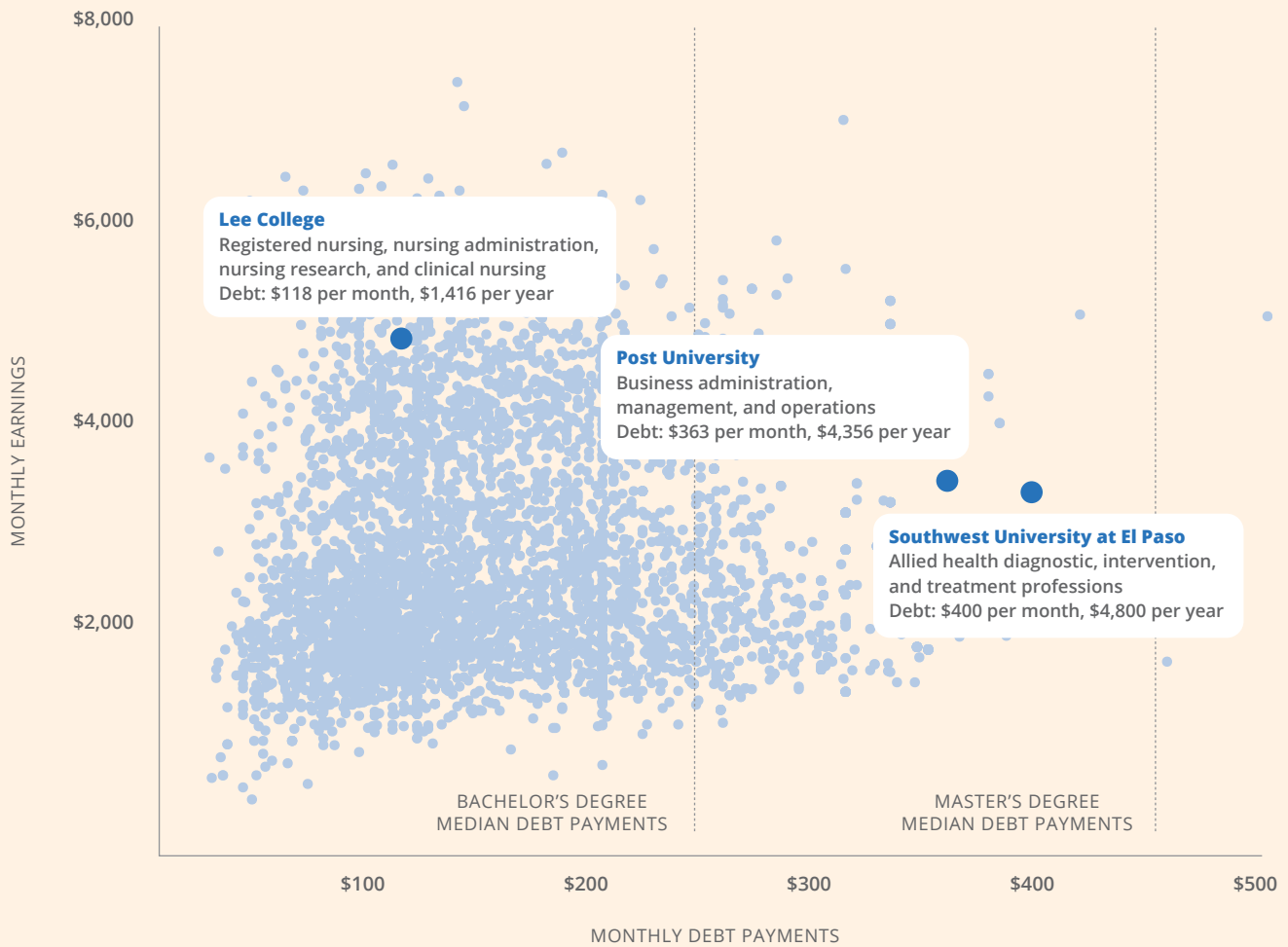
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<sup>16</sup> Miller et al., "Addressing the \$1.5 Trillion in Federal Student Loan Debt," 2019.

<sup>17</sup> The Institute for College Access and Success, *Student Debt and the Class of 2018*, 2019.

of the allied health associate's degree<sup>18</sup> at Southwest University at El Paso in Texas pay \$400 per month (\$4,800 per year) in federal student loans, more than the median for bachelor's degree programs. In between those two, graduates from the associate's degree program in business administration at Post University in Connecticut pay \$363 per month (\$4,400 per year) (Figure 11).

**Figure 11. While associate's degree programs are generally more affordable, graduates of some associate's degree programs end up with higher monthly student loan payments than graduates of many bachelor's and master's degree programs.**

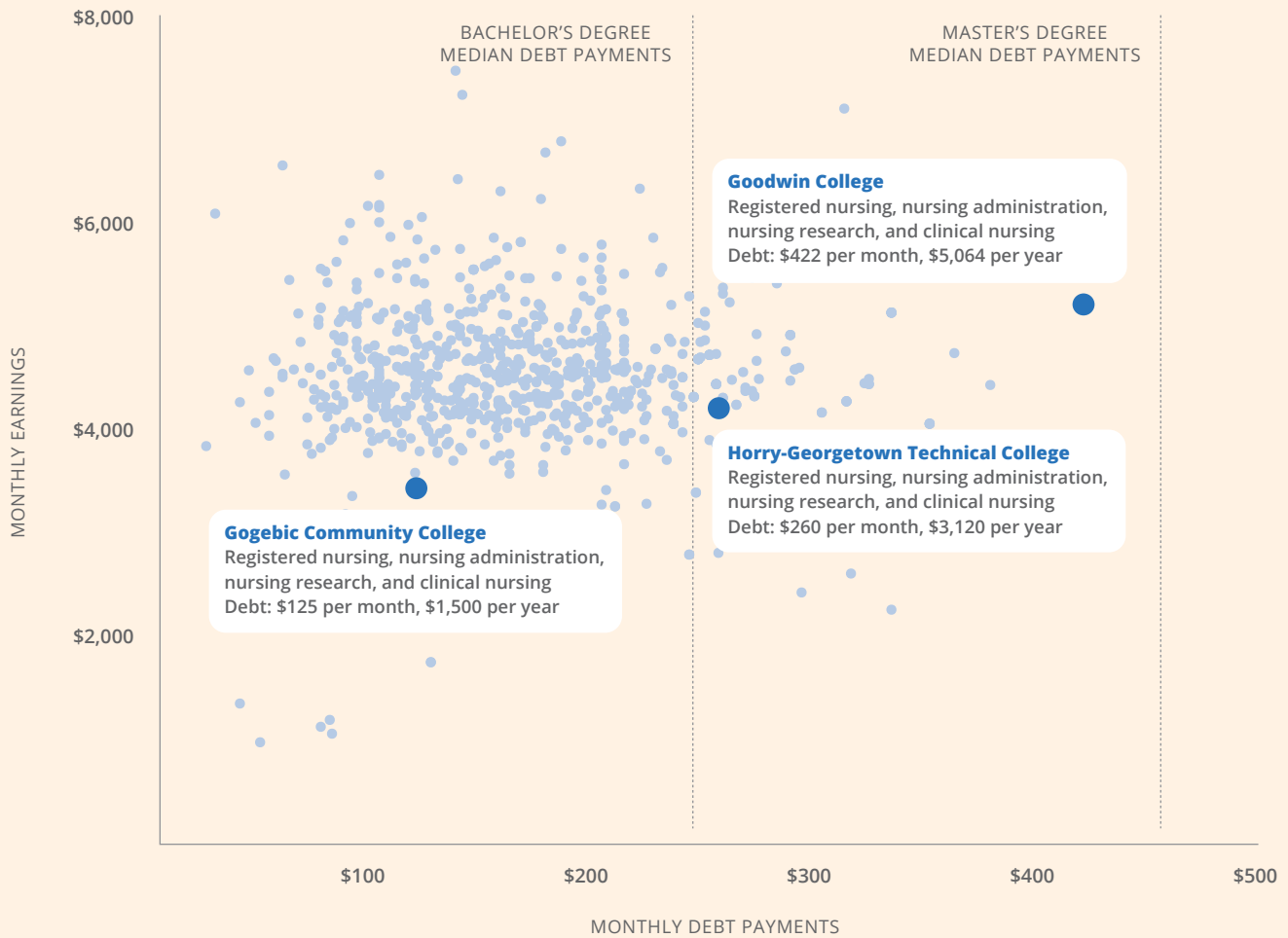


Source: Georgetown University Center on Education and the Workforce analysis of US Department of Education College Scorecard data, 2020.

<sup>18</sup> These degrees are categorized as allied health diagnostic, intervention, and treatment professions in the College Scorecard.

Even programs in the same major have very different costs in terms of federal student loan payments. Associate's degree programs in nursing at Horry-Georgetown Technical College in South Carolina, and Goodwin College<sup>19</sup> in Connecticut, lead to student loan payments that are higher than the median for bachelor's degree programs (\$260 per month and \$422 per month, or \$3,100 and \$5,100 per year, respectively), double or triple the student loan payments for the associate's degree program in nursing from Gogebic Community College in Michigan (\$125 per month, or \$1,500 per year) (Figure 12).

**Figure 12. Debt varies widely at the associate's degree level even for the same major at different colleges. The median monthly debt payments for an associate's degree in nursing at Gogebic Community College in Michigan is less than half the federal student loan debt payments for a similar degree from Horry-Georgetown Technical College in South Carolina.**

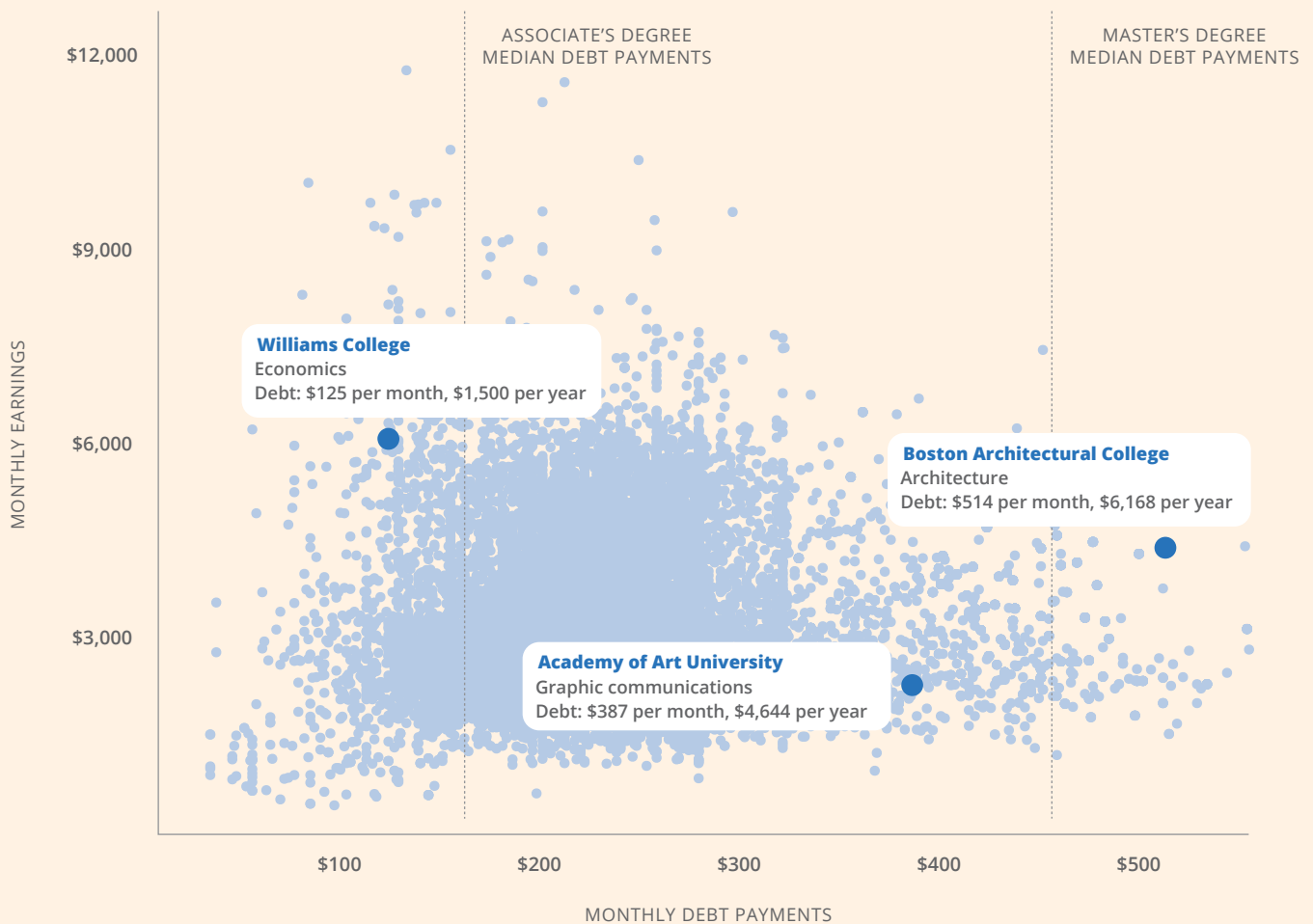


Source: Source: Georgetown University Center on Education and the Workforce analysis of US Department of Education College Scorecard data, 2020.

<sup>19</sup> Goodwin College changed its name to Goodwin University in January 2020 but continues to be listed as Goodwin College in the College Scorecard.

Similarly, there is a wide range of debt payments for students earning bachelor's degrees. For example, an economics degree from Williams College in Massachusetts leads to a median student loan payment of \$125 per month (\$1,500 per year), less than the median for associate's degree programs. In contrast, the median monthly federal student loan payments for the bachelor's degree program in architecture from Boston Architectural College is \$514 per month (\$6,200 per year), higher than the median for master's degree programs. Most bachelor's degree programs fall somewhere between these two; for example, a bachelor's degree program in graphic communications at Academy of Art University in California results in median monthly student loan payments of \$387 (\$4,600 per year) (Figure 13).

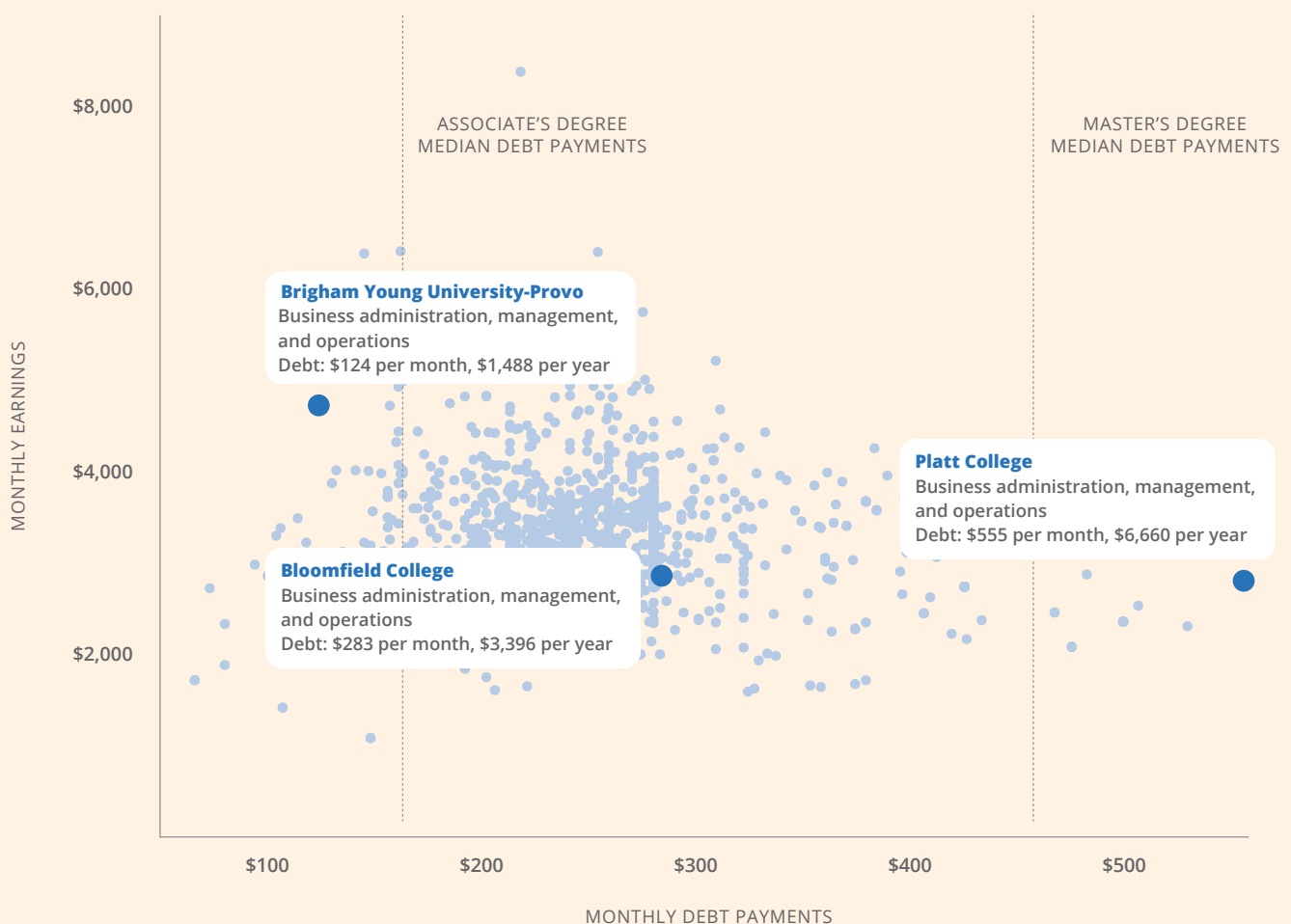
**Figure 13. The median monthly federal student loan payments for bachelor's degree graduates vary from less than the median payments for associate's degree programs to more than the median payments for master's degree programs.**



Source: Georgetown University Center on Education and the Workforce analysis of US Department of Education College Scorecard data, 2020.

The debt associated with a bachelor's degree program generally depends more on the institution than on the major. Hence, programs in the same major from different institutions can result in significant differences in the size of student loan payments. While the graduates of a bachelor's degree program in business administration from Brigham Young University-Provo in Utah pay a median of \$124 per month (\$1,500 per year) for their federal student loans, graduates of a similar program from Platt College in California pay a median of \$555 per month (\$6,700 per year), more than the median for master's degree programs. Most bachelor's degree business programs fall between those two, including the business administration program at Bloomfield College in New Jersey, which results in median monthly student federal loan payments of \$283 (\$3,400 per year) (Figure 14).

**Figure 14. The median debt accumulated while earning a bachelor's degree often depends more on the institution than on the major—the debt payments from earning a business degree at Platt College in California are far higher than the debt payments from earning a business degree at Brigham Young University-Provo in Utah.**



Source: Georgetown University Center on Education and the Workforce analysis of US Department of Education College Scorecard data, 2020.

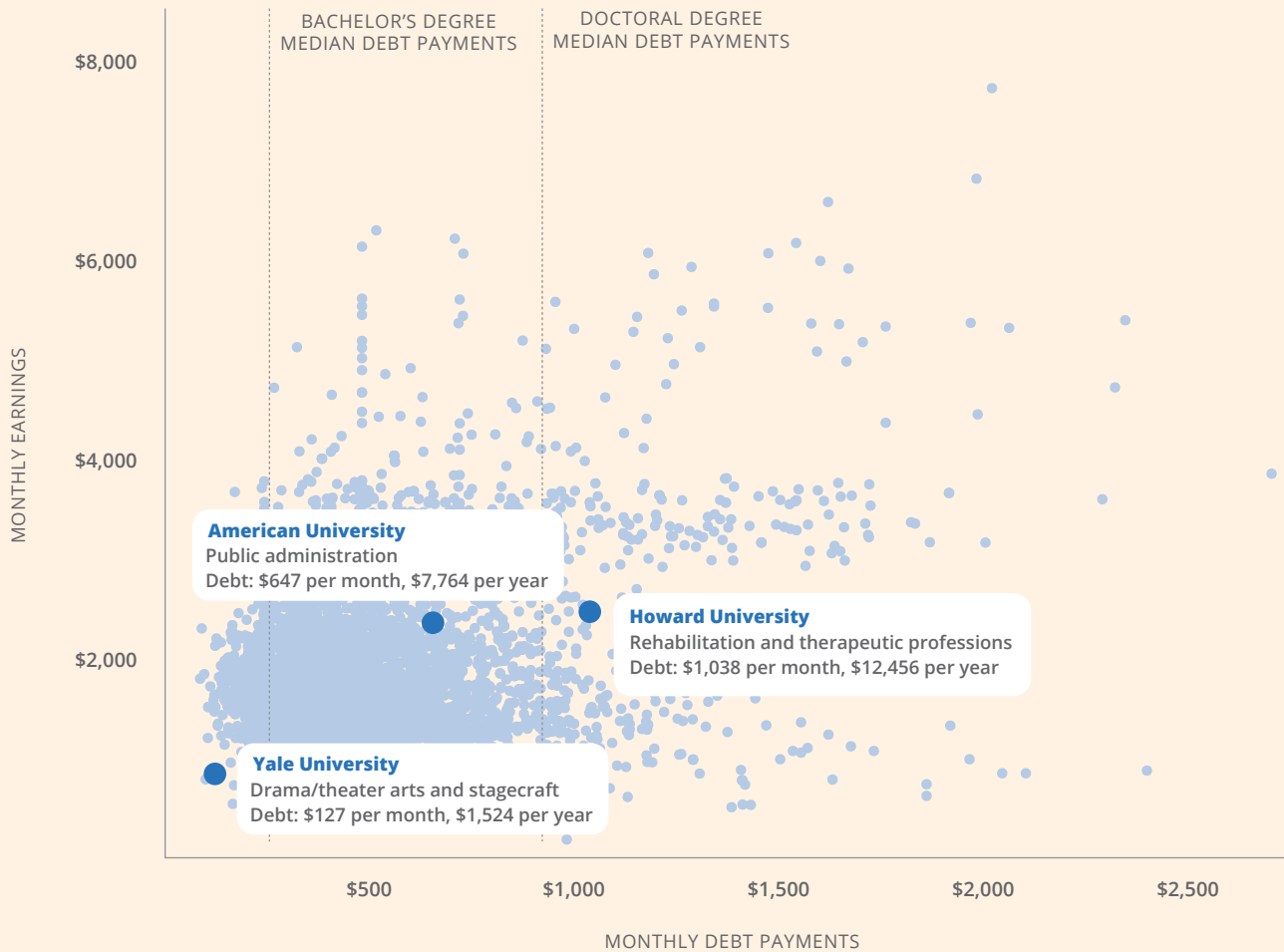
Graduate degrees are generally the most expensive credentials to attain and therefore typically lead to the largest student loan payments. However, many affordable options are available. For instance, a master's degree in rehabilitation<sup>20</sup> from Howard University in Washington, DC, leads to median student loan payments of \$1,038 per month (\$12,500 per year), higher than the median for doctoral degree programs. Meanwhile, a master's degree in public administration from American University, also in Washington, DC, leads to median monthly payments of \$647 per month (\$7,800 per year) (Figure 15). In fact, graduates of some master's degree programs pay less in federal student loans for their program than the median for graduates of bachelor's degree programs. For example, graduates from the master's degree program in theater arts at Yale University pay only \$127 per month (\$1,500 per year).

However, just as with associate's and bachelor's degree programs, the federal student loan debt associated with master's degree programs can be quite different, even in the same major. For example, while the master's degree program in educational administration and supervision from the University of Southern California leads to median student loan payments of \$886 per month (\$10,600 per year), a similar program from Marquette University in Wisconsin leads to median monthly student loan payments of only \$190 per month (\$2,300 per year), less than the median for bachelor's degree programs. The same major from Montclair State University in New Jersey results in debt payments of \$342 per month (\$4,100 per year), higher than the median for a bachelor's degree (Figure 16).

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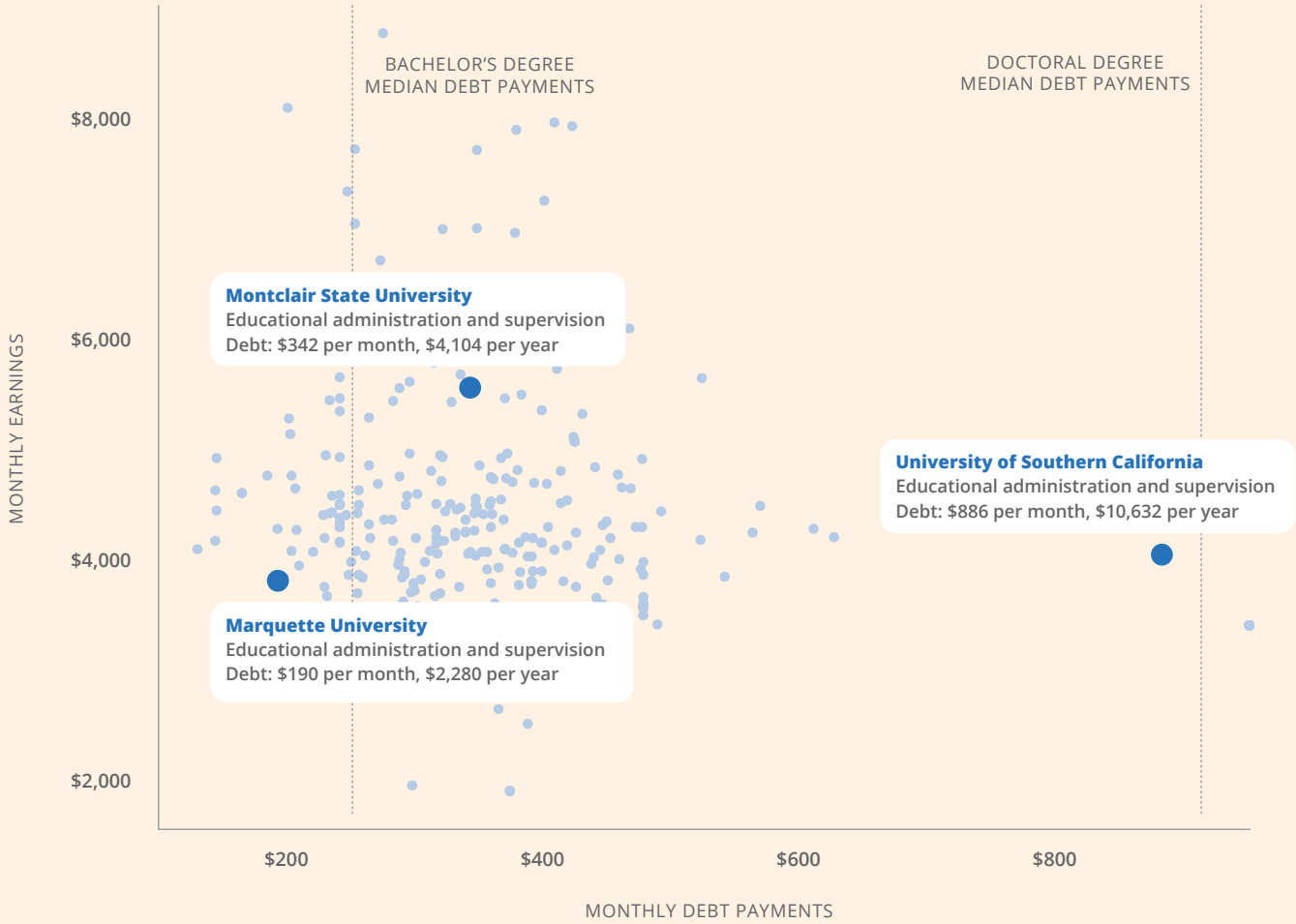
<sup>20</sup> These degrees are categorized as rehabilitation and therapeutic professions in the College Scorecard.

**Figure 15.** Master’s degree graduates from some programs have lower median monthly student loan payments than the median for bachelor’s degree graduates, whereas other master’s degree recipients have higher median student loan payments than the median for doctoral degree graduates.



Source: Georgetown University Center on Education and the Workforce analysis of US Department of Education College Scorecard data, 2020.

**Figure 16.** A master's degree program in educational administration can result in median monthly federal loan debt payments ranging from \$190 at Marquette University to \$886 at the University of Southern California.



Source: Georgetown University Center on Education and the Workforce analysis of US Department of Education College Scorecard data, 2020.



Overall, students pursuing doctoral and professional degrees in dentistry have the highest monthly federal student loan payments (Table 2). These degrees lead to careers as dentists, who are some of the highest-paid professionals in the US labor force. Students are often willing to take on the high debt load in exchange for the high long-term earnings offered by these programs.

**Table 2. The 10 programs with the highest federal student loan debt payments are all graduate programs in dentistry.**

Field of study	Credential	College or university	Monthly debt payments
Dentistry	Doctoral degree	Roseman University of Health Sciences, Henderson, NV	\$4,780
Dentistry	First professional degree	University of Southern California, Los Angeles, CA	\$4,704
Dentistry	Doctoral degree	Midwestern University, Downers Grove, IL	\$4,623
Dentistry	First professional degree	Western University of Health Sciences, Pomona, CA	\$4,586
Dentistry	First professional degree	New York University, New York, NY	\$4,517
Dentistry	Doctoral degree	Nova Southeastern University, Fort Lauderdale, FL	\$4,392
Dentistry	First professional degree	A.T. Still University of Health Sciences, Kirksville, MO	\$4,369
Dentistry	First professional degree	University of the Pacific, Stockton, CA	\$4,200
Dentistry	First professional degree	Case Western Reserve University, Cleveland, OH	\$3,950
Dentistry	First professional degree	University of Detroit Mercy, Detroit, MI	\$3,946

Source: Georgetown University Center on Education and the Workforce analysis of US Department of Education College Scorecard data, 2020.

The postsecondary courses of study with the lowest monthly federal student debt payments are undergraduate certificate and diploma programs in fields such as cosmetology, allied health and medical assisting, and electrical and electronics maintenance and repair (Table 3). These are short-term programs that generally cost less than longer-term degree programs. However, the earnings that students can expect from these programs are quite low.

**Table 3. The 10 programs with the lowest debt payments are all undergraduate certificate programs.**

Field of study	Credential	College or university	Monthly debt payments
Cosmetology and related personal grooming services	Undergraduate certificate or diploma	Grace International Beauty School, New York, NY	\$18
Allied health and medical assisting services	Undergraduate certificate or diploma	Spartanburg Community College, Spartanburg, SC	\$18
Cosmetology and related personal grooming services	Undergraduate certificate or diploma	Larry's Barber College, Chicago, IL	\$19
Environmental control technologies/technicians	Undergraduate certificate or diploma	South Florida Institute of Technology, Miami, FL	\$20
Electrical/electronics maintenance and repair technology	Undergraduate certificate or diploma	South Florida Institute of Technology, Miami, FL	\$20
Allied health and medical assisting services	Undergraduate certificate or diploma	Detroit Business Institute-Downriver, Riverview, MI	\$28
Electrical/electronics maintenance and repair technology	Undergraduate certificate or diploma	Highlands College of Montana Tech, Butte, MT	\$29
Electrical/electronics maintenance and repair technology	Undergraduate certificate or diploma	Montana Technological University, Butte, MT	\$29
Precision metal working	Undergraduate certificate or diploma	Georgia Northwestern Technical College, Rome, GA	\$30
Cosmetology and related personal grooming services	Undergraduate certificate or diploma	Northwest Mississippi Community College, Senatobia, MS	\$31

Source: Georgetown University Center on Education and the Workforce analysis of US Department of Education College Scorecard data, 2020.



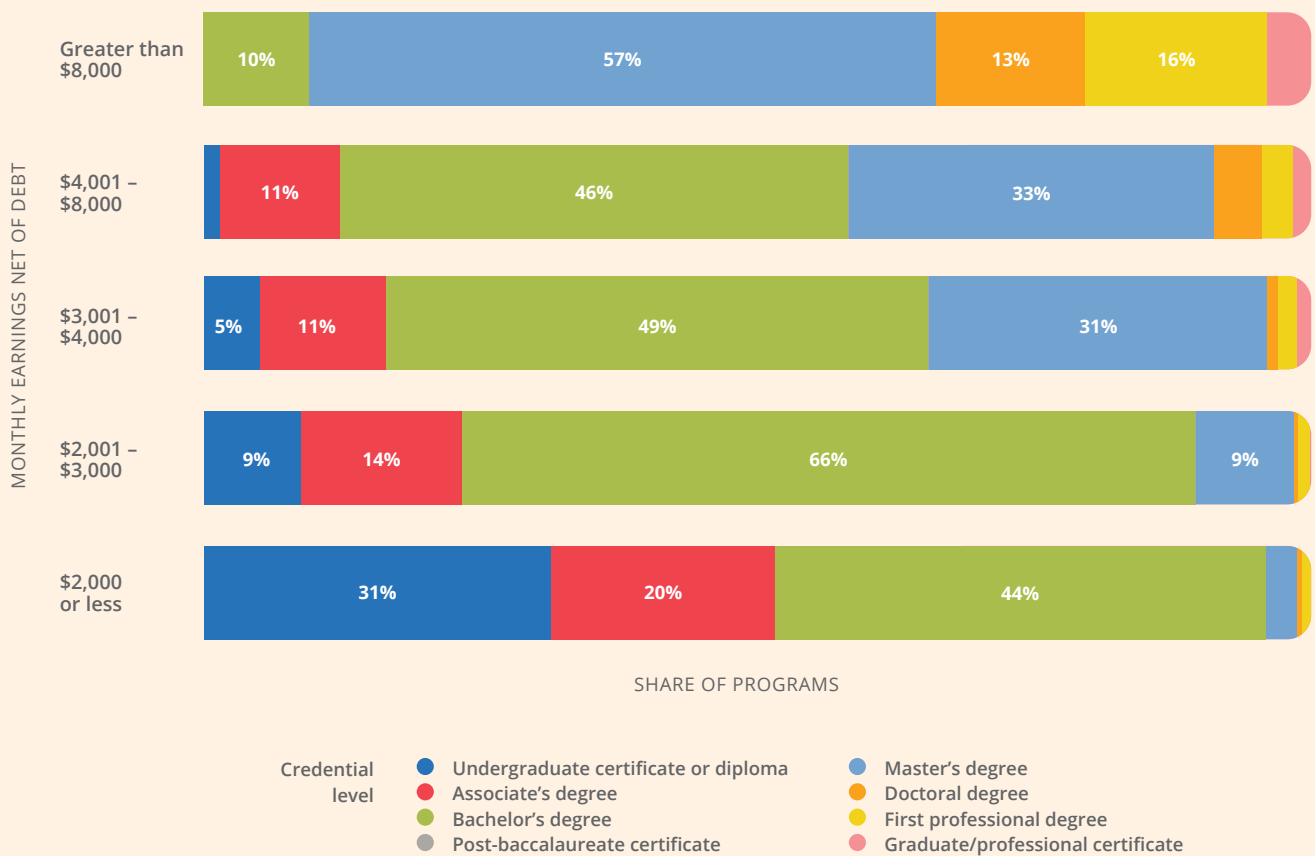
### Part 3

# Earnings and federal student loan payments considered together indicate the affordability of postsecondary programs.

**The key measure of a college program's affordability** is earnings net of debt. This measure shows how much money will remain from graduates' earnings after they make their student loan payments. This metric is calculated by subtracting median monthly federal student loan payments from median monthly earnings.

Earnings net of debt typically rise with each succeeding degree level, but there is also significant overlap across degree levels. For example, while 49 percent of graduates with monthly earnings from \$3,001 to \$4,000 net of debt are from programs at the bachelor's degree level, 11 percent are from programs at the associate's degree level and 31 percent are from programs at the master's degree level (Figure 17).

**Figure 17. Among those who earn from \$3,001 to \$4,000 a month net of debt in the first year after earning a postsecondary credential, 49 percent have earned a bachelor's degree and 11 percent have earned an associate's degree.**



Source: Georgetown University Center on Education and the Workforce analysis of US Department of Education College Scorecard data, 2020.

Note: The data labels for each bar may not sum to 100 percent due to rounding and because percentages for some smaller groups are not listed.

The programs that leave graduates in the best financial position in their first year after graduation are those with high first-year earnings and low monthly debt payments. Graduates from programs with low first-year earnings and high monthly student loan payments will face the most challenging first-year financial situation.

- ◆ **Programs with the lowest earnings net of debt** include professional degrees in alternative and complementary medicine and medical systems from several colleges and universities. Some have negative earnings net of debt, meaning graduates on average would owe more in student loan payments than they would earn in their first year after graduation. The worst outcome is at National University of Natural Medicine in Oregon, where earnings net of debt work out to negative \$700 per month (negative \$8,400 per year).<sup>21</sup>
- ◆ **The earnings net of debt for master's degrees and professional degrees** are surprisingly similar. The median monthly earnings of first-year graduates from professional degree programs are \$5,191, which is higher than the median monthly earnings of first-year graduates from master's degree programs, at \$4,233. However, the median monthly debt payments for professional degrees are \$1,576, but only \$457 for master's degrees. That means median earnings net of debt payments in the first year after graduation are nearly identical, at \$3,790 per month (\$45,500 annually) for recipients of professional degrees and \$3,780 per month (\$45,400 annually) for recipients of master's degrees.
- ◆ **The median monthly debt payment for all postsecondary credential programs is \$244.** At that level, first-year earnings vary from \$1,425 per month (\$17,100 per year) for a bachelor's degree in drama from Baylor University in Texas to \$6,875 a month (\$82,500 per year) for a bachelor's degree in nursing from Felician University in New Jersey. Earnings net of debt for programs with an overall median debt payment of \$244 range from \$1,181 to \$6,631 per month (\$14,200 to \$79,600 per year).
- ◆ **The median monthly earnings for first-year graduates of all postsecondary credential programs are \$3,017 (about \$36,200 per year).** At that level, the monthly debt payments range from \$56 a month (\$700 per year) for an undergraduate certificate in criminal justice from Erie Community College in New York to \$1,961 per month (\$23,500 per year) for a law degree from Barry University in Florida. Earnings net of debt for these programs are \$2,961 and \$1,056 per month (\$35,500 and \$12,700 per year), respectively.
- ◆ **The overlap in earnings net of debt across credential levels** means that some programs at the associate's degree level have higher payoffs in the first year after graduation than some programs at the master's degree level. For example, first-year graduates from Harvard University with master's degrees in theological and ministerial studies have \$2,465 a month (\$29,600 per year) in earnings net of debt, and those in education have \$4,378 per month (\$52,500 per year). However, first-year graduates with an associate's degree in nursing from Santa Rosa Junior College in California have \$7,332 per month (\$88,000 per year) in earnings net of federal student loan debt payments.

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21 This does not include programs at colleges in Puerto Rico, Guam, and the Virgin Islands. It also excludes the chiropractic program from Parker University in Texas.

Across all education levels, there are programs with higher first-year earnings and lower monthly student loan payments that offer students higher value than programs at a higher degree level. Among associate's degree programs, for instance, the industrial production program<sup>22</sup> at the University of Alaska Anchorage results in monthly earnings net of debt of \$5,117 (\$61,400 per year), which are higher than the median for master's degree programs. Associate's degrees from the clinical professions program<sup>23</sup> at Baker College in Michigan, by contrast, result in lower first-year earnings and higher monthly debt payments, with first-year earnings net of student debt adding up to \$2,895 per month (\$34,700 per year). Still, these are higher than the median for bachelor's degree programs. In comparison, the first-year earnings net of debt are significantly lower for the criminal justice associate's degree program<sup>24</sup> at Albany Technical College in Georgia (\$1,667 per month or \$20,000 per year) (Figure 18).

A similar divide exists among associate's degree programs within the same major. While graduates of the nursing program at Bergen Community College in New Jersey have \$5,698 per month (\$68,400 per year) in earnings net of federal student loan payments in their first year after graduation, graduates from a similar program at Fond du Lac Tribal and Community College in Minnesota have lower first-year earnings and higher student loan payments, with earnings net of student loan debt adding up to \$4,011 per month (\$48,100 per year). Graduates from an associate's degree nursing program at Florida National University have even lower first-year earnings net of student loan payments, at \$2,289 per month (\$27,500 per year) (Figure 19).

A similar spread of first-year outcomes occurs among bachelor's degree programs. Graduates with bachelor's degrees in manufacturing engineering from the University of Wisconsin-Stout have \$5,102 per month (\$61,200 per year) of their first-year earnings remaining after they make their federal student loan payments, which is higher than the median for master's degree programs (Figure 20). By comparison, graduates of the bachelor's degree program in liberal arts and sciences<sup>25</sup> from California Polytechnic University-San Luis Obispo have earnings net of debt of \$1,959 per month (\$23,500 per year), less than the median for associate's degree holders. Many bachelor's degree programs have first-year earnings net of student debt payments that fall between these two, including a program in sociology at Boston University, at which first-year earnings net of debt payments amount to \$3,030 per month (\$36,400 per year).

Among popular bachelor's degree programs in business administration, Stevens Institute of Technology in New Jersey has one of the better outcomes in the first year following graduation, with earnings net of federal student loan debt payments equal to \$5,467 per month (\$65,600 per year), compared to \$3,559 per month (\$42,700 per year) for the bachelor's degree program in business at the University of Dallas in Texas, and just \$2,258 per month (\$27,100 per year) for a similar business program at Cazenovia College in New York (Figure 21).

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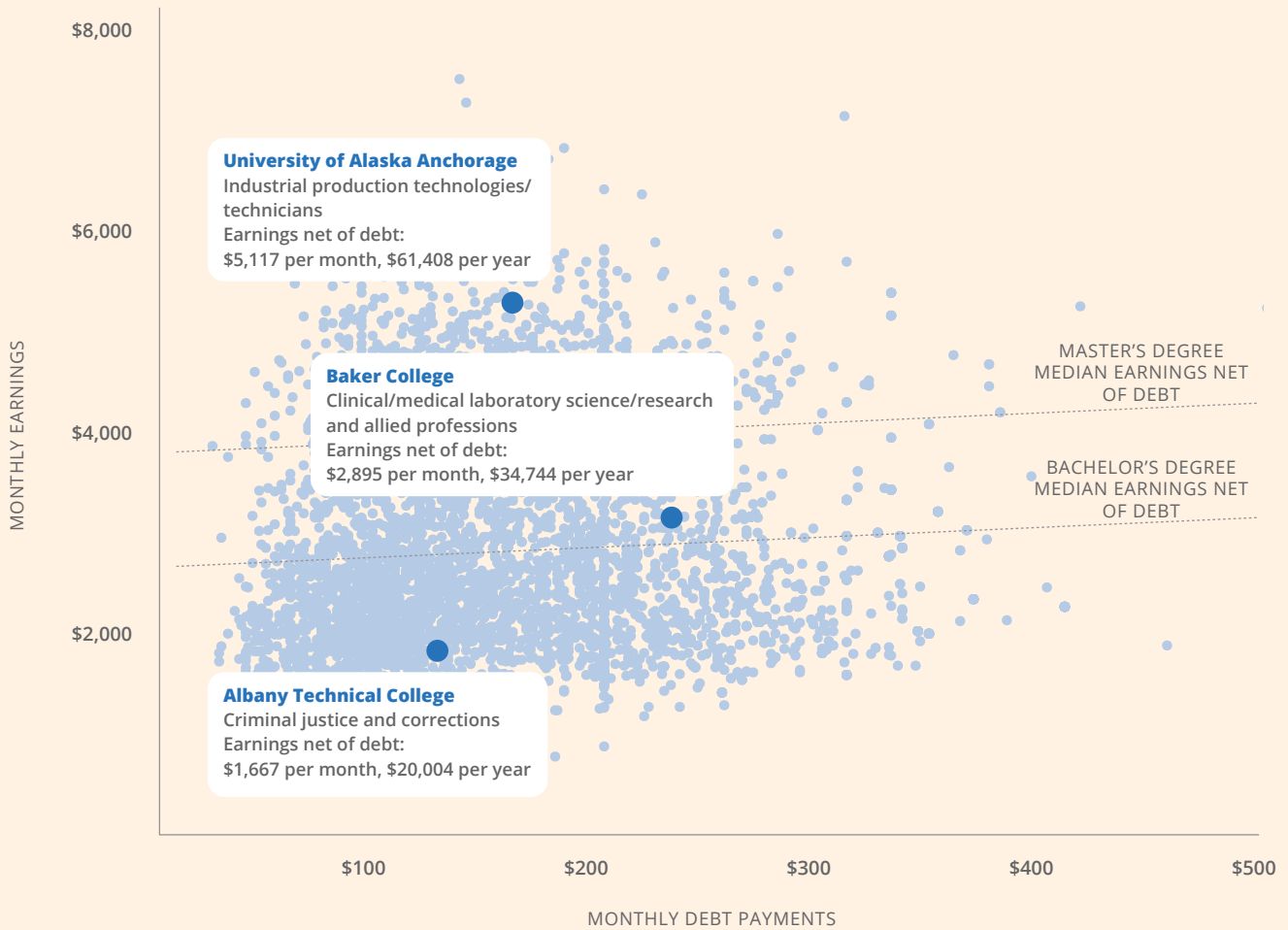
22 These degrees are categorized as industrial production technologies/technicians in the College Scorecard.

23 These degrees are categorized as clinical/medical laboratory science/research and allied professions in the College Scorecard.

24 These degrees are categorized as criminal justice and corrections in the College Scorecard.

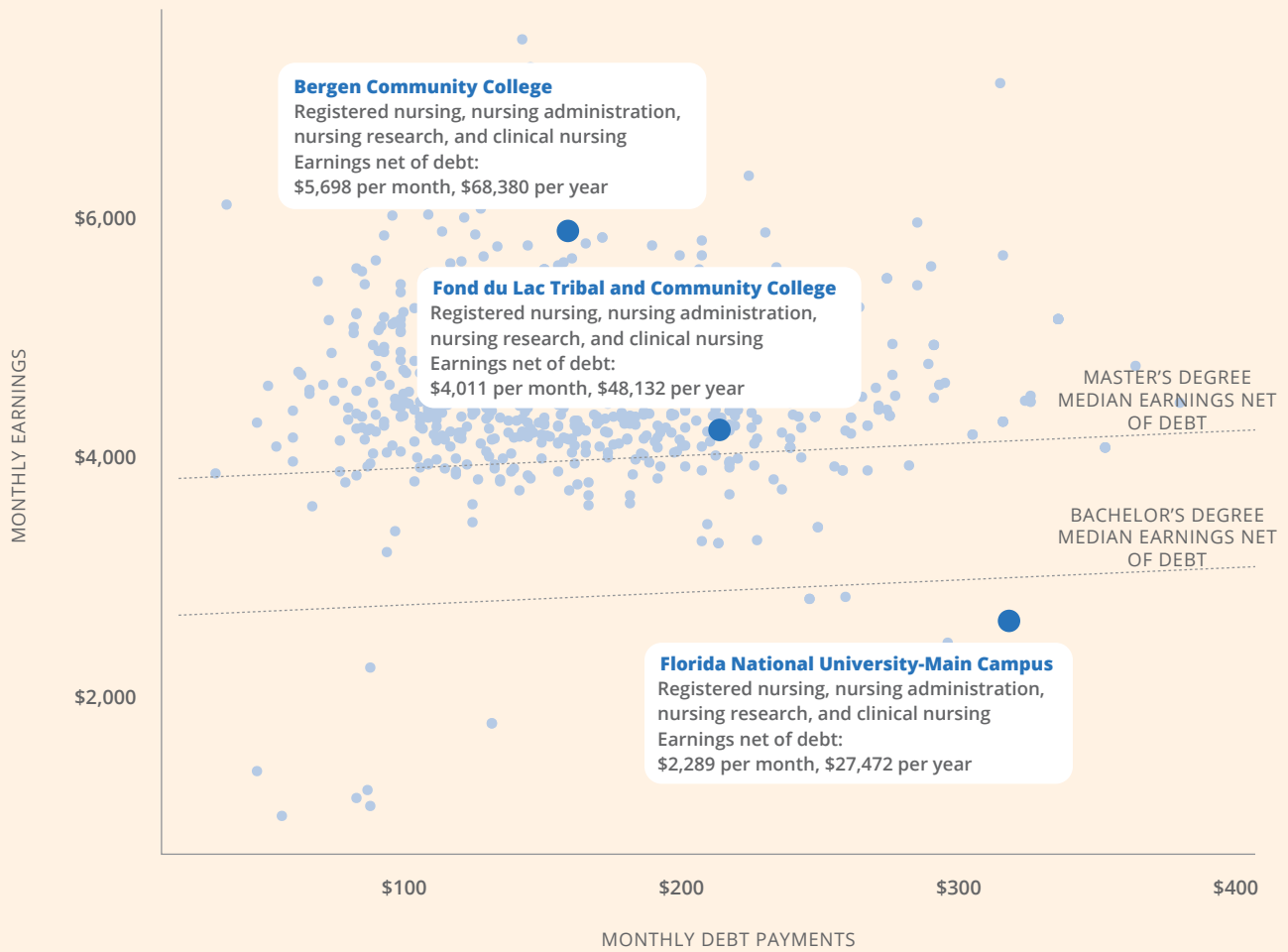
25 These degrees are categorized as liberal arts and sciences, general studies, and humanities in the College Scorecard.

**Figure 18.** Both first-year earnings and federal student loan payments vary substantially among associate's degree programs, so some associate's degree programs have higher monthly earnings net of debt than the median for bachelor's degree programs and even master's degree programs.



Source: Georgetown University Center on Education and the Workforce analysis of US Department of Education College Scorecard data, 2020.

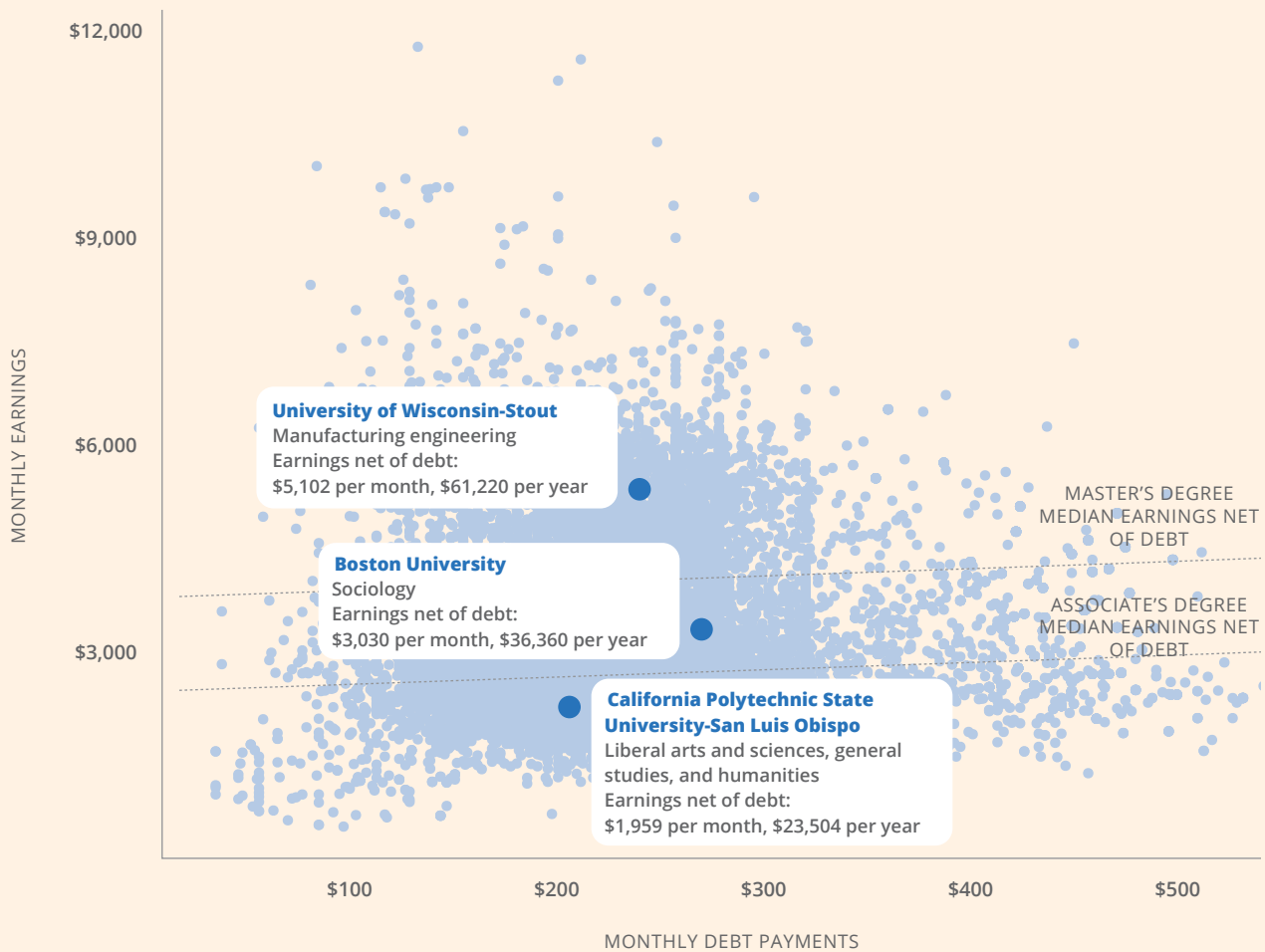
**Figure 19. Earnings net of debt for an associate's degree in nursing vary widely across institutions.**



Source: Georgetown University Center on Education and the Workforce analysis of US Department of Education College Scorecard data, 2020.

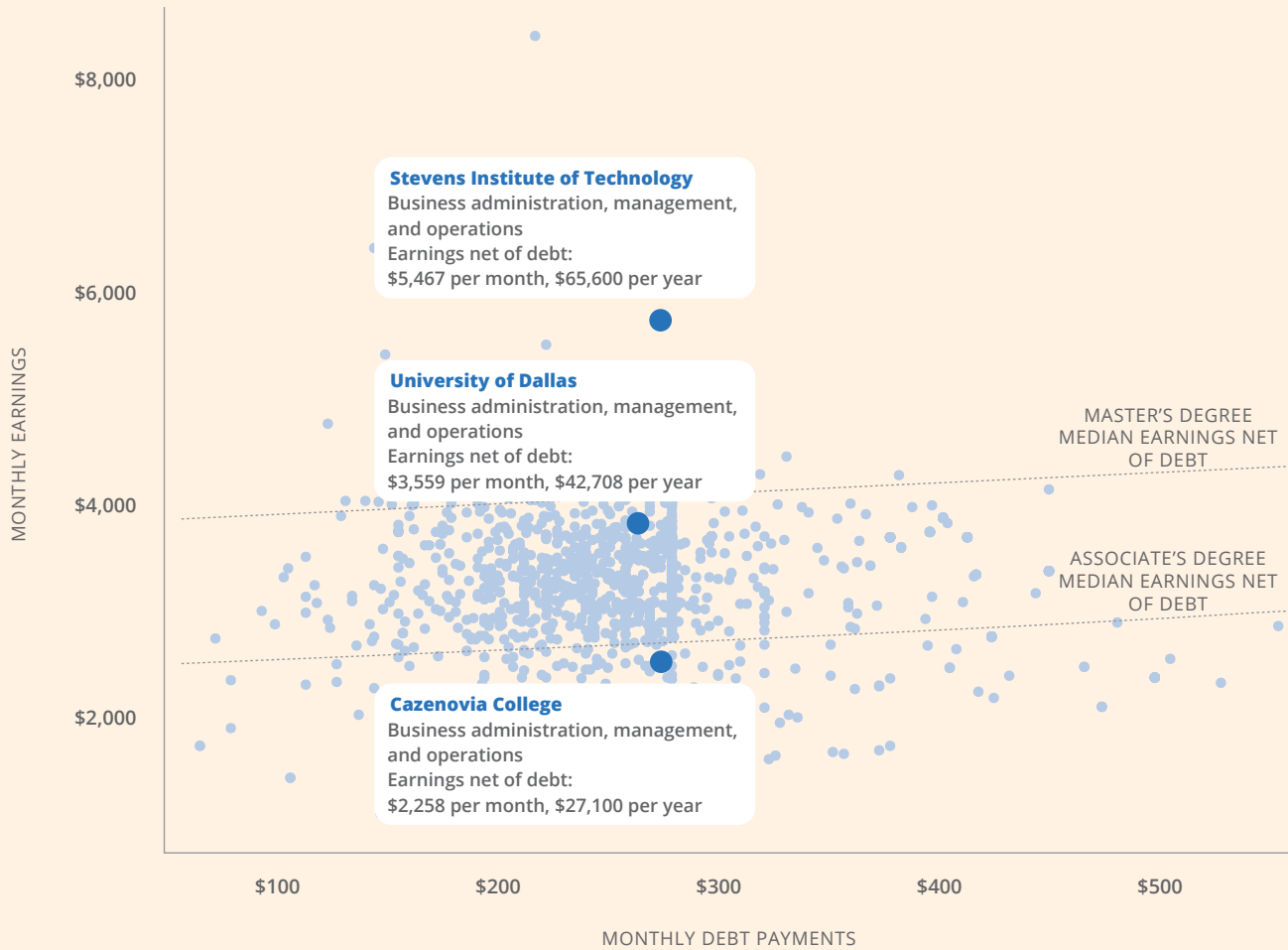


**Figure 20.** The first-year earnings and federal student loan payments for graduates of bachelor's degree programs differ enormously, with some graduates having lower monthly earnings net of debt than the median for associate's degree programs, and others having higher monthly earnings net of debt than the median for master's degree programs.



Source: Georgetown University Center on Education and the Workforce analysis of US Department of Education College Scorecard data, 2020.

**Figure 21.** Among popular majors such as bachelor's degrees in business administration, earnings net of debt vary greatly depending on the college that a student attends.



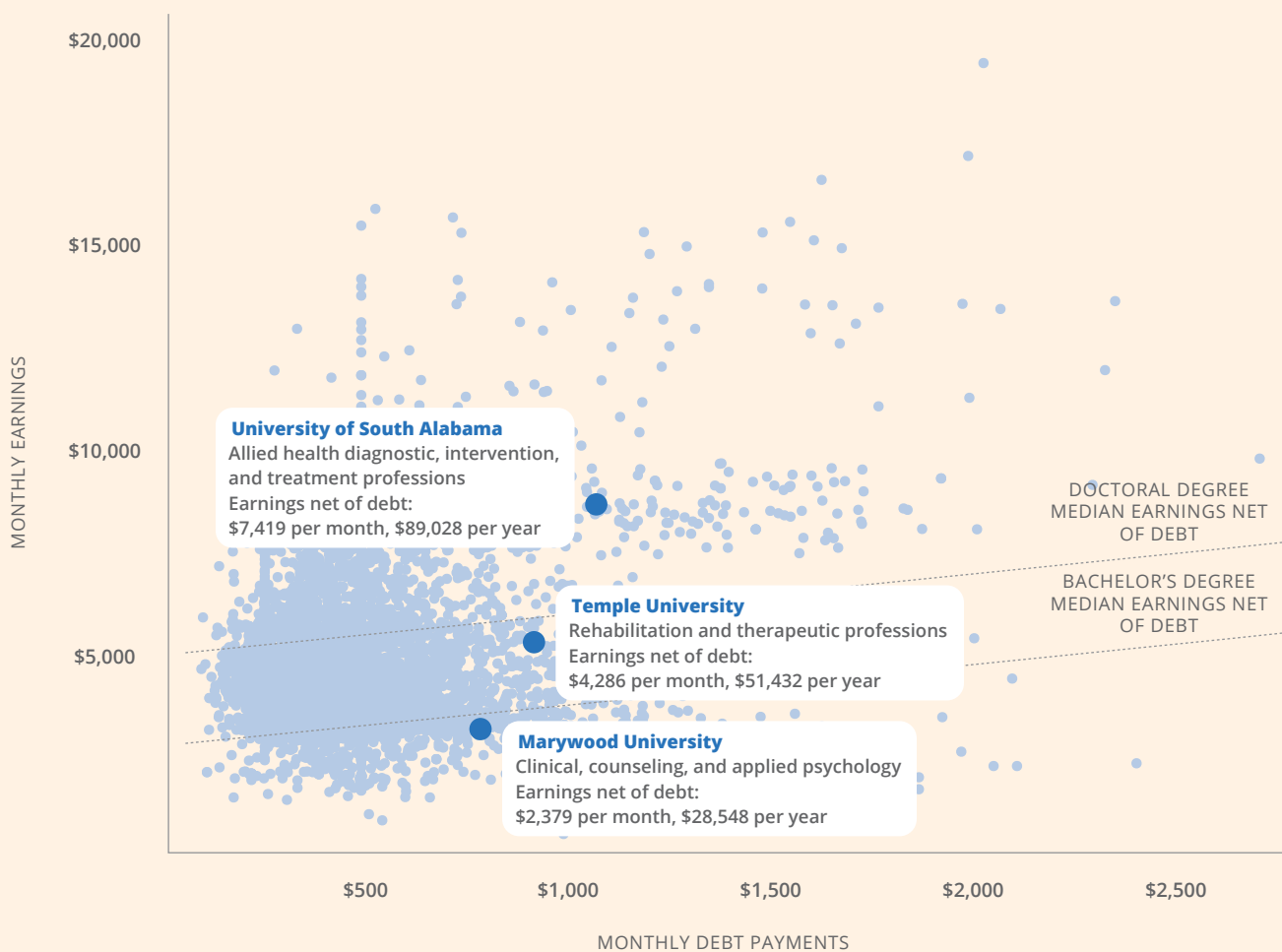
Source: Georgetown University Center on Education and the Workforce analysis of US Department of Education College Scorecard data, 2020.

Master's degree programs show an even larger spread in first-year median earnings net of federal student loan debt payments. Graduates of the master's degree program in diagnostic health<sup>26</sup> from the University of South Alabama earn \$7,419 per month (\$89,000 per year) net of debt, which is higher than the median for doctoral degree

<sup>26</sup> These degrees are categorized as allied health diagnostic, intervention, and treatment programs in the College Scorecard.

programs. However, graduates of the master’s degree program in rehabilitation<sup>27</sup> at Temple University in Pennsylvania have first-year earnings net of debt of \$4,286 per month (\$51,400 per year). Toward the low end of the earnings net of debt distribution, graduates of the clinical and counseling master’s degree program<sup>28</sup> at Marywood University in Pennsylvania have just \$2,379 per month (\$28,500 per year) in earnings net of federal student loan payments in their first year after receiving the degree (Figure 22).

**Figure 22. Master’s degree recipients can have first-year monthly earnings net of debt that are higher than the median for doctoral degree program graduates or lower than the median for bachelor’s degree program graduates.**

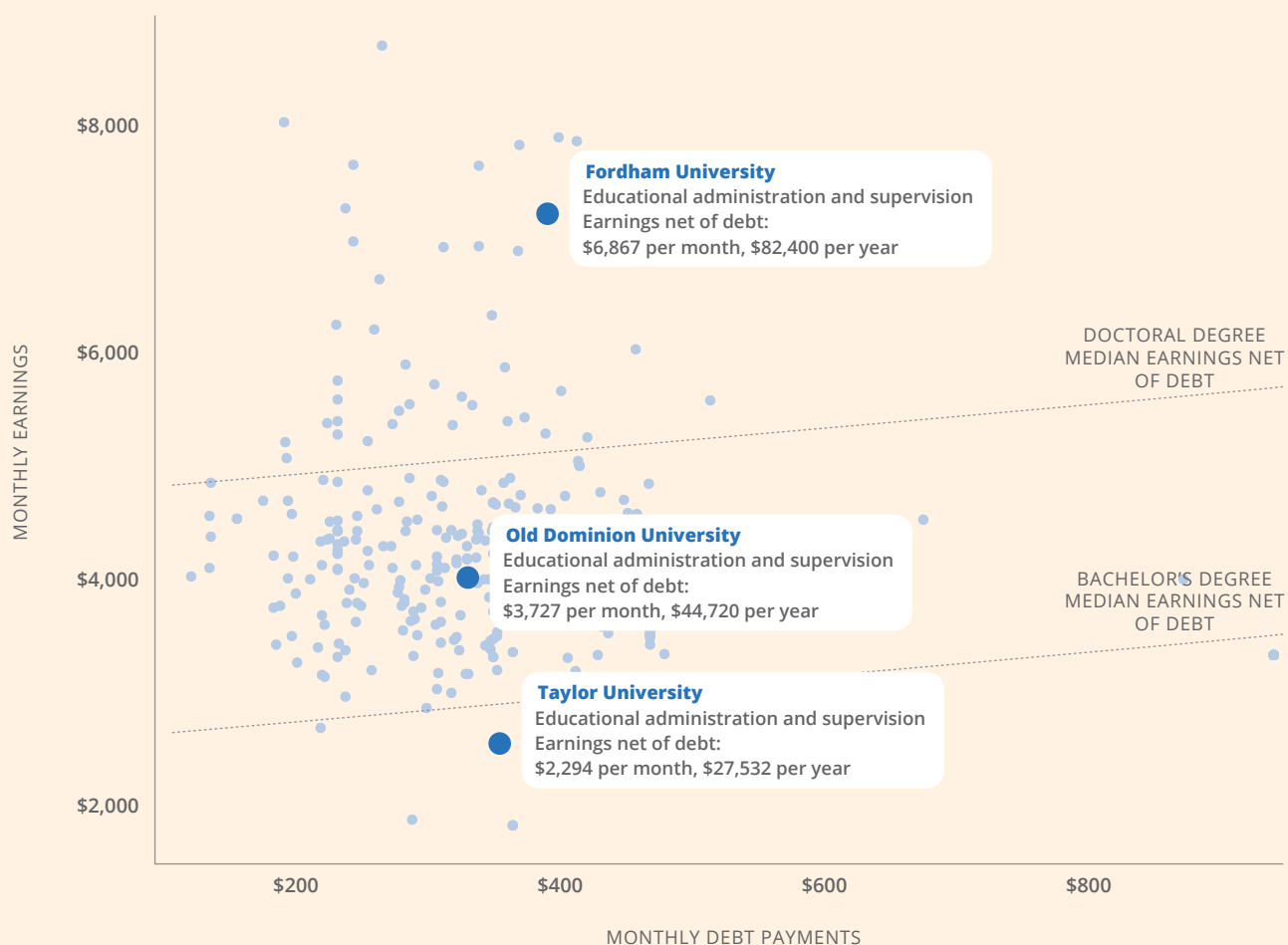


Source: Georgetown University Center on Education and the Workforce analysis of US Department of Education College Scorecard data, 2020.

27 These degrees are categorized as rehabilitation and therapeutic professions in the College Scorecard.  
 28 These degrees are categorized as clinical, counseling, and applied psychology in the College Scorecard.

A comparison of master's degrees within the same major shows that the highest earnings net of debt are almost three times greater than the lowest. Graduates of the master's degree program in educational administration and supervision from Fordham University in New York have \$6,867 per month (\$82,400 per year) in first-year earnings net of federal student loan debt, while graduates of a similar program at Taylor University in Indiana have only \$2,294 per month (\$27,500 per year) in first-year earnings net of student loan payments. Graduates of Old Dominion University in Virginia have slightly lower debt payments than those at Taylor but higher earnings, with earnings net of federal student loan debt of \$3,727 per month (\$44,700 per year) (Figure 23).

**Figure 23. Master's degrees in educational administration result in a wide range of monthly earnings net of debt.**



Source: Georgetown University Center on Education and the Workforce analysis of US Department of Education College Scorecard data, 2020.

Overall, even after accounting for higher levels of debt, graduate programs in healthcare-related fields offer some of the best economic outcomes for graduates. In particular, master’s and professional degrees in dentistry and nursing offer the highest earnings net of debt for first-year graduates (Table 4). The master’s degree in finance from the University of Pennsylvania is the sole non-healthcare option among the top 10 programs by earnings net of debt.

**Table 4. The 10 programs with the highest first-year earnings net of debt are almost all in dentistry and nursing.**

Field of study	Credential	College or university	Annual earnings net of debt payments
Dentistry	Master’s degree	Ohio State University-Main Campus, Columbus, OH	\$207,000
Advanced/graduate dentistry and oral sciences	First professional degree	University of Colorado Denver/Anschutz Medical Campus, Denver, CO	\$192,600
Registered nursing, nursing administration, nursing research, and clinical nursing	Master’s degree	Central Connecticut State University, New Britain, CT	\$182,300
Advanced/graduate dentistry and oral sciences	Master’s degree	University of Michigan-Ann Arbor, Ann Arbor, MI	\$180,200
Finance and financial management services	Master’s degree	University of Pennsylvania, Philadelphia, PA	\$177,900
Advanced/graduate dentistry and oral sciences	Master’s degree	University of Washington-Seattle Campus, Seattle, WA	\$177,600
Registered nursing, nursing administration, nursing research, and clinical nursing	Master’s degree	Saint Mary’s University of Minnesota, Winona, MN	\$177,500
Dental residency programs	First professional degree	Louisiana State University Health Sciences Center-New Orleans, New Orleans, LA	\$176,700
Dental residency programs	Graduate/professional certificate	Augusta University, Augusta, GA	\$174,700
Advanced/graduate dentistry and oral sciences	Graduate/professional certificate	Tufts University, Medford, MA	\$174,100

Source: Georgetown University Center on Education and the Workforce analysis of US Department of Education College Scorecard data, 2020.

# Conclusion

It is important for students who are pursuing a postsecondary credential to know how much they might earn after obtaining the degree as well as how much federal student loan debt they will have to take on to complete the degree. The College Scorecard now makes this information available for more than 37,000 college programs. Using the College Scorecard, students can compare the median earnings and median debt payments they likely would have in the first year after obtaining a specific degree. They can then calculate their earnings net of debt in the first year after graduation so they know how much income they will have left after paying federal student loans. These data are crucial for comparing the price and value of postsecondary programs.

These program-level data could have a profound effect on college practices and policy. The focus on accountability at the program level could energize the competitive dynamic on cost and outcomes in postsecondary education. Because they focus on discrete program costs and outcomes, program data help to unbundle institutional spending on instruction and other line items in the institutional budget. Accessibility of this information could change the accreditation process so that accreditation becomes based at least partly on program-level employment and earnings outcomes instead of arcane measures like seat time in classes.

Moreover, the College Scorecard is consumer-friendly. A plethora of information about postsecondary education is otherwise available, but it is rarely used by anyone other than researchers and policy wonks. By contrast, the College Scorecard provides information that consumers can harness to make informed decisions about their own educational choices. Furthermore, program-level economic information could jump-start counseling and other student services as providers rush to develop tools that help institutions and families match institutional offerings with students' needs.

Merely getting a degree or certificate is not enough to ensure a rosy financial future because of the remarkable variation in economic value among education and training programs. When federal student loan debt is factored in, some associate's degree programs can lead to higher first-year earnings than some bachelor's and graduate degree programs from prestigious universities. Consumers need to know about these differences so they can make the most effective investments in their education.

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