

Making the grade: Can liberal arts institutions reclaim their value proposition to students and families?

Strategy realized



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Introduction

The higher education landscape in the United States has changed dramatically over the last decade, with substantial headwinds taking root even before the COVID-19 pandemic emerged.

- ▶ Flattening total enrollment, a pre-pandemic trend that has visibly worsened since 2020,¹ is forcing many colleges and universities to compete more aggressively for new students.
- ▶ At the same time, the traditional college student population (students aged 18-24) has grown more economically and racially diverse, meaning that institutions face higher complexity and cost, both when it comes to recruiting and retaining students.
- ▶ Meanwhile, education delivery is evolving, especially in light of the COVID-19 pandemic, enabled by advancements in digital technology and driven by increasing appetite for hybrid or fully online instruction.
- ▶ Lastly, in response to the changing world of work and blurring of boundaries between higher education and industry, there is a growing focus on professional undergraduate degrees such as business, nursing, computer science, and cybersecurity, to name just a few, as well as micro-credentialing to signal readiness for work.

While these trends affect all higher education institutions, liberal arts institutions may be experiencing these influences disproportionately relative to other segments of higher education.

In an environment where students are increasingly questioning the value of a college degree, the unique experience (and often additional expense) of a liberal arts education hangs in the balance. The recent public discourse seems to suggest that the value of a liberal arts education is diminishing.

We don't agree. The inherent value of a liberal arts education – its focus on developing the whole person and building critical thinking skills – has never been more important than today. In an era of so much information and data, but also uncertainty, it is this ability to think critically, see patterns, extrapolate, and be comfortable with ambiguity that can help us cut through the noise and make complex decisions.

But the key question here is whether the “market” at large – prospective students and their families – is in agreement. Is the perceived value of a liberal arts education in fact eroding?

It would be irresponsible to make sweeping statements or judgments like this about all liberal arts institutions when there is clearly evidence of differentiation within the segment. This paper dives into these differences by analyzing enrollment and pricing trends across 237 institutions defined as “liberal arts institutions.”² The second part of the paper also brings into focus the range of strategies that are available to liberal arts colleges to continue to strengthen their value proposition and financial viability.

¹ “Current Term Enrollment Estimates – National Student Clearinghouse Research Center,” ncesresearchcenter.org

² See methodology section for determination of liberal arts designation

Executive summary

- ▶ Enrollment pressure, financial stress and lessening public confidence in the value of higher education continue to be headwinds for higher education institutions.
- ▶ The COVID-19 pandemic exacerbated these headwinds.
- ▶ Liberal arts institutions have experienced these trends more significantly than other private, nonprofit institutions as well as public institutions.
- ▶ But within the liberal arts segment, the impacts vary significantly; selective institutions, for example, continue to hold onto enrollment and pricing power.
- ▶ Successful strategies differentiate institutions in the market and enhance the student experience. Financially focused measures are necessary, but not sufficient.



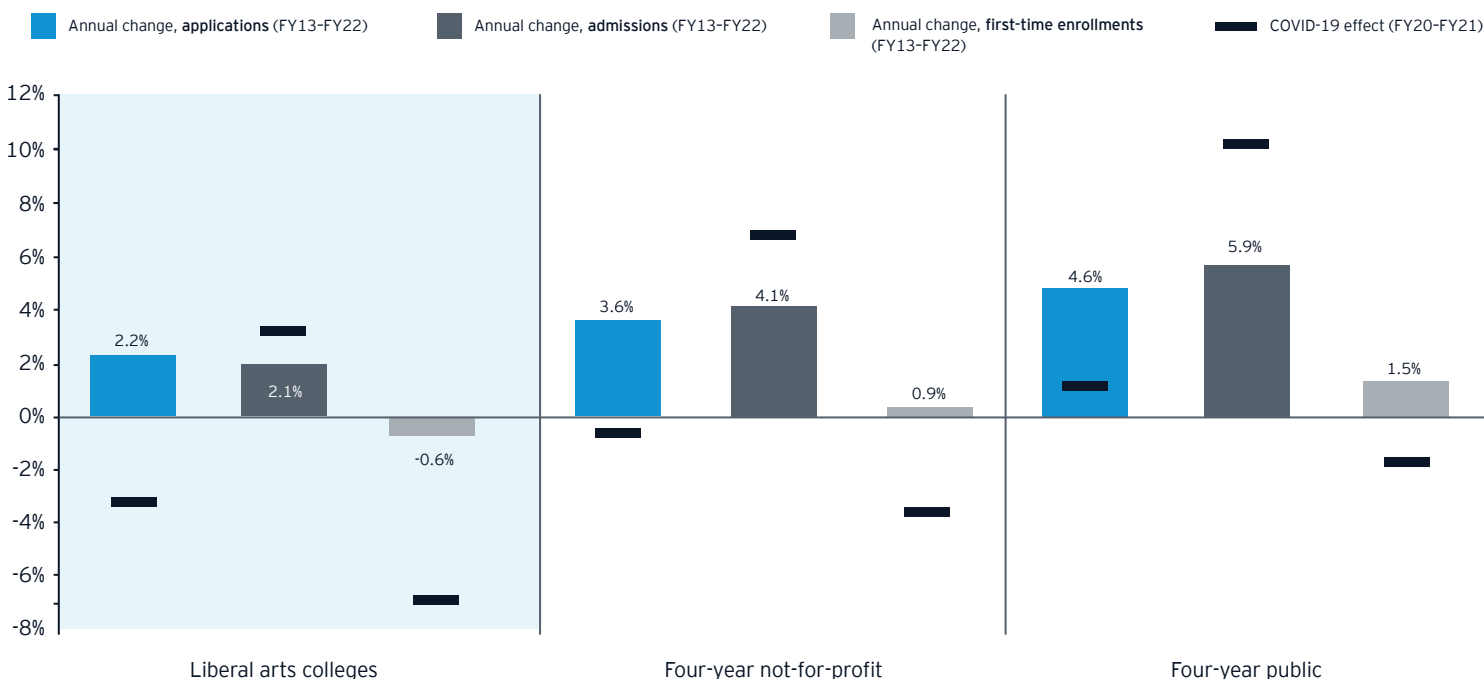
Enrollment and pricing trends

To examine key trends for these institutions, we leveraged data from the Integrated Postsecondary Education Data System (IPEDS). For analysis related to enrollment, we analyzed the period from FY 2013³ to FY 2022, while pricing data is only available from FY 2013 to FY 2021.

A look at the overall enrollment funnel for liberal arts institutions presents a mixed picture. While applications to liberal arts institutions have increased approximately 2% per year in the period from FY 2013–FY 2022, this rise in applications has lagged behind the performance of other private, nonprofit as well as public institutions, which saw their applications grow at about 4%-5% per year over the same period. Even with increased

application interest, enrollment across the liberal arts segment has declined at a rate of 0.6% per year between FY 2013 and FY 2022, whereas private, nonprofit and public institutions have seen an overall 1%-2% increase in enrollment over the same period (Figure 1). So, while the number of applications continues to grow – mostly as prospective students apply to a greater number of institutions⁴ – the overall demand for liberal arts institutions is declining. These trends have been exacerbated by the COVID-19 pandemic, with the liberal arts segment performing significantly worse than other higher education segments on enrollment in FY 2021.

Figure 1*: Change in total applicants and first-time enrollment by institution type, FY 2013-FY 2022



* Source: The Integrated Postsecondary Education Data System and EY-Parthenon analysis.

³ Fiscal year (FY) refers to ending year of the academic period (e.g., FY 2013 is the period from 2012 to 2013)

⁴ Common App Most Recent Deadline Update, 2022

Similarly, the liberal arts segment appears to be losing some of its pricing power. Traditionally, a liberal arts education has been positioned as a high-quality, high (or higher) cost offering. We define the perceived “value” of this offering as the net tuition and fees (tuition and fees less institutional aid awarded) to students.

Comparing both gross and net tuition and fees across segments highlights that although published tuition and fees are higher for liberal arts institutions, institutional financial aid, colloquially referred to as “discounting,” brings liberal arts institutions much more in line with other four-year private nonprofit institutions (Figure 2) and significantly reduces the differential vis-à-vis public institutions. The median published tuition and fees at

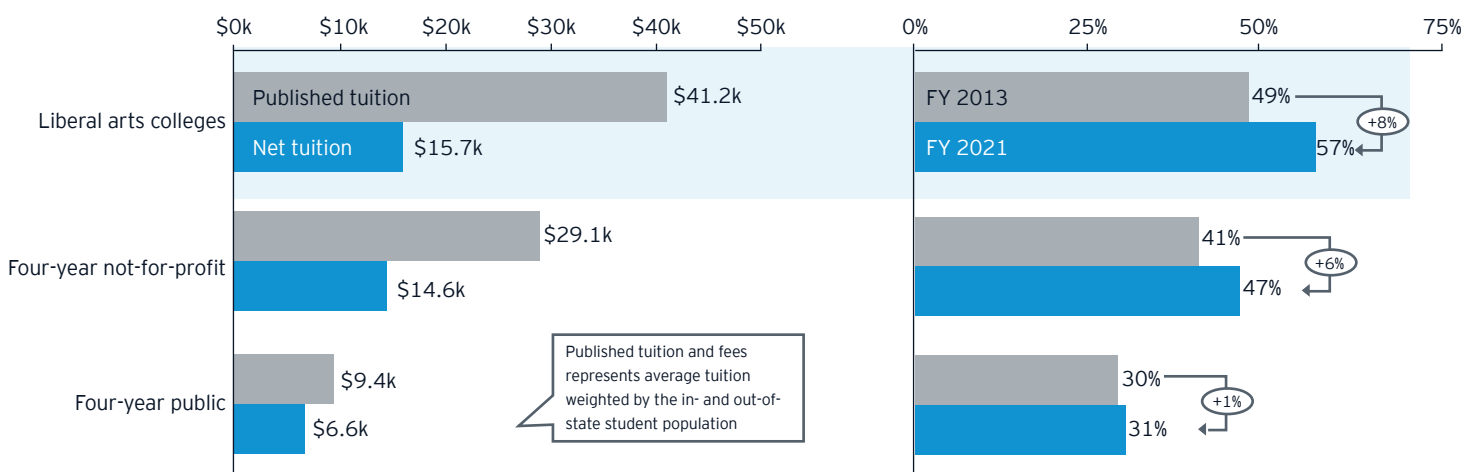
liberal arts institutions totaled about US\$41,000 in FY 2021, compared to about US\$29,000 at other private nonprofit institutions and about US\$9,000 at public institutions.⁶ Based purely on these published price levels, the liberal arts offering appears more expensive in the market, which could be correlated with perceptions of quality and value offered by liberal arts institutions – a value proposition that is inclusive of a traditional, on-campus residential experience and a small classroom setting.

However, when taking into consideration discounting trends across the segments, this price premium begins to evaporate. After discounting, median net tuition and fees at liberal arts institutions totaled around US\$16,000 in FY 2021, compared to about the same amount at other private nonprofit institutions and about US\$7,000 at public institutions.

Figure 2*: Pricing dynamics by institution segment, FY 2013–FY 2021

Median published and net tuition and fees, FY 2021

Median discount rate⁷ on published tuition and fees, FY 2013–FY 2021



* Source: The Integrated Postsecondary Education Data System and EY-Parthenon analysis

⁶ Weighted average in- and out-of-state tuition for public institutions

⁷ Discount rate measures the difference between the published tuition and average net tuition paid by enrollees

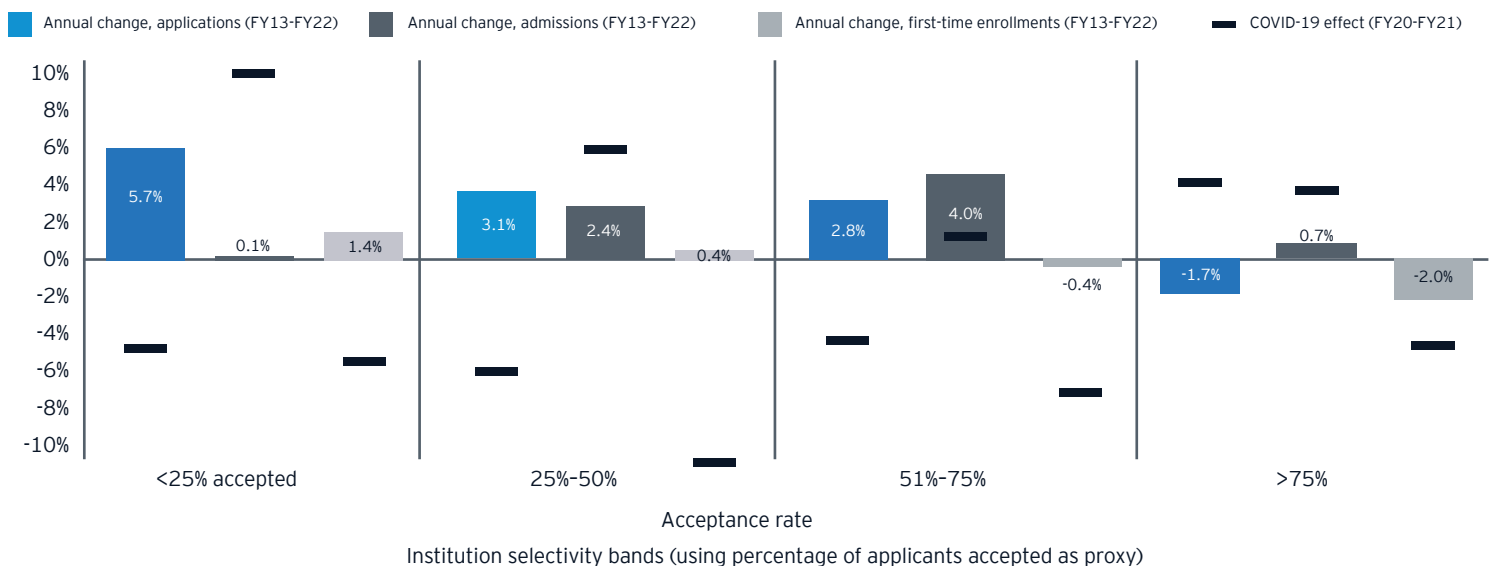
Enrollment and pricing variation across selectivity subsegments within liberal arts

Not all liberal arts institutions are equally affected by the enrollment and pricing trends described earlier. Factors such as reputation, endowment size and student-to-faculty ratios all appear to influence an institution's positioning in the broader liberal arts segment. Not surprisingly, these factors are all closely related to an institution's selectivity. IPEDS provides acceptance rates, which we use as an indicator of selectivity, often included in rankings like the *U.S. News & World Report*.⁸

Figure 3 indicates that highly selective liberal arts institutions, defined for the purpose of this analysis as institutions with an acceptance rate lower than 25%, have historically been able to hold their own with respect to application growth and enrollment

stability (for the most part, institutions in this selectivity subsegment do not aspire to grow; they aspire to continue to provide a high-touch, personalized experience to their students). While FY 2021 (2020 enrollment numbers when COVID-19 was in full swing) demonstrated that no selectivity segment was immune to enrollment pressures, the more selective segments appear to be rebounding. According to the National Student Clearinghouse, while all undergraduate enrollment at four-year colleges had declined from FY 2020 to FY 2021, enrollment at the most selective ("highly selective") institutions increased about 3% from FY 2021 to FY 2022.⁹

Figure 3*: Change in applicant volume and first-time enrollment by selectivity¹⁰ of liberal arts institutions, FY 2013–FY 2022



* Source: The Integrated Postsecondary Education Data System and EY-Parthenon analysis

⁸ "How US News Calculated the 2022 Best Colleges Rankings," *usnews.com*

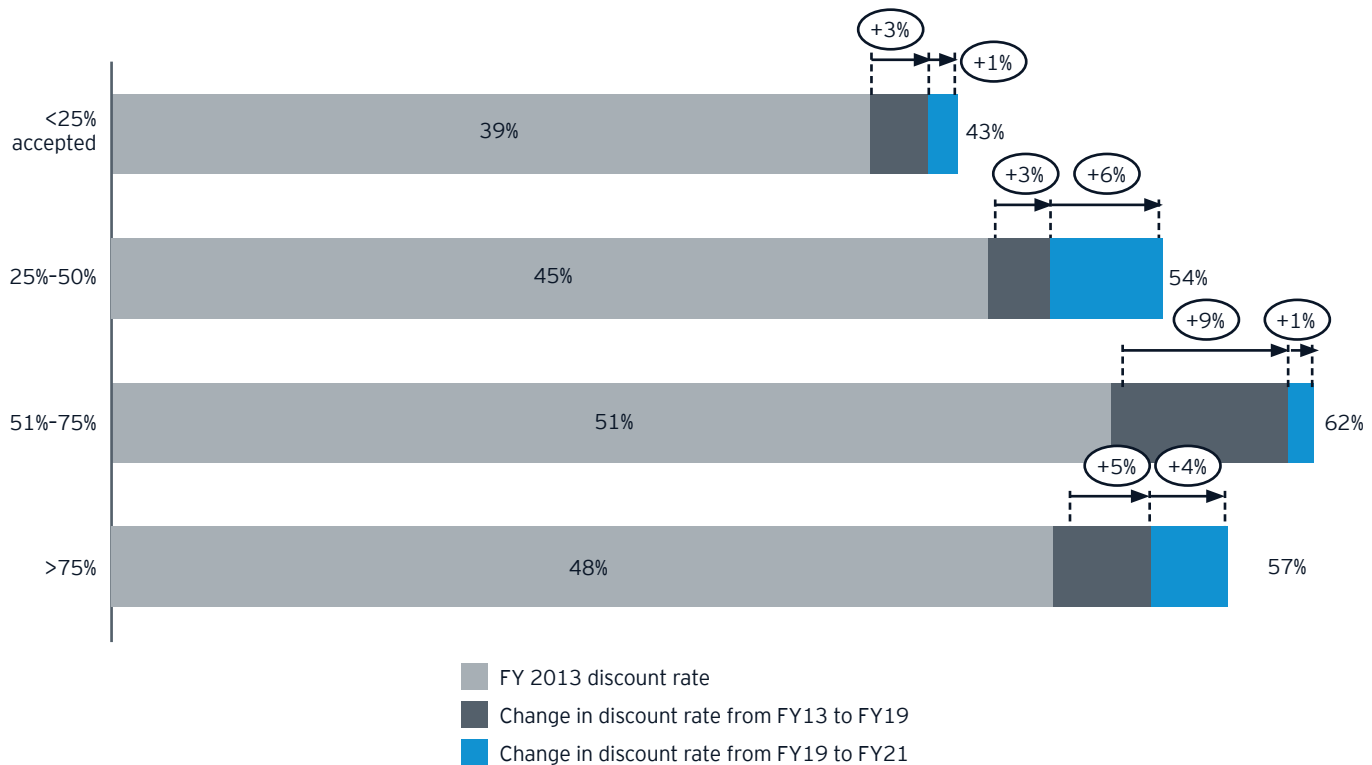
⁹ "COVID-19: Stay Informed—National Student Clearinghouse Research Center," *nscresearchcenter.org*

¹⁰ Selectivity is defined by school acceptance rate

As shown in Figure 4, liberal arts institutions with acceptance rates below 25% have historically been able to maintain lower implied discount rates than less selective institutions over the last decade. For example, over the FY 2013–FY 2019 period, institutions in the top two selectivity bands (acceptance rates less than 25% and between 25% and 50%) experienced discount rate increases of just three percentage points, in contrast with the five to nine percentage point increases at less selective institutions. However, over the FY 2019–FY 2021 period, the use of discounting has steadily increased at even the more

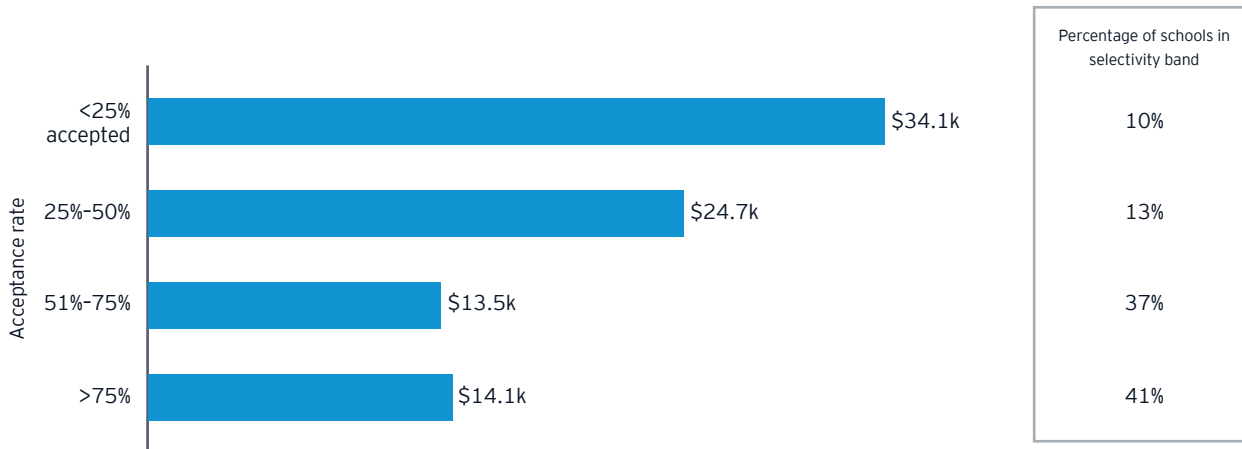
selective schools (acceptance rates between 25% and 50%), with a six percentage point increase in the last three years. Drivers of these changes are likely different by selectivity segment. Less selective institutions are more likely to compete for students based on price to fill seats, thus eroding the perception of value. More selective institutions are more likely to use financial aid as one of several strategies to shape their class and to achieve greater diversity of backgrounds and experiences on campus.

Figure 4*: Median discount rates of liberal arts schools by selectivity¹¹, FY 2013–FY 2021



* Source: The Integrated Postsecondary Education Data System and EY-Parthenon analysis
¹¹ Selectivity is defined by school acceptance rate; discount rates are median values

Figure 5*: Median total net tuition by selectivity,¹² FY21



Higher published tuition and fees and lower overall discounting translates into higher net tuition and fees for highly selective liberal arts institutions. Using net tuition and fees as a proxy for the perceived market value of education at a specific institution, Figure 5 indicates that highly selective liberal arts institutions are better able to hold onto their differentiated value proposition

than other tiers of the liberal arts segment. Net tuition and fees for highly selective institutions can be more than double the net revenue per student of a less selective peer (e.g., US\$34,000 compared to US\$14,000).



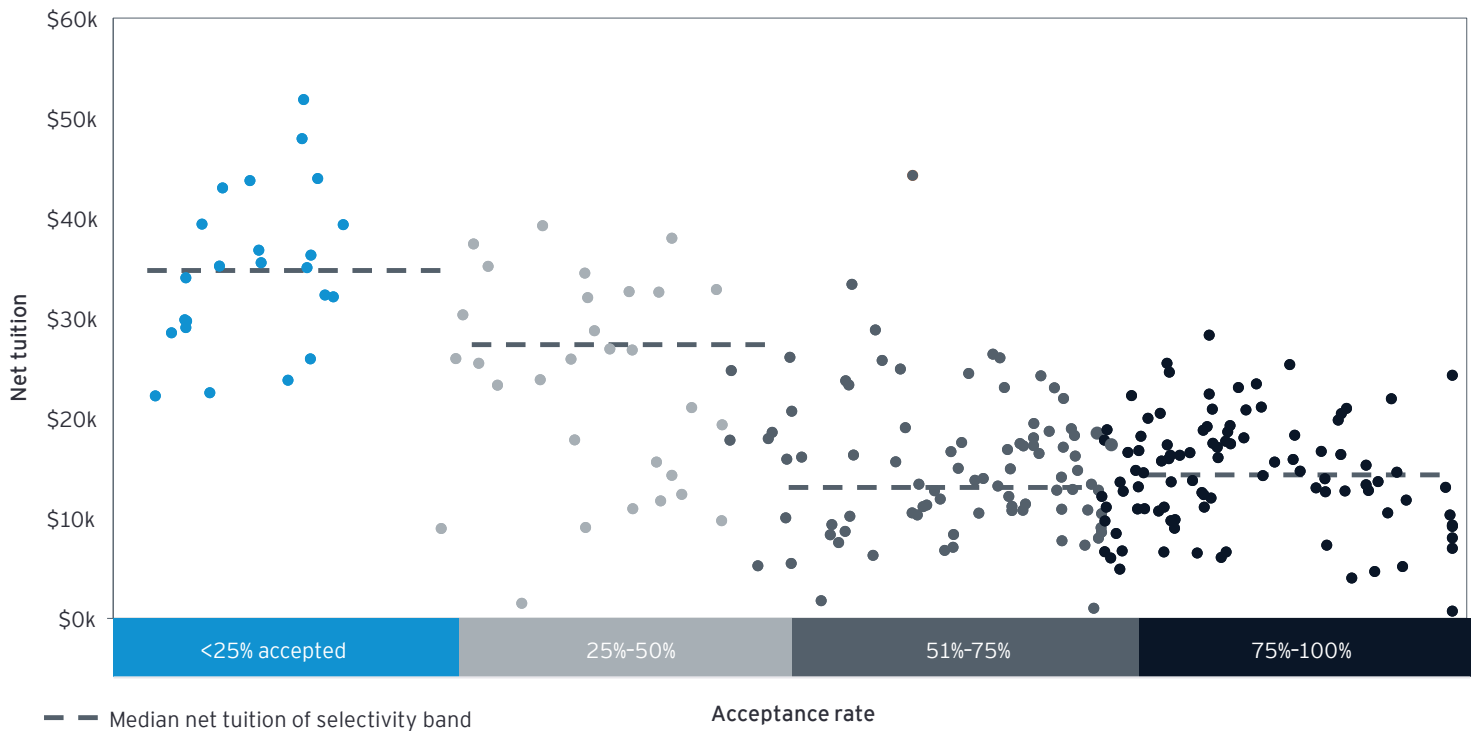
* Source: The Integrated Postsecondary Education Data System and EY-Parthenon analysis.

¹²Selectivity is defined by school acceptance rate, discount rates are median values

Variation within liberal arts selectivity subsegments

Even within a given selectivity band, liberal arts institutions appear to have substantial variation in pricing power, as shown in Figure 6.

Figure 6*: Liberal arts net tuition and acceptance rates, FY 2021

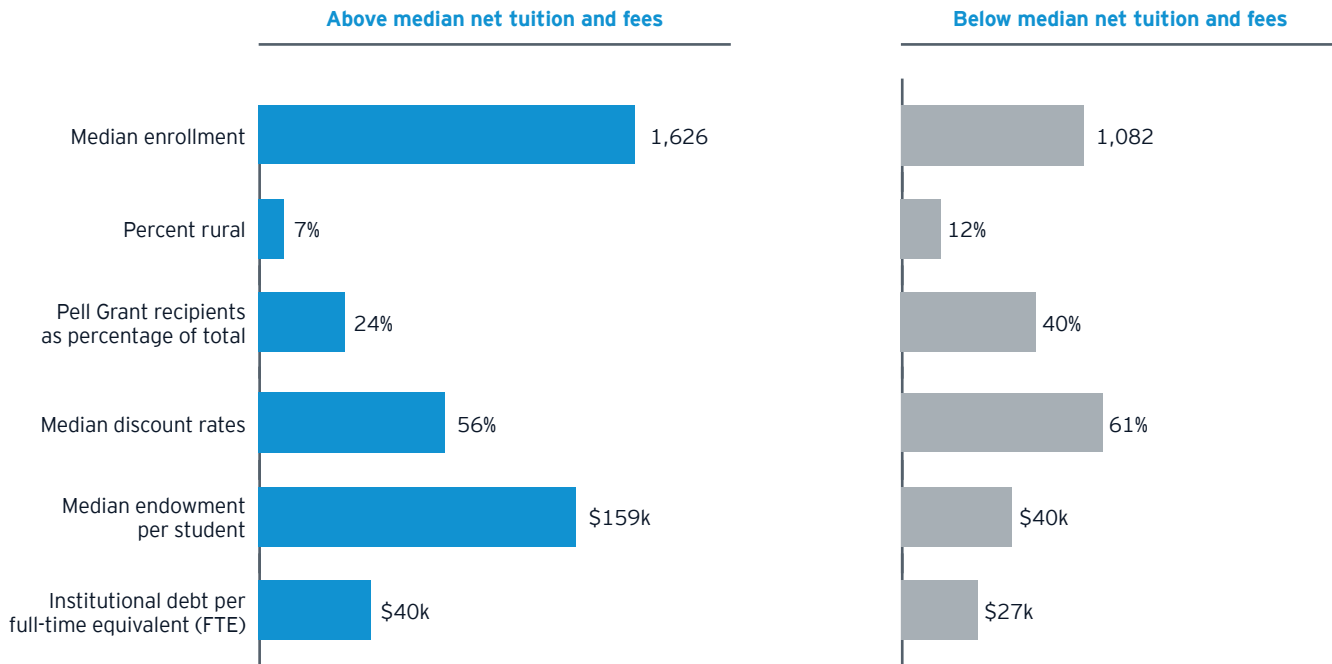


What can help explain these differences within a selectivity subsegment? While there are many factors affecting an individual institution's net revenue per student, Figure 7 shows there are some interesting patterns in terms of what differentiates institutions on the higher end of the net revenue

per student spectrum (above the median net tuition and fees of a given selectivity band) from those on the lower end of the spectrum (below the median of a given selectivity band).

* Source: The Integrated Postsecondary Education Data System; EY-Parthenon analysis

Figure 7*: Characteristics of institutions above and below the median net tuition and fees within a given selectivity band, FY 2021



From a demographic perspective, schools with median net tuitions in the bottom half of their respective selectivity band tend to be smaller, are more likely to be rural, and enroll a higher proportion of low-income students (as measured by the share of Pell Grant recipients). From a financial perspective, these

institutions operate from a weakened financial position, with higher tuition discounting, substantially smaller endowments, and lower institutional debt per full-time enrolled student, suggesting decreased capacity to access debt markets.



* Source: The Integrated Postsecondary Education Data System.

Are the trends in this sector creating a self-fulfilling prophecy?

The student experience – as measured by imperfect proxies such as student-to-faculty ratio, student-to-staff ratio, instructional expense per student, student retention rates, and student graduation rates, shown in Figure 8 – is heavily correlated with access to financial resources (e.g., endowment size, debt markets), which in turn is highly correlated with selectivity. It is no surprise, therefore, that at institutions below the top

selectivity tier, students tend to experience higher student-to-faculty and student-to-staff ratios as well as lower retention and graduation rates. These institutions have a harder time “extracting” higher net tuition and fees rates from the market, which in turn affects investments in faculty and staff and in student supports over time.

Figure 8*: Selectivity



| Student experience – FY 2021 | | | | |
|--|---------|---------|---------|---------|
| Median student to faculty ratio | 9.0 | 9.0 | 11.0 | 11.0 |
| Median student to staff ratio | ~4 | ~5 | ~6 | ~7 |
| Median instructional expense per student | \$30.9k | \$19.4k | \$13.1k | \$10.5k |
| Median retention rate | 95.0% | 90.0% | 79.0% | 74.5% |
| Median six-year graduation rate | 92.0% | 83.0% | 67.0% | 61.0% |
| Tuition – FY 2021 | | | | |
| Median net tuition and fees | \$34.0k | \$24.7k | \$13.5k | \$14.1k |

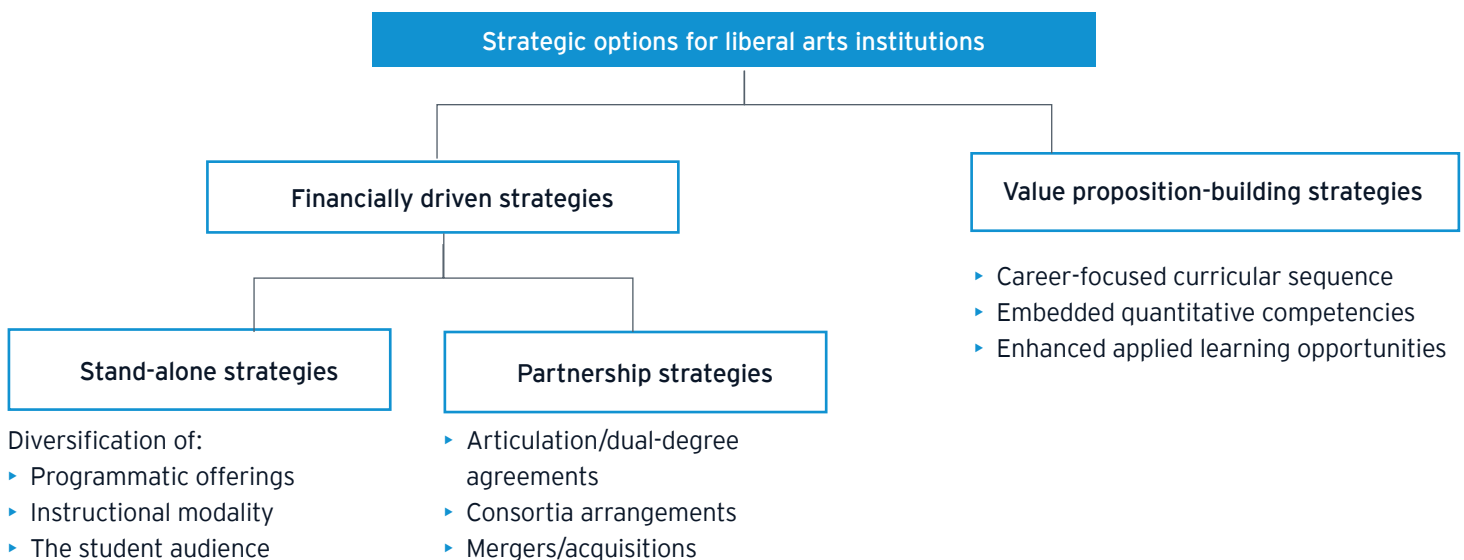
* Source: The Integrated Postsecondary Education Data System.

Which strategies have liberal arts institutions pursued in this competitive higher education landscape?

In a crowded market, where institutions are competing heavily for students, differentiation is key. But can institutions really achieve differentiation if many of them are following a similar “playbook”? Typically, strategies fall into two categories: financial (i.e., relating to increasing revenue or decreasing costs) and strategic (i.e., relating to innovation that secures the value

proposition of an educational experience in a changing world). In our experience, liberal arts institutions tend to over-index on the financial approach even as decreasing enrollment trends persist. Instead, institutions may benefit from a more strategic evaluation of their competitive positioning to protect the longevity of their value proposition.

Figure 9*: Strategies liberal arts institutions have pursued in the competitive higher education landscape



* Source: The Integrated Postsecondary Education Data System.

1 Financially driven strategies

► **1A) Stand-alone strategies** (highlighted in Figure 10) have traditionally been used to rationalize the current cost base or to increase enrollment and diversify revenue through revisions or additions to the academic portfolio. Revenue-generating strategies pursued by liberal arts institutions include but are not limited to:

Curricular and program diversification through adding new programs in the hopes of attracting new students. More selective institutions can generally support a higher overall number of programs because they are better funded and typically have higher enrollments. Less selective institutions offer a smaller number of programs, but over time are more likely to add targeted programs (e.g., more closely aligned to the needs of the labor market) to attract more students. In FY 2021, the median number of undergraduate programs ranged from 40 at the least selective institutions to 48 at the most selective institutions. Our analysis indicates that adding programs does not necessarily stem enrollment declines – in aggregate, the least selective institutions have not managed to increase the student enrollment despite engaging in this strategy.

Modality diversification, by adding online or hybrid programs to attract students with different age and work profiles (e.g., post-traditional students) or in different geographies. However, the addition of online offerings must come with a commensurate investment in online infrastructure to meet the very different needs of these post-traditional students and support them through graduation (completion rates are typically lower online than on-site). Very few of the most selective institutions offer hybrid or online learnings, while nearly 70% of the least selective institutions do so. The majority of institutions adopted online offerings for a period during the COVID-19 pandemic, but many fewer are making these offerings a permanent part of the program portfolio.

Student audience diversification, e.g., by adding master’s programs to the portfolio of academic programs offered by the institution. For example, Drew University added nine master’s programs over FY 2012–2021, ranging from MA degrees in religious-related fields to Data Analytics, Education, and Finance. These additions represent two perspectives to portfolio diversification: first, by bringing specialized programming to the master’s level (e.g., Religious History), and second, by exploring more career-oriented programming (e.g., Data Analytics). In general, less selective institutions appear to have a higher portion of master’s level students in the overall student mix, with 5.8% of students at the graduate level in the least selective institutions, compared to just 0.3% at the most selective institutions.

Figure 10:*
Stand-alone revenue-generating strategies pursued by liberal arts institutions, FY 2013–FY 2021

| | <25% accepted | 25%-50% | 51%-75% | >75% |
|---|---------------|-----------|-----------|-----------|
| Curricular diversification – FY 2021 | | | | |
| Median number of undergraduate programs offered | 48.0 | 44.0 | 40.0 | 40.0 |
| Median new undergraduate programs added in the last nine years (cumulative) | 4.0 | 5.0 | 5.0 | 7.0 |
| Instructional delivery – FY2021 (FY2020) | | | | |
| Percent of schools in category offering some distance education programs | 22% (0%) | 32% (16%) | 49% (33%) | 69% (60%) |
| Student audience – FY 2021 | | | | |
| Percentage of total students who are graduate-level | 0.3% | 0.7% | 2.6% | 5.8% |
| Market demand – FY 2013–FY 2021 | | | | |
| FTE student enrollment growth (total enrollment, all years) | 0.9% | -0.5% | -0.6% | -2.0% |

* Source: The Integrated Postsecondary Education Data System.

► **1B) Partnership strategies** (highlighted in Figure 11) include but are not limited to:

Articulation and dual degree agreements¹³ as a window to expanded institutional opportunities. These structures facilitate attractive options for students while limiting the administrative burden associated with pursuing these experiences.

- The dual-degree program in engineering at Dartmouth College allows students from 20 select liberal arts colleges to complete a fifth year at Dartmouth to earn a Bachelor of Engineering (BE) degree. Similarly, the college offers combined degree programs in Public Health, City Planning, Engineering, and Education.
- At Bryn Mawr College, a cross-institution agreement allows students early admission to master’s programs or accelerated programming at the University of Pennsylvania, Boston University, and others.¹⁴
- At Drew University, students have access to over 10 dual-degree options. As one example, Drew students can pursue a Bachelor of Science in Engineering at Columbia University after completing pre-engineering requirements and transferring at the end of their junior year for two additional years of study.¹⁵

¹³ Source: [Dartmouth Engineering | Dual-Degree](#)
¹⁴ Source: [A.B./M.A. Programs With Partner Institutions | Bryn Mawr College](#)
¹⁵ Source: [Dual-Degree Programs | Drew University](#)

Consortium arrangements to enhance the student experience or to access academic or administrative efficiencies.

- On the administrative side, these could include joint procurement and the negotiation of preferred rates services (e.g., dining services, waste disposal, campus security, insurance) as well as sharing of administrative positions, especially those that are specialized and hard to secure in the market (e.g., cybersecurity administrator).
- On the academic side, consortia can provide a richer student experience at a fraction of the cost that would be required if each institution stood up a program separately. For example, The Quaker Consortium facilitates cross-enrollment and even allows students to pursue a major at a neighboring campus. In The Five Colleges consortium (Amherst, Hampshire, Mount Holyoke, Smith, University of Massachusetts at Amherst Colleges), institutions hire faculty in a joint appointment structure across schools in departments. These cross-institutional departments lower instructional costs while facilitating investment in new programs, as well as shared personnel across payroll and benefits, public safety, security services, and student health services.

Mergers and acquisitions in cases where one institution provides a unique opportunity to another for program expansion or student diversification.

- For example, Middlebury acquired the Monterey Institute of International Studies in 2010 for \$7.4m, which allowed the college to offer several accelerated, dual-degree programs (BA/MA in five years).¹⁶
- In 2018, Boston University acquired Wheelock College, a small liberal arts college in Boston, with the vision to geographically expand into the proximate area and merge synergistic schools of education.¹⁷
- In 2021, Northeastern University in MA acquired Mills College, a small women’s college in Oakland, CA, with the goal of creating a bicoastal university to open opportunities for students while preserving the legacy of Mills.¹⁸

¹⁶ Source: [The Middlebury Connection | Middlebury Institute of International Studies at Monterey](#)
¹⁷ Source: [BU-Wheelock Merger Will Create New School of Education | Wheelock College of Education & Human Development](#)
¹⁸ Source: [Merger - Mills College at Northeastern University](#)

Figure 11 **: Partnership strategies pursued by liberal arts institutions

Illustrative range of partnership options

| | Articulation/dual-degree agreements | | | Consortia arrangements | | Mergers/acquisitions | | | |
|-------------|--|----------------------|--------------------|--|---------------------------|--|----------------------------|---------------------|------------------|
| Description | Partnership agreement between two educational institutions to formalize the pathway for transfer or dual-degree students | | | Provides institutions access to common administrative services, shared academic and student services, and cross-school enrollment to generate cost savings | | Formal merger of two institutions, typically a smaller private with a larger private, but also includes public institution consolidation | | | |
| Examples | Dartmouth Vox Clamantis in Deserto | Bryn Mawr College | Barnard College | Five Colleges consortium | The Claremont Colleges | Boston University | Northeastern University | Wheelock College | Mills College |

** Source: The Integrated Postsecondary Education Data System.
 * Illustrative, not meant to be comprehensive. Note: Partnerships could also be with organizations outside of higher education.

2 Differentiation and value proposition building strategies

Many institutions already pursue a combination of stand-alone and partnership strategies for financial health and sustainability reasons. However, these actions – while necessary – may not be sufficient for liberal arts institutions to thrive. It is important for liberal arts institutions to continue to assess and re-assert their relevance in the broader higher education landscape, in a multicultural society, and in today's rapidly changing world of work, all against the backdrop of an increasingly global environment.

For example, as colleges welcome Gen Z students into their cohorts, they must recognize these students as the first generation of true “digital natives” who have higher expectations for how technology is incorporated both inside and outside the

classroom, to enhance the overall student experience (even post-pandemic).¹⁹ Gen Z is also least likely of all generational cohorts to “trust” institutions of higher education, according to a recent survey conducted in response to the ongoing debate about the value of higher education.²⁰ This generation is also particularly focused on the value of a degree with respect to its relevance and applicability, with more than 80% of freshman reporting the ability “to get a better job” as a “very important” consideration in deciding to go to college.²¹ Institutions should carefully consider how best to incorporate responses to these changing student needs in their long-term strategies.



¹⁹ How business and education can help Gen Z reframe the future | EY – US

²⁰ Most Trusted Universities Report 2022 | Morning Consult

²¹ “TFS Monograph 2019 Standard version,” ucla.edu

- ▶ To demonstrate their relevance and unique contribution to a dynamic world, liberal arts institutions can:

Integrate a career focus into curricula without losing sight of the core of a liberal arts education.

A recent report from *The Chronicle of Higher Education* highlights the skills “mash-up” that is emerging across industries, where employers are increasingly looking at skills developed over traditional metrics like GPA or field of study.²² For a liberal arts institution, this integration of skills-based opportunities could include experiential coursework, advising that emphasizes workforce skills (e.g., networking), or internships and service projects embedded into the curricula.

- ▶ Davidson College recently piloted bootcamps aligned to industry needs, with an emphasis on both technical skills as well as workplace-relevant human skills like “expanding social capital.”²³ Leveraging alumni to engage with students in these endeavors is particularly beneficial, as first-generation and/or students from underrepresented backgrounds have a built-in access point for the career networks that these institutions can provide.
- ▶ Wheaton College recently re-evaluated the student lifecycle with a lens toward workforce pathways, incorporating embedded alumni engagement for professional mentorship and intentional experience learning courses. In the school’s Liberal Education and Professional Success (LEAPS) program, students can take a course (e.g., Content Marketing) that pairs them with professional alumni mentors to develop the necessary toolkit for a particular career.²⁴

Embed quantitative competencies* into curricula of non-STEM fields digital and quantitative competences.

As institutions increasingly contemplate the interdisciplinary nature of today’s world, many have added programmatic requirements that facilitate student engagement with digital and quantitative competencies, drawing on humanities and hard sciences in the same curricular sequence.

- ▶ At Barnard College, a new requirement called “Modes of Thinking” includes courses such as computer science, digital design, and geographic information systems in equal measure with courses like human rights in theory and practice and gender and power in global perspective to foster student critical thinking. Similarly, Williams College recently implemented a quantitative and formal reasoning requirement to facilitate the integration of mathematical reasoning, data analysis, and effective research into the student toolkit.

Enhance opportunities for applied learning throughout the student experience.**

Students enrolled in liberal arts colleges are increasingly opting to major in professionally enabling (e.g., Education, Architecture) or STEM-aligned fields (e.g., Computer Science, Health) either due to personal preference or in an effort to adequately prepare for a more technical career landscape.²⁵ To provide students with authentic applied experiences, institutions are ramping up the resources dedicated to these fields.

- ▶ Colby College’s Davis Institute represents the first liberal arts institution to develop a cross-disciplinary institute for artificial intelligence (AI), which aims to provide students with research opportunities in AI and machine learning. Similarly, Trinity College has recently partnered with local employer Infosys to provide students and alumni of liberal arts institutions in-service technical training through the Business Analysis for Digital Transformation Program.²⁶ Faculty at Spelman College are using a \$5 million grant to bolster scholarships, enhance technological infrastructure, improve career readiness, and engage curriculum development support to prepare students for employment opportunities at Google.

* Source: [Foundations < Barnard College | Columbia University](#)

** Source: [Home - Davis Institute for AI \(colby.edu\)](#)

²² New Pathways from College to Career (2022)

²³ “The Workforce Relevance of Liberal Arts Education | Open Learning,” [mit.edu](#)

²⁴ Liberal Education and Professional Success (LEAPS) - Wheaton College Massachusetts

²⁵ Over the FY 2013-FY 2020 period, there was a 2% increase in students majoring in both professionally enabling and STEM fields, which occurred at the expense of more traditional liberal arts majors.

²⁶ Trinity-Infosys Partnership | Trinity College ([trincoll.edu](#))

Conclusion

The forces affecting higher education today are threatening the foundational elements of a liberal arts education. We believe that a liberal arts education continues to be critical to building the thinkers and decision-makers of tomorrow, but the headwinds facing the liberal arts sector are undeniably strong.

Liberal arts institutions in the highest selectivity band are at a relative advantage to their peers. Their ability to generate higher net revenue per student enables them to fund the programs that make the liberal arts experience unique. As tuition discounting increases for less selective institutions, it may contribute to a cycle where the rich get richer and the poor get poorer.

However, there are institutions within all selectivity bands in the liberal arts sector who appear to outperform, at least from a pricing power perspective. The financial and strategic opportunities described here could be adopted by institutions in any selectivity band, though tailoring the approach to the institution's particular context and unique needs is critical.

In the coming months and years, we will continue to monitor and report on the competitive positioning of liberal arts institutions, and support institutions in both the formulation and execution of their differentiation strategies.

If you would like to discuss your context or strategy with one of our higher education leaders, please reach out to:



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Appendix: Methodology

Liberal arts institutions included in this analysis

Our data set consists entirely of publicly available information, most of which is submitted by institutions to the National Center for Education Statistics and hosted in the IPEDS. The IPEDS database includes about 6,700 total higher education institutions. Of this broad population, our analysis focuses on degree-granting institutions only and excludes for-profit

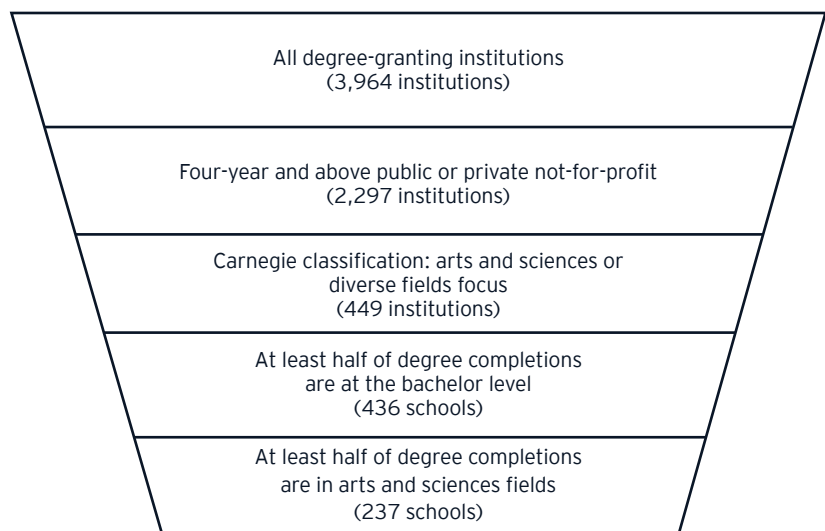
institutions as well as institutions not eligible for Title IV funding. Liberal arts institutions (LAIs) can be public or private, nonprofit US higher education institutions. The sample excludes military schools, schools located in Puerto Rico, and schools in the process of changing their accreditation.

For the purposes of our analysis, we define LAIs as institutions that:

- 01 Are four-year and above public or private nonprofit institutions
- 02 Are classified as having an arts and sciences or diverse fields focus by the Carnegie Foundation
- 03 Award at least half of student degrees at the bachelor level
- 04 Award at least half of student degrees in fields of arts and sciences

Figure 12*: Methodology to identify liberal arts colleges

The Figure 12 illustrates how the population in this sample narrows with the application of LAI criteria. In addition to the applied filtering criteria, our final sample imputes 37 schools are identified by the US News and World Report as liberal arts institutions (but do not meet the sample specifications below).



* Source: The Integrated Postsecondary Education Data System.

Sources of enrollment, demographic and financial data

- ▶ Institution enrollment and size data comes from IPEDS and reflects the full-time equivalent enrollment variable, which is derived from total full-time and part-time student enrollment. Institution size ranges were determined using reported FTE enrollment in fall 2021 (FY 2022).
- ▶ Selectivity data reflects recorded acceptance rate in IPEDS, or “percent admitted – total.” This also can be derived by dividing the variable “admissions total” by the “applicants total.” Note that historical IPEDS data includes data only for current institutions, not for institutions that may have closed prior to FY 2021.
- ▶ Other variables used in this analysis:
 - ▶ Underrepresented minority aggregates African American, Alaska Native, American Indian, Black, Hispanic/Latino, Native Hawaiian, and other Pacific Islander student enrollment
 - ▶ Rural includes distant, fringe, or remote classifications from “Degree of urbanization” variable
 - ▶ Assets reflects “total assets” from IPEDS; debt reflects long-term (for public institutions) and property plant and equipment (for private institutions); “liabilities” is an IPEDS variable
 - ▶ Gross tuition and fees represents a weighted average of published tuition and fees based on in- and out-of-state student enrollment
 - ▶ Graduation rates, academic programs offered, hybrid modality (percent of students enrolled in some but not all distance education courses), total revenue, instructional expenses per FTE, and endowment per FTE are directly pulled from IPEDS

Selected time period

- ▶ To conduct this analysis, we selected time periods for which salient variables were readily available across institutions in the IPEDS database.
 - ▶ For admissions and enrollment data, the data is available from FY 2013 to FY 2022.
 - ▶ For financial data, the data is available from FY 2013 to FY 2021.

Calculation definitions

In the following cases, we performed calculations drawing on published IPEDS variables to arrive at a final analytic variable:

- ▶ **Implied discount rate:** EY-Parthenon uses publicly available data from IPEDS to find an institution’s implied discount rate, or the percentage of tuition and fees that the institution provides, on average, in financial aid and scholarship assistance.
 - ▶ IPEDS publishes revenue from tuition and fees per FTE (net tuition) and published tuition and fees (published tuition).
 - ▶ Published tuition is weighted by the number of first-time undergraduates in-state and out-of-state for public institutions.

- ▶ The formula of one minus the quotient of net tuition over published tuition gives the implied discount rate of an institution ($1 - \text{net tuition/published tuition}$).
- ▶ This percentage is the amount by which an institution has reduced its published tuition through awarding institutional aid.
- ▶ **Calculations per FTE student:** calculations per FTE student represent the weighted average of the relevant segment. For example, debt per FTE student of a given institution is equal to that institution's debt burden divided by the FTE enrollment of that private institution.
- ▶ **Other ratios:** in some cases, reported ratios, like student to faculty, are directly reported. In other cases, like student to staff, we use the full-time fall equivalent student enrollment and compare it to the full-time non-instructional staff.
- ▶ **Definition of majors:** we use the Classification of Instructional Programs (CIP) codes in IPEDS to define and categorize majors into three broad categories: liberal arts, STEM, and professionally enabling. The specific majors included in each category are listed in Figure 13 below.

Figure 13*: Classification of academic programs

| Liberal arts | Professional enabling | STEM |
|--|--|--|
| <ul style="list-style-type: none"> ▶ Area, Ethnic, Cultural, Gender, and Group Studies ▶ Biological and Biomedical Sciences ▶ Computer and information Sciences and Support Services ▶ English Language and Literature/Letters ▶ Foreign Languages, Literatures, and Linguistics ▶ History ▶ Liberal Arts and Sciences, General Studies and Humanities ▶ Mathematics and Statistics ▶ Multi/Interdisciplinary Studies ▶ Philosophy and Religious Studies ▶ Physical Sciences ▶ Psychology ▶ Social Sciences ▶ Theology and Religious Vocations ▶ Visual and Performing Arts | <ul style="list-style-type: none"> ▶ Education ▶ Public Administration and Social Service Professions ▶ Architecture and Related Services ▶ Business, Management, Marketing, and Related Support Services ▶ Communication, Journalism, and Related Programs ▶ Communications Technologies/Technicians and Support Services ▶ Construction Trades ▶ Culinary, Entertainment, and Personal Services ▶ Homeland Security, Law Enforcement, Firefighting and Related Protective Services ▶ Legal Professions and Studies ▶ Library Science ▶ Parks, Recreation, Leisure, Fitness, and Kinesiology ▶ Transportation and Materials Moving | <ul style="list-style-type: none"> ▶ Engineering ▶ Agricultural/Animal/Plant/Veterinary Science and Related Fields ▶ Engineering/Engineering-related/Technologies Technicians ▶ Health Professions and Related Programs ▶ Mechanic and Repair Technologies/Technicians ▶ Military Technologies and Applied Sciences ▶ Precision Production ▶ Science Technologies/Technicians ▶ Family and Consumer Sciences/Human Sciences ▶ Natural Resources and Conservation |

* Source: The Integrated Postsecondary Education Data System.

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