

**SECTOR IN-DEPTH**

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**Contacts**

Christopher Collins      +1.212.553.7124  
*VP-Senior Analyst*  
 christopher.collins2@moodys.com

Emily Raimes              +1.212.553.7203  
*Associate Managing Director*  
 emily.raimes@moodys.com

Susan Fitzgerald        +1.212.553.6832  
*Managing Director*  
 susan.fitzgerald@moodys.com

Dante Oliva                +1.212.553.4786  
*Ratings Associate*  
 dante.oliva@moodys.com

Higher Education – US

**Pent-up capital needs: The hidden liability with a hefty price tag**

**Summary**

The large and growing backlog of capital needs poses a significant credit risk for the higher education sector. We estimate that about \$750 billion to \$950 billion of spending would be needed over the next decade for the rated colleges and universities to make significant headway toward reducing deferred maintenance, upgrading facilities and building the new projects that are critical to strategic positioning. While this level of investment is unlikely to be met, institutions will continue to dedicate significant resources toward capital plans. Spending will remain highest among the best-resourced institutions, but even those facing acute credit challenges will feel the need to undertake bold infrastructure initiatives. The continued prioritization of infrastructure investments underscores how essential an institution's built environment is to credit quality.

- » **The need for capital renewal will prompt an acceleration in spending across the sector.** The long-standing underinvestment in capital assets has left a substantial portion of rated colleges and universities with a large hidden liability. This growing backlog of capital needs will lead to higher levels of infrastructure investment in the next two to three years. Colleges and universities that are unable to offer updated facilities, advanced technology and an attractive physical environment risk losing competitive standing.
- » **Capital spending will remain highest among well-resourced institutions and public universities in certain states.** Colleges and universities that are growing, well-resourced and have diverse capital funding sources, as well as multiple business lines, will sustain the highest levels of infrastructure spending across the sector. Similarly, capital investment will also remain elevated for public universities in states that provide generous capital appropriations. Even with this boosted capital spending, these institutions remain largely insulated from credit risk because of their solid financial footing and lower reliance on debt to accomplish capital initiatives.
- » **The roughly 30% of rated entities with rising credit difficulties will face hard capital-strategy choices.** The colleges and universities with strained budgets, sluggish revenue growth and limited debt capacity at their current rating level will still dedicate significant resources toward campus infrastructure despite increasing uncertainty around their future. With fewer options for financing capital renewal, many of these institutions will resort to borrowing to execute these investments, which escalates credit risk. Enlisting the right capital strategy is particularly critical for these colleges and universities considering their numerous credit challenges, more limited resources and heightened vulnerability to shifting sector dynamics.

### Need for capital renewal will prompt an acceleration in infrastructure spending across the sector

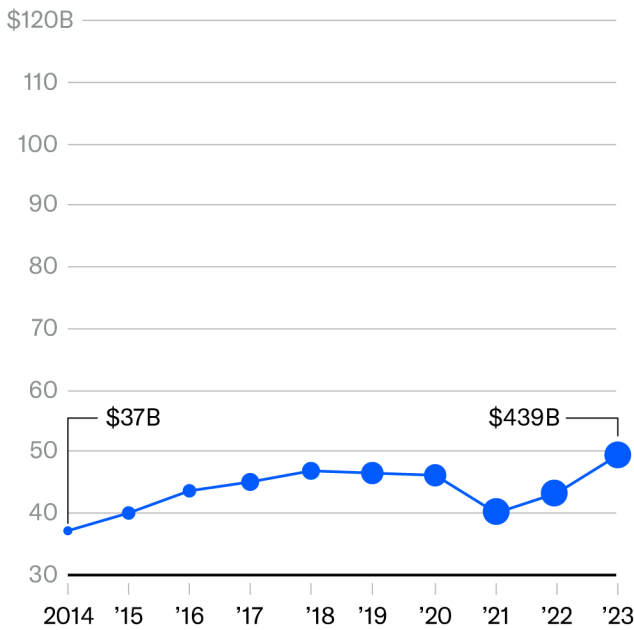
Tackling the mounting backlog of capital needs would require a massive investment for the higher education sector. Total capital spending of \$750 billion to \$950 billion over the next decade would be needed to make significant progress in addressing infrastructure needs. This extraordinary figure – which equates to an average annual capital spending rate of roughly 1.75x depreciation for the sector – is our estimate of the investment needed for the rated colleges and universities to significantly reduce deferred maintenance, replace fully depreciated assets with new facilities, and upgrade physical and technology infrastructure. For context, this amount is about twice the level of spending on property, plant and equipment (PPE) that occurred over the last decade – a level of investment that was insufficient to prevent a significant buildup of capital needs (see Exhibits 1 and 2).

Exhibit 1

**Significant capital spending was undertaken over the last 10 years for the sector...**

#### Actual capital spending

— Annual ● Cumulative



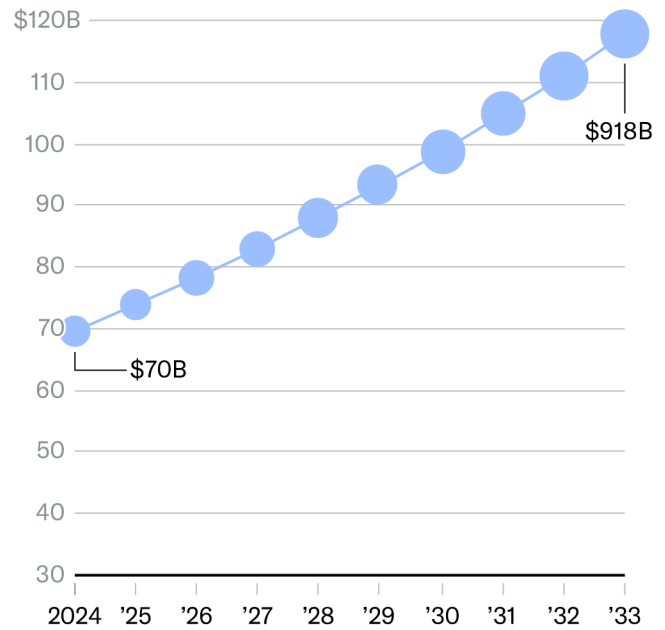
Source: Moody's Ratings

Exhibit 2

**...but much greater investment is needed in the coming decade to address the full extent of infrastructure needs**

#### Needed capital spending

— Annual ● Cumulative



Source: Moody's Ratings

Overall infrastructure investment for the sector will climb over the next two to three years as many colleges and universities move forward with plans they put on pause during the pandemic. The increase in capital spending will be undertaken to refresh aging infrastructure, accommodate growth, and meet other institutional goals. The continued prioritization of capital investment, even as new demands on financial resources emerge, underscores the importance of campus infrastructure to strategic positioning. Ultimately, the colleges and universities that are unable to offer an appealing physical environment may have difficulty attracting and retaining faculty, staff and students.

We expect that annual capital spending will revert to more normalized levels of 1.0x to 1.5x depreciation following the temporary increase. While most institutions can afford this level of investment, few have the necessary resources and credit strength to sustain the higher amounts needed to tackle the full extent of their infrastructure needs. And uncontrollable factors such as construction

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inflation, rising interest rates or a general downturn in economic conditions would further complicate efforts to curtail capital needs. As a result, aggregate capital spending for the sector is unlikely to match the \$750 billion to \$950 billion of needed investment for the coming decade.

Even large university systems that have consistently allocated significant resources toward capital investment are facing considerable levels of deferred maintenance. For example, the average capital spending ratios for the [University of California](#) system (Aa2 stable), [University of Texas System](#) (Aaa stable) and [University System of Maryland](#) (Aa1 stable) were each well above depreciation over the last decade. Yet, each of these institutions reports substantial backlogs of deferred maintenance amounting to \$7.3 billion, \$3.0 billion and \$2.6 billion, respectively. Similarly, despite \$3.0 billion in total property, plant and equipment spending since fiscal 2013, representing an average capital spending ratio of 1.1x, the [University of Massachusetts](#) (Aa2 stable) system has identified a 10-year, \$4.8 billion backlog of deferred maintenance. However, in some cases, such as the University of Texas System, the amount of critical deferred maintenance is significantly lower than the total level.

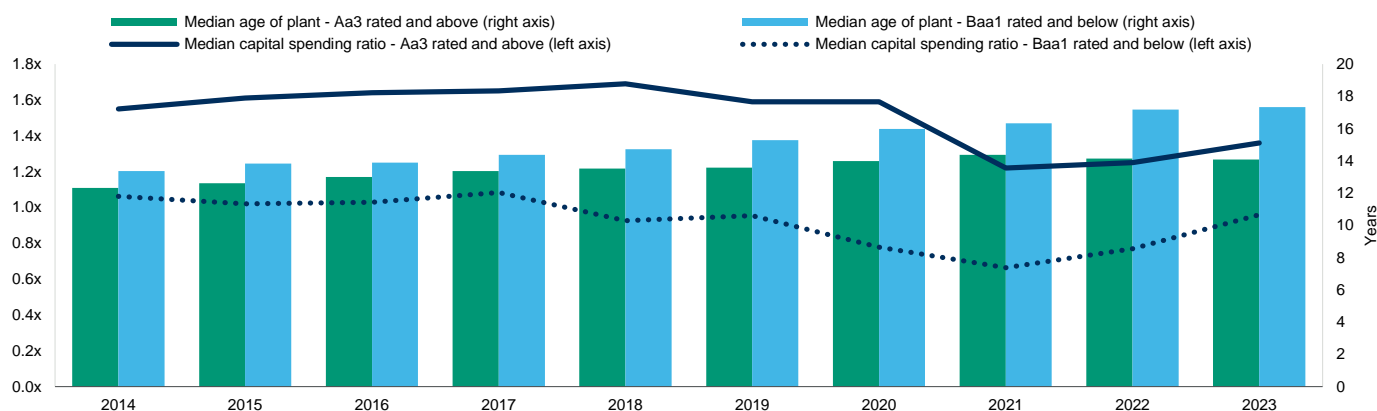
Institutions will continue to tailor their capital plans to align with their broader strategic visions and span various asset types such as academic buildings, research infrastructure and student centers. [Furman University](#) (A1 negative), [Samford University](#) (Baa2 stable) and [Stetson University](#) (Baa1 stable) recently moved forward with large new debt issuances to augment their student housing offerings. These financings reflect their investments in high cost residential strategies to combat the rising competition from large public universities.

Other institutions have invested in infrastructure to protect campuses from extreme weather and transition away from carbon-based energy sources. [Amherst College](#) (Aaa stable) and [Oberlin College](#) (Aa3 negative) are among the growing list of higher education institutions that are installing geothermal systems to supply all or most of their heating and cooling needs. The ultimate payoff of any large infrastructure investment is based on the performance of the asset over time and the effect on the institution's strategic positioning.

### Capital spending will stay highest for well-resourced institutions, public universities in certain states

Institutions with the strongest credit quality will continue to account for the highest rates of infrastructure investment. While this is not a new development, we expect the gap in capital spending rates between the sector's strongest and weakest performers to widen further as credit strength continues to diverge. Over the last decade, the median capital spending compared to annual depreciation for colleges and universities rated Aa3 or above – those with high or highest credit quality – was consistently much higher than those rated Baa1 or below – those with more credit risk. As a result, the difference in the median age of plant became significantly larger over this period (see Exhibit 3).

Exhibit 3  
**Higher-rated institutions consistently spend more on infrastructure than lower-rated peers, leading to more updated campus infrastructure**



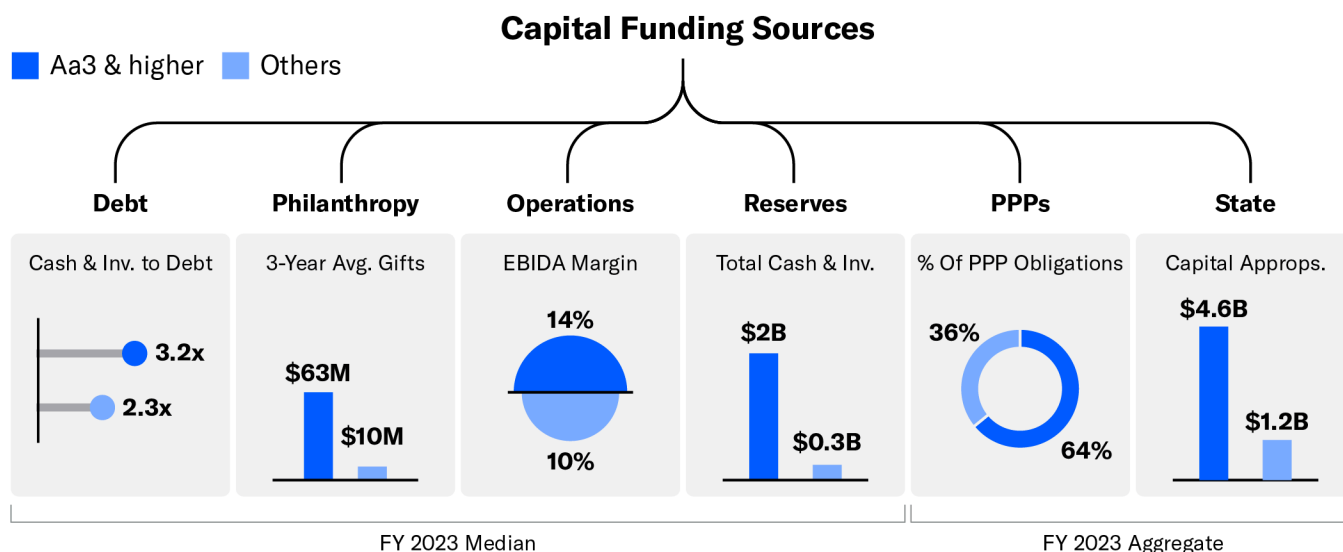
Source: Moody's Ratings

Institutions with strong finances and diverse options for financing capital programs – they typically have strong credit quality – are better positioned to sustain these higher levels of investment in physical assets (see Exhibit 4). These well-resourced colleges and

universities tend to be more capital intensive and serve stakeholders that set the highest standards around the quality of campus infrastructure. They often have multiple large business lines such as academic, athletics, research and sometimes [health care enterprises](#), providing a constant need for capital investment to support growth and expansion initiatives. These institutions often compete with each other to attract the best students, faculty and researchers. Offering the best facilities and “curb appeal” is widely viewed as one way to gain a competitive edge.

Exhibit 4

**Higher rated institutions' greater diversity of capital funding sources supports their ability to sustain higher rates of infrastructure spending**



Source: Moody's Ratings

The recent large debt issuances by some of the wealthiest institutions reinforce our view that this part of the sector will be a key driver behind the acceleration in total capital spending. Borrowing remains one of the most common methods of financing capital programs, and colleges and universities will continue to tailor debt strategies to align with institutional goals. [Harvard University](#) (Aaa stable), [Princeton University](#) (Aaa stable) and [Cornell University](#) (Aa1 stable) recently issued long-term bonds with a combined total amount above \$2 billion. And [Dartmouth College](#) (Aa1 stable), [Indiana University](#) (Aaa stable) and [New York University](#) (Aa2 stable) recently launched or increased commercial paper programs to finance capital initiatives. Even as interest rates have increased significantly from the historically low levels over the last decade, the institutions with strong credit quality are still able to borrow at attractive rates.

Institutions with the best credit quality are typically well-positioned to finance capital renewal through philanthropy, cash flow and reserves. These attributes help differentiate this group of colleges and universities from the rest of the sector. The median EBIDA margin for institutions rated Aa3 or above was 14% in fiscal 2023, compared to 10% across the rest of the sector. Moreover, the median for three-year average gift revenue for this high-credit-quality group was over 6x the amount for institutions rated Baa1 or below. Some institutions have used large gifts to make transformational investments in strategically important infrastructure. For example, the pledge and partial receipt of a \$1.1 billion gift supported the launch of the new Stanford Doerr School of Sustainability at [Stanford University](#) (Aaa stable). Separately, the [University of Oregon](#) (Aa2 stable) used a lead gift of more than \$425 million to establish a new institute for children's behavioral health.

State capital support in multiple forms will continue to provide a critical source of funding for public universities in some states. Total state capital appropriations for the rated sector topped \$5.8 billion in fiscal 2023, which was about 50% higher than the trailing five-year average. States such as [Florida](#) (Aaa stable), [Virginia](#) (Aaa stable) and [Washington](#) (Aaa stable) are among the most generous providers of capital appropriations to their public universities. This direct funding supports relatively consistent capital spending and limits the amount of debt needed to finance infrastructure investment. Other states including [Connecticut](#) (Aa3 positive), [Indiana](#) (Aaa stable) and [Utah](#) (Aaa stable) cover the debt service on bonds issued by public universities using certain structures through an annual

reimbursement. For example, the state pays debt service on [University of Connecticut's](#) (Aa3 stable) general obligation bonds. Public universities in [Texas](#) (Aaa stable) benefit from debt service reimbursement on Capital Construction Assistance Projects. In addition, distributions from dedicated endowments – such as the Permanent University Fund and Texas University Fund – as well as other types of state resources are used to support eligible capital initiatives at certain public universities in the state.

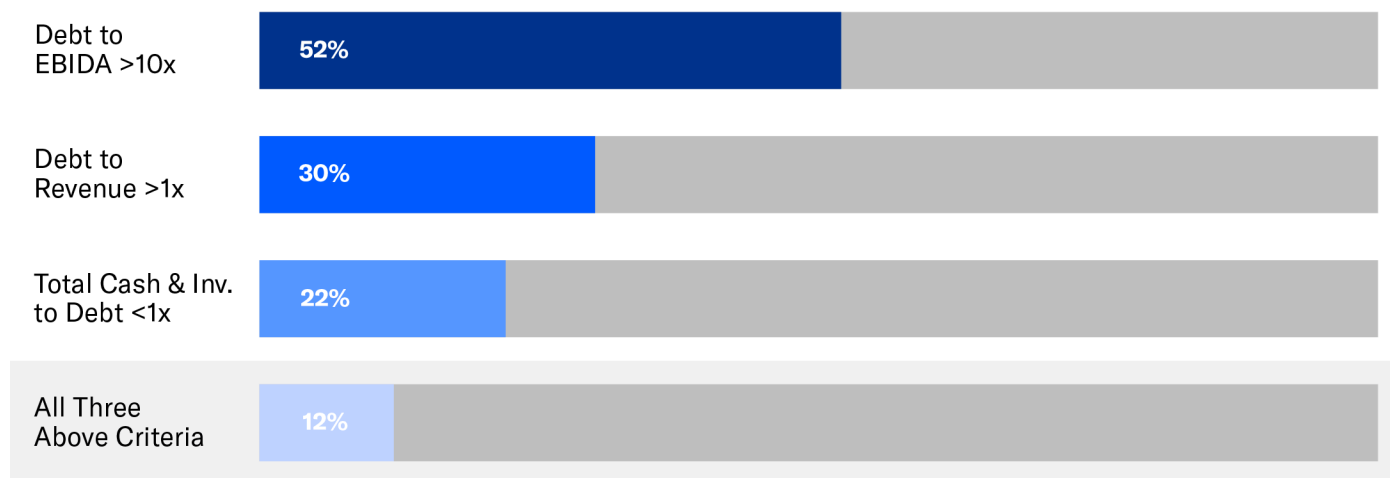
Alternative financing arrangements will remain another important tool for addressing capital needs, particularly among the better-resourced portion of the sector. Some have used different types of public-private partnership (PPP) structures to achieve strategic, financial and operational objectives. [Ohio State University](#) (Aa1 stable) and [University of Iowa](#) (Aa1 stable) each monetized and entered into long-term concession agreements with private partners to operate and maintain their energy systems. Along with the added system efficiencies gained through these arrangements, each university received a large upfront payment from the partner to fund strategic initiatives. Other universities such as the [University of North Carolina at Wilmington](#) (Aa3 stable), [University of Vermont](#) (Aa3 stable) and [University of Southern California](#) (Aa2 stable) have turned to PPPs to help accommodate their [student housing needs](#). With any PPP, these arrangements can provide credit benefits, while also introducing various credit risks that are largely determined by the project performance and strength of the partnership.

### The roughly 30% of rated entities with rising credit difficulties will face hard capital-strategy choices

Executing capital plans will be significantly more difficult for the roughly one-third of the rated sector that is grappling with elevated credit challenges. This portion of the sector has significantly fewer options to finance capital renewal compared with their wealthier sector peers. Many of these colleges and universities are facing structural deficits, weak revenue growth prospects and limited donor support. At the same time, undertaking large borrowings to fulfill capital initiatives would amplify credit risk when they have high financial leverage and modest reserves. A significant portion of the sector that is rated Baa1 or below has elevated debt levels relative to EBIDA, operating revenue and/or financial reserves (see Exhibit 5).

Exhibit 5

**High leverage and strained debt affordability represent barriers to addressing capital needs for many of colleges and universities rated Baa1 or below**



Source: Moody's Ratings

Yet the growing backlog of capital needs, fueled partly by the reduction in infrastructure spending since the pandemic, will prompt many of these institutions to boost their investments in facilities, even at the risk of weakening their credit quality. However, their higher rate of capital spending will be temporary and below the better-resourced sector peers. This portion of the sector is particularly vulnerable to the shifting sector dynamics driven by changing demographic trends, consumer preferences and higher education participation rates. As a result, they have a growing need to invest in initiatives such as financial aid, academic programs and student-support services, which could result in lesser resources available for infrastructure spending. Each of these risks adds constraints to executing capital plans, even as the need for refreshing campus infrastructure grows more urgent.

The importance of choosing the right capital strategy for this portion of the sector is particularly pronounced given their resource constraints and large amount of infrastructure needs. Some institutions will elect to issue large amounts of new debt to upgrade campus amenities – such as student centers, athletic facilities and residential facilities – aimed at strengthening their strategic positioning. This strategy represents a riskier approach for colleges and universities that are facing enrollment and revenue pressures and have high financial leverage. For these institutions, the inability to translate their substantial infrastructure into sustained student market strengthening and revenue growth could result in downward pressure on their credit ratings. This risk is particularly high when the college or university lacks a large financial reserve cushion to total outstanding debt.

These colleges and universities will also increasingly turn to risky debt strategies to accomplish capital initiatives. These structures will not be undertaken strategically, but rather in response to the constraints introduced by their financial position or existing debt portfolio. For example, some will use lease structures that allow them to remain in compliance with their existing financial covenants or additional bonds tests. Others will structure new debt issuances to push principal amortization into the future to avoid imposing additional near-term burden on budgets. While these strategies represent mechanisms for advancing capital priorities, they also increase downside credit risk for these institutions that often have high debt, strained operations, and significant enrollment uncertainty.

Others, including certain public universities in the Northeast and Midwest, will continue to strategically downsize their campus footprints to better align with current enrollment levels. Over the last decade, [Southern Illinois University](#) (Baa3 positive) has demolished 110 underutilized and outdated facilities in response to its reduced spacial needs stemming from its significant and sustained enrollment declines. Strategies such as these allow institutions to reduce deferred maintenance, save on operating costs and free up resources to invest in other strategic areas. However, even these universities, which tend to be grappling with weak enrollment outlooks, will continue to invest in new facilities and infrastructure to maintain market appeal and meet the needs of their stakeholders.

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