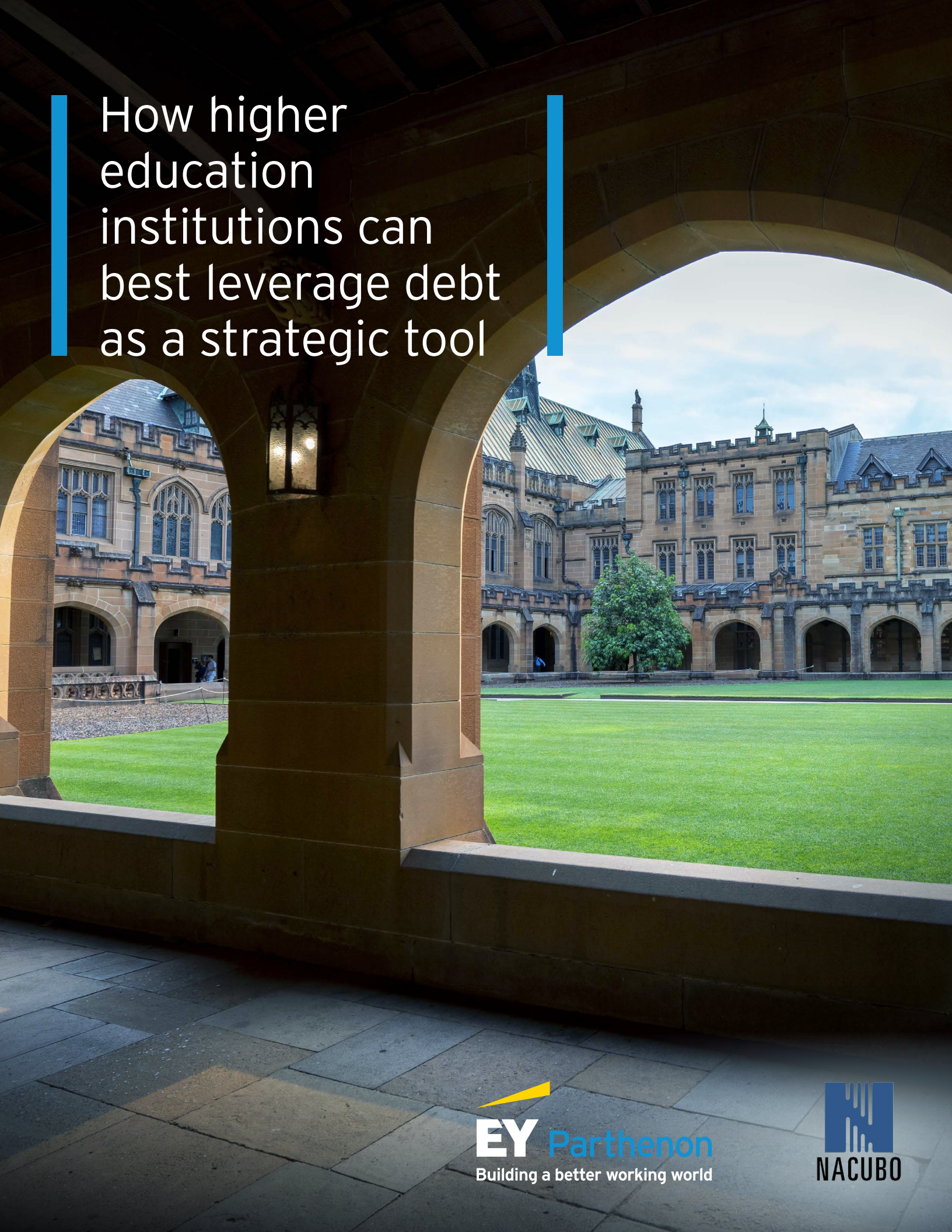
How higher education institutions can best leverage debt as a strategic tool



EY Parthenon
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Table of contents

Acknowledgements

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We greatly appreciate the time and input provided by these individuals who are thinking deeply about questions, challenges and opportunities related to institutional debt, especially at a time when the higher education sector overall has been experiencing significant challenges and uncertainty.

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Introduction

Higher education institutions have continued to increase the amount of long-term debt that they hold during a period where enrollment growth in the sector has slowed and is expected to decline. This raises a question about whether the sector is approaching a limit to the benefits that debt financing can provide. The EY-Parthenon team sought to answer this by examining how institutions make decisions about long-term debt and how debt financing is used. We found that institutions consider an intuitive set of questions:

1. **Does the institution have the capacity to take on additional debt?**
2. **What value will the debt-financed investment provide to the institution?**

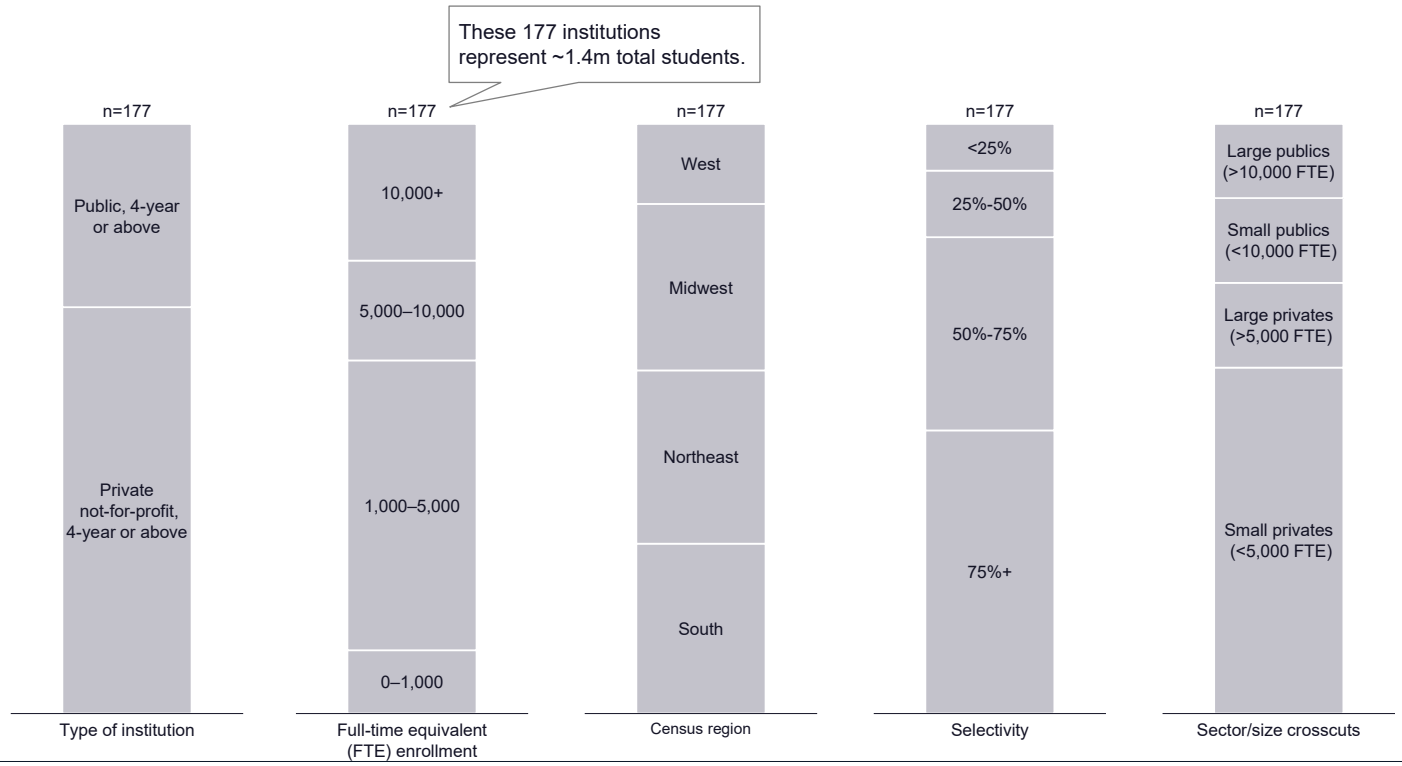
In practice, however, the focus of the decision-making process is heavily weighted toward the first question. Common measures of debt capacity are used to assess the financial health of the higher education sector and to inform whether an institution can assume a larger debt burden. Institutions have **not** developed common ways to assess the value that capital investments can provide, and the associated questions are typically expansive and difficult to answer. As a result, decisions about debt are often made based primarily on the foundational measures that indicate whether an institution **can** take on further debt without sufficient attention paid to whether it **should.**

Our analysis suggests that this does not provide a strong enough decision-making basis. Adequately answering the second question is critical to an institution's ability to use debt as a strategic tool. Based on input from NACUBO's members, we outline how higher education institutions answer each of these questions today and the associated strengths and limitations. We conclude by presenting a framework for how institutions might think differently about their debt decisions going forward. This is especially critical at a time when the sector is looking ahead to a period of increasing change following the peak of the COVID-19 pandemic and as the number of high school graduates is projected to decline over the next decade.

Methodology

- This study has been informed by interviews with, and a quantitative survey of, NACUBO's members, in addition to publicly available data from The Integrated Postsecondary Education Data System.
- The survey is aimed to understand institutions' current debt levels and changes to debt levels during the pandemic, approaches to decision-making about debt and uses of debt.
- The survey was conducted in June 2021 and completed by 177 respondents from a mix of four-year public and private not-for-profit institutions distributed across sizes, geographies and selectivity levels [Figure 1].
- The survey was supplemented by approximately 20 follow-up interviews with institutions.
- For the purposes of this study, long-term debt is defined as any debt with a maturity of 12 months or longer.

Figure 1: Survey respondent institutional characteristics



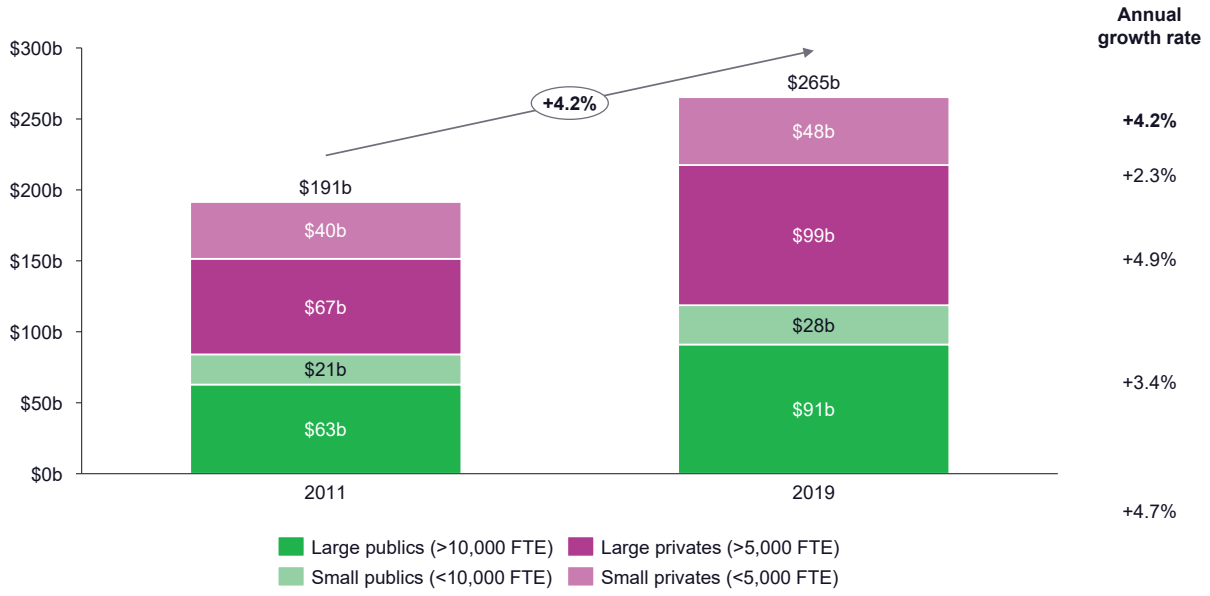
Source: NACUBO EY-P Institutional Debt Survey, June 2021.

Historical trends and future outlook

- Overall higher education sector debt has been increasing at a rate of 4% per year from 2011 to 2019.
- This exceeds the aggregate annual rate of enrollment growth of 1% over the same period.
- Survey findings suggest that COVID-19 did not have a significant impact on the number or total value of new debt issuances across the sector.
- Federal relief funding also had a minimal impact on institutions' debt issuances, though it prevented just over 10% of institutions from having to use debt to fund operating expenses.

Much has been written about the rising cost of education and projected enrollment declines over the next decade as low birth rates during the Great Recession had resulted in fewer high school graduates who were poised to enter college. High school graduation projections across the United States are expected to decrease at − 0.4% annually from 2022 through 2037.[1] Despite the anticipated "enrollment cliff," institutional debt for four-year colleges and universities has been increasing at 4% annually and amounted to approximately $265b in 2019 [Figure 2].

Figure 2: Relative growth of long-term debt for four-year public and private not-for-profit institutions

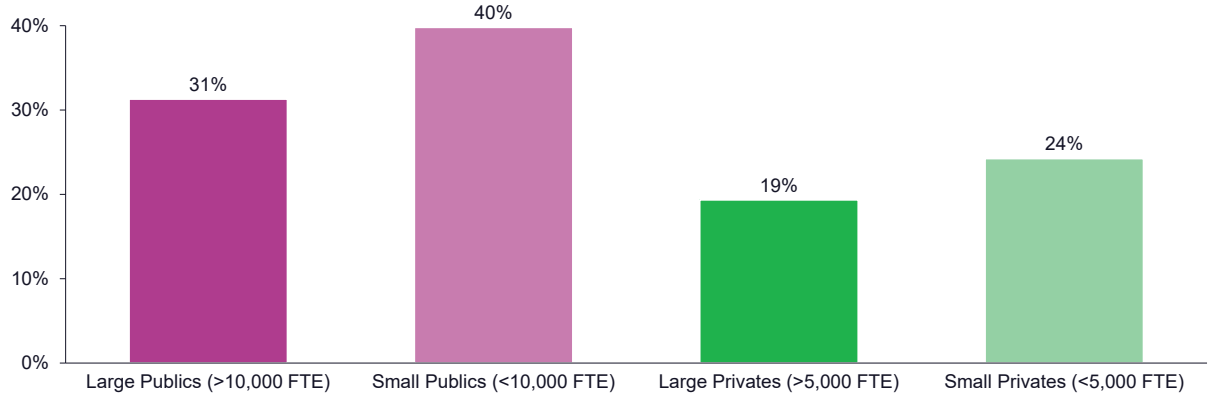


Source: IPEDS; IRS.

This increase in long-term debt over time exceeds the growth of FTE enrollment at public and private not-for-profit four-year institutions, which has been below 1% per year from 2011 to 2019.[2] As a result, the debt burden per full-time student has increased substantially for many institutions and, as of 2019, was $24.3k overall [Figure 3]:

- This increase has been greatest at public institutions, both large publics that have been growing enrollment over this period and small publics that have seen enrollment declines.
- The rise in debt overall and debt per FTE may be driven in part by reductions in public funding,[3] which institutions have had to replace with other sources.
- However, the trend is not isolated to public institutions; large private institutions and small private institutions have seen a rise in debt per FTE of 19% and 24%, respectively.
- As of 2019, the debt burden per FTE varied significantly by institution type, with large privates having the highest value at $54.8k and small publics having the lowest value at $13.3k.

Figure 3: Cumulative change in debt per FTE from 2011 to 2019



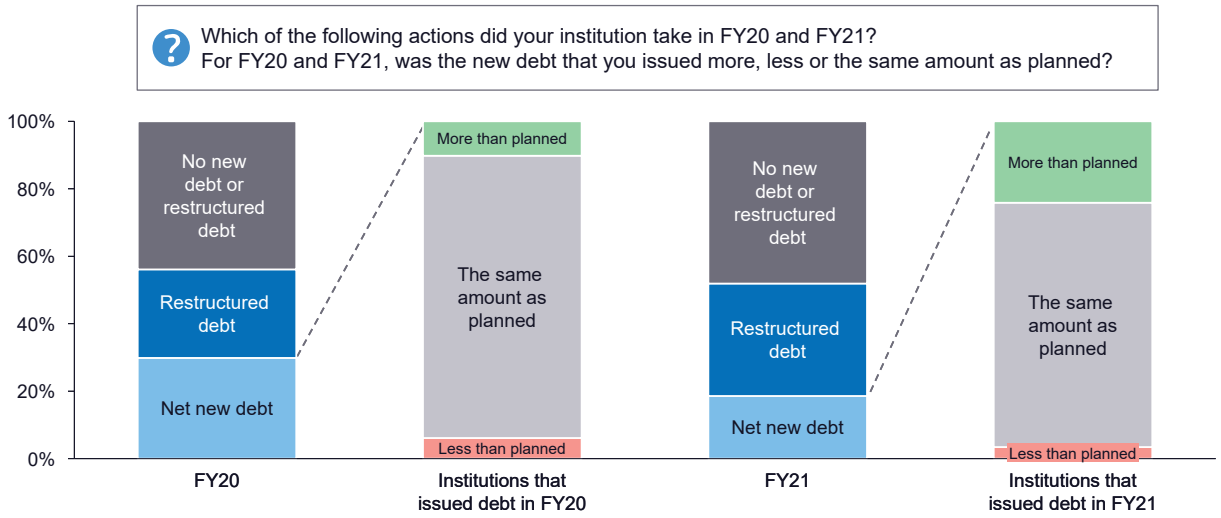
	Large Publics (>10,000 FTE)	Small Publics (<10,000 FTE)	Large Privates (>5,000 FTE)	Small Privates (<5,000 FTE)
2011-2019 cumulative change in FTE enrollment	+10%	-7%	+23%	-4%
2019 debt per FTE	$17.1k	$13.3k	$54.8k	$28.4k

Source: IPEDS; IRS.

The pandemic brought unprecedented challenges to higher education, but, in terms of debt issuances, institutions reported expected levels of activity:

- Institutions surveyed typically issue debt every three to four years, which translates to roughly 25% of institutions issuing debt annually. In FY20, 30% of surveyed institutions issued new debt, and, in FY21, 19% did [Figure 4].
- This suggests that during the period most impacted by the pandemic, the number of new debt issuances was minimally affected, if at all.
- The majority of those that did issue debt indicated that the amount issued was in line with pre-pandemic plans.
- In FY21, a greater share of institutions stated that they issued more debt than planned (24%), potentially due to favorable rates. Refinancing was also relatively common over this period, with 26% of surveyed institutions refinancing in FY20 and 33% in FY21.

Figure 4: New debt issuances in fiscal year 2020 and 2021



Note: n=163 and reflects respondents at institutions with long-term debt held at the institution, state or system-level, and that are responsible for the debt service payments.
Source: NACUBO EY-P Institutional Debt Survey June 2021.

The impact of federal relief funding on new debt issuances was fairly minimal overall, but, for 13% of institutions, it eliminated the need to use debt to fund operating expenses; for 7% of institutions, it allowed for pushing back the timeline for a planned debt issuance due to accumulation of cash reserves.

These impacts from COVID-19 are only the immediate reactions to the pandemic, and it remains to be seen how the overall sector and attitudes toward debt may change over a longer term. Fifteen percent of CBOs expressed uncertainty about future debt levels for higher education, and 55% indicated an expectation that debt levels will continue to rise over the next five years. On average, CBOs expect that the sector debt level will increase ~4% over the next five years, which reflects an annual growth rate of less than 1% and a significant slowing relative to the prior period.

The pandemic accelerated, but did not fundamentally change, pressures facing the higher education sector. Online learning is becoming a more viable choice for students seeking flexibility and affordability, potentially disrupting higher education's traditional residential model for a meaningful share of institutions. Sector leaders have emphasized the importance of focusing the post-COVID-19 period on transformational change rather than a return to business as usual.[4] They also acknowledge the difficulties of doing so, given that the period most affected by the pandemic over the past 18 months has placed a strain on students, families, faculty and staff, who have been asked to adjust to an ever-changing set of realities associated with shifting case counts and safety protocols. There is an understandable desire to return to a period of stability.

Whether institutions pursue a path of transformation or recommit to pre-pandemic priorities, the decision of how to finance strategic projects is an important one that will have implications for years to come, given that the debt maturities issued by higher education institutions are typically 30 years or longer.[5]

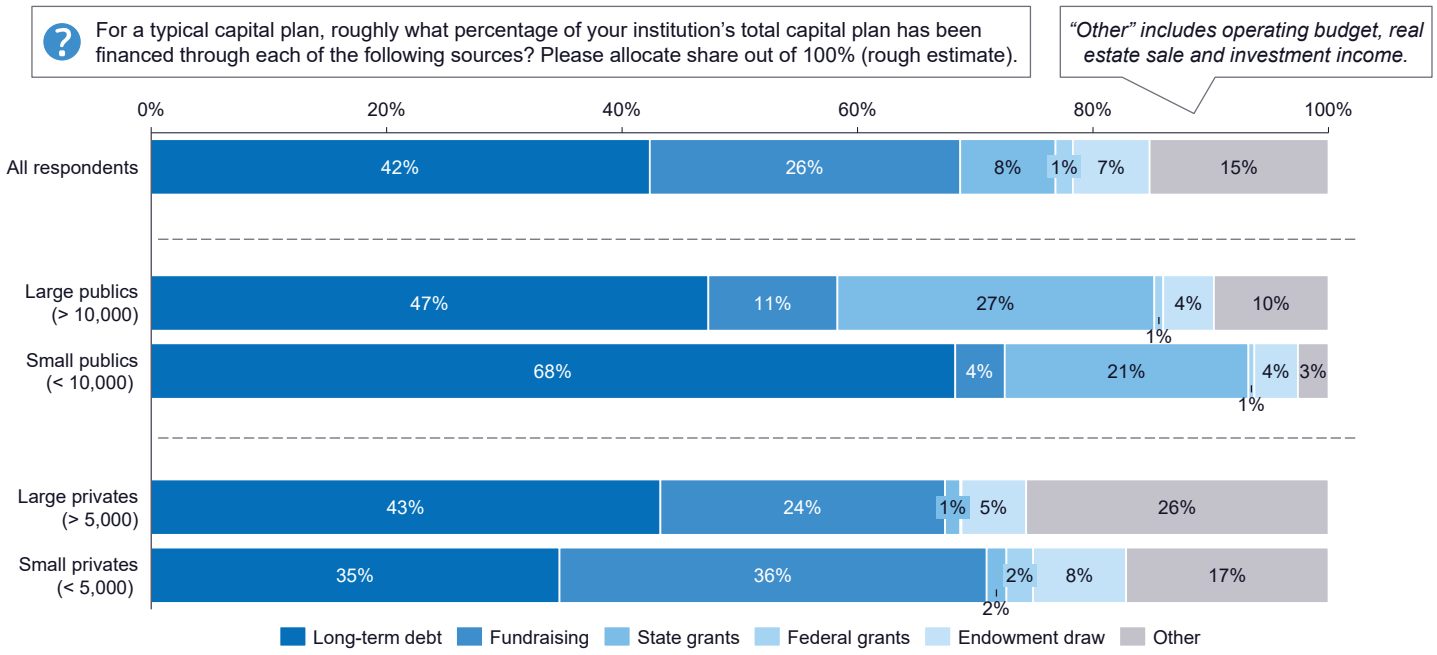
Assessing debt capacity

- At 42%, debt makes up a significant share of overall capital budgets.
- Seventy-one percent of institutions have a formal policy or codified set of practices that guide debt-related decisions. These tend to be primarily focused on the requirements and constraints that must be followed when issuing debt.
- Nearly all institutions regularly review a set of financial metrics to assess their long-term debt levels and capacity to take on additional debt.
- Institutions typically fall within the thresholds that they have established in order to achieve favorable lending terms and maintain positive public perception.

Debt is the largest single source making up budgets for capital projects, at 42% across all institutions, followed by state grants for public institutions and by fundraising for private institutions [Figure 5]. As debt has increased in importance as a source of financing, most institutions have looked to develop an approach to decision-making about how much debt is appropriate to take on.

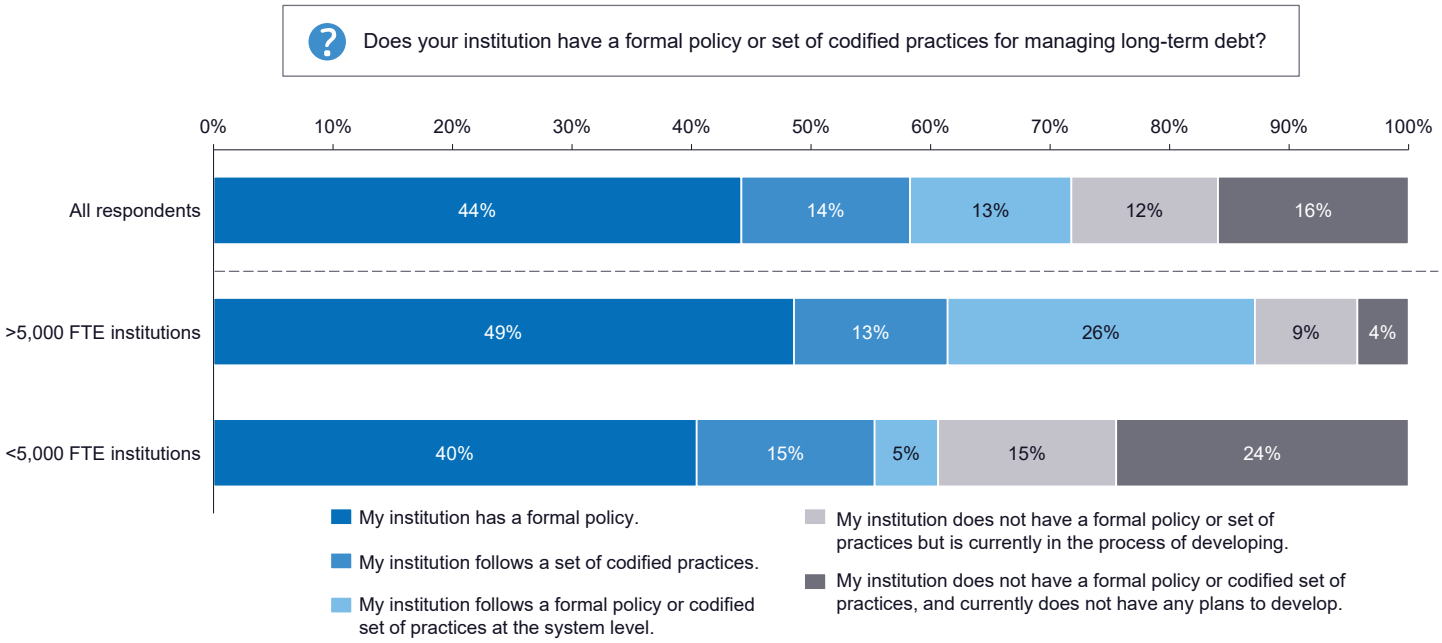
Seventy-one percent of institutions have a formal policy or codified set of practices that are used to guide decisions about when debt is issued and for what purpose, and another 12% are in the process of developing these [Figure 6]. Institution size is the most important factor associated with whether an institution has adopted a formal policy/codified set of practices, with 87% of large institutions having these in place and only 60% of small institutions having these.

Figure 5: Average allocation to finance capital projects



Note: n=141 and reflects respondents who are able to estimate breakdown of past debt-financed investments for their institution.
Source: NACUBO EY-P Institutional Debt Survey, June 2021.

Figure 6: Usage of formal debt policy and codified practices among institutions



Note: n=163 and reflects respondents at institutions with long-term debt held at the institution, state or system level, and that are responsible for the debt service payments.
Source: NACUBO EY-P Institutional Debt Survey, June 2021.

Formal debt policies are one tool that institutions have to demonstrate to lenders and rating agencies that they are financially well-managed and are likely to meet their debt obligations. A typical policy may address guidelines on capital projects eligible for debt financing, a methodology for how to assess debt capacity, a set of financial ratios to constrain the total level of debt held and requirements for how debt service expenses are paid, to name a few features. Generally speaking, policies address questions around **how much** debt an institution can responsibly carry and **how** it will afford debt payments, but are less concerned with answering **why** a debt-financed investment is core to an institution's strategy, since the latter is a complex issue that would be challenging to codify in policy.

Typical debt policies include:

- Guidelines on capital projects eligible for debt financing
- Limits on the length of a long-term debt issuance
- Methodology on how to assess debt capacity
- A set of financial ratios/metrics that can act as constraints on total debt levels
- Requirement of a payment plan for debt service expense over the entire lifetime of the issuance
- Specification of specific stakeholder approvals needed

In follow-up interviews, CBOs suggested that policies are most often used to inform the overall levels of debt that can be assumed and the types of debt structures that are allowable:

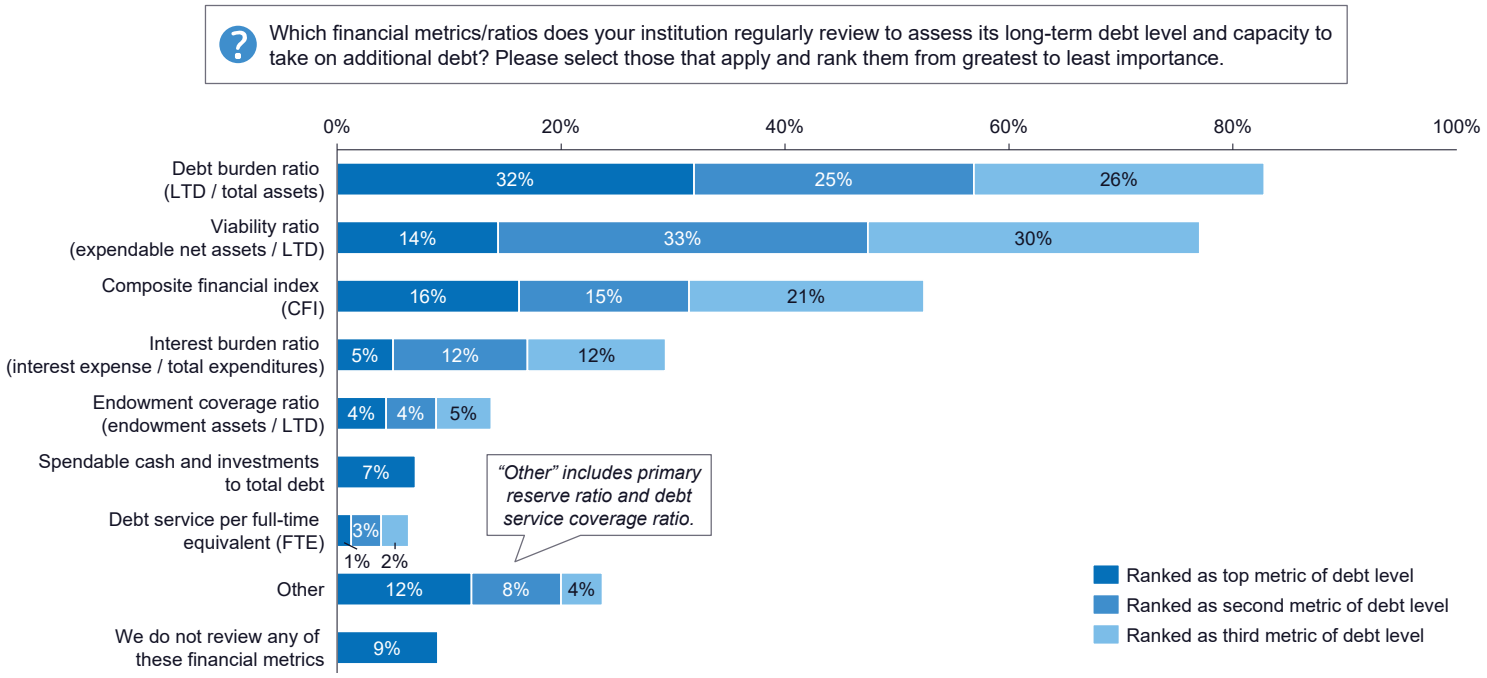
> Our debt policy is effectively a set of ratios that act as constraints on our debt issuances. The two most important measures we look at are the overall level of net assets relative to total debt and the annual debt service relative to our operating revenues.
>
> **– VP of Business Affairs and Chief Financial Officer, large private institution**

> My institution uses our policy more around the mix of debt (i.e., taxable vs. tax-exempt, fixed vs. variable) rather than to set specific limitations.
>
> **– Chief Financial Officer, large private institution**

Most institutions look at a set of common ratios to assess their debt levels and ensure that they maintain a healthy position, regardless of whether these are prescribed in policy:

- Fewer than 10% of surveyed institutions indicated that they do not regularly review financial ratios related to their debt burden.
- Debt burden ratio and viability ratio emerged as the most frequently relied-upon metrics to assess levels of long-term debt, followed by the Composite Financial Index* and the interest burden ratio.
- Institutions typically set thresholds for the metrics that they aim to stay below (either formally in policy, informally in practice, or motivated by lender or regulatory requirements).
- The range of thresholds indicated for the debt burden ratio spans from <2% on the low end to over 11% on the high end. The median indicated threshold was 7% for public institutions and 5.5% for private institutions [Figure 8].

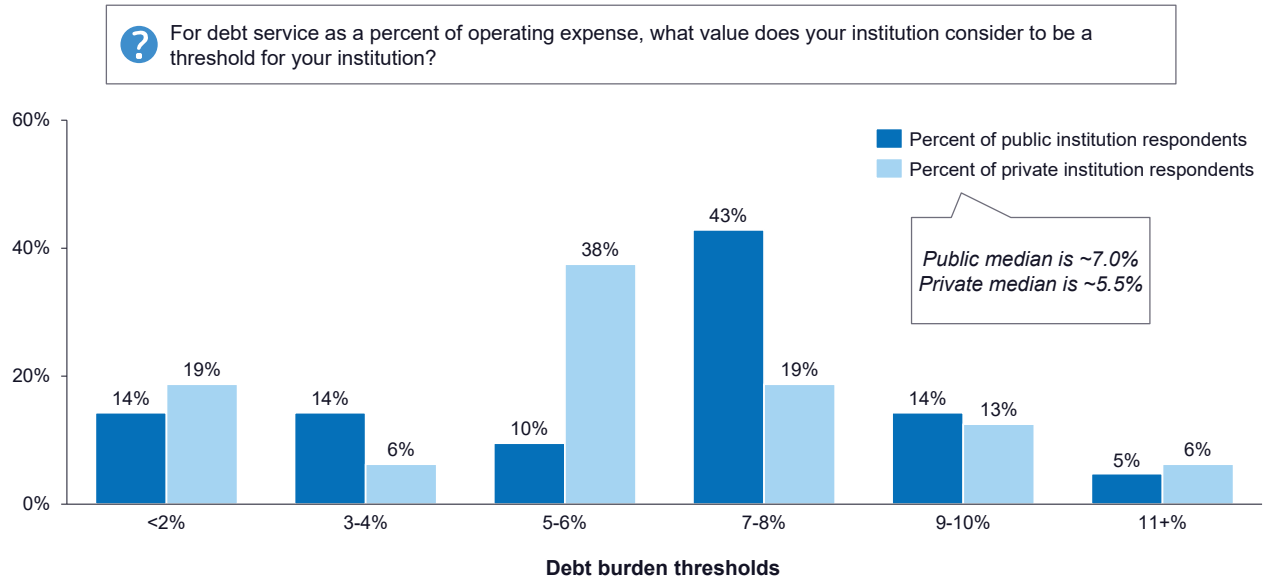
Figure 7: Metrics reviewed to assess level of long-term debt (LTD)



Note: n=163 and reflects respondents at institutions with long-term debt held at the institution, state or system level and that are responsible for the debt service payments.
Source: NACUBO EY-P Institutional Debt Survey, June 2021.

* Composite Financial Index is based on the primary reserve ratio, viability ratio, return on net assets ratio and net operating revenue ratio.

Figure 8: Distribution of thresholds for debt burden ratio



Note: n=36 and reflects respondents that reported debt burden ratio as their top metric of importance.
Source: NACUBO EY-P Institutional Debt Survey, June 2021.

Institutions with debt burden ratios below the median values of 5%-7% typically have interest rate burdens below 2%. Those at or above median debt burden thresholds often have an interest burden ratio of 3% or higher. While interest burden ratio is a less commonly used metric, these measures are closely correlated, and using the interest burden ratio as a proxy for the debt burden ratio allows all four-year institutions in the IPEDS data set to be evaluated.

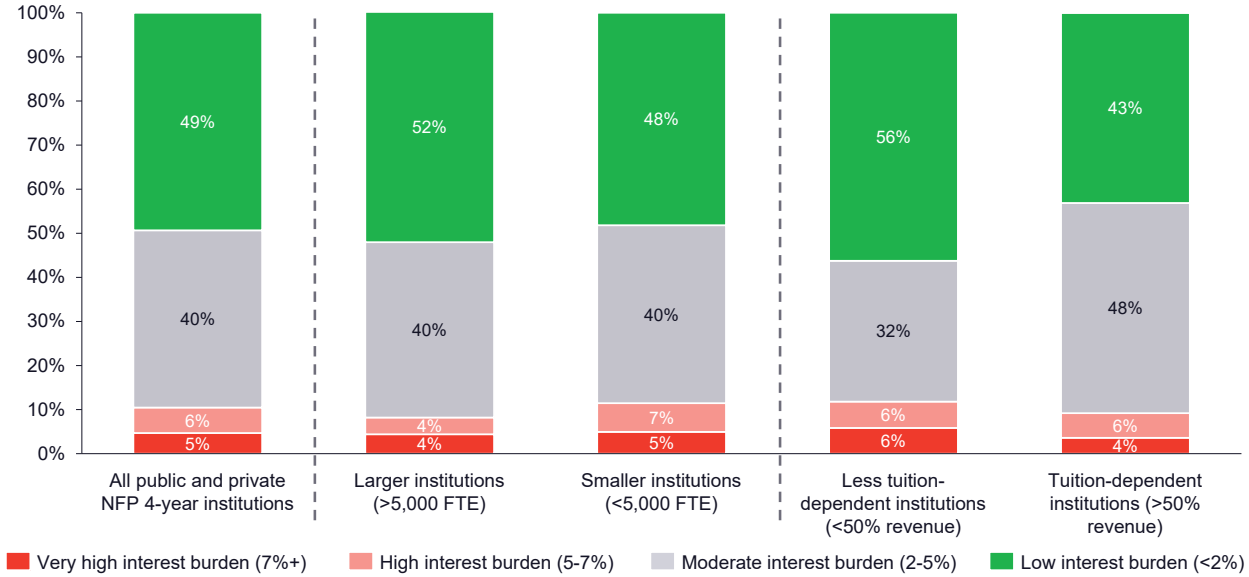
We have defined low interest burden to be less than 2%, moderate interest burden to be 2%-5%, high interest burden to be 5%-7% and very high interest burden to be greater than 7%. Looking at the full universe of four-year public and private not-for-profit institutions with debt, only 11% of institutions have a high or very high interest burden ratio [Figure 9]:

- There is very modest variation between institutions based on size, with 8% of large institutions having high or very high interest burdens compared to 12% of small institutions.
- Institutions with a lower level of tuition dependency are more likely (at 56%) to have a low interest burden compared to institutions with higher tuition dependency (at 43%).
- Research I** institutions typically fall within the intersection of these characteristics, being both large and less tuition dependent in most cases. They are especially likely to have a low interest burden ratio, with only 3% falling into the high or very high category.

Overall, most institutions, regardless of their characteristics, responsibly manage their debt levels to stay within commonly accepted limits.

** Research I institutions are defined as institutions that are categorized as "Doctoral Universities: Very High Research Activity" by the Carnegie Classification of Institutions of Higher Education.

Figure 9: Sector 2019 interest burden distribution



	All public and private NFP 4-year institutions	Larger institutions (>5,000 FTE)	Smaller institutions (<5,000 FTE)	Less tuition-dependent institutions (<50% revenue)	Tuition-dependent institutions (>50% revenue)
% with interest burden >5%	11%	8%	12%	12%	10%
Median interest burden	2.1%	1.9%	2.2%	1.8%	2.3%

Note: n=1,871 and reflects institutions that reported interest expense (greater than zero) to IPEDS.
Source: IPEDS.

Institutions use these thresholds not only to assess the current state, but also to project the impact of a future debt issuance. If forecasting suggests that a planned debt issuance would push the institution above its set threshold, it may delay the project until additional fundraising or cash reserves can be applied to reduce the overall debt burden required, or until debt can be restructured to a achieve more favorable terms. Through the mechanics of this decision-making process, we see that one of the primary ways that institutions assess their level of debt is in relation to how much they **can** take on according to externally validated measures and lender terms. This is both reasonable and commonly accepted across the sector, but it provides an incomplete picture, unless institutions are also evaluating whether a particular debt-financed project is something they **should** take on.

Assessing capital investment value

- Institutions assess capital investment value either indirectly or on a project-specific basis, but rarely apply quantitative measures to the holistic outcomes of a project on the overall business model of the institution.
- The limitations to these methods are especially acute for institutions whose core business model is supporting a holistic student experience (vs. large institutions with multiple discrete sources of revenue/more diversified revenue).
- Revenue growth can be used as a proxy for assessing investment outcomes.
- Roughly 70% of institutions that have long-term debt have not grown revenue in excess of sector-wide median expense growth (3% p.a.), suggesting that they have not gained sufficient investment returns.

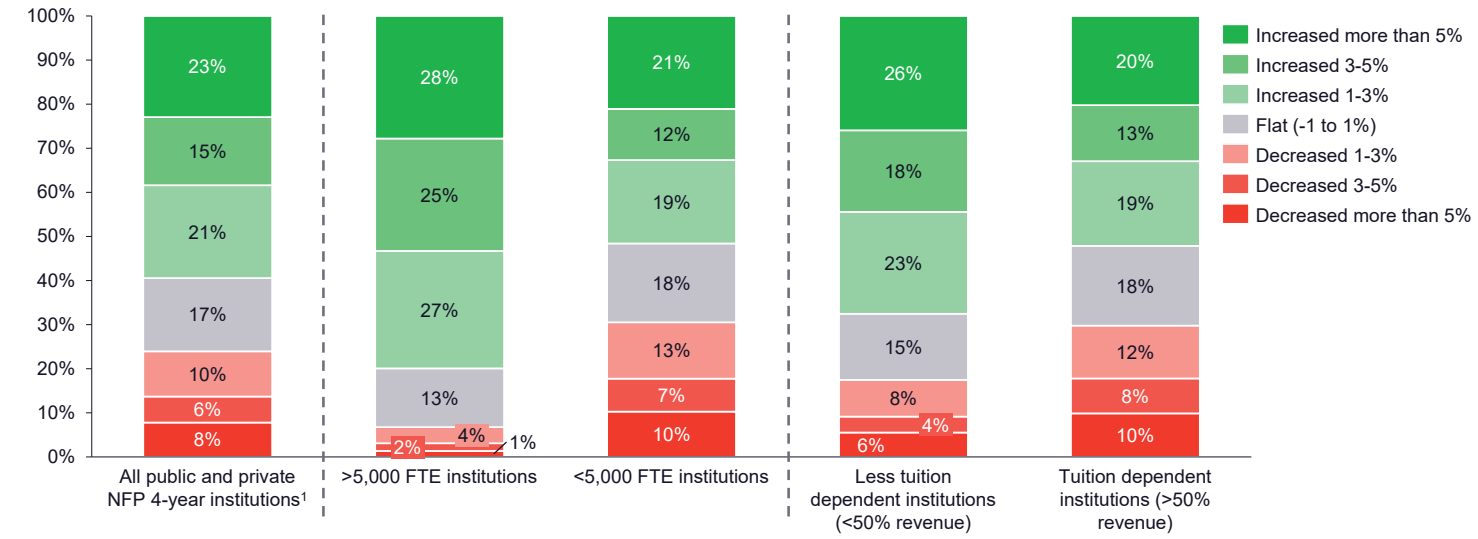
There are two primary ways that institutions assess the value of capital investments today: indirect assessment of strategic value and direct evaluation of the cash flows associated with a specific project. Both of these methods have merits and can be used effectively in theory, but, in practice, they have limits:

- Indirect assessments attempt to quantify the financial impact of a project funded by debt with a series of often qualitative assumptions. As an example, a project may be expected to drive differentiation, which drives student interest and applications, which, in turn, may drive selectivity and, ultimately, net revenue per student, and this can have a positive financial impact on the institution overall. But the logic may not fully factor in sector trends or effectively evaluate the level and impact of differentiation achieved.
- Direct assessments of cash flows can be performed when there is auxiliary revenue generated from an investment (e.g., a new dorm building that is expected to boost enrollment of residential students on campus or result in higher room and board fees per student). However, this type of assessment may constraint too narrowly the view of how the project affects the overall business model, by attributing benefits to the project only, and therefore create a more favorable view of project economics than exists in practice. Not putting forecasted investment returns in the context of the broader institution's financial model, especially how it may be affected by relevant sector trends, can lead to misleading financial projections.

Strategic value can be measured in many ways because institutions have missions beyond financial viability. However, since a viable financial model is required so that the institution can continue operating and fulfilling its mission, we posit that revenue growth (as distinct from pure enrollment growth) can be used as a proxy to measure successful capital investments.

Looking at revenue growth over the past five years, there is a broad distribution of outcomes, suggesting that not all institutions are equally able to generate value from the debt-financed investments that they are making. In fact, 41% of institutions with debt have experienced flat or declining revenue, and only 38% of institutions with debt have grown revenue at or above 3% per year to match median expense growth over the same period [Figure 10]. These results imply that the methods that institutions are using to estimate the expected value of their capital investments may not be sufficient across the board.

Figure 10: Sector 2014-2019 annual revenue growth distribution for institutions with debt



	All public and private NFP 4-year institutions[1]	>5,000 FTE institutions	<5,000 FTE institutions	Less tuition dependent institutions (<50% revenue)	Tuition dependent institutions (>50% revenue)
% with annual growth >3%	38%	53%	33%	44%	33%
Median annual growth	0.6%	2.5%	-0.5%	2.0%	-0.6%

Note: n=1,811 and reflects institutions with debt (interest expense greater than zero) and reported revenue data to IPEDS.
Source: IPEDS.

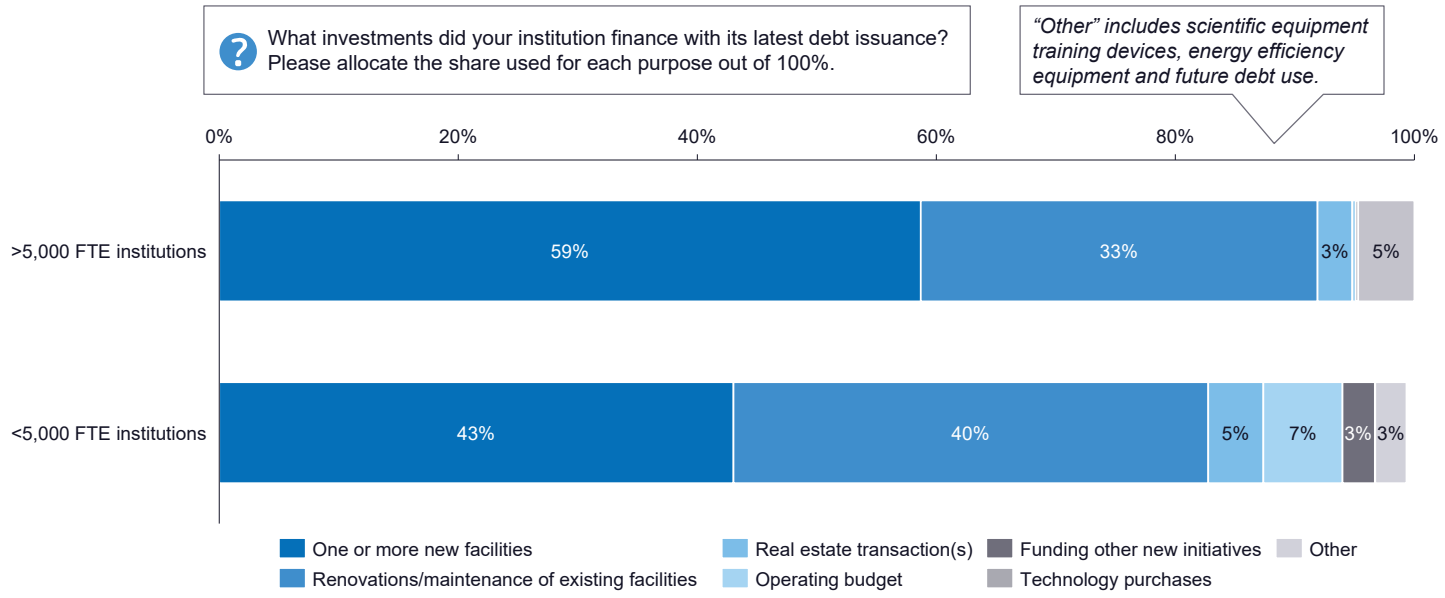
An alternate look at assessing capital investment value

- A look at the common uses of debt indicates that the majority of institutions are making investments in the current business model of in-person, residential education.
- Given sector trends, growing revenue through enrollments or net tuition increases is highly competitive, and most institutions are competing in similar ways.
- Those making investments in the current model need to consider whether they have had success growing during the recent historical period and whether the investments being considered truly support differentiation.

The overwhelming majority of investments financed by debt (87%) go toward new buildings or renovations of existing buildings [Figure 11]:

- Comparatively, large institutions spend more on new buildings (59%), while small institutions spend more on renovations or maintenance of existing facilities (40%).
- Institutions are largely building and renovating the same types of facilities, most notably dorms and STEM academic buildings, with no major differences by institution size [Figure 12].
- There is some variation by school type; for example, Research I institutions reported allocating a larger share of their latest debt issuance to investing in research facilities (19% of new buildings and 10% of renovations of existing facilities) compared to all respondents (4% and 2%, respectively). They also spent a larger share of their latest issuance renovating athletic facilities (24% vs. 13%).
- Liberal arts institutions*** reported allocating a larger share of their latest debt issuance to new humanities buildings (7% vs. 3%) and renovating dorms (37% vs. 24%) compared to all respondents.

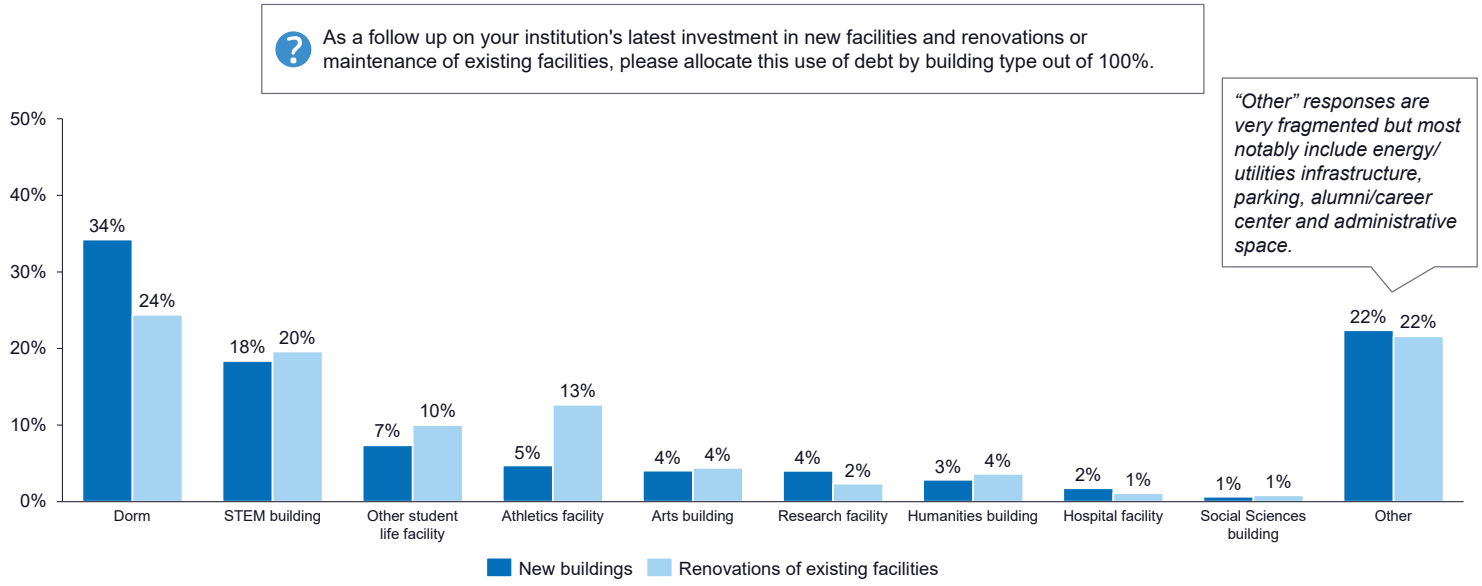
Figure 11: Average share of investments financed with long-term debt



Note: n=141 and reflects respondents able to estimate breakdown of past debt-financed investments for their institution.
Source: NACUBO EY-P Institutional Debt Survey, June 2021.

*** Liberal arts colleges are defined as institutions categorized as "Baccalaureate Colleges: Arts & Sciences Focus" by the Carnegie Classification of Institutions of Higher Education.

Figure 12: Average latest facilities investment allocation



Differences in allocation by institution focus

- Liberal arts institutions allocated 37% of investments in renovations to dorm. They also allocated 7% of investments in new buildings to humanities-related academic buildings.
- Research I institutions allocated 24% of investments in renovations to athletic facilities. They also allocated 19% of investments in new buildings and 10% of investments in renovations to research facilities.

Note: n=82 respondents' institutions invested in new buildings and were able to allocate by building type;
n=72 respondents' institutions invested in renovations of existing facilities and were able to allocate by building type.
Source: NACUBO EY-P Institutional Debt Survey, June 2021.

These actions of building and renovating new and existing facilities, like dorms, represent an investment in the current business model of in-person, residential higher education. But, given challenging sector trends with an imminent "enrollment cliff," growing revenue through increasing enrollment or net tuition is quite competitive. Also, the abrupt acceleration of, and transition to, online education during the COVID-19 pandemic may permanently alter the higher education business model moving forward, with a greater percentage of students learning remotely.

While it is difficult to predict future student preferences, institutions that have not experienced success growing revenue in the recent historical period should take a hard look at their capital investments and consider whether they are truly supporting their institutions' goals of differentiation in the context of the changing higher education landscape. Otherwise, the debt burden that they are assuming may yield only increased costs.

Considerations for future decision-making

- We can use the proxy measures outlined in this study to segment the landscape of institutions by their level of debt capacity and their demonstrated ability to realize capital investment value.
- Institutions that fall into each segment vary in size, tuition dependency, type (public/private) and focus (Carnegie Classification).
- We recommend a set of considerations that institutions can incorporate into their decision-making processes related to debt to augment current practices.

Using interest burden ratio as a proxy for measuring debt capacity and recent annual revenue growth as a proxy for demonstrated successful investments, we have segmented the landscape of four-year public and private not-for-profit institutions with debt [Figure 13]. The interest burden threshold is set at 2% to identify those institutions that still have reasonable capacity to take on additional debt. The annual revenue growth threshold is set at 3% to indicate those institutions that are growing their revenues in line with, or above, the median expense growth over the same period.

Figure 13: Segmentation of institutions by debt capacity and recent revenue growth

Higher growth (>3%)

Lower growth (<3%)

2014 – 2019 revenue CAGR

1 Higher debt capacity and higher growth	
Median FTE	5,010
Median tuition dependency (% of revenue)	37%
Median % online and hybrid enrollment	36%
Median % undergraduate adult learners (>25 years old)	18%

2 Lower debt capacity and higher growth	
Median FTE	3,889
Median tuition dependency (% of revenue)	45%
Median % online and hybrid enrollment	31%
Median % undergraduate adult learners (>25 years old)	14%

3 Higher debt capacity and lower growth	
Median FTE	2,091
Median tuition dependency (% of revenue)	52%
Median % online and hybrid enrollment	33%
Median % undergraduate adult learners (>25 years old)	13%

4 Lower debt capacity and lower growth	
Median FTE	2,027
Median tuition dependency (% of revenue)	61%
Median % online and hybrid enrollment	26%
Median % undergraduate adult learners (>25 years old)	10%

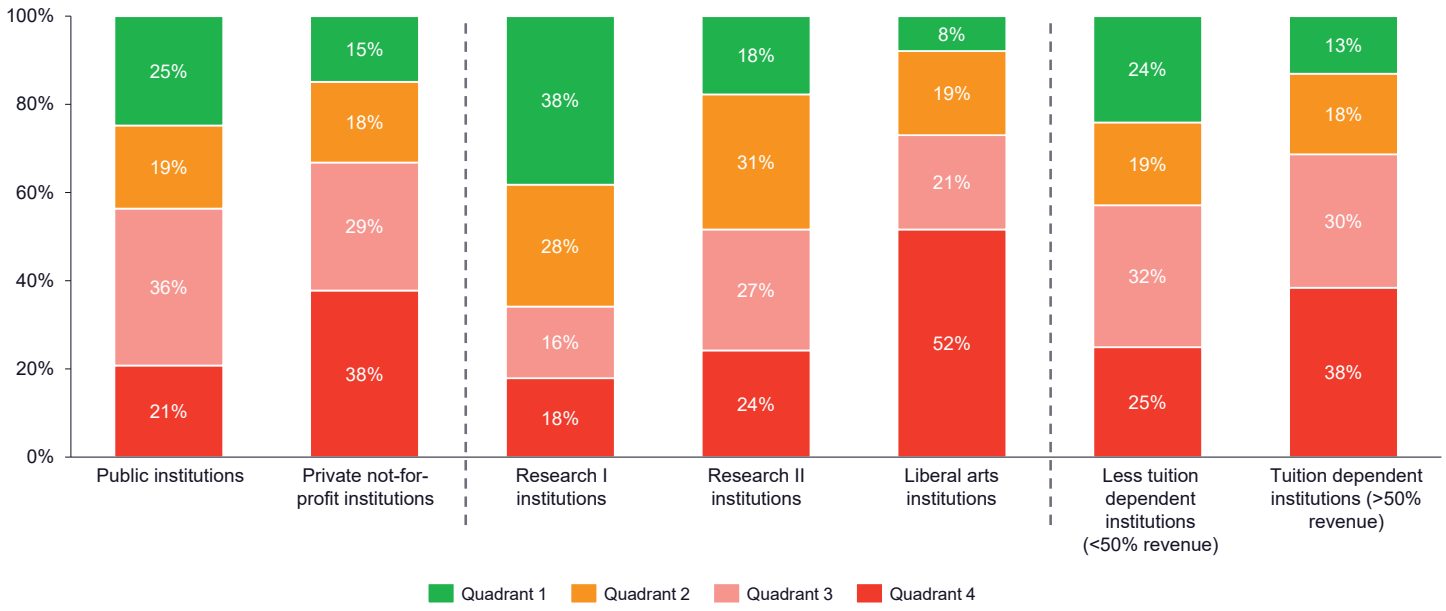
Interest burden ratio

Higher debt capacity (<2%)

Lower debt capacity (>2%)

Note: n=1,823 and reflects institutions with debt (interest burden greater than zero) and reported revenue data from IPEDS.
Source: IPEDS.

Figure 14: Institutional characteristics by quadrant



Institutions that fall into each quadrant differ on various characteristics. In particular, institutions in quadrant 1 (higher debt capacity and higher growth) tend to be larger and less tuition-dependent than institutions in quadrant 4 (lower debt capacity and lower growth). Institutions in quadrant 1 are also more likely to be public and Research I institutions, and less likely to be liberal arts colleges relative to other quadrants [Figure 14]. The questions that an institution falling in one quadrant will face are likely very different from the questions faced by an institution in another quadrant.

Based on this segmentation, we recommend the following set of considerations for institutions to contemplate as they make future decisions around debt:

Quadrant 1:
Institutions with higher debt capacity and higher growth

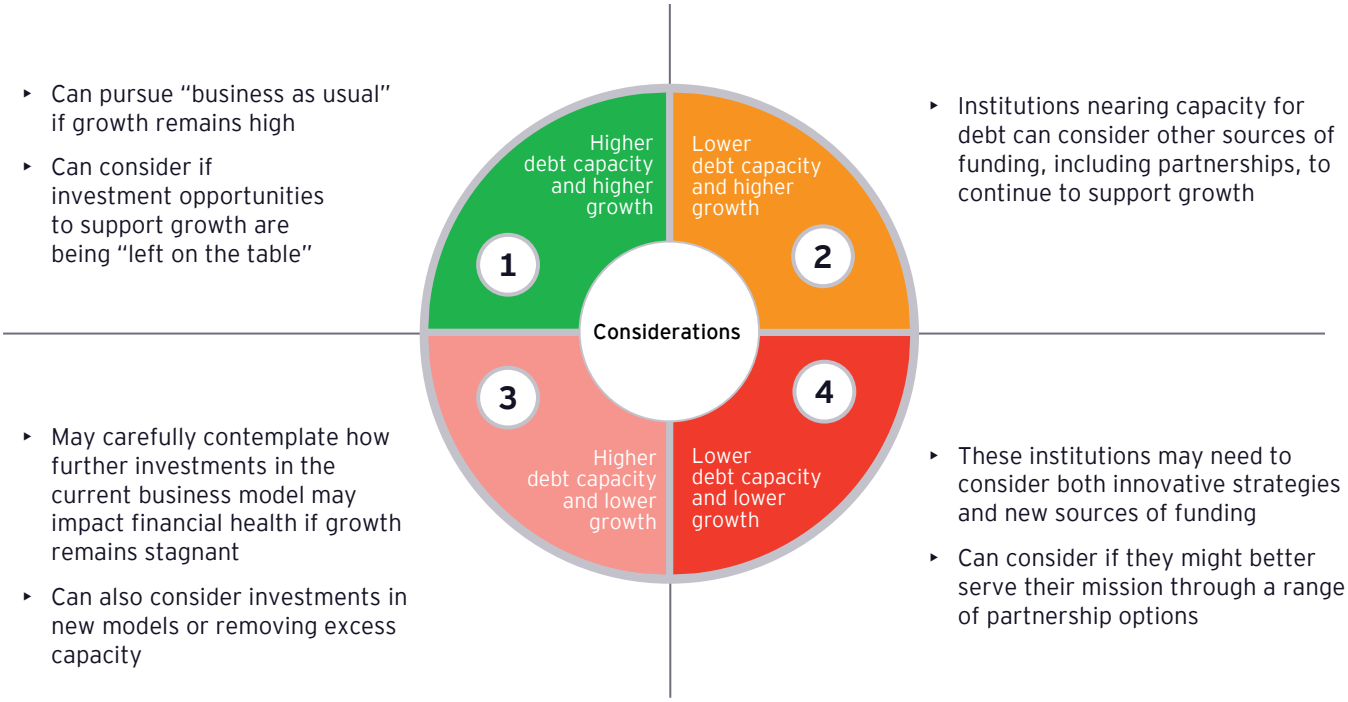
These institutions have a demonstrated track record of growth. Like all institutions, they should assess where recent growth has come from and how sustainable these drivers are likely to be post-COVID and in the context of declining demographics (high school graduates). If growth prospects remain high, they may be able to continue "business as usual."

Given these institutions likely have capacity to take on more debt, they can consider whether investments beyond facilities upgrades can be debt-financed. These may include:

- Signature initiatives to further innovate and differentiate the institution's value proposition in the context of changing student preferences
- New programs or delivery models targeting high growth segments of corporate or adult learners, such as microlearning or stackable credentials
- Ventures that build on the intellectual property of the university in high-demand fields that may require significant investment in labs, equipment, computing capability or establishing partnerships to build out research ecosystems
- Development of an innovation district as part of a public-private partnership to support new academic and research programs

Donor funds can be applied to these types of strategic projects, but if there are opportunities in excess of available fundraising, it may make sense to apply debt financing to take full advantage. This would require different structures and maturities than higher education institutions typically pursue

Figure 15: Segmentation considerations for future debt issuances



Source: EY-Parthenon analysis

Quadrant 2:
Institutions with lower debt capacity and higher growth

These institutions have a track record of growth, but may be nearing capacity for debt. Rather than slowing investments, the institutions in this segment may consider other sources of funding, such as:

- Public-private partnerships to develop facilities projects, such as hotels or conference centers. These projects can generate free cash flow to invest back into the campus mission.
- Strategic partnerships with corporations where the institution contributes IP and/or talent and the corporation provides up-front financing, and both entities agree upon a revenue share for the generated income after an initial payback period. These partnerships could also be structured in ways that do not involve revenue shares, but rather help achieve shared goals/benefit both organizations (e.g., workforce development/student pathways aimed at transforming a particular industry sector; sustainability; technology innovation).
- Joint ventures between higher education institutions to create greater financing scale for investments (e.g., to commercialize technologies and expand industry collaboration).
- Real estate transactions, such as a sale or ground lease of non-core assets, which can yield an up-front payment used to retire debt obligations in one area to free up capacity for investment in another area considered more central to the institution's value proposition area that is considered.

Quadrant 3:
Institutions with higher debt capacity and lower growth

These institutions may have capacity to take on more debt, but have not demonstrated rapid growth in recent years. They should carefully contemplate how investments in the current business model may affect their financial health in the medium to long term if growth continues to stagnate:

- It may be an opportune time to consider investments in innovative models, such as programs that serve new student

segments or integrate more tightly with employers. These initiatives must be considered carefully, in the context of broad industry trends, but have greater potential to generate an attractive return on investment if they are focused on the areas of the market where growth is strongest.

- Institutions can also consider projects that may improve efficiency while positively impacting the experience of students, staff, and faculty, such as technology upgrades or process automation. Debt can be a tool in this case if upfront investments can allow for transformation of the cost structure rather than incremental cost reduction efforts functions, but, recently, more institutions.
- Institutions can consider entering into long-term operating contracts for non-core facilities to stabilize expense projections.
- If an institution has experienced declining enrollments, it may consider removing excess capacity rather than continuing to invest in strategies to grow. For example, institutions can take capacity offline through consolidation or closure of underutilized programs.

Quadrant 4:
Institutions with lower debt capacity and lower growth

Institutions in this segment have not demonstrated recent growth nor do they have significant capacity to take on further debt. As a result, they may need to consider both new models to pursue and new sources of funding:

- Innovative models can include unique and differentiated ways of serving traditional-aged undergraduates — though these most likely reflect a meaningful departure from the status quo, and student preferences coming out of the pandemic are not yet fully understood.
- Innovative models can also include programs to serve new audiences, typically through an online or hybrid modality and at a lower price point. There may be brand implications of adjusting the program mix that may be considered. Scale is also a critical factor in bringing down an institution's price point to competitive levels.
- Institutions in this segment can consider what non-financial resources they can leverage to pursue new models, including human capital, physical infrastructure and reputational strength.
- New sources of funding could include public-private partnerships to monetize campus assets, like parking, utilities, housing or other auxiliary enterprises to take advantage of alternate debt structures to raise capital.
- These institutions may also consider whether they can better serve their mission in partnership with another institution or set of institutions to gain efficiencies of scale. Partnerships may range from shared services agreements to a full merger or acquisition. Shared services typically address administrative functions but recently more institutions have begun to explore ways to gain scale benefits for programmatic functions as well.

Conclusion

As institutions face new and heightened challenges, from an acceleration of online learning to the looming "enrollment cliff" and heightened competition for students, decisions around taking on additional long-term debt will become even more critical. Innovative use of debt as a strategic tool may provide some institutions with a competitive edge, allowing them to further differentiate and solidify their positioning in the landscape. But debt can also become an undue anchor if institutions do not effectively assess their current capacity for debt or the expected value of prospective capital investments. Findings suggest that many institutions excel at understanding and managing their debt capacity, but can improve the methods used to assess the long-term costs and benefits of their investments more holistically. In a rapidly changing environment, this is no small feat, but having these critical conversations across stakeholders can drive better decision making. In the absence of doing so, institutions risk allowing their debt burden to become just one more driver of the rising cost of higher education that is contributing to so many of the sector's challenges. Institutions that understand their financial health within the broader context of the higher education sector, and make informed decisions based on this information, can be best equipped to meet the challenges ahead.

Appendix: methodology

Institutions included in the analysis
There are two populations of institutions regularly shown in this study: the survey respondent population (see Figure 1 for characteristics) and the larger universe of institutions that submit data to the NCES, which is hosted in the IPEDS. For sector-wide analysis, the IPEDS database includes ~6,300 total higher education institutions. Of this broad population, our analysis focuses on four-year public and private not-for-profit degree-granting and Title IV participating institutions (~2,300 institutions). Approximately 1,900 of these institutions carry interest-bearing debt in 2019 and are included in our analysis of long-term debt. Sample size of figures is dependent on the availability of data for specific institutional variables.

Definitions and sources of data:
Debt burden for public institutions is defined as total interest-bearing debt, which includes the long-term debt and current portion variables for public institutions using Governmental Accounting Standards Board (GASB) accounting standards. These variables are self-reported by institutions and encompass bonds and notes payable, long-term debt obligations and capital lease obligations recorded in institutional financial statements. IPEDS financial data does not include the data of component units (affiliated foundations or organizations) for public institutions for all years.

Debt burden for private institutions also comprises the same interest-bearing items of bonds and notes payable and long-term debt/capital lease obligations noted in institutional financial statements and reported to IPEDS and the IRS. However, reported IPEDS debt data for private colleges and universities is limited to the variables reported via Financial Accounting Standards Board (FASB) accounting standards, or debt related to property, plant and equipment. This variable includes only interest-bearing debt issued on account of property, plant or equipment projects and leases ($127b in 2019; 71% of institutions reporting debt). To achieve a more holistic view of total private debt, data from IRS Form 990s was analyzed for each institution for years 2011–2018 (2019 forms are not yet available). Interest-bearing debt variables included on the primary Form 990 statement include tax-exempt bond liabilities, secured mortgages and notes payable, and unsecured notes and loans payable ($130b in 2018, 72% of institutions reporting debt). Our final institutional data set combines the two data sets to record debt not captured by the other database for 2011–2018; for 2019, the average annual difference between the two data sets was added to the 2019 IPEDS data to provide a more representative amount of debt in the sector for purposes of longitudinal trends shown in Figure 2.

Interest burden ratio is defined and calculated as an institution's interest expense as a percentage of its total expenditures. "Total expenses deductions – interest" and "total expenses deductions – current year total" variables were leveraged from IPEDS.

Revenue growth is calculated from "core revenue dollars, total dollars" minus the amount of revenue coming from investments, which is calculated as the "percent revenue from investments" multiplied by core revenue dollars in total dollars. The annual growth of each institution is calculated with the compound annual growth rate formula using data from 2014 and 2019.

Financial data, including "core revenues, total dollars"; "core expenses, total dollars"; "revenue from investments"; and "tuition and fees as a percent of core revenues" (to measure tuition dependency), are available via IPEDS. Relevant financial metrics can be found under GASB guidelines for public institutions and FASB standards for private institutions. Recorded financial metrics are comparable across both methodologies and are treated as such in this report.

Enrollment data is available from IPEDS and reflects the "full-time equivalent enrollment" variable, which is derived from total full-time and part-time student enrollment. Institution size buckets were determined using reported FTE enrollment in fall 2019. Cited enrollment data represents the entire universe of ~2,300 four-year public and private not-for-profit institutions that are degree granting and Title IV participating, except, as noted, that only debt carrying institutions are analyzed.

Debt per FTE student represents the weighted average of the relevant segment. For example, debt per student FTE of private institutions is equal to the total debt burden among private institutions divided by FTE enrollment of those private institutions.

[1] Western Interstate Commission for Higher Education (WICHE): Knocking at the College Door.
[2] IPEDS.
[3] NCES.
[4] EY-Parthenon CBO survey (March 2021); EY-Parthenon and Inside Higher Ed presidents' roundtable discussions.
[5] EY-Parthenon CBO interviews (April 2021).

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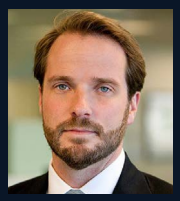

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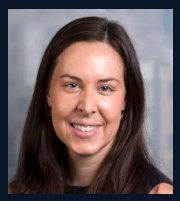

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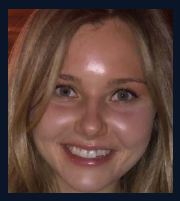

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