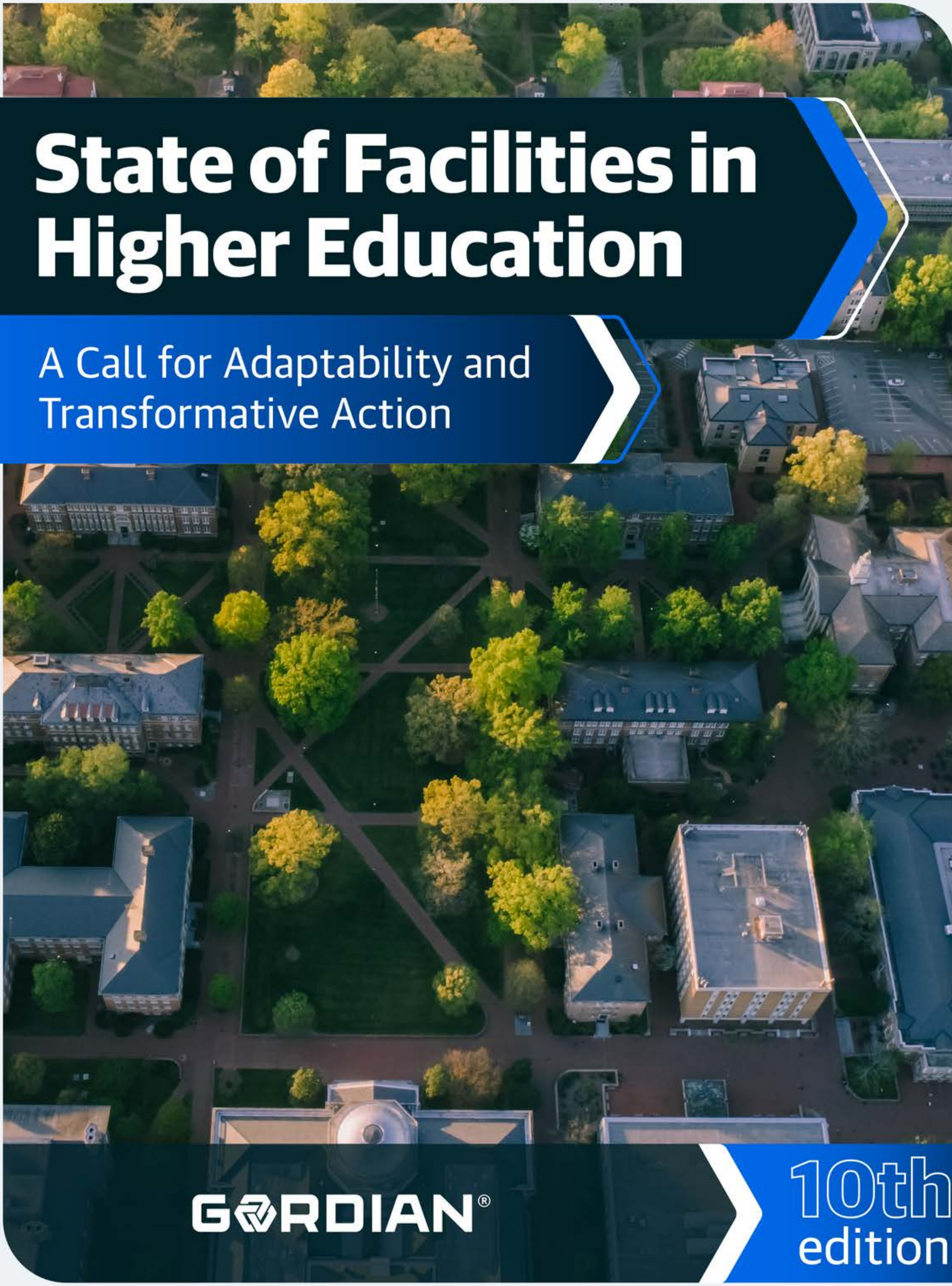
State of Facilities in Higher Education

A Call for Adaptability and Transformative Action



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10th edition

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Executive Summary

10 Years! For ten years the State of Facilities in Higher Education has been recognizing trends and opportunities based on our database of information from schools around the U.S. For a decade, this report has borne witness to the efforts of colleges and universities to confront challenges, focus investments and enable the learning and research at the core of their missions. Over time, the insights in the State of Facilities have evolved and our recommendations have followed suit. It has been a decade of reporting about the remarkable resilience of an industry embedded in the fabric of our culture, anchoring communities across the nation and central to the innovative energy that powers the future.

The past few years have been extraordinarily complicated across the globe. The pandemic in particular changed the rules for just about everything. The war in Ukraine amplified mounting global supply chain issues, drove energy costs sky high and refocused the attention of governments across the planet. And the recession which may or may not officially materialize in 2023 has kept institutional planning on edge.

But higher education, which has a notoriously long history of being slow to change, pivoted in weeks to return to business in many different forms back in 2020, addressing the many different desires for educational experience. Everyone started predicting schools would collapse, but a surprisingly small number to date have succumbed. Our own observations of rising deferral, shrinking operational resources and excess space have continued to grow more prominent but still, schools persist.

A nexus of trends underscores the industry's fragile resilience:

- The pandemic revealed important financial vulnerabilities in higher education that have been discussed here and in other forums for some time, accelerating the need to confront them - if they haven't already been thrust upon the plates of leadership. As government support wanes and student population decline looms, it is hard to believe business as usual can be sustained.
- Strong facilities departments and professional leaders, long undervalued by leadership but central to pandemic-era decision-making, are not relinquishing their influence. And they mustn't.
- The scale of deferred capital renewal at schools has reached a level that cannot be tolerated – a 36% shortfall. This gap is simply not possible to fund given new financial realities.
- Thoughtful, proactive institutions are making efforts to address the facilities implications of their actions from lagging reactions and integrating them into future planning conversations.

Our data this year says that despite awareness growing about the risks, the historical trends for space, capital and operating investment continue, and capital renewal needs have skyrocketed to a startling **$133/gross square foot.** We will explore this data and more findings from our database, and point toward activity that offers hope for a new direction in higher education.

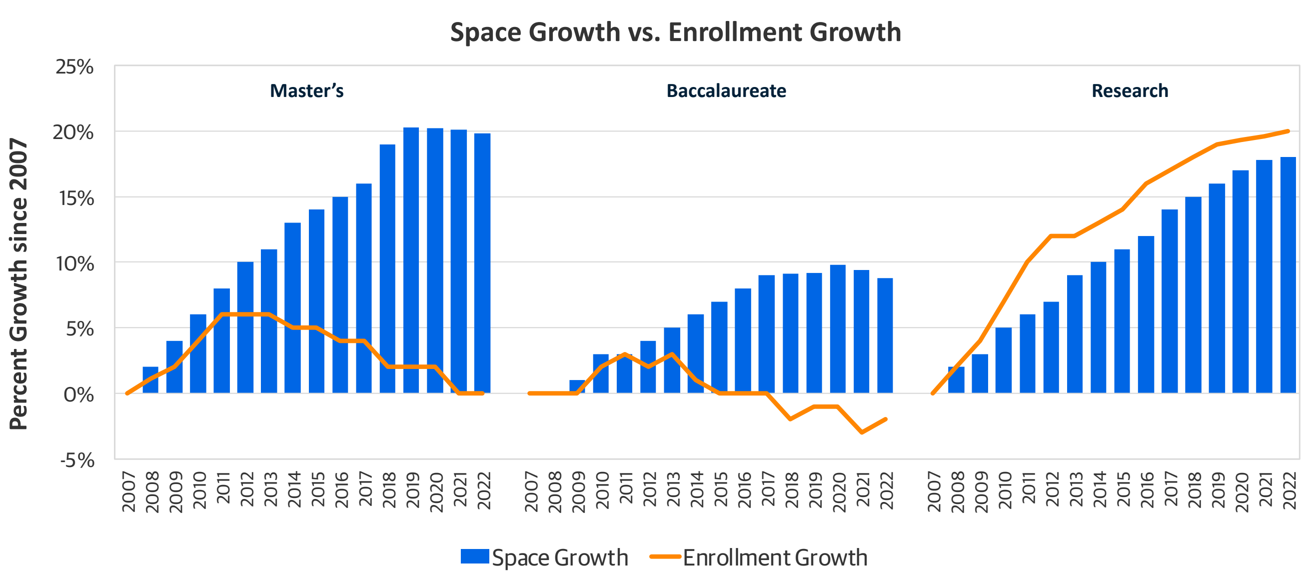
Ultimately, we observe that stewardship demands are now so acute facilities issues can no longer be reactive, and every facilities, planning and business leader will need to be a key participant in institutional decision-making going forward. These efforts must be transformed so that facilities considerations are truly integrated into their very fabric.

Widening Gaps and Elevated Risk

Space

The amount of space in use for colleges and universities remains a fundamental indicator for institutional health. However, approaches to measuring space are evolving. The quantity of physical space is a source of information that reflects the quantity of financial and human resources required simply to operate the property every year. It also provides information about the embedded debt obligation the assets represent to the forward financial portfolio. Our preliminary 2022 data is encouraging in this regard.

Space growth trends at master's and baccalaureate schools have continued slowing in response to declining enrollment, which is the key source of non-endowment income. Still, it is not reasonable to expect anything close to a linear relationship between these corollaries over time as altering the amount of space is not a quick exercise and there is a minimum amount of space necessary to offer all basic services, regardless of total student population.



Research institutions continue to operate in a different realm, with students being drawn to the affordability and anticipated stability of large public and private research institutions. Enrollment across the board here has remained solid though slowing. University leaders have responded accordingly, with measured growth that even provides some room for future contraction.

What remains in question is whether individual schools are continuing to operate in a pre-pandemic mode, returning to a full and active in-person campus, or if there is real movement toward leveraging the changing teaching/learning modalities to enable larger scale change in the built environment.

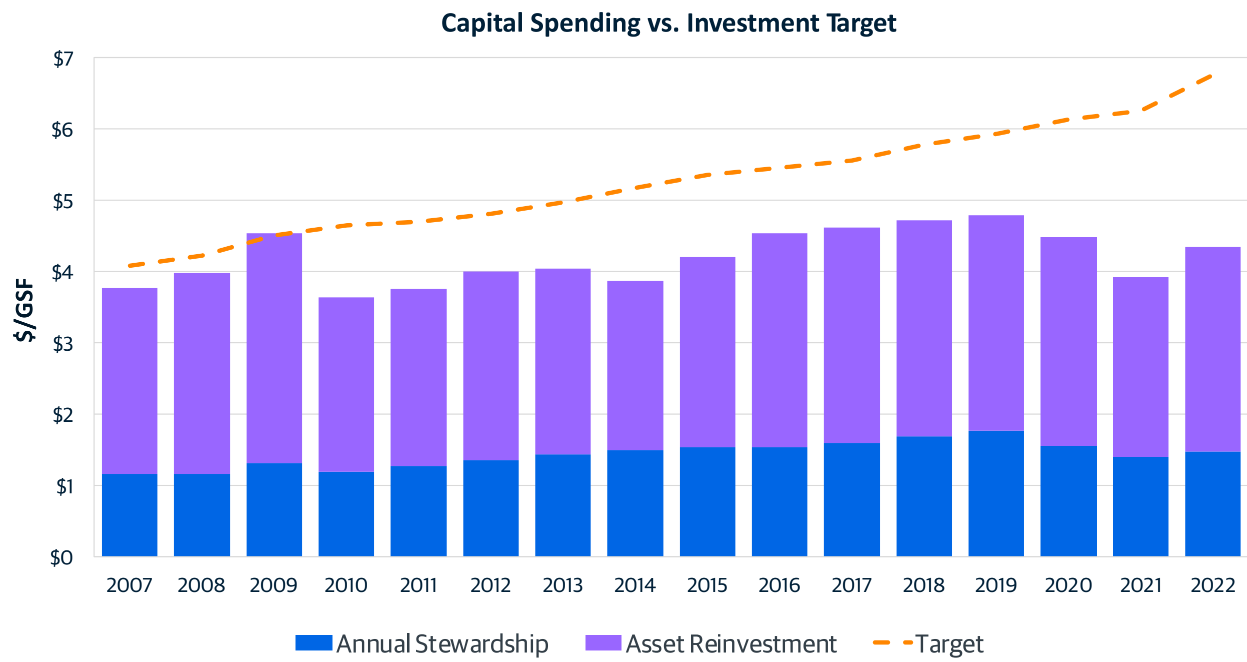
The Vermont State College System, facing complicated demographic hurdles familiar to all in the country's northeast, has challenged itself in partnership with the state legislature to explore new ways to deliver a viable curriculum to students across the state and its numerous campuses. Using technology in exciting student-focused ways – prioritizing the student's resources rather than classroom resources – leaders anticipate that students will be able to engage faculty and each other from across the state in more dynamic and active hybrid teaching settings, freeing up thoughtful consideration of the exact kinds and quantities of built environment spaces that are truly necessary for a successful program.

The Universities of South Carolina, Georgia and Kentucky all reported record freshman classes and are operating very much in-person. Arizona State University continues its pursuit of both in person and online programs, with more than 40% of its 144,000 students engaged online. Solutions must be tailored to the institution, its students and their mutual mission. There is no correct way to react to space challenges and opportunities. The key is being aware of the challenges and solutions which are peculiar to each school's situation.

Imperative to understanding the importance and implications for forward investment in space is the fundamental awareness of the institutional programs and practices that will drive success. But this is only the first step. Campus leaders must simultaneously integrate the understanding of the facilities currently available and those needed to meet future needs. These must not be separate exercises.

Capital

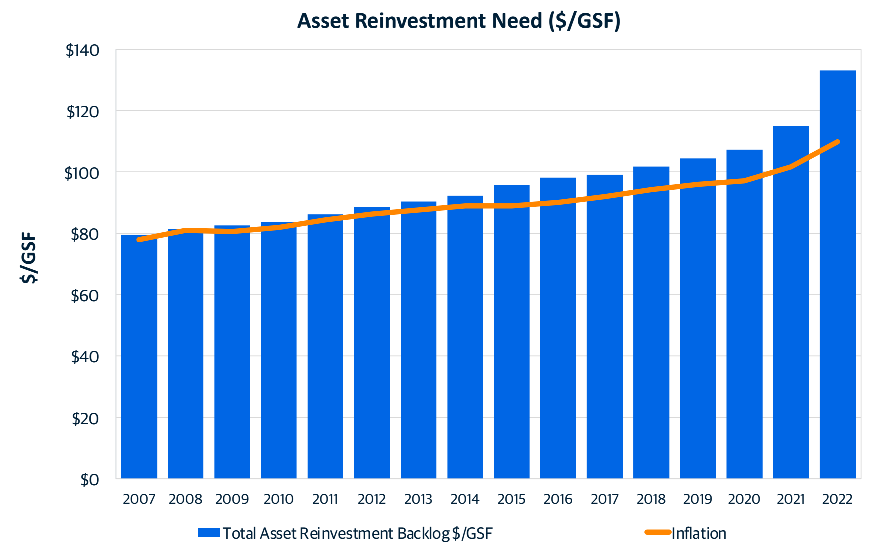
Our most recent data documents a 13-year pattern of underinvestment in existing space. Since the Great Recession there have been periods of increasing investment, but never at a rate that substantially reduces the gap between the target investment required to sustain existing building portfolios and the money made available. Preliminary data for 2022 indicates that funding has returned to $4.34/gsf which is 97% of 2020 levels, and a 10% increase over 2021 funding. While a tremendous rebound, it comes as inflation has been skyrocketing, pushing the needed dollars to steward existing space up substantially to $6.76/gsf. As such, that leaves a 36% shortfall. That shortfall is the annual contribution to backlog and deferred capital renewal costs.



A subtle but important trend is also the return to growth in the annual stewardship dollars, those reliable recurring commitments that are built into the business model and don't rely on the one-time capital infusions. These reliable stewardship dollars allow for consistent and predictable investment in key building system components which cannot be ignored. They remain smaller at most institutions and are an important element to consider when identifying strategies to stabilize the condition of the built portfolio.

Our database shows an annual stewardship shortfall of **36%**

The consequence of the ongoing investment shortfall and the last year's extraordinary cost escalations is a spike in anticipated deferred capital renewal costs. They are expected to climb to over $133/gsf, or more than $133 million for every 1 million square feet of existing buildings. The cost to repair and replace what has extended beyond its useful life for the campus as it is today has become truly extraordinary. The needed investment implied in these numbers is competing with investment in other institutional priorities like never before.



The need for capital investment has long been connected to assumptions about institutional growth having a direct correlation to physical space growth. This presumed linkage has made it simple to assert that underfunding of capital leads to building and system failure that will compromise programs, undermine student/faculty success and disable the institution. Leaders, like those from our previous examples of Arizona State and the Vermont State College System, are considering whether they can use pandemic lessons about what it means to be a campus and a community to break this long held linkage and establish new ways of doing business.

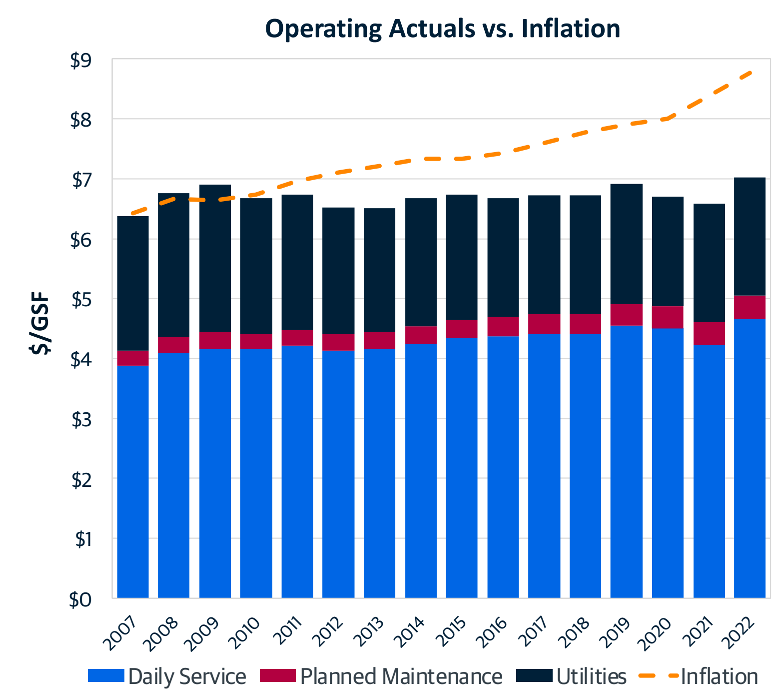
Since our last edition of the State of Facilities, renewal needs have exploded from **$105/gsf to $133/gsf**

Operations

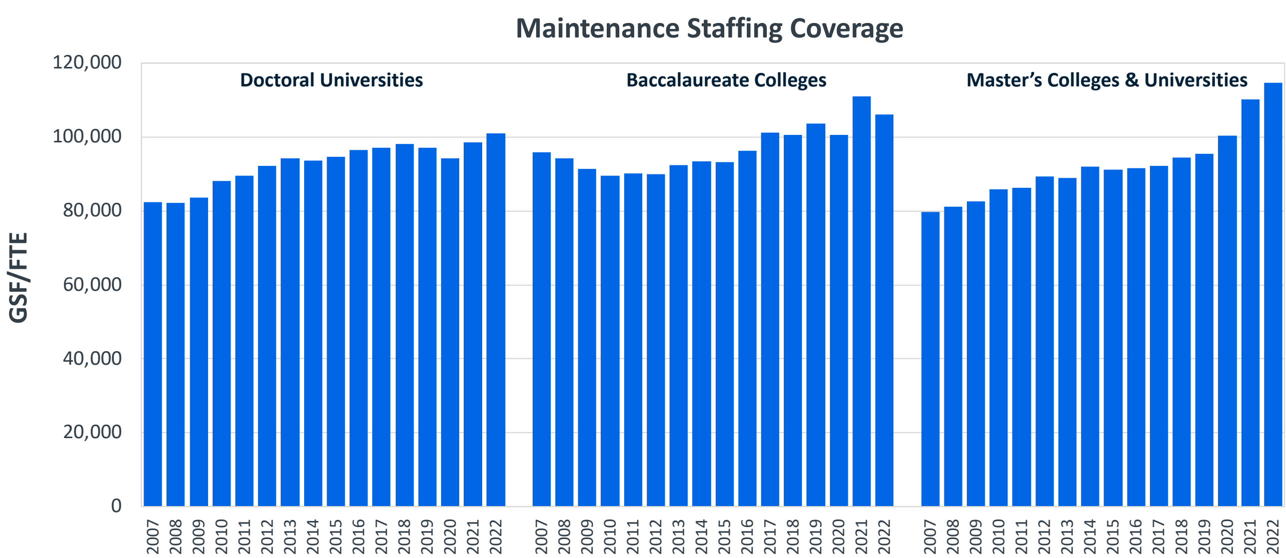
The 13-year pattern of underinvestment is not limited to space: Operating resources have experienced a similar but less dramatic spending shortfall during that same span. The lack of drama reflects the common impression that operational issues can always be extended a little further – people can work a little harder, the system can run a little longer, the duct tape can be used once more. But one must be vigilant in assessing if any extension of resources has gone too far. With operating costs now funded at only 80% of what inflation-driven budgets would look like, the creativity in work processes, expanded use of technology and alterations/reductions in service have strained the ability of the department to get work done in a fashion that cares for the property as well as the programs. The proverbial straw is close to breaking the camel's back.

There is often a decision-making interplay between operating and capital budget constriction. Funneling resources into one budget often means siphoning resources from the other. But it is unreasonable to expect institutions to adequately steward campus resources while both capital and operating budgets compress.

The most well-intentioned decisions to sustain ongoing budget constraints have significant consequences, including putting the campus at risk for future operational or building failures. Though facilities organizations have continued to explore improvement in service levels through deployment of technology, there are limits. The 10.7% expansion in maintenance coverage area at baccalaureate campuses can likely be attributed to the leveraging of technology that makes routine service activity smarter or identifies impending problems before they require catastrophic recovery. The 34% and 43% coverage increases at doctorate and master's institutions could represent an overreliance on the capabilities of technologically-based service improvement that stretch facilities staff beyond their limits.



Impacting productivity is also the ongoing and uncomfortable reality that the workforce is aging. [Reporting from PeopleReady Skilled Trades] indicates that there continue to be more people aging out of the trades than entering it, with more than 20% of the work force over the age of 55 and fewer than 9% under 25. The knowledge and skills leaving the profession after many years of dedicated service cannot be quickly replaced, and the limited pool of incoming workers will not be able to acquire it before their predecessors are gone. Asking a less experienced, less knowledgeable, resource-strapped workforce to be responsible for significantly more space is unsustainable and a tremendous risk to the institution.



Headwinds to Navigate

Were the direct implications of these data points the only challenges, simple business responses like growth or downsizing might be enough to address the basic facilities needs. But there continue to be external pressures that make such simple responses insufficient.

Demographics and enrollment

The long U.S. birthrate slide that has been occurring since 2008 finally saw a reverse in 2021, with an increase of 1%. While this rise from a more than 40-year low is a welcome change, it is more dark cloud than silver lining. Campus leaders now have an identifiable marker for when the population of high school graduates will finally increase, and it's not until 2039. That's hardly cause for celebration. Nathan Grawe's much-discussed enrollment cliff arriving in 2026 will be with us for a long time, and traditional approaches to solving enrollment-related financial challenges will not help weather this 13-year population downturn.

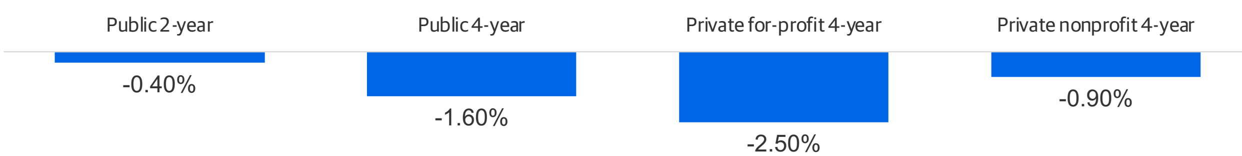
Any enthusiasm for a birthrate turnaround is tempered by sobering data from the National Student Clearinghouse Research Center that, despite rising birthrates back in 2004 that should produce a growing pool of 18-year-old students in 2022, enrollment in the fall of 2022 fell another 1.1% from pandemic impacted years 2020 and 2021. This continued slide brings into question whether enrollments will rise as expected at least until 2026. The Chronicle of Higher Education points out the uptick in community college new student enrollments of 0.9% as one upside in the face of declines for both public and private four-year schools. But it seems the impacts of the cliff may be with us already. Speculation about the reasons for this continued enrollment slide is widely varied, but it is clear that higher education is somewhat less compelling today than it was before the pandemic.

Further complicating the perception of the value of college are the current Supreme Court cases dealing with student loan forgiveness. Students and families who are already questioning the value of attending college face even more anxiety about the possibility of having some of the costs of college defrayed as President Biden's loan forgiveness program is in the hot seat. The economic factors at play in deciding whether to attend college have been exacerbated, and university finances are jeopardized by the decrease in enrollment.

Flagging Undergraduate Enrollment at Four-Year Colleges

Undergraduate enrollment dropped most sharply at four-year-colleges in the fall of 2022. An 11.5-percent jump in dual-enrollment students helped curb losses at public two-year colleges.

Fall 2022,
% change from a year earlier



Source: National Student Clearinghouse Research Center

The changing ethnographic composition of incoming students has ripple effects across the built environment. It has been widely reported that children of color are now in the majority in the United States. And despite much heated debate about border migration, emigres continue to come into the country, inexorably changing the social/cultural dynamics of the student age population. These students want and need different things from higher education institutions than past generations and the impacts of these demands are wide ranging, touching curriculums, financial aid, student programs, food, physical space and technology. The higher ed customer is changing and campus leaders must adapt.

Public Investment Challenges

In 2022, National Education Association data indicated that 32 states are spending less on public colleges and universities than they did in 2008. This is creating substantial increases in the cost of public higher education. Real fiscal constraints in combination with legislative skepticism about the value of investment in higher education has placed more and more of the burden of public higher education on the backs of individual students who are often forced to take out loans, an accumulation of $1.7 trillion in debt according to the latest federal reserve numbers. While the hotly debated Biden Administration debt relief plan has the potential to relieve as much as $20,000 per borrower, it can do little to stem the increasing costs being borne by future students for their education, costs that are sure to make them at least question the value of that investment.

Public Opinion

Adults today continue to question the material value of higher education and that usually impacts the actions of their children. A [recent report from New America]() found that while 75% of those polled felt higher education provided a good return on investment, only 55% said higher education was having a positive impact on the country and nearly two-thirds indicated that there are lots of well-paying, stable jobs that people can find with only a high school diploma or GED. The data seems to suggest a widely-held belief that America's cultural emphasis on higher education is directing people away from important work that doesn't require a four-year degree. Higher education, then, is valuable but not essential.

Challenges levied against the culture and programs of higher education (particularly of public colleges and universities) taken up in states across the country over recent years have created a complicated landscape to navigate for incoming students. Emboldening to some and discouraging to others, potentially cynical and divisive conversations certainly tarnish the ivory tower image of higher education institutions and the idea of the certain pathway to a better future for graduates.

Warren Buffet notes that, "It takes 20 years to build a reputation and five minutes to ruin it." While higher education has spent far more than 20 years building its reputation as a high-value investment, there is no doubt that it takes significantly less time to alter perceptions about value. Opinions change quickly in the Information Age.

It is worth noting that skepticism about the value of a college degree is not a new phenomenon. That the New York Times was discussing [the lost image of universities]() in 1992 is troubling as a marker for the duration of the conversation though perhaps affirms that universities remain remarkably resilient and perhaps ultimately benefit from even the most skeptical of conversations about their role and purpose.

Technology and the New Learning Environment

The Winston Churchill adage “Never let a good crisis go to waste” has been borne out following the pandemic. Organizations of all kinds are exploring ways to leverage the advances in technology that altered how people engaged with each other through the early phases of the pandemic. Online gatherings have transformed our understanding of how people connect, share, learn, meet and do all manner of business. Virtual and hybrid work/learning environments have changed the way students conceive of the classroom, expanded what it means to be in a community, challenged the role of place in that community and ultimately made the role of a physical campus less of a given. Response to these opportunities varies by campus but all have an impact on how schools will invest in their existing buildings and any new ones that they create.

A New Planning Framework

All these external drivers mean a more considered and collaborative approach to addressing existing facilities challenges and preventing them from undermining other institutional priorities is required.

Gordian has been collaborating with APPA – Leadership in Educational Facilities, the National Association of College and University Business Officers (NACUBO), and the Society for College and University Planning (SCUP) in the past year to explore what can be done in the face of these extraordinary challenges. The result is a new rethinking of the framework for collaboration in higher education, focused initially on finance, facilities and planning.

This reimagining of the framework for collaboration among the business, facilities and planning communities aspires to create a broader institutional conversation about the existing and future challenges facing the business of higher education. It focuses specifically on the campus and how to creatively serve students through physical assets. And it recognizes the newfound, post-pandemic understanding that facilities organizations are led by dynamic leaders that understand the business of higher education more broadly than many have historically assumed and can have a significant positive impact on critical institutional decision making.

Fundamentally, the framework asserts that facilities activity must move from a lagging response to a leading planning element in order to assure the wisest investment of increasingly restricted institutional resources. Why? Because nearly all programmatic changes are also facilities changes. This requires transforming the traditional siloed and serial planning flow within a campus community toward an integrated planning process which incorporates all of the elements that could make a fundamental financial impact on the institution.

Four business variables are helpful in understanding what information to glean from your facilities and for organizing institutional thinking to move forward differently.

1

Embodied Debt

Current demands being made by campus buildings can't be ignored and are becoming greater concerns to institutional budgets.

2

Risk Exposure

Personal safety, program support and investment disruptions must be considered carefully.

3

Future Program Compatibility

Ongoing instructional paradigm shifts that are becoming harder and harder to accommodate successfully need to be recognized and addressed.

4

Adaptability

As time goes on, the nature of the campus becomes ever more linked to the built environment and makes adapting to an evolving customer profile with diverse community needs all the more challenging.

These variables should be considered using a three-stage framework to organize the conversation and correlated areas of focus. That framework is outlined as follows:

1

Plans for Place: The voices engaged in, and the processes associated with, creating your campus spaces to ensure alignment of your built environment with your mission/vision, resources and the way(s) you go to market.

- Identify the space resources needed to complement substantive alterations to program offerings and engage decision-making with measurable outcomes.
- Align critical voices on campus regarding plans for new space, existing space use and lessons learned from the pandemic.
- Prioritize the sustainability of your institution's offerings to confront evolving competition in the marketplace.
- Develop a plan that links today's realities with the institution's future state while maintaining flexibility and adaptability of response to associated circumstances.
- Assess those facilities that cannot or should not be sustained and map out a plan for their removal.

2

Resources for Service: The people, processes and money needed for lifecycle renewal, refurbishment, renovation and adaptation of your facilities and utilities infrastructure to ensure operational needs and opportunities are addressed.

- Determine whether the planning and budgeting model presently in use is informing your future operating circumstances.
- Assess whether the use of your assets (building, technology and human resources) aligns with the evolving institutional program.
- Effectively maintain and operate your physical assets with an eye on successfully managing the risks they present.
- Establish an effective way to align space and program needs that includes a method(s) to manage space demands and use. Alter space-use practices and needs to match evolving teaching and working practices.

3

Assessment for Stewardship: The methods, metrics and measures necessary to determine and sustain the viability and feasibility of the built environment.

- Identify the tools you have or need to measure success.
- Determine whether your plan is adaptable for multiple future scenarios.
- Assess whether your facilities decisions going forward are a lagging investment and decide what actions you will take and/or what actions you will cease.

For more details about this innovative new framework for collaboration among campus leaders, **download the full report.**

Conclusion

For an entire decade, the State of Facilities in Higher Education has been a record and a reflection of what has been happening on campuses across North America. It has included recommended reactions and responses to some of the industry's most pressing circumstances.

This year is different. In collaboration with leading societies in higher education, we are identifying a call to action. The reality today is that the stewardship demands are now so acute, facilities issues can no longer be reactive, and every facilities, planning and business leader will need to be a key participant in institutional decision making going forward. Institutional planning must be transformed. Transformed not such that it is now about facilities exclusively, but that facilities considerations are truly integrated into the very fabric of institutional decision making.

About Gordian

Gordian is the leading provider of Building Intelligence Solutions, delivering unrivaled insights, robust technology and expert services to fuel customers' success through all phases of the building lifecycle. Gordian created Job Order Contracting (JOC) and the industry-standard RSMeans Data. We empower organizations to optimize capital investments, improve project performance and minimize long-term operating expenses.