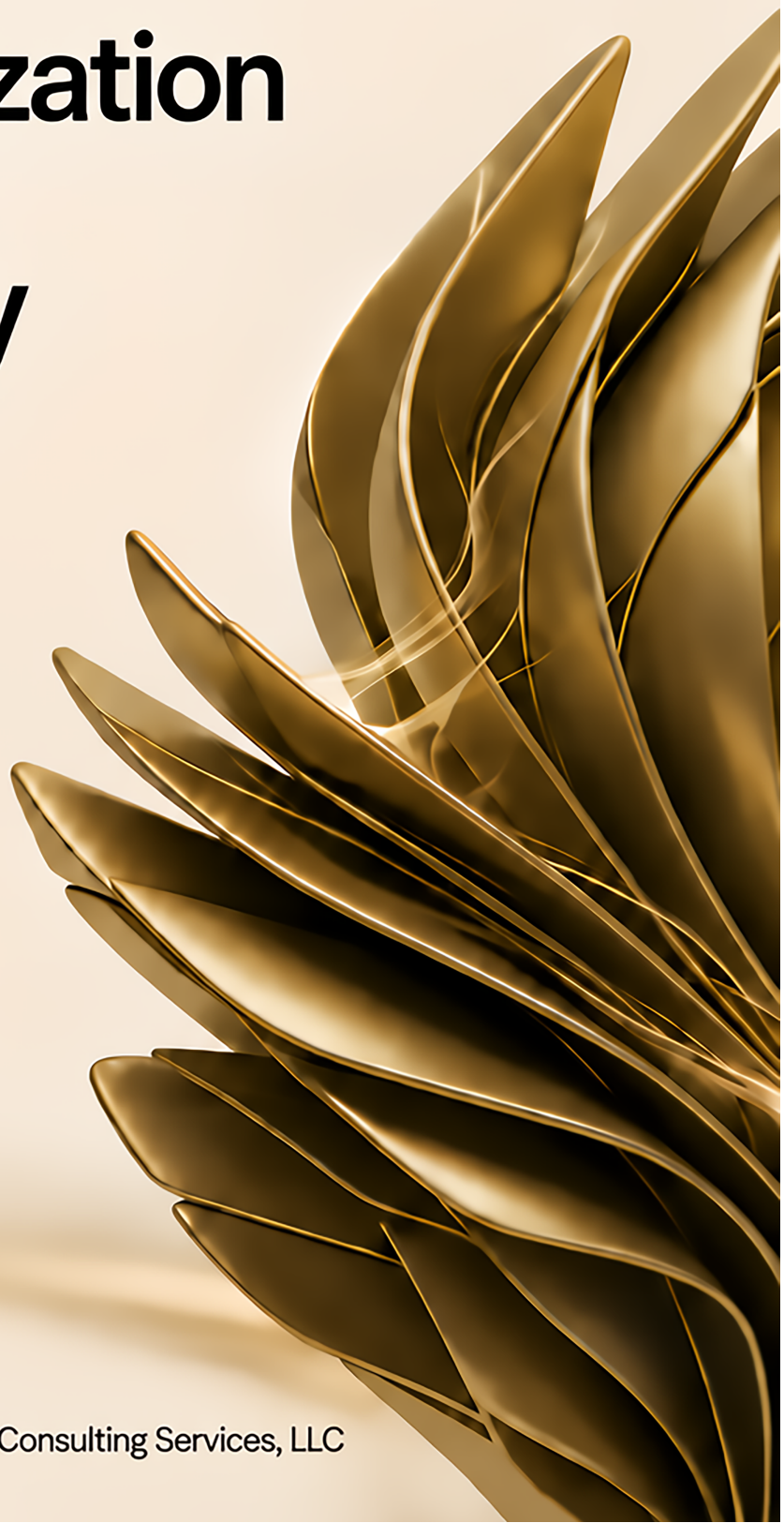


Decisioning

The Normalization of Tuition Dependency

Reexamining Tuition
Economics and the
Assumptions Behind
Enrollment, Pricing,
Discounting, and
Financial Health



The Normalization of Tuition Dependency: Reexamining Tuition Economics and the Assumptions Behind Enrollment, Pricing, Discounting, and Financial Health

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1. Introduction

Years ago, I attended a higher education conference session focused on one of the perennial challenges facing colleges and universities...enrollment. The conversation was familiar. Demographic pressures. Increasing competition. Tuition discounting. Financial aid. The need to bring more students through the door. As the discussion continued, the proposed solutions were also familiar. Adjust the price. Increase the discount. Find another market. Recruit more aggressively. Improve yield. Eventually, someone offered what was intended to be reassurance: “*Don’t worry. Everyone has this problem.*”

I remember thinking: Who is everyone? More importantly, if everyone has the problem, how do we fix it? So, I asked a version of that question: “*How do we get rid of this tuition dependency problem?*” There was a pause. “*Well...*” By the end of the discussion, no one had a particularly clear answer. That pause stayed with me and fueled my need to develop a more comprehensive understanding of higher education enrollment. Over the years, I have heard variations of the same reassurance: enrollment is down everywhere; everyone is discounting; everyone is struggling with tuition revenue; everyone has this problem.

But “everyone” does not have this problem. And even if “everyone” did, the prevalence of the problem should not provide reassurance. I sometimes think about it this way. Imagine going to your doctor and being told that you are showing serious signs that you may have a heart attack. You ask the obvious question: “*What do I need to do about it?*” Your doctor responds, “*Don’t worry. Everyone is having these signs.*” The weakness of such a response is immediately apparent.

At many institutions, 70, 80, or even 90 % of operating revenue is tied directly or indirectly to student enrollment. In response, higher education has become remarkably sophisticated at managing that dependency. Institutions use enrollment strategies, financial aid optimization models, tuition discounting strategies, recruitment funnels, retention initiatives, pricing studies, enrollment projections, and increasingly sophisticated analytics to determine how many students are needed and what it will take to enroll and retain them. Tuition dependency is not merely about how much revenue comes from tuition; the more consequential question is how much institutional survival depends upon tuition revenue that is concentrated, discounted, difficult to replace, vulnerable to external financing conditions, or generated by enrollment that may not persist.

This issue of *HEEM Insights* examines the normalization of tuition dependency by examining

tuition economics and several persistent themes that have come to define how higher education approaches enrollment, pricing, discounting, and financial health. These longstanding assumptions, practices, and ways of thinking have become embedded in institutional decision-making, despite the financial problems they can perpetuate. Examined together, these themes help explain not only how tuition dependency became normalized, but also why it has proven so difficult to reduce.

Recognizing that enrollment and tuition do not have the same depth of foundational literature found in many other areas of higher education, this article also seeks to bring together historical evidence, contemporary research, sector data, and institutional finance concepts to provide a more integrated understanding of how enrollment, tuition, pricing, discounting, and institutional financial health intersect.

2. Tuition is Not a Recent Higher Education Invention

One persistent misconception about higher education financing is that tuition is a relatively recent development. Tuition has been part of American higher education from its earliest years (390+ years). Harvard College, founded in 1636 and the first college established in the American colonies, charged its early students tuition and living expenses. By the time of the American Revolution, over a century later, eight additional established colleges of that time: William & Mary, Yale, Princeton, Columbia, the University of Pennsylvania, Brown, Rutgers, and Dartmouth had clear tuition systems. In an economy where currency was not always readily available, students sometimes paid those obligations with agricultural products, livestock, boots, cloth, and other commodities. Tuition, however, was only part of the financing model. Early colleges drew upon multiple sources of support, including government appropriations, religious organizations, private benefactors, donated land and property, and charitable support.

By the late nineteenth and early twentieth centuries, American higher education reflected substantial variation in how institutions were financed. Private colleges generally relied in part on tuition, while some public systems pursued models designed to minimize or eliminate tuition for state residents. New York City's,

the Free Academy established in 1847 (now City University of New York), was the first to push free tuition on the principle that higher education should be accessible and based on academic merit rather than a student's financial means. Later, California formalized the 1960 Master Plan, under which public institutions did not charge tuition to state residents, although they could charge nonresidents. Other public and private institutions also operated without tuition for periods of their histories. None of these models have survived.

The Higher Education Act of 1965 broadened federal support for students and institutions. Its 1972 reauthorization created what later became the Pell Grant. These programs expanded access and students' ability to pay but also strengthened a financing structure in which public resources increasingly reached institutions through enrolled students and the tuition they generated. Over time, the American higher education financing model has changed considerably. Public appropriations, philanthropy, endowments, federal and state financial aid, research funding, auxiliary enterprises, borrowing, and an increasingly sophisticated tuition discounting model became part of the financial architecture. Yet for many institutions, one underlying variable became increasingly important...students.

3. Normalizing Tuition Dependency

Tuition dependency did not normalize at a single point in time; rather, developing over several decades as colleges and universities built operating models increasingly reliant on continued student growth. More students generated more tuition. More students generated more fees. More students filled residence halls. More students purchased meal plans. More students supported parking, bookstores, recreation, and other auxiliary operations. What appeared to be multiple revenue streams, in economic terms, depended on a single source.

Tuition prices rose dramatically after the 1960s. In 1963-64, for example, average tuition and required fees for all institutions were \$1,566.¹ In 1980, net tuition accounted for only 21% of total educational revenue at public colleges and universities. By the 1990s and early 2000s, increasing tuition had become

¹ U.S. Department of Education, National Center for Education Statistics, *Projections of Education Statistics to 1986-87*; Higher Education General Information Survey (HEGIS), "Institutional Characteristics of Colleges and Universities" surveys, 1969-70 through 1985-86; "Fall Enrollment in Institutions of Higher Education" surveys, 1963 through 1985; Integrated Postsecondary Education Data System (IPEDS), "Fall Enrollment Survey" (IPEDS-

EF:86-99) and "Institutional Characteristics Survey" (IPEDS-IC:86-99); IPEDS Spring 2001 through Spring 2022, Fall Enrollment component; and IPEDS Fall 2000 through Fall 2021, Institutional Characteristics component. (This table was prepared December 2022. Corrections were made July 2023.) https://nces.ed.gov/programs/digest/d22/tables/dt22_330.10.asp

gradually embedded in the higher education financing model.

Between 1995–96 and 2005–06, inflation-adjusted published tuition and fees at public four-year institutions increased from \$5,940 to \$9,050, a 52% real increase in just ten years. Private nonprofit four-year institutions followed the same direction, increasing from \$25,820 to \$34,590, approximately 34%. These increases went well beyond inflation, meaning students and families were asked to contribute materially more in real purchasing power.²

The following decade intensified this shift. Between 2005–06 and 2015–16, inflation-adjusted published tuition and fees increased from \$9,050 to \$12,810 at public four-year institutions and from \$34,590 to \$43,930 at private nonprofit four-year institutions. The student share of public higher education revenue reaching 47.5% in 2013, compared with 21% in 1980. In sum, over a little more than three decades, the proportion of public educational revenue derived from net tuition more than doubled.³

Beginning around 2015, the pricing trajectory changed significantly. Between 2015–16 and 2025–26, inflation-adjusted published tuition and fees at public four-year institutions declined from \$12,810 to \$11,950, while public two-year tuition declined from \$4,620 to \$4,150. Private nonprofit four-year tuition increased approximately 2%, from \$43,930 to \$45,000. The capacity to rely upon sustained real increases in published tuition had changed materially.⁴

State Higher Education Executive Officers Association (SHEEO) notes that between 1980 and 2025, inflation-adjusted net tuition and fee revenue per FTE increased in every state except Nevada. This increase exceeded 100% in 41 states. SHEEO also reports that the national student share declined to 38.4% in 2025, reflecting increased appropriations alongside declining inflation-adjusted net tuition revenue. Public institutions received \$7,459 per FTE in net tuition and fee revenue in 2025, a 3.5% inflation-adjusted decline from the prior year. Forty-two states and Washington,

D.C., collected less tuition revenue per FTE than five years earlier. National averages also obscure substantial differences among institutions. In FY2025, net tuition represented 19.4% of educational revenue at public two-year institutions, compared with 48.8% at public four-year institutions.⁵

For decades, additional tuition and enrollment gave institutions mechanisms to generate additional revenue. As those revenues increased, institutions also expanded. Faculty and staff positions, academic programs, student services, facilities, technology, debt obligations, and other recurring commitments became part of operating structures supported, to varying degrees, by assumptions about expected continued tuition and enrollment.

The environment has since changed faster than many of those operating structures can. Real published tuition growth has largely stalled, enrollment conditions have become more challenging for many institutions, and affordability concerns have intensified. Recent improvements in public funding have reduced tuition's share of educational revenue across the public sector, but have not eliminated the structural exposure created over several decades. Nor do they address the circumstances of private nonprofit and for-profit institutions, whose financing models often depend far more on tuition.

The most consistently supported explanation for public tuition growth is state disinvestment relative to need. SHEEO's 2021 synthesis concludes that general operating appropriations per student fell more steeply and recovered more slowly with each recession after 1980.⁶ The Federal Reserve Bank of Boston review of public higher education disinvestment finds that reductions in state appropriations increased tuition and fees, reduced instructional expenditures, and weakened research and degree production. Specifically, reporting that each dollar of reduced state appropriations is associated on average with a 17-cent increase in net tuition and fees and a 30-cent decrease in instructional expenditures at public doctoral institutions.⁷

² College Board (2025). *Trends in college pricing and student aid 2025*. <https://research.collegeboard.org/trends/college-pricing>

³ Ma, Jennifer, Matea Pender, and Xiaowen Hu (2025). *Trends in College Pricing and Student Aid 2025*, New York: College Board. <https://research.collegeboard.org/media/pdf/Trends-in-College-Pricing-and-Student-Aid-2025-final.pdf>

⁴ College Board. (2025, November 6). *Trends in college pricing and student aid report: Published tuition prices at public institutions and annual federal borrowing increase by less than 1% beyond inflation* <https://newsroom.collegeboard.org/trends-college-pricing-and-student-aid-report-published-tuition-prices-public-institutions-and>

⁵ State Higher Education Executive Officers Association (2023). *SHEEO report examines tuition, fees, and financial assistance policies among states*. <https://shef.sheeo.org/report>

⁶ Cummings, K., Laderman, S., Lee, J., Tandberg, D., & Weeden, D. (2021). *Investigating the impacts of state higher education appropriations and financial aid*. State Higher Education Executive Officers Association.

https://www.ncan.org/common/Uploaded%20files/Policy/State%20Policy/sheeo_impactappropriationsfina.pdf

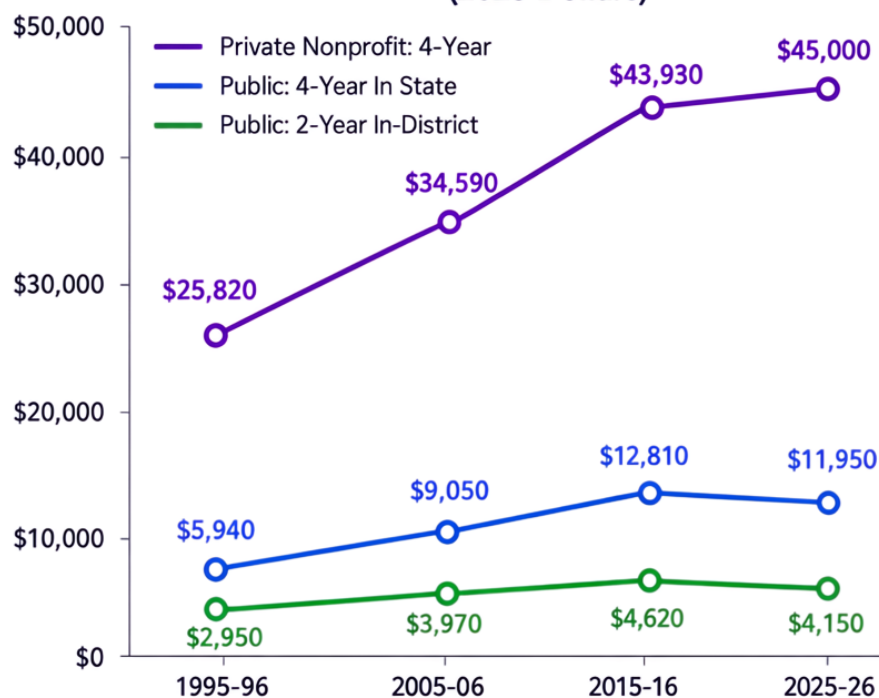
⁷ Zhao, B. (2019). *Consequences of state disinvestment in public higher education: Lessons for the New England states* (New England Public Policy Center Research Report No. 19-1). Federal Reserve Bank of Boston.

<https://www.bostonfed.org/publications/new-england-public-policy-center-research-report/2019/consequences-of-state-disinvestment-in-public-higher-education.aspx>

THE RISE OF TUITION

1980–2026

Inflation-Adjusted Published Tuition & Fees
(2025 Dollars)



+74%

1995-96 to 2025-26
Private Nonprofit
4-Year

+101%

1995-96 to 2015-16

7% DECLINE

2015-16 to 2025-26

Public 4-Year
In-State

+41%

1995-96 to 2015-16

10% DECLINE

2015-16 to 2025-26

Public 2-Year
In-District

1980s THE SHIFT BEGINS



State support was the primary driver of public higher education. Tuition represented only 20.9% of public educational revenue in 1980.

1990s–EARLY 2000s TUITION BECOMES NORMALIZED



Tuition increases faster than inflation. Student share rises to 29.0% by 2001.

2005–2013 THE ACCELERATION



Great Recession and state budget pressures drive tuition higher. Student share of public revenue peaks at 47.5% in 2013.

2013–2015 DEPENDENCY BECOMES EMBEDDED



Real tuition reaches historically high levels. Nearly half of public education revenue now comes from students.

2015–2026 RESISTANCE & REALITY



Tuition growth stops. Affordability pressures increase. Institutions remain structurally dependent on enrollment.

Sources: College Board, Trends in College Pricing and Student Aid 2025; SHEEO, State Higher Education Finance (FY2025).

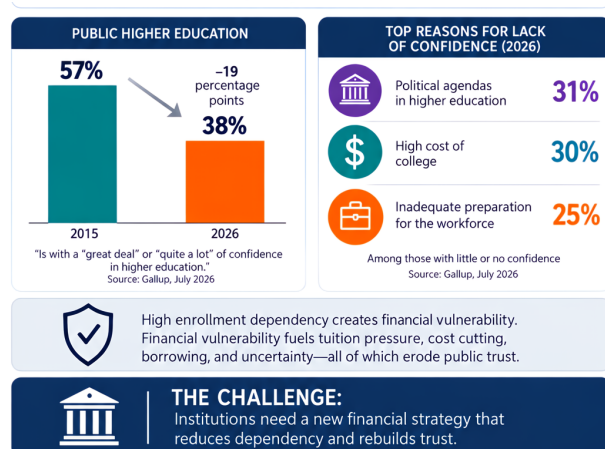
4. The Link Between Declining Trust in Higher Education and Tuition

By the time tuition growth moderated, families were already living with decades of accumulated price increases, student debt, high sticker prices, and questions about return on investment. Slowing tuition increases has not repaired the underlying affordability or trust problem.

Strong evidence shows that rising college costs contribute to declining public trust in higher education. Politics, perceptions of ideological bias, questions about workforce preparation, student debt, administrative effectiveness, and concerns about educational quality also matter. However, two longstanding trends increasingly intersect. First, tuition dependence rose substantially, and second, public confidence subsequently deteriorated.

In 2015, 57% of Americans expressed a great deal or quite a lot of confidence in higher education. By 2026, that figure had fallen to 38%. When Gallup, Inc. asked why they lacked confidence, cost was one of the three dominant explanations. In its July 2026 survey, 30% of those lacking confidence cited the high cost of college, alongside perceived political agendas at 31%, and ahead of inadequate workforce preparation at 25%.⁸ New America's research reinforces this. In its 2024 survey, more than 80% of Americans surveyed identified college cost as the biggest barrier to enrollment, while only 36% thought higher education was fine as it currently operates.⁹

RIISING DEPENDENCY. DECLINING TRUST.



5. Terms Rarely Used in the Enrollment Conversation

One challenge facing higher education is that several consequential measures of tuition economics rarely make it into routine institutional conversations about tuition and enrollment. Higher education leaders regularly discuss applications, deposits, yield, headcount, retention, tuition discount rates, net tuition revenue, and enrollment targets. Far less frequently do those conversations include break-even enrollment, break-even enrollment *after discounting*, break-even enrollment *after additional discounting*, marginal contribution, or required net revenue per student. Yet these measures address a fundamental question that conventional enrollment indicators do not: whether the students an institution enrolls, at the prices it charges, and the discounts it provides, generate sufficient net revenue to support the institution's operating model.

Break-Even Enrollment. *How many students are required for operating revenue to equal operating costs based on the institution's underlying revenue and cost structure?* Perhaps the most fundamental number in an enrollment-dependent institution is the number of students required for operating revenue to equal operating costs. Yet enrollment targets are often set through a combination of historical performance, market expectations, capacity, recruitment goals, and budget assumptions, often without explicitly identifying the enrollment level at which the institution breaks even. Break-even enrollment connects the institution's cost structure, enrollment-independent revenue, and expected net revenue per student to determine how many students must be enrolled to support the institution's operating requirements fully. An institution expecting 3,000 students may appear to have a reasonable enrollment target. Still, that number means something very different if financial break-even occurs at 2,500 students than if it occurs at 3,200.

Break-Even Enrollment After Discounting. *How many students are required to break even after incorporating the institution's actual or expected net tuition revenue?* Published tuition does not determine the enrollment level at which most institutions actually break even because the institution does not receive published tuition from every student. Institutional grants and scholarships reduce the amount of tuition revenue available to support operations. Break-even enrollment after discounting therefore calculates the number of students required to support the institution's operating requirements using the actual or expected

⁸ Jones, J. M. (2026, July 13). *Confidence in U.S. higher education slips back slightly*. Gallup. <https://news.gallup.com/poll/712322/confidence-higher-education-slips-back-slightly.aspx>.

⁹ Nguyen, S., Fishman, R., & Cheche, O. (2024, July 30). *Varying degrees 2024: New America's eighth annual survey on higher education*. New America. <https://www.newamerica.org/insights/varying-degrees-2024/>

average net tuition revenue per student rather than the published tuition price. The distinction can be substantial. An institution may appear capable of supporting its operating model at a particular enrollment level when calculated using published tuition, yet require considerably more students once it incorporates institutional aid. For institutions with significant discount rates, this is the more economically meaningful break-even measure because it reflects the revenue the institution actually expects to retain from enrollment.

Break-Even Enrollment After Additional Discounting. *If the institution deepens its discount, how many additional students must enroll merely to recover the revenue surrendered through the lower net price?* When an institution increases its tuition discount, it reduces the average net price received from each student. The expectation is generally that the lower net price will attract enough additional students to compensate for the revenue surrendered through additional institutional aid. Break-even enrollment, after additional discounting, identifies how many additional students must enroll to restore the net tuition revenue that existed before the additional discount. Until the institution reaches that threshold, increased enrollment does not mean increased revenue. An institution can enroll more students while generating the same or even less net tuition revenue than before.

Marginal Contribution. *For those students who enroll, how much additional financial contribution remains after the additional costs of serving them?* Reaching the enrollment break-even point addresses the revenue surrendered through discounting, but it does not establish that the additional students strengthen the institution financially. Additional enrollment can also create additional costs through course sections, faculty or adjunct instruction, advising, student services, technology, laboratories, housing, or other resources. Marginal contribution examines the additional net revenue generated by additional enrollment after subtracting the additional cost of serving those students. An additional student who can be accommodated within existing capacity may therefore contribute very differently from one whose enrollment requires additional staffing, facilities, or services. Again, more students do not automatically produce more usable operating revenue.

Required Net Revenue per Student. *How much net revenue must each student generate, on average, for the planned enrollment level to support the operating model?* This calculation begins with the institution's operating requirements rather than its enrollment target. Once enrollment-independent revenue is considered, leaders should know how much net

revenue each student must contribute, on average, for the planned enrollment level to support the institution's operating model. This measure connects pricing, institutional aid, enrollment, and institutional costs. If the average net revenue generated per student falls below what the operating model requires, additional enrollment alone will not resolve the underlying financial imbalance.

In sum, *break-even enrollment* asks how many and how many additional students are required to recover revenue surrendered through deeper discounting. *Marginal contribution* asks whether those students generate additional financial capacity after accounting for the cost of serving them. *Required net revenue per student* asks whether the resulting revenue is sufficient to support the operating model. Together, they move the enrollment conversation beyond how many students an institution can attract to whether enrolling those students strengthens the institution's economics.

Institutions can increase discounts, add enrollment, expand programs, and increase capacity while the underlying economics weaken. The eventual symptoms may appear as recurring operating deficits, reserve draws, deferred investment, hiring freezes, position reductions, program consolidation, and other retrenchment activities. What ultimately appears to be an expenditure problem may have begun much earlier with enrollment, pricing, and discounting decisions that were insufficiently connected to the institution's operating model.

6. “The Our Numbers are Up” Problem: Enrollment Increase is Mistaken for Enrollment Growth

Higher education frequently uses the terms *enrollment increase* and *enrollment growth* interchangeably. Confusing the two can lead institutions to interpret a larger student count as evidence of institutional progress, even when the financial and operational consequences tell a different story. Announcing that enrollment is “growing” can reasonably signal to faculty, staff, boards, and other stakeholders that the institution is becoming stronger. When those same stakeholders subsequently encounter budget reductions and other financial constraints, the messages can appear contradictory. The contradiction may not be in the numbers but in the terminology used.

An *enrollment increase* is fundamentally a volume change. An institution enrolled 2,000 students last year and 2,100 this year. Enrollment increased by 100 students, or 5%, telling us about volume.

Enrollment growth occurs when an increase in students contributes positively and sustainably to the institution. This tells us about value. The additional enrollment generates enough net revenue to cover the incremental costs of recruiting, educating, supporting, and retaining those students and contributes to the institution's financial capacity. This growth is achievable without compromising academic quality, student support, institutional capacity, or other strategic priorities.

Consider an institution with enrollment 4% higher than last year while remaining substantially below where it stood five or ten years earlier. During that same period, salaries, benefits, utilities, technology, compliance, debt service, facilities, and other operating costs continue to increase. A year-over-year enrollment increase can therefore signal an improvement in direction without representing a recovery in the institution's underlying financial capacity. Celebrating this increase without the longer view can create a *false recovery narrative*: enrollment has improved, but the institution is still serving fewer students against a substantially higher cost base.

The same caution applies even when enrollment exceeds previous levels. The economic value of additional enrollment depends on the net tuition revenue those students generate after institutional aid and discounting, the costs required to recruit them, and the marginal costs of educating and supporting them. An institution can enroll more students, report a stronger headcount, and still experience little improvement, or even deterioration, in its financial position if the additional revenue is insufficient to support the corresponding cost structure.

A more meaningful assessment of enrollment performance therefore requires at least three comparisons. Enrollment today compared with last year tells us direction. Enrollment today compared with five or ten years ago tells us the institution's longer-term structural position. Net tuition revenue per student, considered alongside changes in the institution's cost structure over the same period, shows whether enrollment performance contributes to greater financial sustainability.

7. Published Tuition: The Price Few Students Pay

It is difficult to identify when increasing published tuition became embedded in the higher education financing model. The shift occurred over decades as institutions responded to rising costs, changing public support, expanding financial aid, increasing competition, and evolving approaches to institutional

aid. What is clearer is that published tuition gradually became more complicated than the amount institutions expected most students to pay. Creating a double-edged sword.

Raising published tuition could increase the potential revenue from each student and give institutions more latitude to award scholarships and institutional aid. But as published prices increased, so too did the pressure to discount them. The institution could announce a higher tuition price while collecting a progressively smaller percentage of that price from the average student. Eventually, the price institutions published and the revenue they actually realized moved in opposite directions.

The consequences extended beyond discounting. As published tuition increased, institutions increasingly relied on prospective students and their families to understand that the price displayed on the website was not necessarily the price they would ultimately pay. That is a considerable expectation to place on a high school student or family when they encounter a \$40,000, \$50,000, or \$60,000 tuition price before knowing whether institutional grants, scholarships, or other aid might substantially reduce it.

Some students undoubtedly continued through the process, completed the financial aid forms, received an award, and discovered a much lower net price. Others may have looked at the published price and looked away. In those cases, the institution never had an opportunity to demonstrate affordability because the sticker price itself became the barrier to consideration. The very price designed to generate additional tuition revenue and create room for discounting could simultaneously discourage prospective students before the discount was ever offered.

This is one paradox of modern tuition pricing. Institutions may publish a price they do not expect many students to pay, offer discounts to make it affordable, and then depend on prospective students and families to understand the difference. Higher education created an extraordinarily complicated pricing system and then placed much of the burden of understanding it on the consumer.

The consequences of this pricing model are not experienced equally. For first-generation college students in particular, assuming prospective students and their families understand the difference between published tuition and net price can be especially problematic. A family with prior experience navigating college admissions may recognize a \$50,000 published tuition price as only the beginning of a financial aid calculation. A student who is the first in the family to attend college has no reason to know

that. The published price may appear to answer the most immediate question: *Can I afford to go there?*

If the answer appears to be no, the student may never apply, complete a financial aid form, use a net price calculator, or receive the institutional aid that would have made attendance possible. The institution can therefore be more affordable than its published price suggests and still lose the student before it ever demonstrates affordability. In that respect, a high-tuition, high-discount model can work against access by asking those least familiar with higher education pricing to understand one of its least intuitive features: the advertised price may not be the price they are expected to pay. Making tuition affordable through discounting does little for a prospective student who concludes from the published price that the institution is unaffordable and never enters the process.

When Students Compare What They Paid

The complexity of tuition pricing does not remain confined to enrollment management, financial aid, or the bursar's office. Many faculty members who develop strong relationships with students have experienced the moment when tuition enters the classroom conversation, often around the time bills are issued. A student may raise concern about what they owe, another may mention a scholarship or institutional grant, and students sitting beside one another can quickly discover that they are paying substantially different prices for essentially the same educational experience. Faculty are rarely positioned to explain those differences. They generally do not know the details of individual financial aid packages, nor should they. The appropriate response is often, *"I don't know. You will need to speak with Financial Aid or Student Accounts."*

Yet the conversation itself reveals something important about the tuition model. The institution may understand each student's price as the product of financial need, institutional aid, merit awards, residency, enrollment strategy, or other legitimate considerations. Students encountering those differences among their peers may experience the situation very differently. For them, the issue may be considerably simpler: *Why am I paying this amount when another student sitting next to me is paying substantially less?* That question moves tuition discounting beyond enrollment strategy and institutional finance into perceptions of price, transparency, and fairness. It also exposes an unusual characteristic of higher education pricing. The institution sees an aid package; the student sees a price. And the faculty member caught in the middle often sees neither. That disconnect deserves greater attention when considering the consequences of a pricing model in which published tuition may bear little relationship to what individual students actually pay.

8. The Illusion of Revenue Diversification

An institution may appear to have a diversified revenue base because its financial statements contain numerous revenue categories. Tuition, student fees, housing, dining, parking, and other auxiliaries may appear as separate revenue lines. Economically, however, they may share the same underlying dependency... *students must enroll, remain enrolled, and generate sufficient net revenue.* What appears to be revenue diversification can therefore mask substantial revenue concentration.

Tuition dependency is, at its core, a form of *revenue concentration risk*. The institution may have thousands of individual students, multiple academic programs, several enrollment markets, and numerous categories of tuition and fee revenue. Still, much of that revenue depends on the same underlying condition... *students must continue to enroll, remain enrolled, and generate sufficient net revenue.* Housing, dining, student fees, and many auxiliary revenues may appear as separate revenue lines, but they too rise and fall with enrollment. When an institution requires a particular number of students, paying a particular average net price, to sustain its existing operating structure, enrollment is no longer only a mission or market objective but more a financial requirement.

Why the Traditional Model Is Under Increasing Pressure

For a long time, the model worked because institutions could respond to financial pressure through a combination of higher tuition, additional enrollment, deeper market penetration, expanded financial aid, new programs, and cost reductions. The difficulty is that several of those levers are now under simultaneous pressure.

Demographic change is reducing the traditional college-age population in many of the markets from which institutions have historically recruited. The effects are uneven geographically and institutionally. An institution that depends on continually increasing traditional undergraduate enrollment faces greater exposure when its primary market is stagnant or contracting.

Competition has intensified. Institutions compete not only with neighboring colleges but also with regional and national universities, online providers, public institutions operating beyond traditional geographic boundaries, and other educational options. Technology has substantially expanded the number of alternatives available to prospective students.

Adult learners operate differently from traditional residential students. Adults represent an important potential market, but they cannot simply be treated as a replacement population for declining traditional enrollment. They often seek flexibility, shorter pathways, predictable scheduling, career relevance, online or hybrid delivery, and pricing structures that fit employment and family responsibilities. Serving this market effectively requires a different operating model and a different recruitment campaign.

Workforce education and alternative credentials are changing the boundaries of postsecondary education. Certificates, industry credentials, employer-based education, apprenticeships, competency-based models, and shorter educational pathways provide students and employers with alternatives to the traditional degree. These developments create opportunities for colleges and universities, but they also challenge an operating model built primarily around semester-based tuition from degree-seeking students.

Artificial intelligence adds another layer of disruption. AI is affecting occupations, skill requirements, curriculum, instructional delivery, administrative operations, and employer expectations. Its long-term effects on higher education demand remain uncertain. Still, institutions cannot assume the programs, delivery models, staffing structures, and credentials that historically generated enrollment will produce the same demand indefinitely.

Questions about the value of higher education have also become more prominent. Students and families increasingly consider price alongside completion, employment outcomes, earnings, debt, flexibility, and the availability of alternatives. Perceptions of value influence willingness to enroll and willingness to pay.

Finally, **policy uncertainty creates additional exposure** for institutions heavily dependent on enrollment-related revenue. Changes involving financial aid, student lending, immigration, research funding, state appropriations, accountability requirements, or other public policies can affect enrollment and revenue in ways individual institutions cannot control.

9. Not All Enrollment Is Financially Equal

Headcount alone is an inadequate measure of financial strength. Institutions need to understand not only how many students they enroll, but the net tuition generated by different enrollment segments,

institutional aid required to attract them, persistence, associated auxiliary revenue, instructional and support costs, program concentration, and the durability of the markets from which those students are drawn. Enrollment concentrated in students whose net revenue does not adequately cover the additional costs of serving them can increase headcount without materially improving financial health.

Enrollment composition can concentrate risk. Consider four hypothetical institutions. Institution A derives 60 % of its revenue from tuition generated by thousands of residential undergraduates distributed across a broad portfolio of programs. Institution B also derives 60 % of its revenue from tuition but has a substantial concentration of international graduate students in five programs. Institution C derives 60 % from tuition generated primarily by heavily discounted undergraduate enrollment. Institution D derives 60 % from tuition but serves a growing online population with comparatively low marginal instructional and facility costs. Each institution is tuition dependent, but the enrollment source, economics, and concentration of that dependency differ fundamentally.

Even within the same institution, two additional students may contribute very differently to the operating model. Net tuition after institutional aid may differ considerably. One student may live on campus and generate housing, dining, and other auxiliary revenue, while another commutes or studies entirely online. Graduate and undergraduate students may have different pricing structures and instructional costs. Programs may require very different levels of faculty, laboratory, clinical, technology, or facility support. Persistence also matters because the economics of enrolling a student who remains for several years differ from those of repeatedly replacing students who leave after one or two terms.

Heavy dependence on a small number of academic programs, geographic markets, international students, particular demographic groups, or students whose ability to enroll depends substantially on a particular source of external financing can leave an institution exposed even when overall enrollment appears stable. Changes in immigration policy, federal or state financial aid, employer reimbursement, licensure requirements, market demand, or the loss of competitiveness of a few high-enrollment programs can have financial consequences disproportionate to the number of students directly affected.

The institutional question, therefore, cannot stop at *“How many more students do we need?”* but must also ask: *Which students? Generating what net revenue? At what cost? For how long? And with what degree of concentration and volatility?*

10. The Elephant in the Room: Revenue Quality

Not all enrollment is financially equal, leading to what I often call the constant elephant in the room...*revenue quality*. Colleges and universities speak routinely about academic quality, program quality, instructional quality, student experience, research quality, and institutional effectiveness. Far less attention goes to revenue quality, which directly affects the institution's ability to sustain all other forms of quality.

Not all revenue is equally durable, predictable, or economically sustainable. For tuition-dependent institutions, revenue quality asks whether the revenue being generated has the characteristics necessary to remain a reliable foundation for the institution over time. *High-quality tuition revenue* would generally be revenue that is:

- reasonably predictable,
- diversified across programs and student populations,
- associated with sustainable discounting,
- supported by strong persistence,
- affordable to the student,
- capable of covering its marginal cost,
- not dependent upon one financing mechanism, and
- not disproportionately dependent upon a single geographic market.

One of the clearest indicators of poor tuition revenue quality is already on the institutional dashboard: *low first-year retention*. Institutions typically view first-year retention primarily as a student success and academic performance measure. It is also a revenue quality measure. If an institution must recruit a large entering class each year but loses a significant proportion of those students before the second year, the tuition revenue generated by that class is inherently less durable. The institution incurs the cost of recruiting, admitting, onboarding, and educating those students, receives only a limited period of tuition revenue from those who leave, and must then return to the market to replace them. High enrollment with low first-year retention may therefore create the appearance of strong revenue generation while masking weak revenue durability.

Revenue quantity can improve while *revenue quality* deteriorates. An institution may meet its net tuition revenue target while requiring progressively deeper discounts. It may achieve its enrollment target while becoming increasingly dependent on a small number of programs or markets. It may generate sufficient revenue this year while relying on a pricing structure that students will find increasingly difficult to finance.

11. When the Numbers Appear Not to Add Up

Across higher education, conversations about enrollment, tuition, financial aid, discounting, net tuition revenue, and the cost of serving additional students are frequently reduced to individual measures rather than understood as parts of the same financial equation. This lack of understanding often creates significant confusion within an institution. Faculty and staff may be told that enrollment is up, perhaps even substantially, while simultaneously being asked to reduce budgets, leave positions unfilled, absorb additional responsibilities, or delay investments. From their perspective, the obvious question is: *If we have more students, why are we still cutting?*

Over time, that apparent contradiction can erode confidence in institutional decision-making. Faculty and staff may conclude that the financial situation is poorly managed, that information is being withheld, or that the numbers do not make sense. Part of the difficulty may be that few people experience the entire tuition model from beginning to end. Enrollment professionals may focus on the number of students enrolled. Financial aid professionals focus on the resources required to enroll them. Academic leaders experience the instructional and support costs associated with serving them. Finance sees the net revenue that remains after aid and the costs necessary to operate the institution. Before celebrating enrollment increases, institutional leaders should be able to clearly communicate the financial contribution and impact of the students they enroll. Answering that question requires doing the math.

12. Demystifying Tuition Formulas

The basic higher education tuition formula, at its simplest:

$$\text{Net Tuition Revenue} = \text{Enrollment} \times \text{Average Net Tuition per Student}$$

Where:

$$\text{Average Net Tuition} = \text{Published Tuition and Fees} - \text{Institutional Discount}$$

So:

$$\text{NTR} = E \times (T - D)$$

Where: **E** = enrolled students; **T** = published tuition and mandatory fees per student; **D** = average institutional grant or discount per student.

For many institutions, though, tuition revenue supports far more than instruction. The real operating model looks more like:

$$\text{Institutional Revenue Requirement} =$$

$$\text{Academic Costs} + \text{Administrative Costs} + \text{Student Services} \\ + \text{Facilities} + \text{Debt Service} + \text{Technology} + \text{Strategic Investment} \\ + \text{Cash on Hand} + \text{Reserves}.$$

If tuition is the dominant revenue source, then the number of students required calculation becomes:

$$\text{Required Enrollment} =$$

$$\frac{\text{Operating Revenue Requirement} - \text{Non Enrollment Revenue}}{\text{Average Net Revenue per Student}}$$

Example

Suppose a small private institution needs \$80 million annually to operate. It has \$10 million in gifts, investment income, grants, and other enrollment-independent revenue. That leaves: $80M - 10M = 70M$ that must be generated from enrollment-dependent sources. If average net tuition and fee revenue per student is \$25,000 ($70M \div 25,000 = 2,800$) The institution therefore needs approximately 2,800 tuition-paying students to finance the existing operating model.

Enrollment targets therefore cease to function solely as academic or market objectives and increasingly become financial requirements necessary to sustain the institution's operating model.

Why The Basic Tuition Formula Works. The basic model became attractive in part because of its relative simplicity. The tuition model works particularly well when enrollment is stable or growing and institutions have sufficient existing capacity to serve additional students at relatively low marginal cost. Under these conditions, tuition functions much like recurring revenue, while additional enrollment spreads fixed costs across a larger student population. Tuition also aligns the institution's core educational activity with its primary revenue source wherein students receive the educational service, and tuition helps finance its delivery.

The model has also historically benefited from institutions' ability to raise tuition while maintaining enrollment, as well as benefiting from federal and state financial aid that expands students' purchasing power. Together, predictable enrollment, pricing flexibility, available capacity, financial aid, and scale can make tuition-based financing economically effective. The relationship between enrollment and revenue was easy to understand and, for a long time, provided an effective and seemingly reliable foundation for

institutional financing. The difficulty arises when one or more of these underlying conditions begin to weaken.

Why The Tuition Formula Has Stopped Working for Some Institutions. The basic college and university tuition formula becomes vulnerable when one or more assumptions change. If Enrollment (E) falls, revenue falls immediately. The central formula ($NTR = E \times NT$) becomes compromised.

Suppose: 2,800 students $\times$ \$25,000 = \$70 million. A 10% enrollment decline ($2,520 \times \$25,000 = \63 million) creates an immediate \$7 million revenue shortfall. The institution's expenses rarely decline at the same rate. Universities carry substantial fixed and semi-fixed costs. Total institutional costs are: $C = F + VE$. Where: **F** = fixed costs, **V** = variable cost per student, **E** = enrollment. When enrollment declines, only the variable portion of institutional costs tends to decline naturally. Many of the institution's largest expenditures, including personnel, facilities, technology, debt service, and essential administrative and academic functions, remain largely fixed in the short term. Libraries must continue to operate, buildings must be heated or cooled and maintained, debt obligations remain due, and technology systems must be supported. Personnel and infrastructure costs remain largely fixed in the short term. This mismatch between declining enrollment revenue and comparatively inflexible operating costs creates financial pressure disproportionate to the size of the enrollment decline.

13. Discounting the Discount: When More Aid Does Not Produce Better Financial Health

Tuition discounting has become an essential component of enrollment strategy at many colleges and universities. Institutions routinely use aid to respond to competitive pressures, influence yield, shape the entering class, address affordability, and meet enrollment targets. The challenge is not discounting itself, but determining a sustainable level of discounting. Too often, the calculation begins with the enrollment objective: What discount level will encourage the student to enroll? That is an important enrollment management question, but it is incomplete without an equally important financial question: What level of net tuition revenue must the institution receive from its students to sustain its operating model?

When those questions are considered separately, an institution can become increasingly successful at enrolling students while simultaneously weakening the economics of that enrollment. Additional aid may improve yield and increase headcount. Yet, the

resulting net tuition revenue may be insufficient to support the faculty, staff, facilities, technology, student services, debt obligations, and other costs embedded in the institution's operating structure.

Discounting, therefore, cannot be treated solely as an enrollment management tool. The institution's operating model must establish the financial boundaries within which enrollment strategy operates. Before determining how much tuition revenue it can forgo to secure enrollment, an institution should first understand how much net tuition revenue it actually needs. That is:

$$\begin{aligned} \text{Net Tuition Revenue} = \\ \text{Enrollment} \times \text{Published Tuition} \times (1 - \text{Discount Rate}) \end{aligned}$$

The Pros and Cons of Discounting

Which makes better financial sense: discount tuition and enroll more students, or enroll fewer students at or closer to the published price? Tuition discounting is neither inherently good nor inherently bad. Used strategically, it can increase enrollment, improve access, utilize excess institutional capacity, shape the incoming class, and produce more total net tuition revenue. Used without sufficient attention to the operating model, however, discounting can produce the curious result of enrolling more students while weakening the institution financially. Consider two simplified scenarios.

Scenario A: Lower Enrollment, Higher Net Price

1,000 students pay an average net tuition of \$30,000.
 $1,000 \times \$30,000 = \$30,000,000$

Scenario B: Higher Enrollment, Greater Discounting

1,300 students pay an average net tuition of \$25,000.
 $1,300 \times \$25,000 = \$32,500,000$

At first glance, Scenario B wins. The institution enrolls 300 additional students and generates \$2.5 million more in net tuition revenue. But that does not answer the financial question. Those 300 additional students must be educated and supported. *Do they require additional faculty sections? More adjuncts? Additional advising and counseling? More financial aid administration? Additional residence capacity? More laboratory sections? Additional clinical placements? Greater technology capacity? More student support?* If accommodating the additional 300 students costs \$3 million, the institution generated \$2.5 million in additional tuition revenue, assumed \$3 million in additional costs, and eventually lost \$500k. Enrollment increased. Revenue increased. Financial performance declined.

The appropriate comparison is therefore not simply net tuition revenue but net contribution after the incremental cost of enrollment.

Enrollment Contribution

= Net Enrollment Revenue

– Incremental Cost of Serving Those Students

When Discounting Makes Sense

Discounting can be financially advantageous when an institution has unused capacity. An empty seat in a course already being taught produces no tuition revenue. An unoccupied residence hall bed generates little or no housing revenue while many of the facility's costs remain. If the institution can accommodate additional students without materially increasing costs, discounting can produce substantial incremental contribution. Suppose 1,000 students at \$30,000 generate \$30 million. The institution can accommodate another 200 students within existing faculty, classroom, housing, and administrative capacity. Those students enroll at an average net tuition of \$20,000. (They generate: $200 \times \$20,000 = \$4,000,000$). If the incremental cost of educating and supporting these students is only \$1.5 million, they contribute another $(\$4,000,000 - \$1,500,000 = \$2,500,000)$ to the institution's operating structure. In this situation, discounting makes considerable economic sense and advances the institution's mission by making attendance possible for students who otherwise could not afford to enroll.

When Discounting Becomes Dangerous

The economics change when additional enrollment requires additional capacity. Once classrooms are full, faculty workloads are maximized, residence halls are occupied, laboratories reach capacity, advising loads become excessive, or student services require expansion, the marginal cost of another student increases. At that point, the institution can cross an important threshold where additional enrollment increases institutional activity without generating sufficient financial contribution to support the underlying operating model. More students may mean additional courses, advising, services, facilities use, and administrative demands, while contributing little or nothing toward the institution's fixed costs and broader financial requirements.

Additional discounting may not be confined to the incremental students the institution hopes to attract. If an institution changes its aid strategy broadly, some of the additional institutional aid may also go to students who would have enrolled at the previous net price. In that case, the institution is not simply calculating whether the revenue from additional students exceeds the aid provided to attract them. It must also account for the additional aid awarded to students whose

enrollment behavior did not change. The institution needs to distinguish between aid that changes enrollment behavior and aid awarded to students who would have enrolled anyway.

The Break-Even Question

Before increasing the discount, an institution should calculate how many additional students must enroll to recover the net tuition revenue surrendered through the lower average net price. If current enrollment is 1,000 students, current average net tuition is \$30,000, and proposed average net tuition is \$25,000, the institution must enroll 1,200 students to preserve its existing \$30 million in net tuition revenue.

In other words, the institution must enroll 200 additional students to return to the same level of net tuition revenue. That is before considering any additional costs associated with serving those students. The first 200 additional students therefore do not produce higher gross net tuition revenue; they replace revenue surrendered through the lower net price. Only enrollment above 1,200 begins to increase gross net tuition revenue, and even then, the institution cannot claim increased revenue until it considers the incremental costs of serving those students.

So Which Strategy Is Better?

Fewer students paying closer to published price can be financially superior when those students generate sufficient net revenue to support the institution's operating structure and when additional enrollment would require substantial discounting or new capacity.

More students at a discounted price can be financially superior when the institution has excess capacity, the discount produces enrollment that would not otherwise occur, and the resulting marginal revenue substantially exceeds the marginal cost of serving those students. Neither strategy should be selected simply because it produces the larger incoming class.

14. The Pricing Ceiling: Higher Education Is Not a Veblen Good

In high school, I took an economics class that, to be fair, I found particularly boring. That changed when the teacher got to pricing. Perhaps it was because the discussion turned to the different types and quality of blue jeans, something high school students could understand. The basic lesson was fascinating: for certain products, a higher price does not necessarily reduce demand. In some cases, the high price is part

of what makes the product desirable. The price communicates exclusivity, scarcity, status, or prestige.

Economists associate this phenomenon with Veblen goods, named for economist Thorstein Veblen and his work on conspicuous consumption.

American higher education undoubtedly includes institutions with extraordinary levels of prestige, scarcity, wealth, reputation, and demand. For this relatively small group of colleges and universities, exceptionally high published tuition may not substantially suppress demand. Indeed, price may function alongside selectivity, reputation, and scarcity as part of the market signal surrounding the institution.

But relatively few colleges and universities possess that degree of pricing power. The National Center for Education Statistics (NCES) provides a useful benchmark. Among 2,255 four-year institutions reporting admissions data for 2021–22, only 1.2% accepted fewer than 10% of applicants. The next category, institutions accepting 10% to 24.9%, was also relatively small at 2.1%.¹⁰ The pricing behavior of the sector's most selective and highly demanded institutions should therefore not be assumed to reflect the tuition economics facing higher education more broadly.

Most institutions operate in a far more price-sensitive market. For these institutions, increasing the published tuition price does not magically increase the perceived value of the education. At some point, the opposite occurs. The price becomes an obstacle. Higher education must acknowledge another uncomfortable reality: much of the sector has reached a practical pricing ceiling, the point at which increasing the published price no longer reliably produces a corresponding increase in usable net tuition revenue.

15. The Institutional Cost of Financial Anxiety

Excessive tuition dependency affects more than an institution's balance sheet. It can shape how the institution thinks, plans, and makes decisions. When 85 or 90% of operating revenue depends directly or indirectly on enrollment, each admissions cycle carries unusually high financial consequences and can *institutionalize financial anxiety* across the institution, from the governing board and senior leadership to faculty, staff, and students. Applications, deposits, summer melt, opening enrollment, and retention are no longer simply measures of institutional

¹⁰ U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System

(IPEDS), Winter 2021–22, Admissions component.
https://nces.ed.gov/programs/digest/d22/tables/dt22_305.40.asp

performance but signals of institutional security or insecurity because each carries implications for revenue, budgets, staffing, programs, and future investment.

The psychological effects of operating under this level of dependency receive relatively little attention in discussions of higher education finance. Enrollment professionals can carry the burden of knowing that missing a target may have consequences across the institution, extending to families and the surrounding communities. Presidents, provosts, and other senior leaders may move from one enrollment cycle to the next knowing that relatively small variances can require significant financial responses. Faculty and staff who have experienced repeated enrollment shortfalls may begin to associate enrollment reports with hiring freezes, position reductions, increased workloads, program reviews, or further budget cuts. Some in higher education informally describe the cumulative experience as the “*PTSD of enrollment*.” While PTSD is a clinical term and should not be applied literally to institutional behavior, the expression captures an experience that is rarely discussed: the psychological effect of repeatedly associating enrollment outcomes with financial threat.

Over time, that pressure can encourage increasingly short-term decision-making. Leaders may become focused on filling the next entering class, closing the next budget gap, identifying another enrollment market, or finding another expense reduction rather than making investments whose returns may take several years to materialize. The institutional question can gradually shift from *What should we build over the next five years?* to *Will we make the class this year?* Decisions that might strengthen the institution over the longer term become harder when the immediate financial requirement is to generate sufficient enrollment revenue for the coming year. The institution moves from strategic planning toward reactive financial management.

The effects extend beyond the cabinet. Faculty and staff who repeatedly experience these conditions become less confident in institutional stability. Governing boards may focus more on near-term enrollment indicators. Students may experience the consequences through reduced course availability, vacant positions, changes in services, program uncertainty, or the broader atmosphere surrounding institutional finances. Financial anxiety begins to migrate through the institution.

Reducing enrollment dependency does not eliminate financial uncertainty, nor does enrollment-independent revenue guarantee institutional stability. It does, however, create strategic and psychological capacity. Financial resilience, therefore, is not only about an institution’s capacity to absorb a revenue

shock. It is also about creating sufficient space for the people responsible for the institution to think, plan, and lead without every enrollment cycle carrying disproportionate consequences.

16. The Missing Calculation: the Enrollment Dependency Ratio

Higher education has long measured enrollment, retention, graduation, endowment, composite financial index, bond ratings, and net tuition revenue, among others. Yet no widely, readily available, metric quantifies how dependent an institution is on enrollment itself. An Enrollment Dependency Ratio to provide governing boards and executive leaders with a way to monitor concentration risk over time and evaluate whether strategic investments are making the institution more financially resilient. This shifts the conversation from “*How many students do we need?*” to “*How much financial exposure do we have if enrollment changes?*”

Enrollment Dependency Ratio (EDR) is the percentage of an institution’s annual operating revenue that is directly or indirectly dependent upon student enrollment. This would include:

- Net tuition revenue
- Student fees
- Enrollment-driven state appropriations (where applicable)
- Federal financial aid flowing through students
- Housing
- Dining
- Parking
- Bookstores
- Student health fees
- Enrollment-related auxiliary enterprises

It would exclude:

- Research grants
- Philanthropy
- Endowment income
- Investment income
- Independent commercial enterprises
- Real estate investments not tied to student housing
- Royalties and licensing
- Enterprise businesses serving external markets

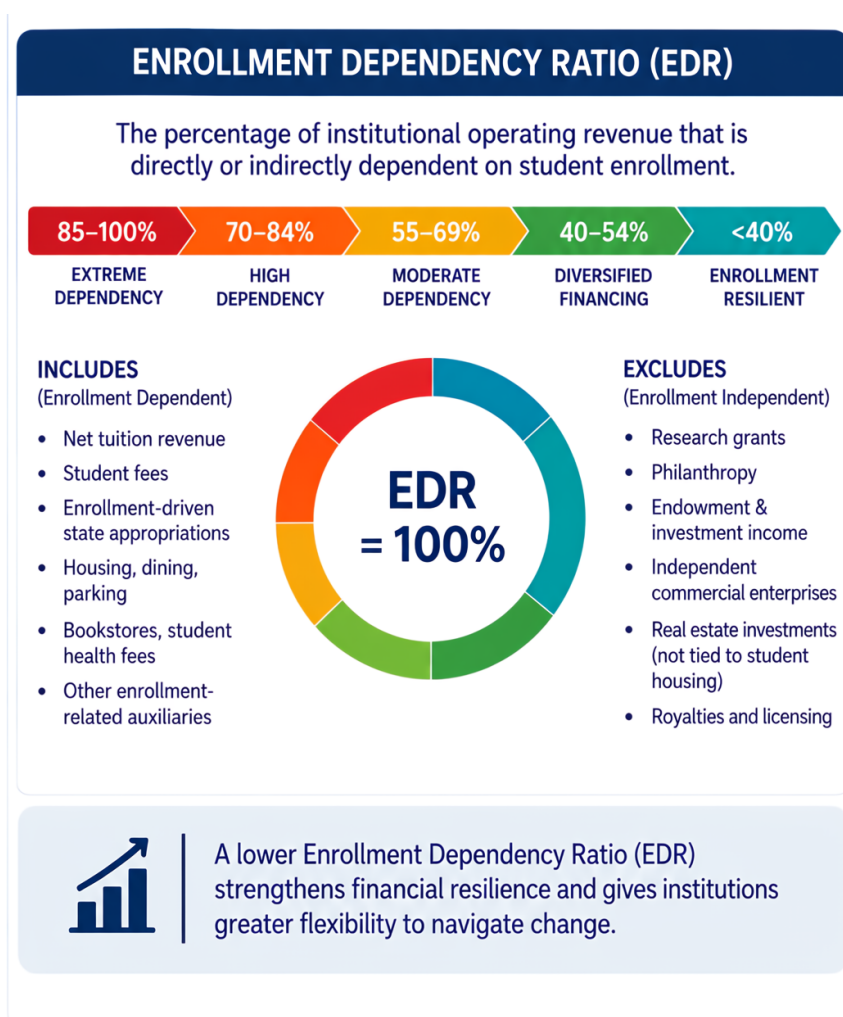
The EDR can be calculated as follows:

$$EDR = \frac{\text{Enrollment Dependent Revenue}}{\text{Total Operating Revenue}} \times 100$$

A university with an EDR of 90 % has substantially greater financial concentration risk than one with an EDR of 50 %, even if both currently have balanced budgets. EDR measures structural vulnerability rather than current financial performance. An institution may be financially stable today while remaining highly exposed to future enrollment changes. Conceptually, an EDR of 85 to 100% might indicate extreme dependency, 70 to 84% high dependency, 55 to 69% moderate dependency, 40 to 54% more diversified financing, and below 40% greater enrollment resilience. These thresholds are illustrative and would require empirical testing and sector-specific benchmarking before they could be used as established risk classifications.

A companion measure, the Enrollment Independence Ratio (EIR), would also capture the percentage of

operating revenue generated from sources substantially independent of student enrollment. EDR and EIR together accounts for 100 % of operating revenue. Used together, these measures shift the institutional conversation beyond simply asking how many students enrolled or whether enrollment increased. Boards and senior leaders can instead examine how much of the operating model depends upon enrollment, whether that exposure is increasing or decreasing, and whether revenue diversification efforts can and are producing measurable results. In this way, enrollment dependency becomes not simply a characteristic of the financing model, but an institutional performance and risk metric that can be measured, monitored, stress-tested, and deliberately managed over time.



17. Beyond Tuition Dependency

How do higher education leaders begin to stop normalizing tuition dependency? By changing what institutions treat as normal. For decades, higher education has largely managed enrollment dependence as an unavoidable operating condition. Reducing that dependence should become an explicit strategic objective.

The first step is to *measure dependency explicitly*. Boards and senior leadership teams should know what proportion of annual operating revenue depends directly or indirectly on enrollment. Institutions should calculate their Enrollment Dependency Ratio annually and set multi-year targets to reduce it. Second, evaluate major investments and new revenue initiatives through an enrollment-dependency lens. Boards and senior leaders should ask not only “*Does this generate revenue?*” but also “*Does this reduce or increase our dependence on enrollment?*” One particularly useful stress test: *If enrollment declined by 20%, would this revenue stream still substantially exist?* If the answer is no, the initiative may still have considerable strategic or financial value, but it should not be characterized as reducing enrollment dependency.

Ultimately, reducing tuition dependency requires changing the questions asked in institutional boardrooms. Instead of “*How many students do we need to balance the budget?*”, leaders should also ask “*What percentage of our institution must students finance?*” Instead of focusing primarily on how much tuition can increase, institutions should consider how much additional revenue they can generate without increasing students’ financial burden. And rather than assuming institutional growth requires corresponding enrollment growth, leaders should ask *how can the institution increase its financial capacity without requiring enrollment to increase at the same rate?* “Everyone has this problem” cannot be the endpoint of the discussion.

18. Make Tuition Economics a Senior Leadership Competency

Understanding tuition and enrollment economics should not reside exclusively with the chief financial officer, vice president for enrollment management, or financial aid team. In a tuition-dependent institution, decisions made by virtually every member of the senior leadership team can affect, or be affected by, enrollment and net tuition revenue. Academic leaders decide on programs, faculty positions, course capacity, and instructional delivery. Student affairs leaders determine levels of student support and

services. Advancement leaders influence philanthropic resources available to offset operating dependence. Finance establishes the parameters of the operating model. Enrollment leaders influence the volume, composition, and net price of students entering the institution. The president and board ultimately carry responsibility for ensuring that these decisions collectively produce a sustainable institution.

Senior leaders therefore need a shared working understanding of the institution’s tuition economics. At minimum, they should understand published tuition, institutional aid, discount rate, average net tuition revenue per student, total net tuition revenue, enrollment dependency, marginal revenue and cost, break-even enrollment, and the relationship between enrollment assumptions and the institution’s operating requirements. They do not need to become enrollment analysts or financial specialists. They do need sufficient fluency to understand the assumptions behind the numbers, ask informed questions, recognize when apparently positive enrollment results may not translate into financial improvement, and understand the consequences of decisions made within their own divisions.

This shared understanding also supports institutional trust. When enrollment reports, financial projections, academic plans, and budget decisions are developed in separate organizational areas, leaders can unintentionally communicate conflicting narratives. One office reports record applications, another celebrates an enrollment increase, finance identifies a revenue shortfall, and academic units are asked to reduce expenditures at the same time. Without a common understanding of how the numbers connect, the institution can appear inconsistent.

Institutions should routinely review tuition and enrollment calculations with the full senior leadership team, connect those calculations explicitly to the operating budget, and ensure that major enrollment, pricing, discounting, academic, and expenditure decisions are evaluated against the same financial assumptions. The objective is to establish shared responsibility for understanding the economic model the institution depends on.

19. A Closing Thought

Tuition dependency developed over decades and became embedded in the operating models of many colleges and universities during periods of expanding enrollment and growing demand. What once seemed manageable is now far more consequential in an environment marked by demographic contraction,

changing learner expectations, affordability pressures, greater competition, and financial volatility.

Higher education has become remarkably sophisticated at managing tuition dependency. Institutions forecast enrollment, optimize financial aid, adjust discount rates, develop new programs, pursue new student markets, and manage retention. But *managing tuition dependency is not the same as reducing it*. Additional students, new programs, and different pricing strategies may generate revenue while leaving the institution just as dependent on enrollment as before. Similarly, an increase in enrollment should not automatically be interpreted as institutional growth, nor should additional revenue automatically be interpreted as greater financial health.

The limits of higher education tuition models are becoming more apparent. Institutions face greater resistance to price increases, changing participation patterns, and increased competition for students. These conditions make it increasingly important for leaders to understand not simply how much tuition revenue the institution generates, but the nature, concentration, quality, and durability of that revenue.

Before concluding that an institution has a sustainable tuition and enrollment model, senior leaders and boards should be able to answer a relatively short set of questions:

☐ *Do we calculate our Enrollment Dependency Ratio annually, including revenue that depends indirectly on enrollment?*

☐ *Do we know whether our enrollment dependency is increasing or decreasing over time?*

☐ *Do we understand which students, programs, and markets generate our enrollment-dependent revenue, and where significant concentrations exist?*

☐ *Do we distinguish enrollment increase from enrollment growth and evaluate enrollment against longer-term revenue and cost trends?*

☐ *Do we know the net financial contribution of major enrollment segments after institutional aid and the costs required to educate and support those students?*

☐ *Are our pricing and discounting decisions connected to the financial requirements of the operating model, rather than determined primarily by enrollment objectives?*

☐ *Have we stress-tested a significant enrollment decline, including its effects on tuition, fees, housing, dining, auxiliaries, and enrollment-related funding?*

☐ *Do we distinguish revenue growth from dependency reduction, recognizing that another program or*

enrollment market may generate revenue without diversifying the underlying source of financial risk?

☐ *Do we have an explicit enrollment-independent revenue strategy capable of producing meaningful revenue that would continue if enrollment declined?*

☐ *Does the governing board monitor enrollment dependency and dependency reduction as matters of institutional stewardship?*

If, as a senior leader, you are uncertain about the answers to six or more of these questions, the institution may not yet have sufficient visibility into the economics and sustainability of the enrollment revenue upon which it depends.

One final question may be the most revealing: If enrollment declined by 20 %, which of the institution's current revenue streams would remain substantially intact? The answer reveals something that enrollment projections and tuition forecasts alone cannot...how much financial capacity the institution possesses independent of the continued presence of students.

Tuition will remain central to the financing of most colleges and universities. The challenge is to ensure that central does not become indispensable. By refusing to accept excessive tuition dependency as simply the natural order of higher education finance, institutions can begin building operating models in which enrollment remains essential to the mission without determining whether the institution ultimately survives.

20. Tuition Dependency Assessment Worksheet

Use the attached *Tuition Dependency Assessment Worksheet* to examine your institution's reliance on tuition and other enrollment-dependent revenue, identify areas of financial exposure, and support discussion among senior leaders and governing boards. For a more detailed analysis, use the *HEEM Online Tuition Dependency and Discounting Calculator* to examine enrollment dependency, tuition discounting, break-even enrollment, and related tuition economics. <https://www.heemconsulting.com/tuition-and-discounting-calculator>

RECOMMENDED CITATION. Mills, J. (2026, June). *The Normalization of Tuition Dependency: Reexamining Tuition Economics and the Assumptions Behind Enrollment, Pricing, Discounting, and Financial Health* (HEEM Insights, Issue 5). Higher Education Efficiency and Management Consulting Services (HEEM Consulting) Publications.



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21. Selected References & Readings

- Bontrager, B. (2004). Strategic enrollment management: Core strategies and best practices. *College and University*, 79(4), 9–15. <https://eric.ed.gov/?id=EJ739080>
- Burns, R., & Weeden, D. (2026). *State higher education finance: FY 2025*. State Higher Education Executive Officers Association. https://shef.sheeo.org/wp-content/uploads/2026/04/SHEF_FY25_Report.pdf
- California Liaison Committee of the State Board of Education and the Regents of the University of California. (1960). *A master plan for higher education in California, 1960–1975*. California State Department of Education. https://digicoll.lib.berkeley.edu/record/206527/files/b22240128_C029581589.pdf
- Chakrabarti, R., Gorton, N., & Lovenheim, M. F. (2020). *State investment in higher education: Effects on human capital formation, student debt, and long-term financial outcomes of students* (NBER Working Paper No. 27885). National Bureau of Economic Research. <https://doi.org/10.3386/w27885>
- Deming, D. J., Goldin, C., Katz, L. F., & Yuchtman, N. (2015). Can online learning bend the higher education cost curve? *American Economic Review*, 105(5), 496–501. <https://doi.org/10.1257/aer.p20151024>
- Dynarski, S., & Scott-Clayton, J. (2013). Financial aid policy: Lessons from research. *The Future of Children*, 23(1), 67–91. <https://doi.org/10.1353/foc.2013.0002>
- Fountain, J. H. (2023). *The Higher Education Act (HEA): A primer* (CRS Report R43351). Congressional Research Service. <https://files.eric.ed.gov/fulltext/ED629794.pdf>
- Gordon, G., & Hedlund, A. (2019). Accounting for the rise in college tuition. In C. R. Hulten & V. A. Ramey (Eds.), *Education, skills, and technical change: Implications for future U.S. GDP growth*. University of Chicago Press. <https://www.nber.org/papers/w21967>
- Hossler, D., & Bontrager, B. (Eds.). (2014). *Handbook of strategic enrollment management*. Jossey-Bass. <https://www.wiley.com/en-us/shop/general-introductory-education/handbook-of-strategic-enrollment-management-p-9781118819531>
- Irwin, V., Bailey, T. M., Panditharatna, R., & Sadeghi, A. (2024). *Projections of education statistics to 2030* (NCES 2024-034). National Center for Education Statistics, U.S. Department of Education. <https://nces.ed.gov/use-work/resource-library/report/compendium/projections-education-statistics-2030>
- Kelchen, R. (2026). *Exploring factors influencing administrative spending in higher education* (Ed Working Paper No. 26-1415). Annenberg Institute at Brown University. <https://doi.org/10.26300/whap-ek94>
- Kelchen, R., Goldrick-Rab, S., & Hosch, B. (2022). Resetting prices: Estimating the effect of tuition reset policies on institutional finances and enrollment. *Research in Higher Education*, 63, 1447–1473. <https://doi.org/10.1007/s11162-022-09723-6>
- National Center for Education Statistics. (2023). *Average undergraduate tuition, fees, room, and board rates charged for full-time students in degree-granting postsecondary institutions, by level and control of institution: Selected academic years, 1963–64 through 2021–22* (Digest of Education Statistics, Table 330.10). U.S. Department of Education. https://nces.ed.gov/ipeds/data/ipeds-tables/digest/d22/tables/dt22_330.10.asp
- National Center for Education Statistics. (n.d.). *IPEDS data table 26396*. Integrated Postsecondary Education Data System, U.S. Department of Education. https://nces.ed.gov/ipeds/data/ipeds-tables/digest/d22/tables/dt22_330.10.asp
- National Center for Education Statistics. (n.d.). *Postsecondary institution revenues*. Condition of Education. U.S. Department of Education. https://nces.ed.gov/ipeds/data/ipeds-tables/digest/d22/tables/dt22_330.10.asp
- National Student Clearinghouse Research Center. (2026). *Clearinghouse Enrollment Insights: Final fall enrollment trends*. <https://nscresearchcenter.org/current-term-enrollment-estimates/>
- National Student Clearinghouse Research Center. (2026). *High school benchmarks*. <https://nscresearchcenter.org/high-school-benchmarks/>
- National Student Clearinghouse Research Center. (2026). *Persistence and retention*. <https://nscresearchcenter.org/persistence-retention/>

Tuition Dependency Assessment Worksheet

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Assess the extent to which institutional operating revenue depends directly or indirectly on enrollment, identify concentration risk, and establish priorities for increasing enrollment-independent revenue.

Institution: Fiscal Year:
Completed By: Date:

1 Revenue Dependency Inventory

Identify major revenue sources, determine the extent to which each depends on enrollment, and calculate the enrollment-dependent amount.

Revenue Source	Annual Revenue	Enrollment Dependent?	% Dependent on Enrollment	Enrollment-Dependent Amount
Net tuition revenue	\$	Yes ☐	100%	\$
Mandatory student fees	\$	Yes ☐	100%	\$
Housing	\$	Yes / Partial ☐	%	\$
Dining	\$	Yes / Partial ☐	%	\$
Parking / transportation	\$	Yes / Partial ☐	%	\$
Bookstore / campus retail	\$	Yes / Partial ☐	%	\$
Student health / recreation fees	\$	Yes / Partial ☐	%	\$
Enrollment-driven state funding	\$	Yes / Partial ☐	%	\$
Continuing / professional education	\$	Yes / Partial / No ☐	%	\$
Research / sponsored programs	\$	Partial / No ☐	%	\$
Philanthropy / annual giving	\$	No ☐	0%	\$0
Endowment / investment income	\$	No ☐	0%	\$0
Commercial real estate / leases	\$	No* ☐	0%	\$0
Licensing / royalties / intellectual property	\$	No* ☐	0%	\$0
External professional services	\$	No* ☐	0%	\$0
University-owned commercial enterprises	\$	No* ☐	0%	\$0
Other (specify)	\$		%	\$
TOTAL	\$ 	—	—	\$

* Count as enrollment independent only when the revenue is substantially generated by external markets rather than enrolled students.

Key Takeaways

- Identify all significant revenue sources.
- Determine the extent to which each depends on enrollment.
- Calculate the total enrollment-dependent amount.
- This inventory forms the basis for the Enrollment Dependency Ratio (EDR).

2 Calculate the Enrollment Dependency Ratio

Measure the proportion of operating revenue that depends on enrollment and the proportion that does not.

Enrollment Dependency Ratio (EDR)

$$\text{EDR} = \frac{\text{Enrollment-Dependent Revenue}}{\text{Total Operating Revenue}} \times 100$$

Total Operating Revenue: \$

Enrollment-Dependent Revenue: \$

Enrollment Dependency Ratio (EDR): %

Enrollment Independence Ratio (EIR)

$$\text{EIR} = \frac{\text{Enrollment-Independent Revenue}}{\text{Total Operating Revenue}} \times 100$$

Enrollment-Independent Revenue: \$

Enrollment Independence Ratio (EIR): %

How to Interpret

- A higher EDR indicates greater reliance on enrollment and higher concentration risk.
- A higher EIR indicates a more diversified revenue model.
- There is no single "right" level, but very high EDR levels indicate greater vulnerability to enrollment declines.

3 The 20% Enrollment Stress Test

Estimate the financial impact of a 20% decline in total enrollment. Do not assume every revenue stream declines exactly 20%.

Revenue Source	Current Revenue	Expected Revenue after 20% Enrollment Decline	Estimated Loss
Net tuition revenue	\$	\$	\$
Student fees	\$	\$	\$
Housing	\$	\$	\$
Dining	\$	\$	\$
Parking / retail / auxiliaries	\$	\$	\$
Enrollment-related state funding	\$	\$	\$
Other enrollment-dependent revenue	\$	\$	\$
TOTAL	\$	\$	\$



Stress Test Results

Estimated annual revenue loss: \$

Percentage of operating revenue lost: %

Could current reserves absorb this loss for one year?

☐ Yes ☐ No ☐ Partially

Could the institution absorb this loss for three consecutive years?

☐ Yes ☐ No ☐ Uncertain

4 Pricing and Discounting Exposure

Evaluate current tuition pricing, institutional aid, and whether net tuition revenue is sufficient to support the operating model.

Published Tuition: \$

Average Institutional Aid per Student: \$

Average Net Tuition per Student: \$

Current Tuition Discount Rate: %

Total Enrollment: _____

Net Tuition Revenue: \$

Required Net Revenue Per Student

Required Net Revenue Per Student = $\frac{\text{Operating Revenue Requirement} - \text{Enrollment-Independent Revenue}}{\text{Required Enrollment}}$

Required Net Revenue Per Student: \$

Actual Net Revenue Per Student: \$

Is actual net tuition sufficient to support the operating model?

☐ Yes ☐ Barely ☐ No ☐ Not currently calculated

5 Discounting Break-Even Test

Determine the enrollment required to maintain current net tuition revenue if the average net tuition per student declines due to higher discounting.

Current enrollment: _____

Current average net tuition: \$

Proposed average net tuition: \$

Required Enrollment to Preserve Current Net Tuition Revenue

Required Enrollment = $\frac{\text{Current Enrollment} \times \text{Current Net Tuition}}{\text{Proposed Net Tuition}}$

Required enrollment after discount increase: _____

Additional students required to break even: _____



Operational Impact

Can these students be served within existing capacity? ☐ Yes ☐ No ☐ Partially

Estimated marginal cost of serving additional students: \$

Expected additional net tuition revenue: \$

Expected net contribution after additional costs: \$

6 Overall Assessment and Next Steps



Key Actions

- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____