Is the University Next Door the Way to Upward Mobility?

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Executive Summary

Upward social mobility is core to the American dream—a dream in which each generation does better financially than the preceding one did. In today's labor market, a bachelor's degree is becoming a growing necessity for the realization of that dream. Today, bachelor's degree holders can expect lifetime earnings 74 percent greater than those with only a high school diploma and 31 percent above workers holding only an associate degree.[1]

Most of the nation's bachelor's students attend what are often called "comprehensive universities," public institutions that primarily enroll students who live near the school and educate their students chiefly for jobs in the local economy. Relatively little research focuses on these institutions as a group, and therefore not much is known about these campuses, especially regarding their role in promoting social mobility.

Using data released in 2017 by the Equality of Opportunity Project, I show that over half of the low-income students enrolled at the 307 comprehensive universities in my sample reached the two highest quintiles by their early 30s. However, I document great variation in the rate of upward mobility across these institutions, even after controlling for selectivity, funding levels, and the student body's academic qualifications. Most comprehensive universities are classified by *Barron's Profiles of American Colleges* as "competitive," accepting between 75 percent and 85 percent of their applicants. Within that category, the percentage of students who achieve upward mobility ranges from around 30 percent to over 70 percent. For "less selective" comprehensive universities, as classified by *Barron's*, the range is equally large (from 30 percent to 68 percent).

This report investigates factors that might explain such variation in mobility rates. It finds that the factor most closely associated with higher mobility rates is college graduation. The report concludes with a discussion of several ideas to potentially increase graduation rates at comprehensive universities.

Is the University Next Door the Way to Upward Mobility?

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The percentage of high school graduates attending college has increased substantially in the past two decades,[2] as has enrollment of adult learners.[3] Most of the students who are pursuing a bachelor's degree attend what are often called "comprehensive universities." While there is no official definition of comprehensive universities, they are public institutions that primarily enroll students who live near the school and educate their students chiefly for jobs in the local economy. These schools typically lack a reputation beyond the region they serve.

Depending on which definition one uses—for example, "contemporary" (using Carnegie classifications[4]) or "historical" (based on their previous role, primarily as teachers colleges, or on the exclusion of research-oriented universities)—there are between 384 and 473 comprehensive universities in the nation, occupying a niche somewhere between public research and flagship schools and predominantly associate degree–granting community colleges.[5] According to the American Association of State Colleges and Universities (AASCU), the association most closely identified with them, comprehensive universities share "a learning and teaching-centered culture, a historic commitment to underserved student populations and a dedication to research and creativity that advances their regions' economic progress and cultural development."[6] They are one of the largest—and often the most accessible—paths to a bachelor's degree, including for first-generation, minority, and working adult students.

While not widely known, comprehensive universities function as the workhorse of America's postsecondary education system. They enroll close to 70 percent of all undergraduates attending four-year public institutions and over 40 percent of all undergraduates in the nation.[7] But given that most research on higher education tends to focus on elite institutions, state flagships, or community colleges, relatively little is known about comprehensive universities—especially concerning their role as engines of upward mobility.

To better understand how comprehensive universities differ from public research campuses, consider data from California State University, Los Angeles (Cal State LA), a comprehensive university, and the University of California, Los Angeles (UCLA), a major research university. As Table 1 shows, even though these two campuses serve the same metropolitan region and sit just 20 miles apart, they inhabit radically different worlds.

In size, Cal State LA's undergraduate enrollment is about 80 percent of UCLA's undergraduate enrollment—but its graduate class is less than a third of UCLA's. Other demographic differences between students at Cal State LA and UCLA are more dramatic. For example, the percentage of part-time students enrolled at Cal State LA is 15 percent, compared to 2 percent at UCLA. Similarly, 25 percent of students at Cal State LA are over 25 years of age, compared to just 5 percent at UCLA. The percentage of Hispanic/Latino students enrolled at Cal State LA is 63 percent, compared to 22 percent at UCLA. The percentage of full-time, first-time students at Cal State LA receiving a federal Pell Grant is twice as high as that of UCLA.

Table 1. Comparison of Cal State LA and UCLA

	Cal State LA	UCLA
Percentage Admitted	46	16
Total Undergraduate Enrollment	24,818	31,002
Total Graduate Enrollment	3,713	13,025
Percentage of Part-Time Undergraduate Enrollment	15	2
Percentage of Undergraduate Enrollment > 25 Years of Age	25	5
Percentage of Total Enrollment Who Are Black/African American	4	3
Percentage of Total Enrollment Who Are Hispanic/Latino	63	19
Percentage of Undergraduate Enrollment Who Are Asian	14	28
Percentage of Undergraduate Enrollment Who Are Black/African American	4	3
Percentage of Undergraduate Enrollment Who Are Hispanic/Latino	65	22
Six-Year Graduation Rate, Total Cohort	47	91
Percentage of Full-Time, First-Time Undergraduates Awarded Pell Grants[8]	70	30
Instructional Expenses per FTE	$6,759	$49,371
Research Expenses per FTE	$95	$20,088
Public Service Expenses per FTE	$131	$3,284
Academic Support Expenses per FTE	$2,334	$16,843
Student Service Expenses per FTE	$1,313	$4,192
Institutional Support Expenses per FTE	$1,860	$6,357
Endowment Assets per FTE	$1,419	$43,129

Source: Author's calculations using IPEDS. National Center for Education Statistics, Integrated Postsecondary Education Data System, "Use the Data," https://nces.ed.gov/ipeds/use-the-data.

UCLA also spends vastly more money per student than Cal State LA does. This can sometimes translate into greater advantages for those students, as they are provided access to world-class professors and research opportunities. For each full-time equivalent (FTE) student, UCLA spends nearly $50,000 each year in instructional expenses and over $20,000 in research expenses. Comparatively, Cal State LA spends under $7,000 in per-student instructional expenses and under $100 in research expenses. Clearly, students at Cal State LA, like many of their peers enrolled in comprehensive universities across the nation, have far fewer financial resources than do students in the nearby research university.

Comprehensive universities vary considerably in size, demographic makeup, course offerings, financial profiles, and academic and employment outcomes. They also differ in how successful their students are in achieving upward social mobility.

To understand the role comprehensive universities play in improving their students' economic prospects, this report studies a sample of 272 higher education

Table 2. Comparison of Sample Institutions and All Four-Year Public Institutions

	Sample Institutions	All Four-Year Public Institutions
Average FTE Enrollment	10,333	9,706
Six-Year Graduation Rate[11]	47	42
Percentage of Pell Students	44	43
Average Instructional Expenses per FTE	$8,600	$11,100
Average Core Expenses per FTE[12]	$19,400	$29,000
Percentage of First-Generation Students	37	37
Percentage Black	16	13
Percentage Hispanic	12	12
Percentage Female	59	58

Source: Author's calculations using IPEDS. National Center for Education Statistics, Integrated Postsecondary Education Data System, "Use the Data," https://nces.ed.gov/ipeds/use-the-data.

institutions classified by AASCU as comprehensive universities. These institutions grant bachelor's degrees, are located in the continental US, and have sufficient data to adequately assess how many of their students achieve upward intergenerational mobility.[9] In the fall of the 2016–17 academic year, this subset of comprehensive universities enrolled over 3.35 million students, almost 40 percent of the 8.8 million students enrolled in all US four-year public institutions and nearly 25 percent of the 13.8 million students enrolled in *all* four-year US institutions (including public, private nonprofit, and for-profit colleges).[10] Table 2 provides key summary statistics about the 272 institutions in the sample as compared to all four-year public institutions.

Intergenerational Income Mobility

A core component of the American dream is that the next generation will do better financially than their parents did. Today, higher education is one of the primary engines of economic opportunity.[13] However, there are growing concerns that colleges are not helping students and families move up the economic ladder, particularly low-income students who might struggle to afford the increasing cost of tuition. Given that comprehensive universities enroll 70 percent of students pursuing a bachelor's degree at public universities, it is important to examine how well comprehensive universities do in setting their students on that upward trajectory.

To calculate how well one generation of college students has done financially compared to their parents, I use the data set released in 2017 by the Equality of Opportunity Project (EOP).[14] This data set combines de-identified income tax returns with data from the US Department of Education. The EOP data set includes information from 2,463 colleges and more than 28 million college students who went to school sometime between 1996 and 2014. The EOP divides into quintiles the parental income of students born between 1980 and 1982 who attended college at some point between the ages of 19 and 22.[15] It then divides into quintiles the 2014 inflation-adjusted household incomes of those students—the vast majority of whom by this time are between the ages of 32 and 34. The EOP measures each college's mobility rate as "the product of its access, the fraction of its students who come from families in the bottom quintile, and its success rate, the fraction of such students who reach the top quintile."[16]

Measuring Mobility: The Adjusted Mobility Rate

To better understand this distinction in mobility measurements, consider a hypothetical institution that enrolls 3,000 students, of which 1,000 are low-income students from either the first or second income quintile. Assume that by the time the students are in their early 30s, 600 of those 1,000 low-income students had moved up to the highest or second-highest income quintile. The difference between ACE's extended mobility rate and the adjusted mobility rate is seen by the difference in the denominators. The extended mobility rate would be shown as:

$$\frac{\text{Number of students from the bottom two income quintiles who reached the top two income quintiles}}{\text{Total enrollment of all students}} = \frac{600}{3{,}000} = 20\%$$

In contrast, the adjusted mobility rate would be:

$$\frac{\text{Number of students from the bottom two income quintiles who reached the top two income quintiles}}{\text{Total enrollment of students from the bottom two income quintiles}} = \frac{600}{1{,}000} = 60\%$$

Under ACE's extended mobility rate, this hypothetical university would have a 20 percent extended mobility rate (i.e., 20 percent of *all* students moved up). But this university would have a 60 percent adjusted mobility rate (i.e., 60 percent of *low-income* students moved up). This example demonstrates how an institution's mobility rate can differ significantly by how "mobility" is measured. In this report, I am primarily interested in how well these institutions improve the economic outcomes of *low-income students*, not how well they improve the economic circumstances of *all students*.

In a study by the American Council on Education (ACE),[17] the EOP calculations were broadened to include the percentage of students who begin in the bottom two income quintiles and end in the top two quintiles—what they call the "extended mobility rate." This definition of mobility is broader than the EOP's definition, as it includes students from the bottom two income quintiles, rather than only the bottom quintile.

Like ACE, this report focuses on a broader mobility rate than that used by the EOP, but there is an important difference between the ACE calculation and what I call the "adjusted mobility rate." ACE's calculation—following the EOP approach—determines the percentage of the entire student body that began in the bottom two quintiles and rose to the top two quintiles. For my adjusted mobility rate, I have calculated the percentage of low-income students (those who originated in the bottom two quintiles) who rose to the top two quintiles.

Both methods start with the same measure of success: the percentage of students in the two lowest quintiles who reach the two highest quintiles.[18] But ACE's extended mobility rate converts the number of low-income students into a percentage of all students in the school, multiplying the success rate by this "access" measure. In contrast, the adjusted mobility rate focuses on the success rate of low-income students and does not convert that into a percentage-of-all-students measure.

In practice, the different measurements of "mobility" can have a large effect on how well we judge an institution's success. Consider the College of New Jersey. According to EOP data, 76 percent of low-income students in the College of New Jersey succeeded in moving from the bottom two quintiles to the top two. By ACE's calculation, the extended mobility rate is only 8 percent. This means that only this small percentage of the total student population began as low income and ended up wealthier. In contrast, three-quarters of the poorer students moved to

the top two quintiles. In effect, while the College of New Jersey may not enroll many lower-income students, the vast majority of the lower-income students it does enroll rise to a higher-income bracket.

Conversely, the University of Arkansas at Pine Bluff has an extended mobility rate of 19 percent—more than twice that of the College of New Jersey (19 percent versus 8 percent). However, only 30 percent of its low-income students move to one of the top two income quintiles. In ACE's mobility measure, Pine Bluff is ranked higher than the College of New Jersey, even though a far smaller share of its low-income students move up the income ladder.

In this report, I do not adjust for access, focusing instead on how well different colleges do in propelling their already enrolled low-income students upward.[19] Therefore, my discussion of mobility refers to the adjusted mobility rate, which specifically measures the success rate of low-income students.

Direction and Level of Income Mobility

Income mobility may be upward or downward, large or small. Tables 3 and 4 show the extent to which the students at the comprehensive universities in

Table 3. Adjusted Mobility Rate by Quintile, Estimated Percentage of Students

Starting Quintile	Percentage in Quintile at Start	Ending in Q1 (Bottom)	Ending in Q2	Ending in Q3	Ending in Q4	Ending in Q5 (Top)
Q1 (Bottom)	9.9	12.4	15.7	20.5	26.5	24.9
Q2	14.0	11.5	14.2	20.2	27.4	26.7
Q3	18.4	10.9	13.1	18.9	28.4	28.7
Q4	25.5	10.4	11.7	16.9	28.7	32.3
Q5 (Top)	32.2	10.4	10.9	14.0	25.5	39.3

Note: The quintiles are based on relative parental income, but as the data make clear, students come disproportionately from wealthier families.
Source: Author's calculations using EOP. Equality of Opportunity Project, "Data and Replication Code," 2018, http://equality-of-opportunity.org/data/.

Table 4. Adjusted Mobility Rate by Quintile, Estimated Number of Students

Starting Quintile	Percentage in Quintile at Start	Ending in Q1 (Bottom)	Ending in Q2	Ending in Q3	Ending in Q4	Ending in Q5 (Top)
Q1 (Bottom)	333,511	41,382	52,466	68,204	88,272	83,187
Q2	467,718	53,971	66,318	94,317	128,361	124,750
Q3	617,282	67,049	80,692	116,678	175,402	177,461
Q4	855,278	89,344	99,775	144,448	245,582	276,129
Q5 (Top)	1,078,249	111,992	117,460	150,743	274,482	423,572

Source: Author's calculations using EOP. Equality of Opportunity Project, "Data and Replication Code," 2018, http://equality-of-opportunity.org/data/.

my sample experienced upward mobility, downward mobility, or no mobility at all.

Upward mobility is common: By their early 30s, over half of the students enrolled in this set of comprehensive universities whose parents' income was in the two lowest quintiles reached the two highest quintiles of US household earnings.[20] As Table 4 further shows, of the over 800,000 students who started college in the first and second quintiles, by their early 30s, 80 percent of them had moved up the earnings ladder by at least one quintile.

Of course, upward mobility is not a promise, and sometimes students move down the income distribution. Over one-third of the students in these schools either dropped by one or more quintiles or remained in the lowest quintile. Further, approximately 20 percent of students who started in the lowest two quintiles remained there.

But downward mobility is sometimes even more dramatic. Nearly 11 percent of students who started in the top three quintiles fell to the lowest quintile. Of the 32 percent of students in my sample who began in the top quintile, over 21 percent of them slid down to the lowest two quintiles by the time they reached their 30s.

Failure to climb the financial ladder is not always the result of a poor education. Many individuals in their early 30s are not yet in their highest earning years; consequently, some students who began college with parents in higher quintiles may still be striving to reach their parents' earnings level. Additionally, we do not know what percentage of those starting in the higher quintiles may have gone on to graduate school, are out of the labor force due to other circumstances (such as raising a family), or simply set out to find themselves, a luxury that only relatively affluent parents can provide.

Variability and Selectivity Among Comprehensive Universities

Comprehensive universities can differ significantly from elite private institutions and public research and flagship universities. For example, Alisa Hicklin Fryar finds that comprehensive universities on average have far higher concentrations of minority and low-income students and are far more likely to enroll older students compared to public research/flagship universities. In addition, compared to public research/flagships, comprehensive universities spend much less per student and have lower graduation rates.[21]

But there are also large differences *between* comprehensive universities. In terms of student success, some of this is driven by differences in the selectivity of a college's admissions process. Indeed, not all comprehensive universities have open or broad admission policies; some can be quite selective.

Table 5 summarizes the relationship between the levels of selectivity (as reported by *Barron's Profiles of American Colleges*[22]) and key student success measures. There is a positive relationship between higher levels of selectivity and greater upward mobility. Pell graduation and overall six-year graduation rates, as reported by the US Department of Education's Integrated Postsecondary Education Data System (IPEDS), also increase with higher levels of selectivity. But by no means does this imply that the only thing comprehensive universities can do to increase student success is increase their selectivity by limiting enrollment to better-prepared students.

As shown in Table 5, the vast majority of the schools in the sample are categorized as "competitive," accepting between 75 percent and 85 percent of their applicants. If we look at the variation across the comprehensive universities in our sample *within* that selectivity level, we find wide differences in the success these schools are having with their students.

Table 6 illustrates the wide variation among schools in this large "competitive" level of selectivity. Here we find that the range of the adjusted mobility rate among the 152 "competitive" institutions spans from a maximum of 73 percent to a minimum of 30 percent. Also, the average six-year Pell and overall six-year graduation rates range from 79 percent to 12 percent and from 76 percent to 9 percent respectively.

Tables 7 and 8, where I compare the adjusted mobility and graduation rates of the top and bottom 10 schools in the "competitive" category, show that the schools with the best adjusted mobility score

Table 5. Schools in Sample by Selectivity

Selectivity	Number of Institutions	Adjusted Mobility Rate	Six-Year Pell Graduation Rate	Six-Year IPEDS Graduation Rate
Noncompetitive (Admits > 98%)	3	37	20	19
Less Competitive (Admits > 85%)	67	50	37	38
Competitive (Admits 75–85%)	152	51	44	48
Very Competitive (Admits < 33%)	32	56	54	58
Highly Competitive (Admits < 25%)	2	64	66	76
Most Competitive (Admits Very Low Percentages)	3	64	79	83

Note: There are 272 schools in the sample that had both mobility rates and more than 2,000 FTE. But only 259 schools had each of the data points needed for Table 5, including listing in Barron's, Pell, and official IPEDS graduation rates.
Source: Author's calculations using Barron's, EOP, and IPEDS. National Center for Education Statistics, Integrated Postsecondary Education Data System, "Use the Data," https://nces.ed.gov/ipeds/use-the-data; Equality of Opportunity Project, "Data and Replication Code," 2018, http://equality-of-opportunity.org/data/; and Barron's College Division Staff, *Barron's Profiles of American Colleges* (Hauppauge, NY: Barron's Education Series, 2019).

Table 6. Average Adjusted Mobility Rate, Pell Six-Year Graduation Rate, and IPEDS Six-Year Graduation Rate Across Schools in Sample Classified as "Competitive"

	Minimum	Maximum	Mean	Standard Deviation
Adjusted Mobility Rate	30	73	51	9
Six-Year Pell Graduation Rate	12	79	44	13
Six-Year IPEDS Graduation Rate	9	76	48	13

Source: Author's calculations using EOP and IPEDS. National Center for Education Statistics, Integrated Postsecondary Education Data System, "Use the Data," https://nces.ed.gov/ipeds/use-the-data; and Equality of Opportunity Project, "Data and Replication Code," 2018, http://equality-of-opportunity.org/data/.

range between 66 percent and 73 percent, while those at the bottom have adjusted mobility rates ranging between only 30 percent and 39 percent. Yet all these institutions are broad access schools and admit similarly prepared students.

When we turn to the top and bottom 10 "less competitive" universities in terms of their adjusted mobility rate (Tables 9 and 10), we find that the range of adjusted mobility rates among the top performers spans from 58 percent to 68 percent, versus 30 percent to 39 percent among the 10 weakest schools. In effect, although both the top and bottom 10 schools in this category admit over 85 percent of applicants, the gap in adjusted mobility scores between them is only slightly smaller than the gap we find among the top and bottom 10 comprehensive universities classified as "competitive."

To further illustrate that selectivity is not determinative, consider Tables 11 and 12, which list the top and bottom 10 schools in terms of adjusted mobility rates across *all* schools in the sample, irrespective of selectivity classifications. We find a mix of selectivity levels in both the top and bottom performers: The top 10 schools have adjusted mobility rates ranging from 68 percent to 76 percent and the lowest 10 between 29 percent and 36 percent, mirroring the gaps found

Table 7. Adjusted Mobility Rate, Number of Students, and Pell and IPEDS Six-Year Graduation Rates for Top 10 Schools in Sample Classified as "Competitive"

Institution	Adjusted Mobility Rate	Estimated Number of Students Moving from Q1 and Q2 to Q4 and Q5	Pell Six-Year Graduation Rate	IPEDS Six-Year Graduation Rate
Citadel Military College of South Carolina	73	384	65	69
Rutgers University–Newark	71	1,813	65	65
SUNY Cortland	71	649	73	73
California State Polytechnic University, Pomona	70	5,606	65	65
George Mason University	69	4,382	69	69
The College at Brockport	68	968	63	63
California State University–East Bay	68	2,620	44	44
San Jose State University	67	5,388	61	61
City College of the City University of New York	67	6,734	47	47
California State University, Long Beach	66	6,971	65	65

Source: Author's calculations using EOP and IPEDS. National Center for Education Statistics, Integrated Postsecondary Education Data System, "Use the Data," https://nces.ed.gov/ipeds/use-the-data; and Equality of Opportunity Project, "Data and Replication Code," 2018, http://equality-of-opportunity.org/data/.

Table 8. Adjusted Mobility Rate, Number of Students, and Pell and IPEDS Six-Year Graduation Rates for Bottom 10 Schools in Sample Classified as "Competitive"

Institution	Adjusted Mobility Rate	Estimated Number of Students Moving from Q1 and Q2 to Q4 and Q5	Pell Six-Year Graduation Rate	IPEDS Six-Year Graduation Rate
Southeastern Louisiana University	39	1,673	32	40
Northern Kentucky University	39	901	30	38
Louisiana State University Shreveport	39	613	31	36
Grambling State University	38	1,172	33	34
Fayetteville State University	38	1,286	32	32
Eastern Kentucky University	37	1,941	36	41
East Tennessee State University	36	1,188	31	40
Savannah State University	33	790	26	27
Langston University	31	395	17	9
University of Arkansas at Pine Bluff	30	527	20	24

Source: Author's calculations using EOP and IPEDS. National Center for Education Statistics, Integrated Postsecondary Education Data System, "Use the Data," https://nces.ed.gov/ipeds/use-the-data; and Equality of Opportunity Project, "Data and Replication Code," 2018, http://equality-of-opportunity.org/data/.

Table 9. Adjusted Mobility Rate, Number of Students, and Pell and IPEDS Six-Year Graduation Rates for Top 10 Schools in Sample Classified as "Less Competitive"

Institution	Adjusted Mobility Rate	Estimated Number of Students Moving from Q1 and Q2 to Q4 and Q5	Pell Six-Year Graduation Rate	IPEDS Six-Year Graduation Rate
Texas A&M University–Corpus Christi	68	1,826	29	35
Lehman College	65	5,758	44	44
University of Nebraska at Kearney	64	664	50	57
University of Maryland Eastern Shore	63	427	36	36
California State University San Marcos	62	2,213	49	52
California State University, Dominguez Hills	62	4,672	42	42
University of Houston–Victoria	61	1,011	14	18
Salem State University	61	1,069	51	52
Fitchburg State University	60	757	52	54
California State University, Monterey Bay	58	998	54	55

Source: Author's calculations using EOP and IPEDS. National Center for Education Statistics, Integrated Postsecondary Education Data System, "Use the Data," https://nces.ed.gov/ipeds/use-the-data; and Equality of Opportunity Project, "Data and Replication Code," 2018, http://equality-of-opportunity.org/data/.

Table 10. Adjusted Mobility Rate, Number of Students, and Pell and IPEDS Six-Year Graduation Rates for Bottom 10 Schools in Sample Classified as "Less Competitive"

Institution	Adjusted Mobility Rate	Estimated Number of Students Moving from Q1 and Q2 to Q4 and Q5	Pell Six-Year Graduation Rate	IPEDS Six-Year Graduation Rate
Jackson State University	39	2,302	36	38
Georgia Southwestern State University	38	363	32	32
Francis Marion University	38	505	42	40
Texas Southern University	38	2,015	16	17
Missouri Western State University	38	547	24	31
Morehead State University	34	1,214	34	45
University of Arkansas at Little Rock	33	1,426	23	30
Eastern New Mexico University	33	948	27	35
West Virginia State University	31	361	23	29
Montana State University Billings	30	376	23	24

Source: Author's calculations using EOP and IPEDS. National Center for Education Statistics, Integrated Postsecondary Education Data System, "Use the Data," https://nces.ed.gov/ipeds/use-the-data; and Equality of Opportunity Project, "Data and Replication Code," 2018, http://equality-of-opportunity.org/data/.

Table 11. Number of Students, Selectivity, and Pell and IPEDS Six-Year Graduation Rates for Top 10 Schools in Sample, by Adjusted Mobility Rate

Institution	Adjusted Mobility Rate	Estimated Number of Students Moving from Q1 and Q2 to Q4 and Q5	Barron's Selectivity Category	Pell Six-Year Graduation Rate	IPEDS Six-Year Graduation Rate
The College of New Jersey	76	574	Very Competitive	81	87
California Polytechnic State University	75	1,936	Most Competitive	73	80
Citadel Military College of South Carolina	73	384	Competitive	65	69
Rutgers University–Newark	71	1,813	Competitive	65	66
SUNY Cortland	71	649	Competitive	73	74
California State Polytechnic University, Pomona	70	5,606	Competitive	65	69
George Mason University	69	4,382	Competitive	69	70
Clemson University	69	1,597	Highly Competitive	70	81
SUNY Geneseo	69	355	Very Competitive	73	81
Texas A&M University–Corpus Christi	68	1,826	Less Competitive	29	35

Source: Author's calculations using EOP and IPEDS. National Center for Education Statistics, Integrated Postsecondary Education Data System, "Use the Data," https://nces.ed.gov/ipeds/use-the-data; and Equality of Opportunity Project, "Data and Replication Code," 2018, http://equality-of-opportunity.org/data/.

Table 12. Number of Students, Selectivity, and Pell and IPEDS Six-Year Graduation Rates for Bottom 10 Schools in Sample, by Adjusted Mobility Rate

Institution	Adjusted Mobility Rate	Estimated Number of Students Moving from Q1 and Q2 to Q4 and Q5	Barron's Selectivity Category	Pell Six-Year Graduation Rate	IPEDS Six-Year Graduation Rate
East Tennessee State University	36	1,188	Competitive	30	40
Morehead State University	34	1,214	Less Competitive	34	45
Savannah State University	33	790	Competitive	26	27
University of Arkansas at Little Rock	33	1,426	Less Competitive	23	30
Eastern New Mexico University	33	948	Less Competitive	27	35
Langston University	31	395	Competitive	17	9
West Virginia State University	31	361	Less Competitive	23	29
Montana State University Billings	30	376	Less Competitive	23	24
University of Arkansas at Pine Bluff	30	527	Competitive	20	24
Lincoln University of Missouri	29	299	Noncompetitive	18	22

Source: Author's calculations using EOP and IPEDS. National Center for Education Statistics, Integrated Postsecondary Education Data System, "Use the Data," https://nces.ed.gov/ipeds/use-the-data; and Equality of Opportunity Project, "Data and Replication Code," 2018, http://equality-of-opportunity.org/data/.

among the top and bottom 10 schools for both "competitive" and "less competitive" schools.

In sum, simplistic assumptions that selective schools do better at leading students to higher incomes than nonselective ones are not borne out in the data. The data presented here reveal the large variability among comprehensive universities, but, more significantly, the data show that selectivity, while important, does not determine whether a school can contribute to greater economic mobility. Some campuses with modest levels of selectivity are doing far better than others at getting their students to graduation and launching them on an upward path of social mobility.

Expenditures and Economic Mobility

Comprehensive universities also differ in how much they are funded and how those funds are spent. Specifically, comprehensive universities depend primarily on state appropriations and tuition.[23] In general, the lower the amount received from the state, the greater that institution depends on tuition for revenue.

Consequently, comprehensive universities' funding levels can differ significantly from state to state, and depending on their boards and administrators, they likewise differ in how they spend their money. While it stands to reason that funding levels can affect education quality and therefore student outcomes, as I show below, funding is not necessarily the most important factor driving student outcomes and mobility.

Tables 13 and 14 list the 10 top and bottom comprehensive universities in the sample schools by adjusted mobility score and show the amount each institution spends per FTE student on both core and instructional expenses. As the tables indicate, the average core per-student expenditures (e.g., instruction, research, and academic support expenses) at the bottom 10 schools is only 85 percent of what the top 10 schools spend ($19,800 versus $23,300). Comparing the average per-student instructional expenses between these two groups of schools, the bottom 10 schools are spending proportionally even less—only 62 percent of what is spent by their better-performing counterparts ($7,100 versus $11,400).

However, as Tables 15 and 16 show, when we focus solely on the 10 top and bottom "less competitive" institutions, the amount of money spent on either core or instructional areas loses its association with upward mobility. The top 10 schools, with adjusted mobility rates twice those of the bottom 10, on average spend nearly the same as the bottom 10 on instructional costs ($7,800 versus $9,000) and core costs ($18,000 versus $19,700). In brief, per-student spending does not seem to be strongly related to mobility among minimally selective universities.

Similarly, Table 17 divides the schools into quartiles based on their adjusted mobility rate, further revealing that spending more money does not guarantee better mobility rates. While the core and instructional expenses of the lowest three quartiles are nearly identical, the highest-performing schools, those in the first quartile, enjoy only about $3,000 more in core or instructional expenditures than the average of the three lower quartiles.

Furthermore, as could be expected from Table 17, the correlation between adjusted mobility rate and instructional expenditures or total core expenditures per FTE among all 272 schools is only 0.26 and 0.15 respectively. (See Table 28.)

Obviously, although money can and does matter, greater instructional or core expenditures are not the secret to improving the economic mobility of students enrolled at comprehensive universities. While there is some logic behind the push for increased state funding for colleges and universities to reduce rising tuition, the argument that increased funding is the magic bullet to help improve student success in broad access institutions is not borne out by the data on intergenerational mobility.

Table 13. Core and Instructional Expenses per FTE of Top 10 Schools in Sample, Ranked by Adjusted Mobility Score

Institution	Instructional Expenses per FTE	Core Expenses per FTE
The College of New Jersey	$11,100	$24,100
California Polytechnic State University	$10,000	$19,700
Citadel Military College of South Carolina	$10,600	$22,300
Rutgers University–Newark	$20,500	$33,700
SUNY Cortland	$10,900	$21,400
California State Polytechnic University, Pomona	$7,900	$16,900
George Mason University	$12,400	$23,100
Clemson University	$12,500	$31,600
SUNY Geneseo	$11,200	$20,500
Texas A&M University–Corpus Christi	$7,100	$20,000

Source: Author's calculations using IPEDS. National Center for Education Statistics, Integrated Postsecondary Education Data System, "Use the Data," https://nces.ed.gov/ipeds/use-the-data.

Table 14. Core and Instructional Expenses per FTE of Bottom 10 Schools in Sample, Ranked by Adjusted Mobility Score

Institution	Instructional Expenses per FTE	Core Expenses per FTE
East Tennessee State University	$11,500	$25,300
Morehead State University	$7,300	$18,500
Savannah State University	$5,500	$14,200
University of Arkansas at Little Rock	$6,300	$20,200
Eastern New Mexico University	$5,500	$17,100
Langston University	$6,800	$23,400
West Virginia State University	$7,200	$18,900
Montana State University Billings	$7,400	$15,300
University of Arkansas at Pine Bluff	$7,800	$26,100
Lincoln University of Missouri	$6,100	$19,500

Source: Author's calculations using IPEDS. National Center for Education Statistics, Integrated Postsecondary Education Data System, "Use the Data," https://nces.ed.gov/ipeds/use-the-data.

Table 15. Core and Instructional Expenses per FTE of Top 10 "Less Competitive" Schools in Sample, Ranked by Adjusted Mobility Score

Institution	Instructional Expenses per FTE	Core Expenses per FTE
Texas A&M University–Corpus Christi	$7,100	$20,000
Lehman College	$13,200	$22,500
University of Nebraska at Kearney	$8,700	$15,500
University of Maryland Eastern Shore	$9,500	$21,600
California State University San Marcos	$9,200	$20,800
California State University, Dominguez Hills	$7,500	$18,500
University of Houston–Victoria	$7,700	$17,400
Salem State University	$7,900	$19,600
Fitchburg State University	$8,900	$16,300
California State University, Monterey Bay	$10,400	$24,500

Source: Author's calculations using IPEDS. National Center for Education Statistics, Integrated Postsecondary Education Data System, "Use the Data," https://nces.ed.gov/ipeds/use-the-data.

Table 16. Core and Instructional Expenses per FTE of Bottom 10 "Less Competitive" Schools in Sample, Ranked by Adjusted Mobility Score

Institution	Instructional Expenses per FTE	Core Expenses per FTE
Jackson State University	$9,100	$20,900
Georgia Southwestern State University	$6,500	$14,400
Francis Marion University	$9,700	$18,100
Texas Southern University	$10,700	$21,700
Missouri Western State University	$8,700	$14,500
Morehead State University	$7,300	$18,500
University of Arkansas at Little Rock	$6,300	$20,200
Eastern New Mexico University	$5,500	$17,100
West Virginia State University	$7,200	$18,900
Montana State University Billings	$7,400	$15,300

Source: Author's calculations using IPEDS. National Center for Education Statistics, Integrated Postsecondary Education Data System, "Use the Data," https://nces.ed.gov/ipeds/use-the-data.

Table 17. Average Instructional and Core Expenses per FTE for All Schools in Sample by Quartile, Based on Adjusted Mobility Rates

Quartile by Adjusted Mobility Rate	Adjusted Mobility Rate Range	Number of Schools	Average Instructional Expenses per FTE	Average Core Expenses per FTE
Highest	58–76	69	$10,100	$22,100
Second	51–58	67	$7,900	$18,300
Third	45–51	69	$8,200	$18,000
Lowest	29–45	67	$8,200	$19,400

Source: Author's calculations using EOP and IPEDS. National Center for Education Statistics, Integrated Postsecondary Education Data System, "Use the Data," https://nces.ed.gov/ipeds/use-the-data; and Equality of Opportunity Project, "Data and Replication Code," 2018, http://equality-of-opportunity.org/data/.

Table 18. Average Percentage of First-Generation, Black, and Hispanic Student Enrollment for All Schools in Sample by Quartile, Based on Adjusted Mobility Rates

Quartile by Adjusted Mobility Rate	Adjusted Mobility Rate Range	Median Percentage of First-Generation Enrollment	Median Percentage of Black Student Enrollment	Median Percentage of Hispanic Student Enrollment
Highest	58–76	36	9	19
Second	51–58	38	11	17
Third	45–51	36	21	6
Lowest	29–45	40	25	7

Source: Author's calculations using EOP and IPEDS. National Center for Education Statistics, Integrated Postsecondary Education Data System, "Use the Data," https://nces.ed.gov/ipeds/use-the-data; and Equality of Opportunity Project, "Data and Replication Code," 2018, http://equality-of-opportunity.org/data/.

Student Demographics and Economic Mobility

As previously noted, comprehensive universities on average enroll higher percentages of first-generation, black, Hispanic, and adult (age 25 and above) students than flagship and research universities do. Table 18 shows that when the schools in my sample are divided into quartiles based on adjusted mobility rates, the average percentage of first-generation students increases from the highest to the lowest quartile. The same is the case for black enrollment, primarily because of the high number of historically black colleges and universities located in geographical regions with low mobility rates. This may also be influenced by the fact that black families earn and accumulate wealth at far lower rates than whites do[24] and that 25- to 34-year-old African Americans with a bachelor's degree earn 15 percent less and experience an unemployment rate two-thirds higher than their typical nonblack peers.[25] However, the reverse is the case for Hispanics, in part because the schools they attend are primarily concentrated in regions where institutions have high adjusted mobility rates, such as the West and Northeast.[26] (See Table 24.) And, as the EOP has shown, Hispanics have relatively higher rates of upward income mobility across generations and relatively lower downward mobility than blacks do.[27]

Table 19. Comparison of Student Characteristics Among All Schools in Sample, All Public Four-Year Schools, and All Four-Year Schools

	Average Percentage Pell	Average Percentage Black	Average Percentage Hispanic
Comprehensive Institutions in Sample	44	17	12
All Four-Year Public US Institutions	40	13	12
All Four-Year US Institutions	36	15	10

Source: Author's calculations using IPEDS. National Center for Education Statistics, Integrated Postsecondary Education Data System, "Use the Data," https://nces.ed.gov/ipeds/use-the-data.

As Table 19 indicates, the average percentage of black and Hispanic students enrolled is only slightly different at the comprehensive universities in the sample compared to all four-year public institutions and all four-year institutions (whether public, private nonprofit, or private for-profit). When we compare the percentage of students who are Pell recipients, the differences increase only somewhat (4 percent to 8 percent) due to highly selective public and private institutions with relatively few Pell-eligible students.

However, the differences between the high- and low-performing universities can be quite large when comparing the 10 top and bottom schools in the sample based on their adjusted mobility scores (Tables 20 and 21). On average, the 10 schools with the highest levels of mobility have a lower percentage of first-generation students (29 percent versus 40 percent), students receiving Pell Grants (29 percent versus 60 percent), and black students (7 percent versus 33 percent). But, as previously noted, the opposite is the case with Hispanic students, as the highest-performing schools have a higher percentage of Hispanics (17 percent versus 6 percent).

That said, there is a negative correlation between mobility rates and the percentage of full-time, first-time students awarded Pell Grants (–0.39); the percentage of black students (–0.34); and the percentage of first-generation students (–0.14). However, there is a *positive* correlation between the percentage of Hispanic students (0.38) and mobility. In sum, the correlation between demographic characteristics and mobility rates is modest at best. (See Table 28.)

When controlling for selectivity (for example, by comparing only the 10 top and bottom "less competitive" schools), the differences nearly disappear (Tables 22 and 23). On average, the top-performing schools in the "less selective" category have approximately the same percentage of first-generation students (44 percent versus 40 percent) and only a somewhat lower percentage of Pell recipients (53 percent versus 56 percent) and black students (16 percent versus 28 percent). Once again, Hispanic students are the exception: A substantially higher percentage of Hispanic students are enrolled at comprehensive universities that have the highest mobility rates (30 percent versus 6 percent).

Clearly, demographic differences in ethnicity, race, and first-generation status are related to mobility rates when comparing the most selective comprehensive universities in the sample to the least selective. But when we compare institutions with the same selectivity classification, the differences between the top and bottom schools are only slightly different. In sum, across similarly selective institutions, what makes one school's mobility success rate so different from another school's cannot be reduced primarily, if at all, to the student populations they enroll.

This result, which shows that schools with the same makeup of students can produce very different outcomes, should lead us to question the extent to which some officially recognized Minority-Serving

Table 20. Percentage of First-Generation, Pell Recipient, Black, and Hispanic Students for Top 10 Schools in Sample, Ranked by Adjusted Mobility Score

Institution	Percentage First Generation	Percentage Pell	Percentage Black	Percentage Hispanic
The College of New Jersey	22	15	6	12
California Polytechnic State University	25	11	1	16
Citadel Military College of South Carolina	20	21	11	6
Rutgers University–Newark	33	53	16	21
SUNY Cortland	29	30	6	11
California State Polytechnic University, Pomona	48	43	3	41
George Mason University	30	28	10	11
Clemson University	18	16	7	3
SUNY Geneseo	21	25	3	7
Texas A&M University–Corpus Christi	40	45	7	46

Source: Author's calculations using IPEDS. National Center for Education Statistics, Integrated Postsecondary Education Data System, "Use the Data," https://nces.ed.gov/ipeds/use-the-data.

Table 21. Percentage of First-Generation, Pell Recipient, Black, and Hispanic Students for Bottom 10 Schools in Sample, Ranked by Adjusted Mobility Score

Institution	Percentage First Generation	Percentage Pell	Percentage Black	Percentage Hispanic
East Tennessee State University	38	44	6	2
Morehead State University	43	51	4	2
Savannah State University	33	78	83	6
University of Arkansas at Little Rock	40	57	22	7
Eastern New Mexico University	45	51	5	33
Langston University	40	71	67	2
West Virginia State University	44	56	10	1
Montana State University Billings	39	38	1	5
University of Arkansas at Pine Bluff	38	75	90	2
Lincoln University of Missouri	40	78	42	2

Source: Author's calculations using IPEDS. National Center for Education Statistics, Integrated Postsecondary Education Data System, "Use the Data," https://nces.ed.gov/ipeds/use-the-data.

Table 22. Percentage of First-Generation, Pell Recipient, Black, and Hispanic Students for Top 10 "Less Competitive" Schools in Sample, Ranked by Adjusted Mobility Score

Institution	Percentage First Generation	Percentage Pell	Percentage Black	Percentage Hispanic
Texas A&M University–Corpus Christi	40	45	7	46
Lehman College	52	73	27	54
University of Nebraska at Kearney	36	37	2	9
University of Maryland Eastern Shore	40	62	70	3
California State University San Marcos	48	48	3	41
California State University, Dominguez Hills	58	72	13	57
University of Houston–Victoria	47	66	16	31
Salem State University	39	41	9	13
Fitchburg State University	36	38	7	8
California State University, Monterey Bay	47	49	5	44

Source: Author's calculations using IPEDS. National Center for Education Statistics, Integrated Postsecondary Education Data System, "Use the Data," https://nces.ed.gov/ipeds/use-the-data.

Table 23. Percentage of First-Generation, Pell Recipient, Black, and Hispanic Students for Bottom 10 "Less Competitive" Schools in Sample, Ranked by Adjusted Mobility Score

Institution	Percentage First Generation	Percentage Pell	Percentage Black	Percentage Hispanic
Jackson State University	32	70	90	1
Georgia Southwestern State University	35	47	26	4
Francis Marion University	37	63	41	2
Texas Southern University	40	77	75	7
Missouri Western State University	42	53	8	1
Morehead State University	43	51	4	2
University of Arkansas at Little Rock	40	57	22	7
Eastern New Mexico University	45	51	5	33
West Virginia State University	44	56	10	1
Montana State University Billings	39	38	1	5

Source: Author's calculations using IPEDS. National Center for Education Statistics, Integrated Postsecondary Education Data System, "Use the Data," https://nces.ed.gov/ipeds/use-the-data.

Table 24. Number and Percentage of Schools in Sample by Quartile, Based on Adjusted Mobility Rates and Geographic Location

Quartiles by Adjusted Mobility Rate	West	Southwest	Midwest	Southeast	Northeast
Highest	20 (47%)	6 (21%)	9 (16%)	13 (14%)	21 (38%)
Second	8 (19%)	13 (46%)	19 (35%)	9 (10%)	18 (33%)
Third	4 (9%)	4 (14%)	13 (24%)	37 (41%)	11 (20%)
Lowest	11 (26%)	5 (18%)	14 (25%)	32 (35%)	5 (9%)
Total	43	28	55	91	55

Source: Author's calculations using IPEDS. National Center for Education Statistics, Integrated Postsecondary Education Data System, "Use the Data," https://nces.ed.gov/ipeds/use-the-data.

Institutions[28] are actually serving students as opposed to just enrolling them. This also means there are proven, effective practices, programs, and administrators driving colleges to better results than those of less successful colleges serving similar types of students.[29]

Geography and Economic Mobility

A college's geographic location also plays an important role with improving students' economic mobility. Table 24 classifies all the schools in the sample by both adjusted mobility rate (in quartiles) and geographic region.[30] Most comprehensive universities in the sample are in the Southeast and Northeast, with the fewest in the West and Southwest. More importantly, Table 24 shows there is a wide disparity in mobility among the regions: 47 percent of institutions in the highest quartile of adjusted mobility rates are located in the West, 38 percent in the Northeast, 21 percent in the Southwest, 14 percent in the Southeast, and 16 percent in the Midwest.

Undoubtedly, a comprehensive university's regional location can affect the upward mobility of its students. The presence of research universities and nearby comprehensive universities can help create attractive environments for entrepreneurship and tech startups. In contrast, "education deserts," found throughout the country,[31] are places where potential workers are unable to be adequately trained and labor markets are sparse.[32]

Field of Study and Economic Mobility

Much has been written about the relationship between field of study and future earnings. The most detailed studies on the financial returns on undergraduate degrees by major or program come from the reports using state data available through College Measures[33] or through the work done by the states themselves, such as the Salary Surfer of the California Community Colleges Chancellor's Office[34] or Indiana's *College Return on Investment Report*.[35] The National Science Foundation reports detailed information on wages of doctoral students by field of study,[36] and, for some states, data are now coming to light on the financial value of master's degrees by program.[37] What is evident is that the fields of study students choose are closely connected to their future earnings.

To explore the connection between college majors and intergenerational financial mobility, I focus on the three top fields of study in each of the schools in the sample. Tables 25 and 26 show the 10 top and bottom "less competitive" universities and the percentage of graduates in the top three fields of study at each school, as reported in the US Department

Table 25. Top Three Fields of Study and Percentage of Graduates in the Field for Top 10 "Less Competitive" Schools in Sample, Ranked by Adjusted Mobility Score

Institution	First	Second	Third
Texas A&M University–Corpus Christi	Health Professions and Related Programs (18%)	Business, Management, Marketing (18%)	Multi/Interdisciplinary Studies (13%)
Lehman College	Health Professions and Related Programs (31%)	Business, Management, Marketing (19%)	Social Sciences (14%)
University of Nebraska at Kearney	Business, Management, Marketing (24%)	Education (16%)	Parks, Recreation, Leisure, and Fitness Studies (10%)
University of Maryland Eastern Shore	Homeland Security, Law Enforcement, Firefighting (19%)	Business, Management, Marketing (18%)	Biological and Biomedical Sciences (11%)
California State University San Marcos	Business, Management, Marketing (18%)	Social Sciences (17%)	Family and Consumer Sciences/Human Sciences (10%)
California State University, Dominguez Hills	Business, Management, Marketing (19%)	Health Professions and Related Programs (14%)	Psychology (11%)
University of Houston–Victoria	Business, Management, Marketing (32%)	Multi/Interdisciplinary Studies (20%)	Health Professions and Related Programs (14%)
Salem State University	Business, Management, Marketing (20%)	Health Professions and Related Programs (15%)	Education (9%)
Fitchburg State University	Visual and Performing Arts (15%)	Business, Management, Marketing (12%)	Health Professions and Related Programs (11%)
California State University, Monterey Bay	Liberal Arts (17%)	Business, Management, Marketing (16%)	Psychology (13%)

Source: Author's calculations using IPEDS. National Center for Education Statistics, Integrated Postsecondary Education Data System, "Use the Data," https://nces.ed.gov/ipeds/use-the-data; and US Department of Education, "College Scorecard," 2018, https://collegescorecard.ed.gov/.

of Education's College Scorecard.[38] To estimate the number of degrees awarded per field, I multiplied the total number of bachelor's degrees awarded for each school by the percentage in each field.[39]

Several differences stand out when comparing the top three fields chosen by graduates from the top and bottom 10 schools in terms of their adjusted mobility rates. Chief among these is that the top 10 schools graduated more than 3.5 times as many students in business-related areas as the bottom 10 schools, although the top schools enrolled no more than twice as many students. How much a graduate can expect to earn with a business degree depends on the specific major studied, the specific job title, and the employer's location. Still, research from the Center on Education and the Workforce at Georgetown University concludes that business is among the highest-paying majors,[40] and according to US Census and National Association of Colleges and Employers data, a 2015 business graduate had a projected average starting salary of $51,508 and an average lifetime earnings of $2.6 million.[41]

Degrees in health fields were also common among students in these schools, but the ratio of

Table 26. Top Three Fields of Study and Percentage of Graduates in the Field for Bottom 10 "Less Competitive" Schools in Sample, Ranked by Adjusted Mobility Score

Institution	First	Second	Third
Jackson State University	Education (18%)	Business, Management, Marketing (14%)	Multi/Interdisciplinary Studies (11%)
Georgia Southwestern State University	Business, Management, Marketing (36%)	Education (23%)	Health Professions and Related Programs (15%)
Francis Marion University	Business, Management, Marketing (17%)	Health Professions and Related Programs (17%)	Biological and Biomedical Sciences (15%)
Texas Southern University	Business, Management, Marketing 23%	Health Professions and Related Programs 13%	Liberal Arts (8%)
Missouri Western State University	Health Professions and Related Programs (17%)	Business, Management, Marketing (13%)	Education (11%)
Morehead State University	Health Professions and Related Programs (19%)	Liberal Arts (15%)	Business, Management, Marketing (12%)
University of Arkansas at Little Rock	Health Professions and Related Programs (22%)	Business, Management, Marketing (17%)	Liberal Arts (11%)
Eastern New Mexico University	Liberal Arts (30%)	Health Professions and Related Programs (14%)	Business, Management, Marketing (10%)
West Virginia State University	Education (19%)	Liberal Arts (15%)	Homeland Security, Law Enforcement, Firefighting (9%)
Montana State University Billings	Business, Management, Marketing (21%)	Liberal Arts (17%)	Health Professions and Related Programs (15%)

Source: Author's calculations using IPEDS. National Center for Education Statistics, Integrated Postsecondary Education Data System, "Use the Data," https://nces.ed.gov/ipeds/use-the-data; and US Department of Education, "College Scorecard," 2018, https://collegescorecard.ed.gov/.

the number of business degrees to health degrees differed between the top and bottom 10 schools. The top 10 institutions graduated 1.5 times more business-related majors than health-related ones. In contrast, the bottom 10 schools are the inverse of the top schools, graduating 1.4 times more students in health than in business.

As is the case with business, the specific major studied in the health field is crucial to determining a graduate's salary. And while entry-level pay for health majors can average $41,000,[42] the salary after attending an institution such as the University of Arkansas at Little Rock, with 25 percent of graduates concentrated in health-related programs, is only $33,500. Meanwhile, at Morehead State University, where 19 percent of graduates studied in health-related programs, graduates earn on average only $31,400.

Apart from the differences in employment opportunities and cost of living from one geographical location to another, if students are concentrating in the many low-paying health-related professions, such as technicians or records managers, rather than as nurses or health professionals, their earnings will likely be low. And these earnings will be even lower if employed in areas with high unemployment or a relatively low cost of living (and lower wages), such as the Southeast and Midwest.[43]

Table 27. Average Pell and Six-Year Graduation Rates for All Schools in Sample by Quartile, Based on Adjusted Mobility Rates

Quartile by Adjusted Mobility Rate	Adjusted Mobility Rate Range	Average Pell Six-Year Graduation Rate	Average IPEDS Six-Year Graduation Rate
Highest	58–76	56	59
Second	51–58	47	50
Third	43–51	40	44
Lowest	27–43	30	34

Source: Author's calculations using EOP and IPEDS. National Center for Education Statistics, Integrated Postsecondary Education Data System, "Use the Data," https://nces.ed.gov/ipeds/use-the-data; and Equality of Opportunity Project, "Data and Replication Code," 2018, http://www.equality-of-opportunity.org/data/.

Furthermore, the bottom 10 schools graduated 10 percent more of their students in the humanities, liberal arts, and social sciences than the top 10 did. As the data from College Measures show, these fields are on average far less remunerative for graduates than are technical and career-oriented majors.[44] Tables 25 and 26 help reinforce what is widely known about the connection between field of study and a student's future earnings success.

Graduation Rates and Economic Mobility

Graduation is one of the strongest predictors of a student's future economic success, and this holds true for students enrolled at comprehensive universities. To see just how strongly graduation rates are related to a school's upward mobility score, one need only look at the average graduation rates of all the comprehensive universities in the sample divided into quartiles based on their adjusted mobility rates. As Table 27 shows, both average Pell and overall six-year graduation rates increase across quartiles based on adjusted mobility rates.

For the most complete estimate of the importance of degree completion among comprehensive universities, I added back to my sample the 35 small institutions with fewer than 2,000 FTE. In this full set of schools, the correlation between graduation rates and mobility rates is high: 0.67 for Pell and 0.60 for overall six-year graduation rates. As Table 28 shows, completing one's degree is more closely associated with upward mobility than any other factor I examined. Completion also matters for a range of other student outcomes. For example, college completion is the largest predictor of student loan repayment, avoidance of student loan default, and ability to get out of a default status.[45]

Bureau of Labor statistics show that students who have earned a degree are both less likely to be unemployed and more likely to have higher earnings than those who do not.[46] While success in the workplace depends on many elements beyond those a university can provide, such as grit, ambition, and local economic conditions, of the factors I studied, the graduation rates of the school students attended are most closely associated with upward mobility. For low-income students, many of whom receive Pell Grants, attending a college where more students graduate may be the single most important factor for putting them on a path to higher income levels.

Conclusion and Recommendations

Across the comprehensive universities in the sample, over half the students raised in households in the two lowest-income quintiles managed to reach the two highest quintiles by their 30s. In addition, over half the students in these schools moved up at

Table 28. Correlation of Key Variables with Adjusted Mobility Rate

Variable	Correlation to Adjusted Mobility Rate
Pell Six-Year Graduation Rate	0.67
Overall Six-Year Graduation Rate	0.60
Percentage of Black Enrollment	–0.34
Percentage of Hispanic Enrollment	0.38
Percentage of First-Generation Enrollment	–0.14
Percentage of Full-Time, First-Time Undergraduates Awarded Pell Grants	–0.39
Core Expenses per FTE	0.15
Instructional Expenses per FTE	0.26

Source: Author's calculations using EOP and IPEDS. National Center for Education Statistics, Integrated Postsecondary Education Data System, "Use the Data," https://nces.ed.gov/ipeds/use-the-data; and Equality of Opportunity Project, "Data and Replication Code," 2018, http://www.equality-of-opportunity.org/data/.

least one quintile or managed to stay in the top quintile. This says a great deal about the ability of these schools to add economic value to the lives of millions of Americans.

But it also means that nearly half the students who passed through these schools were unable to gain what they needed to significantly improve their relative financial status. Given the low graduation rates of many of the schools in my sample, it appears that the number one reason for this failure to climb the income ladder is the high dropout rate of many of these universities.

Several lessons stand out from this study:

- **Graduation rate is most closely associated with upward mobility.** Data from multiple sources show that graduating is one of the most important contributing factors to high earnings.[47] Indeed, both measures of graduation rates in Table 27, a school's Pell graduation rate and its overall graduation rate, have a statistically significant positive relationship with mobility rates.

- **What one learns is associated with what one earns.** My analysis of field of study, supported by data from multiple sources, also links the major chosen to upward mobility. While I do not document the impact of different majors on earnings, ample data exist showing that schools that graduate more students in high-paying fields, such as business, will likely have higher mobility rates.[48]

- **Management and best practices matter greatly, especially for broad access institutions.** Selectivity, funding, and the percentage of low-income or first-generation students do not determine student economic mobility. No matter how the data are sliced, considerable variation between institutions with high mobility and low mobility remains after considering such institutional characteristics. Much of this variation ultimately comes down to the institutional practices that affect graduation rates and the fields of study that institutions offer—and that their students take. In effect, it is what institutions do that matters most, not selectivity, funding, or the exclusion of at-risk students.

So what can be done to increase completion rates, which are the key to making upward mobility more likely? A recent report,[49] part of a broader research effort aimed at increasing college completion,[50] makes clear that there is no silver bullet that can provide an inexpensive, lasting solution that can be widely applied to improve college completion rates. While these and many other studies offer examples of universities that have succeeded in increasing the number of completers, a scalable, transformative solution remains elusive. However, one new effort shows promise: increase the incentive for schools to focus on graduation.

Widespread student debt coupled with high default rates has led many on both sides of the aisle in Congress to propose new accountability schemes.[51] One policy idea that commonly enjoys bipartisan support is risk-sharing: forcing *all* higher education institutions to have "skin in the game," by making them partly liable if their students cannot earn enough to repay their student loans.[52] If done correctly, the federal government can introduce a risk-sharing accountability scheme that could help increase completion rates and thereby reduce the billions of dollars lost when students cannot pay back their student loans.

These risk-sharing proposals are not prescriptive on *how* to improve student success, leaving it to individual institutions to craft solutions that fit their own circumstances and their own students' needs. Given the panoply of programs designed to improve graduation rates—and their rather poor showing to date—such flexibility is essential to identify programs that work and under what circumstances.

Several ideas on how this could be done have been proposed in both houses of Congress and elsewhere.[53] A relatively simple risk-sharing policy that uses a sliding scale of incentives and penalties and applies a reasonable maximum institutional liability could induce schools to work more assiduously to reduce student loan defaults and increase student degree completion.[54] This risk-sharing proposal is based on two metrics: To incentivize responsible borrowing, half of an institution's liability would be based on the institution's average repayment rate. To incentivize a focus on student success, the other half would be based on the institution's Pell Grant three-year completion rate (for less-than-two-year or two-year schools) or Pell Grant six-year completion rate (for four-year schools).[55]

Given how important graduation is for increasing upward mobility, the federal government must get behind the effort to move schools to do what is needed to get their students to the finish line. A risk-sharing proposal that aligns the incentives of schools, students, and the federal government could increase the already important role that comprehensive universities play in helping students achieve the American dream.

About the Author

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Notes

1. Anthony P. Carnevale, Stephen J. Rose, and B. Cheah, *The College Payoff: Education, Occupations, Lifetime Earnings*, Georgetown University Center on Education and the Workforce, 2011, https://1gyhoq479ufd3yna29x7ubjn-wpengine.netdna-ssl.com/wp-content/uploads/collegepayoff-completed.pdf.

2. It has increased from 63 percent in 2000 to 70 percent in 2017. See National Center for Education Statistics, Immediate College Enrollment Rate, updated February 2019, https://nces.ed.gov/programs/coe/indicator_cpa.asp.

3. Students 25 and older make up approximately 27 percent of all undergraduates today. G. Blumenstyk, *The Adult Student: The Population Colleges—and the Nation—Can't Afford to Ignore*, Chronicle of Higher Education, 2018, https://store.chronicle.com/products/the-adult-student-the-populations-colleges-and-the-nation-can-t-afford-to-ignore.

4. Carnegie Classification of Institutions of Higher Education, "2018 Classification Update," 2018, http://carnegieclassifications.iu.edu/.

5. Alisa Hicklin Fryar, "The Comprehensive University: How It Came to Be and What It Is Now" in *The University Next Door: What Is a Comprehensive University, Who Does It Educate, and Can It Survive?*, ed. Mark Schneider and K. C. Deane (New York: Teachers College, Columbia University, 2015).

6. American Association of State Colleges and Universities, "Strategic Plan 2015–2020," http://aascu.org/strategic-plan/VisionandMission/.

7. Mark Schneider and K. C. Deane, *The University Next Door: What Is a Comprehensive University, Who Does It Educate, and Can It Survive?* (New York: Teachers College, Columbia University, 2015), 4, 30.

8. A Pell Grant is a financial subsidy that does not need to be paid back, granted by the US Department of Education to students enrolled in Title IV–eligible postsecondary institutions and who have not earned their first bachelor's degree. According to the Congressional Budget Office's April 2018 baseline projections for the Pell Grant program, approximately 7.5 million students, most of whom have family incomes of $40,000 or less, depend on Pell Grants to attend college. See Congressional Budget Office, "Pell Grant Program—CBO's April 2018 Baseline," 2018, https://www.cbo.gov/sites/default/files/recurringdata/51304-2018-04-pellgrant.pdf. However, for the 2018–19 academic year, the maximum Pell Grant of $6,095 covers just 28 percent of the cost of college. Consequently, about 80 percent of Pell Grant recipients who graduate from a four-year institution must also take out loans. See Institute for College Access and Success, "Pell Grants Help Keep College Affordable for Millions of Americans," July 23, 2018, https://ticas.org/sites/default/files/pub_files/overall_pell_one-pager.pdf.

9. To determine the 272 institutions used in the sample, I began with 307 comprehensive universities—all of which are members of AASCU and therefore fall within that association's broad understanding of what counts as a comprehensive university. To bypass institutions that due to their size would likely be outliers whose unique circumstances yield unrepresentative results, I eliminated all schools with fewer than 2,000 students.

10. See National Center for Education Statistics, Integrated Postsecondary Education Data System, "Use the Data," https://nces.ed.gov/ipeds/use-the-data.

11. IPEDS uses both four and six years, rather than only four, in calculating graduation rates.

12. I define "core expenses" as the sum of instruction, research, public service, academic support, institutional support, and all other basic expenses as found in the US Department of Education's IPEDS. In general, instructional expenses include expenses for academic, occupational, and vocational instruction; community education; preparatory and adult basic education; and regular, special, and extension sessions. It also includes expenses for both credit and noncredit activities, but it excludes expenses for academic administration in which the primary function is administration. Information technology expenses related to instructional activities are also included if the institution separately budgets and expenses information technology resources. See National Center for Education Statistics, Integrated Postsecondary Education Data System, "Use the Data."

13. See Carnevale, Rose, and Cheah, *The College Payoff*.

14. Raj Chetty et al., "Mobility Report Cards: The Role of Colleges in Intergenerational Mobility" (working paper, National Bureau of Economic Research, Cambridge, MA, July 2017), http://equality-of-opportunity.org/papers/coll_mrc_paper.pdf. The Equality of Opportunity Project is now known as Opportunity Insights.

15. Students are included in the data set whether or not they graduated.

16. Chetty et al., "Mobility Report Cards."

17. Lorelle L. Espinosa, Robert Kelchen, and Morgan Taylor, *Minority Serving Institutions as Engines of Upward Mobility*, American Council on Education, 2018, http://acenet.edu/news-room/Documents/MSIs-as-Engines-of-Upward-Mobility.pdf.

18. EOP calls this the "success rate," a term I adopt.

19. Likewise, I am not adjusting for state—as opposed to national—income data, a distinction that has recently been used to challenge the utility of the EOP database when used to measure a university's effort at promoting the success of its low-income students. The point being that a university (depending on its mission) is embedded in a state with a particular income inequality profile and is therefore limited in the "relevant pool" from which it could be expected to draw its students. See Caroline M. Hoxby and Sarah Turner, "Measuring Opportunity in U.S. Higher Education" (working paper, Stanford Institute for Economic Policy Research, Stanford, CA, January 2019), https://siepr.stanford.edu/sites/default/files/publications/19-001.pdf.

20. The average across all institutions is 50.8 percent. However, combining all students, 52.5 percent of students in this cohort moved from the lowest two quintiles to the highest.

21. See Fryar, "The Comprehensive University."

22. *Barron's Profiles of American Colleges* distinguishes among six levels of selectivity by using the most recent data available on median SAT and ACT scores, percentage of freshmen scoring above certain levels, percentage of freshmen who ranked in the upper fifth and the upper two-fifths of their high school graduating classes, minimum class rank and grade point average required for admission (if any), and, for *most* categories, the range of the percentage of applicants who were accepted. See Barron's College Division Staff, *Barron's Profiles of American Colleges* (Hauppauge, NY: Barron's Education Series, 2019).

23. Unlike state flagship institutions or wealthy private universities, comprehensive universities typically have modest endowments.

24. See E. Badger, "Whites Have Huge Wealth Edge over Blacks (But Don't Know It)," *New York Times*, September 18, 2017, https://nytimes.com/interactive/2017/09/18/upshot/black-white-wealth-gap-perceptions.html; and Michael W. Kraus, Julian M. Rucker, and Jennifer A. Richeson, "Americans Misperceive Racial Economic Equality," *Proceedings of the National Academy of Sciences of the United States of America* 114, no. 39 (September 26, 2017): 10324–31, https://www.pnas.org/content/114/39/10324.

25. See Lorelle L. Espinosa et al., *Race and Ethnicity in Higher Education: A Status Report*, American Council on Education, 2019, https://1xfsu31b52d33idlp13twtos-wpengine.netdna-ssl.com/wp-content/uploads/2019/02/Race-and-Ethnicity-in-Higher-Education.pdf.

26. For other geographically based characteristics affecting intergenerational mobility, such as the role of economic inequality in a region, see Hoxby and Turner, "Measuring Opportunity in U.S. Higher Education."

27. Raj Chetty et al., "Race and Economic Opportunity in the United States: An Intergenerational Perspective," National Bureau of Economic Research, March 2018, http://equality-of-opportunity.org/assets/documents/race_paper.pdf.

28. US Department of the Interior, "Minority Serving Institutions Program," https://doi.gov/pmb/eeo/doi-minority-serving-institutions-program.

29. See, for example, Doug Lederman, *High-Impact Practices for Student Success*, Inside Higher Ed, February 6, 2019, https://www.insidehighered.com/content/high-impact-practices-student-success.

30. I have used the five geographic regions of the United States as demarcated by the National Geographic Society. See National Geographic, "United States Regions," https://nationalgeographic.org/maps/united-states-regions/.

31. On education deserts, see B. Myers, *Who Lives in Education Deserts? More People Than You Think*, Chronicle of Higher Education, July 17, 2018, https://chronicle.com/interactives/education-deserts.

32. See, for example, Kristin Bahler, "This Map Shows the US Cities Where Skilled Workers Are Fleeing or Going to Fastest," *Money*, April 24, 2018, http://money.com/money/5252242/what-cities-people-moving-to-from/.

33. For College Measures reports, see American Institutes for Research, "College Measures," https://air.org/center/college-measures. The US Census Bureau's American Community Survey also reports wages for bachelor's graduates by major. See Andrew Foote, "New National Earnings Data for Graduates by Institution and Major," US Census Bureau, September 4, 2018, https://www.census.gov/library/stories/2018/09/education-pilot.html.

34. California Community Colleges, Salary Surfer, https://salarysurfer.cccco.edu/SalarySurfer.aspx.

35. Indiana Commission for Higher Education, *College Return on Investment Report 2018*, 2018, https://in.gov/che/files/2018%20ROI%20FINAL%205-9-18.pdf.

36. National Science Foundation, "Science and Engineering Doctorates," https://nsf.gov/statistics/2017/nsf17306/data.cfm.

37. See Mark Schneider and Jorge Klor de Alva, *The Master's as the New Bachelor's Degree: In Search of the Labor Market Payoff*, American Enterprise Institute, January 8, 2018, http://aei.org/publication/the-masters-as-the-new-bachelors-degree-in-search-of-the-labor-market-payoff/.

38. The College Scorecard, created by the US Department of Education and available online, permits the general public to access for each higher education institution the enrollment, location, percentage of students in the most popular programs, available areas of study, test scores of those admitted and enrolled, average annual cost (including by family income), graduation and retention rates, salary after attending, average amount borrowed, and the average repayment rate. See US Department of Education, "College Scorecard," 2018, https://collegescorecard.ed.gov/.

39. While this measurement lacks the precision of a head count, it nonetheless serves as a reasonable approximation of how many degrees each university awards in each subject area.

40. Anthony Carnevale, Ban Cheah, and Andrew Hanson, *The Economic Value of College Majors*, Georgetown University Center on Education and the Workforce, 2015, https://cew.georgetown.edu/cew-reports/valueofcollegemajors/.

41. E. Rawes, "The 5 Highest Paying Degrees of 2015," *USA Today*, January 31, 2015, https://usatoday.com/story/money/personalfinance/2015/01/31/cheat-sheet-highest-paying-degrees/22478439/.

42. See Carnevale, Cheah, and Hanson, *The Economic Value of College Majors*.

43. See Numbeo, "America: Cost of Living Index 2018 Mid-Year," https://numbeo.com/cost-of-living/region_rankings.jsp?title=2018-mid&region=019.

44. American Institutes for Research, "College Measures," https://air.org/center/college-measures.

45. For example, see Jason D. Delisle, Preston Cooper, and Cody Christensen, *Federal Student Loan Defaults: What Happens After Borrowers Default and Why*, American Enterprise Institute, August 13, 2018, Figure 2, http://www.aei.org/publication/federal-student-loan-defaults-what-happens-after-borrowers-default-and-why/.

46. See Bureau of Labor Statistics, "Unemployment Rates and Earnings by Educational Attainment," March 27, 2018, https://www.bls.gov/emp/chart-unemployment-earnings-education.htm.

47. For example, see Michael Itzkowitz, *Want More Students to Pay Down Their Loans? Help Them Graduate*, Third Way, August 8, 2018, https://www.thirdway.org/report/want-more-students-to-pay-down-their-loans-help-them-graduate.

48. See, for example, Carnevale, Cheah, and Hanson, *The Economic Value of College Majors*.

49. Mark Schneider and Kim Clark, *Completion Reforms That Work: How Leading Colleges Are Improving the Attainment of High-Value Degrees*, American Enterprise Institute, May 30, 2018, http://www.aei.org/publication/completion-reforms-that-work-how-leading-colleges-are-improving-the-attainment-of-high-value-degrees/.

50. Frederick M. Hess and Lanae Erickson Hatalsky, *Elevating College Completion*, American Enterprise Institute, June 26, 2018, http://www.aei.org/publication/elevating-college-completion/.

51. For the most recent example, see the proposed bipartisan congressional hearing on "Strengthening Accountability in Higher Education to Better Serve Students and Taxpayers" scheduled for 2019. US House of Representatives, Education and Labor Committee, "Chairman Scott, Ranking Member Foxx Announce Five Bipartisan Hearings on Higher Education," press release, February 21, 2019, https://edlabor.house.gov/media/press-releases/chairman-scott-ranking-member-foxx-announce-five-bipartisan-hearings-on-higher-education.

52. On risk-sharing, see Lamar Alexander, "Risk-Sharing/Skin-in-the-Game Concepts and Proposals," US Senate, Committee on

Health, Education, Labor, and Pensions, March 23, 2015, https://www.help.senate.gov/imo/media/Risk_Sharing.pdf.

53. See, for example, the following bills introduced in Congress: Protect Students Borrowers Act of 2015, S. 1102, 114th Cong., https://congress.gov/bill/114th-congress/senate-bill/1102; Protect Students Borrowers Act of 2015, H.R. 2364, 114th Cong., https://congress.gov/bill/114th-congress/house-bill/2364/related-bills; and Student Protection and Success Act, S. 1939, 114th Cong., https://congress.gov/bill/114th-congress/senate-bill/1939/text.

54. Jorge Klor de Alva, "Higher Education Accountability Through Risk-Sharing," Nexus Research and Policy Center, June 26, 2018, http://nexusresearch.org/wp-content/uploads/2018/08/Nexus-Report-Risk-Sharing-Model-072518.pdf.

55. Of course, this latter incentive requires adequate guardrails to protect against perverse gaming schemes such as the lowering of standards to pass underprepared students.