Higher Education Capital Working Group

FINAL REPORT

January 21, 2025

Executive Summary

Massachusetts is known for its excellent higher education system, which drives innovation and strengthens our economy. Our public institutions of higher education are a big part of this success, offering affordable, high-quality education and preparing students for jobs that help our state grow. This year, we have seen remarkable progress: thanks to historic investments in free community college, applications to community colleges have surged, and enrollment has increased by double digits, reversing more than a decade of declines. Public four-year colleges are also seeing their first enrollment growth since 2013.

However, our public higher education system is facing significant capital challenges. Much of the construction on these campuses happened in the 1970s, resulting in aging academic buildings and infrastructure that now require major upgrades. Deferred maintenance is coming due, and campuses are struggling to meet the modern needs of students and the workforce. While each campus faces unique capital challenges, common themes include rising construction costs, the need to modernize pedagogical technology and ensure ADA compliance, and substantial investments in decarbonization to meet the state's ambitious climate goals. Meeting these challenges on the scale required is all but impossible within the constraints of the state's traditional capital program.

Recognizing these challenges, section 196 of the FY25 GAA directed the creation of a working group to identify new sources of capital to support higher education transformation and consider options for best deploying those new resources in a way that will benefit students, institutions, the workforce, and the Commonwealth as a whole.

New Sources of Capital to Support Higher Education Transformation

Through months of investigation, the Working Group **confirmed the viability of leveraging Fair Share revenue to unlock an estimated $2 to $3.5 billion in new capital resources for Massachusetts' community colleges, state universities, and the University of Massachusetts system over the next 10 years**, an approach that imitates the Commonwealth's successful creation and use of the Commonwealth Transportation Fund.

With the support of external financial advisors, the group confirmed that the proposed scale of debt issuance is modest relative to anticipated Fair Share collections, ensuring minimal risk in meeting debt service commitments and allowing for the creation of a new capital bonding program without constraining other operational goals and uses of Fair Share revenue. Moreover, the analysis confirmed that the creation of a standalone credit structure secured by Fair Share can be done without having any impact on existing credits of the Commonwealth's General Obligation debt capacity.

Findings on Deploying New Capital to Address Needs

Having confirmed that Fair Share is a viable source for unlocking new capital resources, the Working Group evaluated different values for how this increased funding may best

be allocated to address higher education capital needs, and identified the following set of guiding principles for consideration:

- Ensuring greater predictability and transparency of funding
- Preserving flexibility to meet evolving needs
- Prioritizing deferred maintenance and critical repairs of existing facilities
- Prioritizing alignment with administration priorities, including:
    - Net zero carbon emissions goals
    - Strategy outlined in the Workforce Skills Cabinet Regional Blueprints
- Developing smarter and more innovative program delivery models, including:
    - Preparing facilities for changing student demographics and enrollment trends
    - Modernizing and optimizing space utilization to support evolving pedagogies and new learning needs
    - Finding opportunities to encourage or support cross-institutional collaboration and space sharing
    - Meeting needs for research and applied learning space
- Requiring (and providing support for) longer-term planning to inform project evaluation and selection, in the form of master plans
- Recognizing the distinct missions and needs of the different public higher education sectors in developing and administering capital funding programs

Finally, the Working Group evaluated the application, approval, design, and delivery of current and recent state capital programs to understand what has worked well in existing programs, to expose unmet need, and to identify opportunities for improvement over the current process. The takeaways are included in the full report.

Next Steps

Legislation is necessary to translate these findings into transformational capital improvements for our public institutions of higher education. Specifically, legislation is needed to pledge Fair Share revenues for debt service until the final maturity of the debt for a Higher Education Special Obligation Credit and to authorize spending of the resulting higher education capital funding over the next 10 years.

In parallel, the Working Group's findings should be used to continue refining the state's processes for awarding and deploying higher education capital funds. While there is much work to be done, our campuses and students will begin to feel the impact of these new capital resources in the near future. Based on prior experience, smaller "accelerated infrastructure" projects can be accomplished within 2 years, while larger "major capital" projects can take 4-5 years to be constructed.

Conclusion

Massachusetts faces critical capital challenges in its public higher education system, with aging infrastructure, deferred maintenance, and decarbonization demands threatening its ability to meet modern student and workforce needs. These challenges

require bold solutions, as the state's traditional capital programs are insufficient to meet these significant needs. Leveraging Fair Share revenue through a special obligation bond structure, in the model of the Commonwealth Transportation Fund, is a valid and viable approach to expanding the pie of higher education capital resources while also maintaining the flexibility to support other priorities and commitments with that revenue stream. The borrowing made possible by this approach would support a 10-year higher education bond bill that will provide the type of transformational change and investment our public higher education campuses need to best serve their students, our workforce, and our state.

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Table of Contents

About the Higher Education Capital Working Group

Working Group Process

The Working Group was formed by Outside Section 196 of the FY25 GAA and tasked with: 1) identifying new sources of capital to support higher education transformation and 2) considering options for best deploying that capital to address the challenges facing the system. The outside section instructed the working group to study and report on:

(i) the feasibility and impacts of establishing a permanent financing structure using income surtax revenues for the issuance of debt for the benefit of public higher education capital needs; (page 17)
(ii) support for the University of Massachusetts Building Authority and the Massachusetts State College Building Authority to identify and finance investments in public higher education infrastructure; (page 27)
(iii) the capital funding necessary for public higher education campuses, broken down by campus; (page 32)
(iv) potential federal sources of reimbursement or grant funding for public higher education capital projects; (page 19)
(v) a prioritization process for public higher education capital needs; (page 21)
(vi) the total bonding capacity available for a public higher education capital projects bond legislation, including recommendations for the use of any general or special obligation bonds; (page 16)
(vii) a recommendation for a funding amount for future bond legislation for public higher education capital needs; (page 17)
(viii) potential processes for application, approval, design and delivery of capital projects for public higher education campuses; and (page 24)
(ix) possible investments for future bond legislation for public higher education capital needs, including, but not limited to, decarbonization, deferred maintenance and facilities improvement for the public higher education system of the commonwealth. (page 29)

Starting in September 2024, the Working Group convened four meetings. The full slides from these meetings are included in Appendix 3 of this report. The first meeting topic was “Objectives, Background, and Level Setting”. The second meeting topic was “Campus Needs and Financing Structure and Sources”. The third meeting topic was “Review of Current Process and Discussion of Priorities and Concerns for Allocation of Funding”. The fourth meeting was used to review a draft of this report.

The ideas in this report reflect the discussions held by and have broad support from the members of the Working Group, though no vote was taken.

Working Group Members

- Matthew Gorzkowicz, Secretary of Administration and Finance
- Patrick Tutwiler, Secretary of Education
- Melissa Hoffer, Massachusetts Climate Chief

- Noe Ortega, Commissioner of Higher Education
- Adam Baacke, Commissioner of Capital Asset Management and Maintenance
- Dr. Emily Reichert, Chief Executive Officer of the Massachusetts Clean Energy Center
- Senator Joanne Comerford, Chair of the Joint Committee on Higher Education
- Representative Dave Rogers, Chair of the Joint Committee on Higher Education
- Senator Edward Kennedy, Chair of the Joint Committee on Bonding
- Representative Michael Finn, Chair of the Joint Committee on Bonding
- LeeAnn Pasquini, Associate Vice President of Administration and Finance at the University of Massachusetts
- John Keenan, President of Salem State University, on behalf of the Massachusetts State Universities Council of Presidents
- Nate Mackinnon, Executive Director of the Massachusetts Association of Community Colleges
- Barbara Kroncke, Esq., Executive Director of the University of Massachusetts Building Authority
- Janet Chrisos and Sean Nelson, Executive Directors of the Massachusetts State College Building Authority

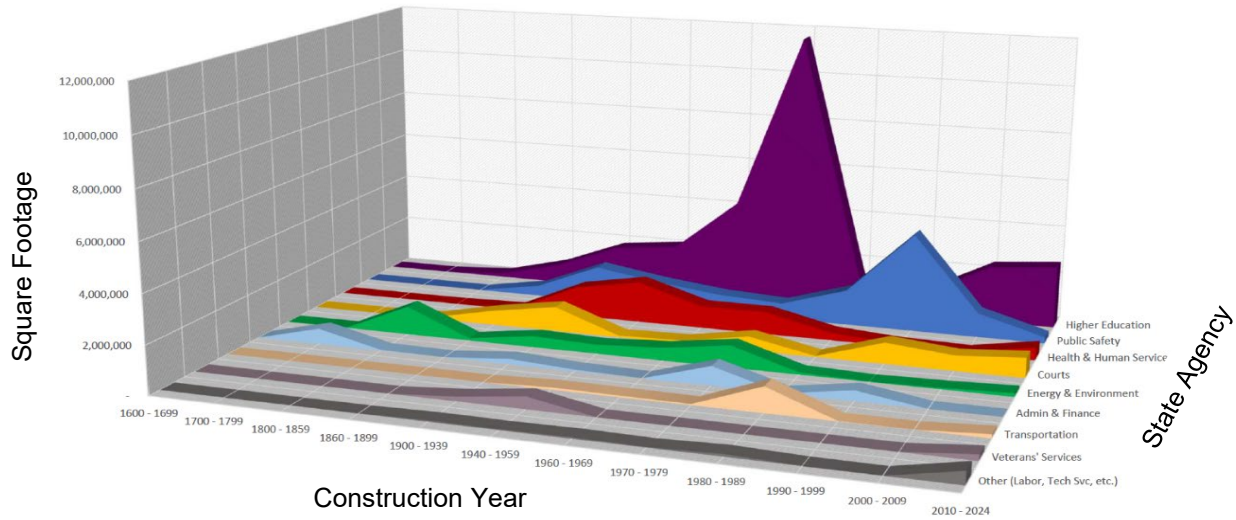
The Challenges

Higher education is a defining part of Massachusetts' identity. The state has long been a beacon of innovation and opportunity, driven by the intellectual and economic contributions of its public institutions of higher education. Over generations, higher education in Massachusetts has opened doors for young adults, providing them with transformative opportunities and preparing them to shape the future. Our public institutions in particular have served as vital equalizers, making quality education accessible and affordable while supplying a highly skilled workforce that strengthens the state's economy.

Massachusetts' public higher education system includes fifteen community colleges, nine state universities, and five University of Massachusetts campuses. These institutions work collaboratively with the Division of Capital Asset Management and Maintenance (DCAMM), the Executive Office of Education (EOE), and the Department of Higher Education (DHE) under a strategic framework that guides long-term capital investment decisions. Together, they focus on supporting students, addressing workforce demands, and advancing campus priorities.

While each campus has its own mission and needs, they share similar challenges when it comes to capital infrastructure. Construction across the state's higher education system peaked in the 1970s, meaning that much of the core infrastructure in buildings across campuses has reached the end of its functional lifespan. This widespread aging of facilities presents urgent challenges that require coordinated investment.

Figure 1. "Shark" Chart of DCAMM's Capital Portfolio



Compounding these infrastructure issues, the costs of construction, renovation, and demolition have risen significantly, adding new hurdles to efforts to modernize campuses and ensure they meet the needs of current and future students. Addressing these challenges will be critical to maintaining Massachusetts' leadership in education and preparing the state's workforce to thrive in the decades ahead.

Capital Funding Needs at Public Higher Education Institutions

The aging infrastructure of Massachusetts' public higher education system is increasingly costly to repair, modernize, and decarbonize. Outdated facilities not only hinder the state's ability to meet ambitious decarbonization goals but also fail to support modern learning, workforce development, and research. State-owned higher education buildings account for 47% of the total DCAMM portfolio, making them a critical focus for decarbonization efforts to meet the Commonwealth's commitments. Addressing these needs is further complicated by rising costs driven by a range of factors, including:

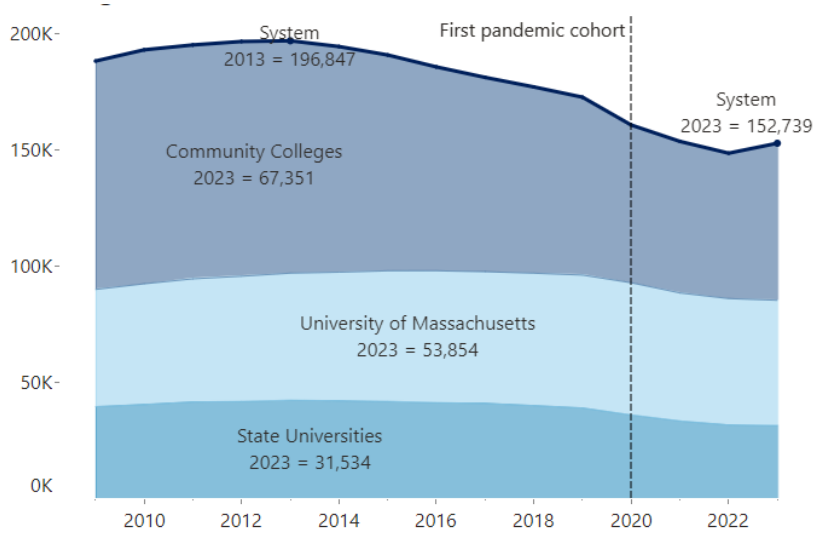
- **Climate mandates.** Legislative and executive mandates require the Commonwealth to eliminate fossil fuel consumption and reduce carbon emissions from state buildings by 95% by 2050. To meet these goals, institutions must upgrade building energy performance, replace heating and cooling infrastructure, modernize electrical services to campuses, and retrofit facilities to maximize space efficiency.
- **Building code updates.** Massachusetts regularly updates its building codes to incorporate advancements in safety, materials, and technology. While these updates aim to achieve positive outcomes – such as protection of life safety and reducing carbon emissions – they often lead to higher costs for design and materials. Additionally, they can extend the survey and schematic design phases of capital projects, which in turn may further escalate overall construction costs.
- **Increased regulatory demands.** Increasing regulatory demands contribute to rising costs by requiring adherence to a range of complex and evolving standards. These include permitting and environmental review processes, wage laws, procurement rules, accessibility standards, and more. While these regulations promote safety, sustainability, and equity, they also add administrative overhead, increase labor and materials costs, and extend project timelines, driving up overall expenses for campus infrastructure projects.
- **Construction labor shortages.** Ongoing shortages in skilled construction labor increase wages and slow project timelines. Massachusetts had a 2.5% construction unemployment rate in June, the lowest of any June in at least 17 years.[1] This analysis of federal data also shows that construction employment has increased by only 2.8% since February of 2020, while the annual rate of construction projects has risen by 44.4%. These persistent labor shortages are subsequently leading to an increase in wages; Massachusetts had one of the highest average hourly earnings (AHE) rates in the country, at $49 per hour, and the year-over-year growth was greater than 6%, above the national average.[2]
- **Rising material costs.** Inflation, transportation and energy costs for fabricators and distributors, and the ongoing scarcity of manufacturing labor are all putting

[1] As Boston's Construction Labor Shortage Worsens, Firms Look To New Solutions; Bisnow 2024.
[2] States with Highest and Fastest Rising Construction Wages, 2024; National Association of Home Builders 2024.

upward pressure on the cost of building materials, even while the cost of input commodities is more stable.

Declining enrollment across public higher education institutions further strains the ability of campuses to fund capital needs. Enrollment across all sectors has declined 34% since 2010, driven both by expected demographic shifts in the state and by the COVID pandemic. Although recent tuition-free programs like MassEducate and MassReconnect have boosted community college enrollments over the past two years, experts project a "demographic cliff" when the number of high school graduates in Massachusetts is expected to decline by 10% between 2026 and 2036.[3] Enrollment pressures are a burden on institutions' ability to contribute to capital funding needs because they collect less student revenue and have less ability to impose fees sufficient to cover debt service when those costs could push students elsewhere. Programs like MassReconnect are also resulting in changing needs from our student populations, because they are driving increased enrollment of nontraditional students.

Figure 2. All Undergraduate Students Enrolled: 15-Year Trend. Source: Massachusetts Department of Higher Education[4]



To address the mandate set before this Working Group, DCAMM conducted a detailed assessment of capital funding needs across the public higher education system. This assessment included the development of dashboards that break down needs at the institutional level and provide contextual data such as current gross square footage broken down by high-level use categories, enrollment since 2010, a "shark" chart

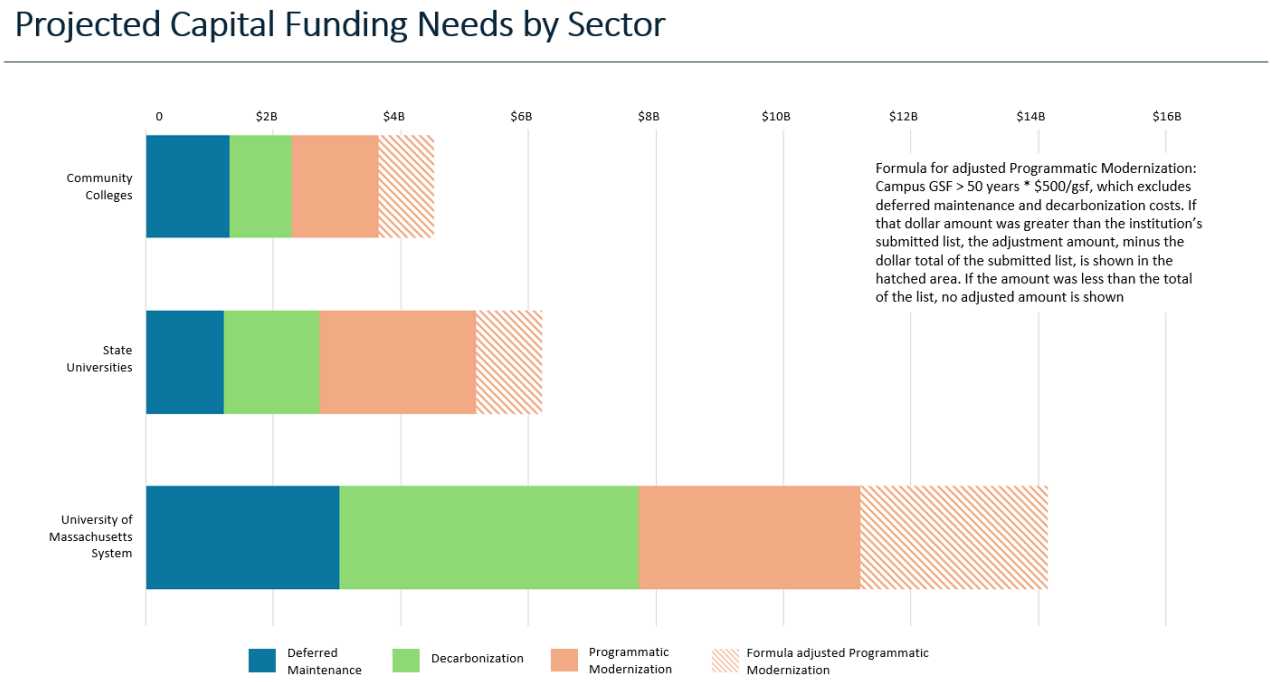
[3] Knocking at the College Door, 11th Edition - WICHE; Western Interstate Commission for Higher Education 2024.
[4] 2023 Fall Enrollment / Data Center / Massachusetts Department of Higher Education; Massachusetts Department of Higher Education Data Center 2023.

showing building age, research expenditures since 2010, and space utilization data. The dashboards show institutional need, broken into three categories:

- **Deferred maintenance**. This refers to the backlog of repairs and upkeep required to address wear and tear on and deterioration of campus buildings and infrastructure. Normal obsolescence as building components reach the end of their useful lives is compounded by frequent deferral of preventative maintenance due to budget constraints, resulting in aging and deteriorating facilities that may no longer meet basic functional or safety standards. Spending in this category would ensure the continued operability and safety of existing infrastructure by addressing issues such as roofing, HVAC systems, plumbing, and electrical systems. This category also includes work needed to bring buildings up to contemporary life safety, accessibility, energy, and other code requirements adopted after the facilities' initial construction. The estimates of deferred maintenance come from Facility Condition Assessment (FCA) studies supplemented with data from institutions for building authority-owned buildings.
- **Decarbonization**. This involves retrofitting and upgrading facilities to meet the Commonwealth's climate mandates, including to eliminating fossil fuel consumption and reducing 95% of carbon emissions from state buildings by 2050. This includes improving energy efficiency, installing renewable energy systems, modernizing heating and cooling systems, and increasing campus resilience to a changing climate. The estimated costs of decarbonization come from DCAMM's internal assessments based on square footage and recent dollar-per-square-foot project costs, and are then adjusted to eliminate overlap with deferred maintenance. These cost estimates do not account for embodied carbon considerations.
- **Programmatic modernization**. This refers to renovations and new construction designed to better align campus facilities with current academic and workforce needs. This includes updating laboratories, classrooms, and other spaces to support modern teaching methods, research, and student services. The cost of programmatic modernization was estimated by taking lists from institutions and the capital plans adopted by the UMass Board of Trustees and then adjusting for consistency across campuses and sectors by DCAMM's application of standard construction cost metrics to campus square footage.

All three categories often overlap in practice, as projects addressing program improvements or aging infrastructure frequently present opportunities for code upgrades, energy efficiency, and carbon reduction. However, in this analysis, DCAMM adjusted estimates to eliminate duplication of costs. By separating these needs, DCAMM provides a clearer understanding of the distinct investments required to address foundational infrastructure deficiencies and meet the Commonwealth's climate mandates. The below chart presents estimated capital funding needs aggregated at the sector level. Further information on the dashboards is available in Appendix 2.

Figure 3. Projected Capital Funding Needs by Sector



Capital Constraints and Available Bond Capacity

The capital needs across Massachusetts' institutions of higher education are extensive but the resources available through traditional funding sources are highly constrained. The below section outlines the functions and limits of the state's Capital Investment Plan (CIP) and the state's historic and current role in financing public higher education capital projects.

CIP Uses and Constraints

Massachusetts' CIP is a five-year rolling plan that funds construction and maintenance of key infrastructure. It is focused on community grant programming and projects related to state-owned assets, including facilities, infrastructure, and land or natural environment. Projects include maintaining, repairing, modernizing, and strengthening state assets, supporting housing development, fostering economic development, and supporting cities and towns through grant programming.

The FY25-29 CIP's primary source of funding is $3.117 billion in General Obligation (GO) bonds, which are issued to investors who are repaid over time via debt service that is paid from the state's annual operating budget. Bond authorization, secured in bond bills enacted by the Legislature, enables the Commonwealth to spend bond cap. However, authorization does not require bond spending; actual spending and annual growth in capital spending is determined through the annual CIP process.

Growth in the bond cap is subject to statutory and policy limits and is ultimately based on the recommendation of the Debt Affordability Committee (DAC). The statutory direct debt limit restricts the total amount of outstanding principal on the Commonwealth's direct debt to no more than 105% of the previous fiscal year's limit. The annual borrowing limit limits annual debt service payments to less than 8% of budgeted revenues. Annual growth in the bond cap is generally limited to less than $125 million. The DAC takes these limits into consideration in their recommendation, along with credit factors – rating agencies continually cite elevated debt levels as Massachusetts' biggest credit negative factor – and how much an increase in debt service will put pressure on the operating budget or limit future flexibility to fund critical infrastructure projects.

The Debt Affordability Committee's FY25 recommendation to the Governor cited recent inflation and construction market trends and data as a factor in their recommendation for a conservative increase in bond cap.[5] Recent escalating levels of construction costs are limiting the purchasing power of the CIP, and further, state agencies have reported that individual project costs are far exceeding original estimates.

History of Higher Education Financing and Investments.

In response to the growing capital challenges faced by Massachusetts' public higher education system, Governor Patrick launched a 10-year comprehensive education reform initiative shortly after taking office, including a focus on higher education financing reform. At the time, investments in higher education accounted for only 3% of the Commonwealth's total capital budget. By FY13, the Patrick administration had increased this share to 12%, reflecting a significant prioritization of higher education capital needs.[6]

A cornerstone of these efforts was the 2008 filing of a $2.2 billion, 10-year higher education bond bill. This dramatically increased funding for capital projects across all public higher education institutions. As a result, every community college, state university, and UMass campus benefited from at least one major new capital project. Those projects included a range of Science, Technology, Engineering, and Math (STEM) buildings, new academic and lab space, new libraries and student areas, and crucial infrastructure and deferred maintenance projects essential to allowing campuses to operate at the highest level. Many of these projects addressed decades of deferred maintenance and marked the first major construction efforts on several campuses since the 1970s. This period of investment is reflected in Figure 1, which shows a notable increase in higher education construction from 2008 to 2014.

Additionally, the 2008 life sciences bond bill provided targeted support for UMass, enhancing the ability of campuses and graduates to contribute to the state's life sciences sector. UMass received one-fifth of the bill's proceeds for projects including a life sciences center at the Amherst campus, an "Advanced Therapeutics Cluster" at UMass Medical School, and an Advanced Technology Manufacturing Center near the

[5] Debt Affordability Committee Recommendations 2023; Debt Affordability Committee 2023.
[6] HigherEducationFinanceCommission-FinalReport10-2014.pdf; Higher Education Finance Commission 2014.

Dartmouth campus, among others.[7] Some small grants were available for community colleges, but otherwise this bill did little to support state universities and community colleges.

More recently, the 2022 general governmental bond bill authorized $750 million in additional borrowing for repairs and improvements at state higher education institutions. This authorization relied on general obligation debt, as did the 2008 bond bill authorization, so although it enabled crucial spending at the higher education institutions, spending was still limited by the constraints on the bond cap, and any bond cap spending on higher education displaced spending in other areas.

Even with these infusions of funding, there continues to be significant need, occurring in a time where the above outlined pressures make additional progress challenging.

Current and Recent Higher Education Capital Project Programs Funded Through the CIP.

As of the most recent CIP, DCAMM accounts for 23% of planned bond cap spending in the next 5 years, or approximately $722 million per year. In FY25, $156.5 million of this is programmed directly for higher education. Institutions have also benefited in other ways related to funding – campuses received a significant share of DCAMM's decarbonization investment in FY24 – and related to strategic planning – DCAMM accelerated the flow of capital funding commitments to UMass projects at the end of FY24 by transferring money to UMBA that had been pledged in FY25.

The recent approach has apportioned state capital funding for higher education to three programs. The first is a formula distribution of Critical Repairs funding to address deferred maintenance. The second is the Accelerated Infrastructure program, which prioritized investments based on Infrastructure Assessments and Facility Condition Assessments. The third is a competitive program for awarding major capital funding, capped at $30 million per project.

The Critical Repairs program addresses urgent repair and deferred maintenance needs in state-owned higher education facilities. Targeting projects under $5 million, it ensures campuses can address essential issues like building envelopes, mechanical systems, accessibility, and life safety compliance. Funding is allocated in five-year-long rounds, which creates predictability and allows institutions to plan and execute larger-scale repairs. To date, two rounds have been funded, each providing $250 million in state bond funds, matched by campus contributions. Allocations are determined using a formula: a base amount of $3 million is distributed to each institution, with remaining funds apportioned based on factors like gross square footage, documented deferred maintenance, and enrollment headcount. Campuses have discretion to prioritize their projects, with oversight provided by DCAMM.

The campus-wide Accelerated Infrastructure program funds strategic investments in large-scale infrastructure projects that fall outside the scope of the Critical Repairs program. These projects address essential systems like sub-surface utilities and parking

[7] Massachusetts Close to Passing Revised $1B Life Science Bill, With A Few New Earmarks | GenomeWeb; Genome Web 2008.

lots, focusing on preventing catastrophic failures that could disrupt campus operations. This program also addresses security concerns, like improved crosswalk safety measures and curb cuts, as well as maintenance or construction of new roads and pedestrian walkways and bridges, and maintenance of water and sewer systems, among other projects. By targeting these issues, the program enables campus leaders to focus some resources on programmatic priorities without compromising infrastructure needs. Projects are identified, planned, managed, and executed by DCAMM, with typical timelines of two years from initial studies to completion. To date, $193.1 million in state capital funds have been spent or committed, supplemented by modest contributions from institutions. While the program is not currently funded for new projects, it has been suggested as a potential model for tackling campus-wide decarbonization initiatives in the future.

The Major Capital Projects program supports transformative investments that align with institutional priorities and state goals for education and workforce development. The program was initiated in FY19 following the Strategic Framework for Massachusetts Public Higher Education, which aimed to create an open, competitive, and information-driven process for evaluating capital projects based on the needs across the whole higher education system. Designed for larger-scale projects, the program creates a transparent, competitive process for allocating state funds. All 29 public higher education institutions are eligible to submit one project per round, with approximately five projects funded each cycle. Proposals with significant campus contributions are prioritized, and 80% of funded projects to date have been at community colleges and state universities. UMass projects are typically executed by the UMass Building Authority (UMBA), while DCAMM oversees projects for community colleges and state universities. To date, $451.6 million in state bond funds have been spent or committed, matched by $375.5 million in campus contributions. Modest grants to institutions for project development have also been a key feature of the program, supporting the development of strong, competitive applications. While the program has been highly impactful, it is currently unfunded for new rounds.

New Sources of Capital to Support Higher Education Transformation

While the above programs and investments have had a significant positive impact on higher education capital, the need on our public higher education campuses is growing well above and beyond what the Capital Investment Plan can accommodate. The Working Group, therefore, investigated options for growing the available amount of funding, before then evaluating different models for how the funding may best be allocated to address capital needs.

In the last two budget proposals, FY24 H.1 and FY25 H.2, the Healey-Driscoll Administration proposed pledging $140 million and $125 million respectively of Fair Share revenues to support capital investments on university and community college campuses to address the substantial backlog in deferred maintenance. These proposals were not enacted by the Legislature, although a one-time investment of $50 million of Fair Share revenue was allocated to institutions of higher education in FY24 for use on decarbonization projects, accessibility improvements, and campus security investments. The Fair Share revenue is constitutionally dedicated to education and transportation. The Administration proposed using this revenue to unlock more capital, similar to what had been done for transportation with the Commonwealth Transportation Fund (CTF). The Administration projected that this could unlock up to $2.5 billion in borrowing capacity over the next 10 years by securitizing this new revenue stream. The Working Group investigated this idea to ensure its feasibility and to develop a clearer vision for how new resources would be utilized.

Evaluation of Special Obligation Bonds as a Structure for New Capital Funds

Most bond bills in Massachusetts authorize the issuance of General Obligation (GO) debt, which supports most of the state's capital spending as outlined in the CIP. Recent examples include the $5.16 billion in GO debt authorized in the Affordable Homes Act and the $3.96 billion in GO debt authorized by the MassLeads Act. However, Massachusetts has established a precedent for using special obligation bonds as an alternative to GO debt. These bonds are tied to specific revenue streams, allowing the Commonwealth to address strategic priorities while safeguarding its GO credit rating. By diversifying its borrowing strategies, Massachusetts enhances its financial flexibility, strengthens market access, and ensures better funding for priorities such as transportation and infrastructure improvements.

Creating special obligation bonds presents a viable option for generating new capital funds to address deferred maintenance and other critical needs in public higher education, akin to what the Commonwealth Transportation Fund (CTF), created in 2009, has done for public transportation. The CTF has proven to effectively allocate transportation-related fees and taxes to fund its obligations over the last 15 years. The model is trusted enough that the FY25 budget authorized a $250 million transfer of Fair Share revenues to the CTF. With over 4.5 times coverage for bonds, the CTF supports robust borrowing capacity while still allowing for significant expenditures on a pay-as-you-go basis after meeting its bonding obligations. The CTF's strong credit profile, currently rated Aa1 by Moody's and AAA by S&P and Kroll, demonstrates the

effectiveness and reliability of this approach. A standalone credit structure could similarly expand the Commonwealth's capital borrowing program for higher education capital projects. The amount of borrowing that the Commonwealth can do is contingent on how much funding is pledged to cover debt service. By dedicating revenues to debt service while the bonds are outstanding, the program minimizes risk while providing financial predictability. Although the CTF's credit rating is uniquely high, the external analysis confirms that securing bonds with existing Fair Share revenues will provide coverage of debt service costs that rating agencies and bondholders will seek. In other words, it is expected to achieve a credit rating in the high investment grade category (Double-A ratings).

Importantly, such a credit structure would not negatively affect the Commonwealth's general credit ratings. This new revenue source is segregated from the General Fund and would be pledged to bondholders. Like the CTF, this structure would involve no pledge of the Commonwealth's taxing power or have an implied moral obligation, and there would be no contract assistance pledge.

The Feasibility of Establishing a Dedicated Financing Structure Using Income Surtax Revenue

The Working Group looked at three aspects of feasibility:

- Whether such a proposal is legally feasible,
- Whether it is financially feasible, and
- Whether this is a good policy solution to address institution needs.

The constitutional earmarking of Fair Share funds provides a clear and justifiable basis for using income surtax revenue to support public higher education. These funds are specifically dedicated to "quality public education and affordable public colleges and universities, and for the repair and maintenance of roads, bridges, and public transportation," creating a lawful foundation for addressing higher education capital needs.

Next, the group considered whether it was financially feasible to use Fair Share to establish a new standalone credit structure for higher education capital funding. Although Fair Share revenue—derived from a surtax on high-income earners—is inherently variable, the Commonwealth has implemented safeguards to mitigate volatility and protect long-term investments. These include a Fair Share stabilization fund and restrictions on using the revenue for recurring expenses, with the balance directed toward one-time projects. These mechanisms provide stability while enabling strategic and sustainable allocations.

There are safeguards in place to protect against the overall variability of Fair Share. Once pledged to a capital financing structure, revenues must first be used to cover debt service before being used for other eligible purposes. Moreover, the amount of revenue that needs to be committed to unlock significant borrowing is small compared to the overall size of Fair Share. External analysis estimates that a pledge of $100 to 150 million in Fair Share revenues annually will allow the Commonwealth to borrow $2 to 3.5

billion over the next 10 years under current market conditions. The estimated scale of proposed debt obligations, between $100 to 150 million, is modest compared to the size of Fair Share collections; the Department of Revenue certified $2.460 billion in revenue for FY24. This ensures that the risk of failing to meet debt service commitments remains minimal, even in years with revenue fluctuations. Fair Share revenues can be used in this way without taking away flexibility to spend the rest of the Fair Share revenue on other prior and planned education and transportation commitments.

In sum, leveraging Fair Share revenue to support a higher education capital financing structure is both lawful and financially viable. The safeguards, modest debt levels, and strategic alignment with constitutional mandates make this proposal feasible while maintaining the flexibility to support other priorities within the broader scope of public education and transportation.

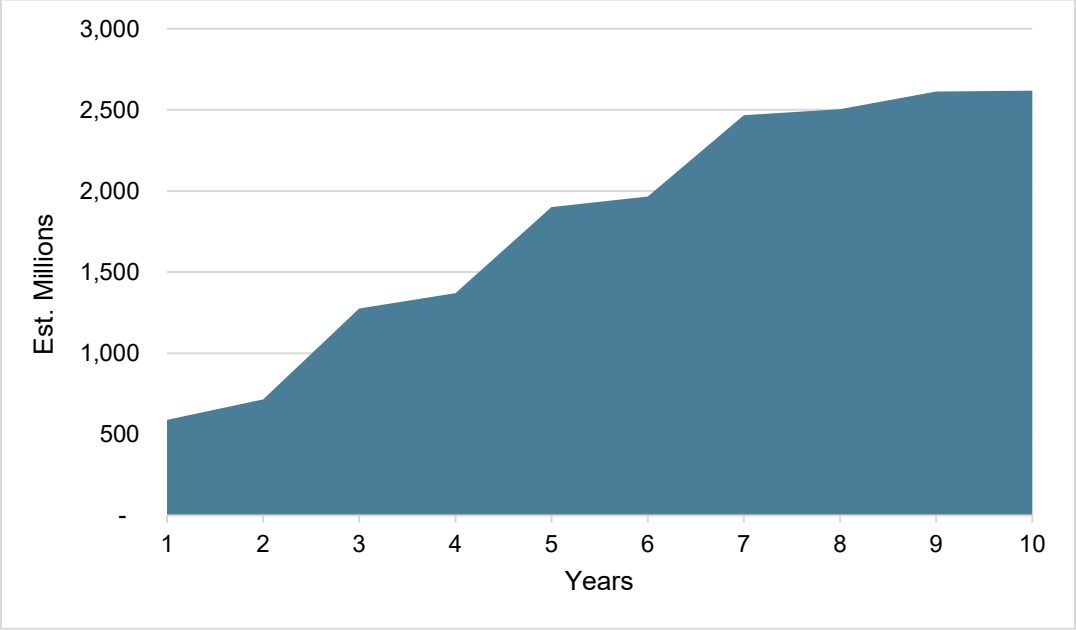
The Impact of Issuing Special Obligation Bonds Using Fair Share Revenues

A special obligation credit structure would likely secure a high investment-grade credit rating. The securitization of Fair Share revenues allows for significant debt service coverage while maintaining flexibility for other operational needs. Like with the CTF, routing Fair Share revenues through this flow of funds would create large amounts of debt service coverage without impacting the ability to use the remaining Fair Share revenue, as those revenues would pass through to the Commonwealth after debt service has been captured. Although it may take some years for the debt service to ramp up, it will be critical to pledge the amount needed to fund debt service at its peak in order for the bond market to have confidence that the funding will be available when necessary. Any amount of the dedication that is not immediately needed for debt service could still be used to address the capital needs of our public higher education institutions.

The Working Group found that this approach aligns with the priorities of stakeholders:

- Commonwealth of Massachusetts
  - Establishes a strong new credit with significant debt capacity
  - Allows excess funds to flow to the Commonwealth for other priorities after debt service obligations are met
  - Protects the Commonwealth's existing credit ratings and GO debt capacity
- UMass, state universities, and community colleges
  - Addresses critical deferred maintenance needs across campuses
  - Reduces exposure to costly emergency repairs
  - Has no impact on the debt capacity of UMass or state universities
  - Supports modernization of campus facilities, likely improving retention and enhancing student experience
- Investors
  - Offers a new highly rated credit option
  - Diversifies away from general obligation debt
  - Provides an open lien with significant debt capacity, ensuring liquidity in the secondary market

Figure 4. Model of Total Funding Unlocked Over 10 Fiscal Years, Based on Fair Share Pledge Assumption and Current Market Conditions



Preliminary modeling scenarios indicate that with a pledge of $100 to $150 million in Fair Share revenues annually for debt service, the Commonwealth would be able to generate $2 to 3.5 billion in total funding unlocked to address the capital needs of our public institutions of higher education over 10 years without any growth in the annual appropriation.

Potential Federal Sources of Reimbursement or Grant Funding

Growing the pool of funding for capital projects also means ensuring that no federal resources are left on the table. Leveraging federal reimbursements or grant opportunities can help Massachusetts maximize its investments and accelerate its higher education transformation.

Direct Pay reimbursements under the Inflation Reduction Act (IRA) present a promising federal funding source. This program, designed to expand access to clean energy tax credits, enables public entities like the state of Massachusetts to receive refunds for clean energy investments, helping projects moving forward more quickly and affordably. DCAMM, A&F's Federal Funds and Infrastructure Office, and public higher education campuses are already collaborating to explore these opportunities for reimbursement. They have begun by submitting projects completed in 2023 for consideration for reimbursement, but importantly, the state faces no cap on the number or value of its applications and the program will remain in place through 2032. Any refunds from this program will go directly to the state rather than to individual institutions, because the state officially pays the taxes on behalf of our public institutions. The state is currently exploring options to reinvest these funds into additional decarbonization projects to further address climate goals.

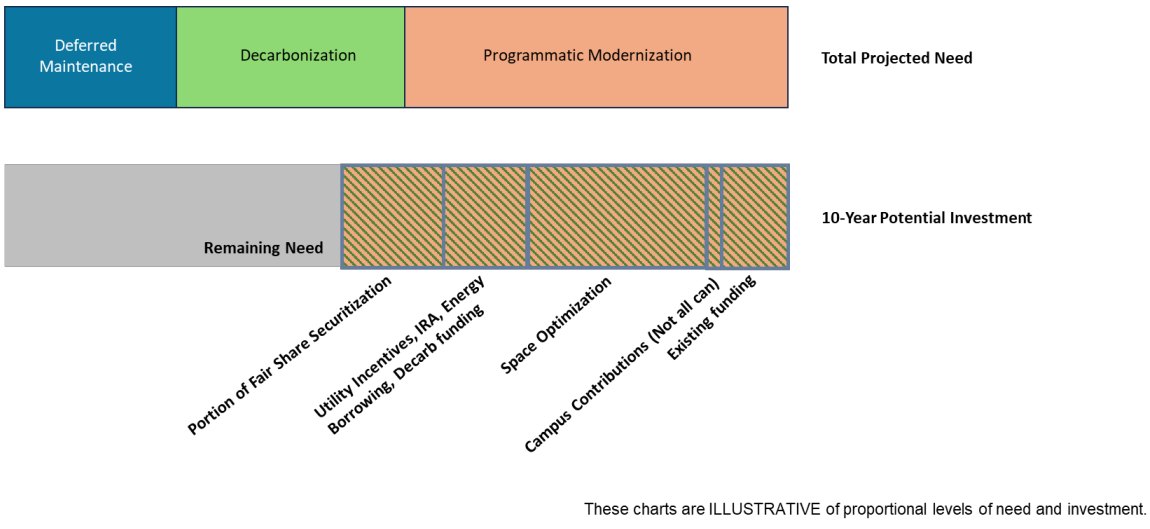
The Working Group recognizes that future federal opportunities may emerge and advises monitoring developments under the incoming federal administration. New opportunities may become available, or the Direct Pay reimbursements may be put at risk. While few additional opportunities can be identified at this time, federal funding priorities may shift or expand in ways that could benefit public higher education institutions in Massachusetts. Flexibility and vigilance will ensure the Commonwealth is well-positioned to take advantage of new funding streams as they arise.

Table 1. Estimated Total Capital Needs Across Massachusetts' Institutions of Higher Education

Sector	Deferred Maintenance	Decarbonization	Programmatic Modernization	Total
Community Colleges	$1.32B	$970M	$2.24B	$4.53B
State Universities	$1.23B	$1.5B	$3.48B	$6.21B
UMass System	$3.03B	$4.7B	$6.42B	$14.15B
Total	$5.57B	$7.2B	$12.14B	$24.89B

Addressing the capital needs of public higher education institutions in Massachusetts will require a multifaceted approach. The chart table and chart below demonstrate the sector-by-sector capital needs of Massachusetts public higher education institutions, and compare the total projects need to the combined effect of investments including Fair Share securitization, the IRA Direct Pay program and other energy and decarbonization incentives, space optimization efforts, and more.

Figure 5. Illustration of Total Projected Need Compared to Potential Investments



These funding sources will make meaningful progress but still leave extensive need to be addressed beyond the 10-year horizon of the proposed funding program. Given the

duration of major construction activity and the disruptive nature of projects implemented on active campuses, it would not be practical to assume that all of the documented need could reasonably be addressed in only one decade. The Working Group recommends continuing to explore additional funding options that continue into the late 2030s and beyond to meet these needs comprehensively.

Findings on Deploying New Capital to Address Needs

In order to effectively address the capital needs identified across Massachusetts' higher education institutions, the Working Group considered how to best distribute new funding. The group examined various factors that should inform any funding allocations, including the specific needs of the different sectors, and identified a set of guiding principles for strategic investment. In addition, the group evaluated the existing processes for the application, approval, design, and delivery of capital projects, identifying both strengths and areas for improvement that could enhance efficiency and better meet institutional needs. The group also considered how to strengthen the supports available to institutions and authorities to identify and be more strategic about financing their capital investments. The following sections outline these findings for improving the capital investment process at all levels.

Process of Prioritizing Higher Education Capital Needs

The process of prioritizing higher education capital needs should be informed by a set of guiding principles designed to ensure strategic, equitable, and forward-thinking investments across all sectors and project types. The Working Group identified the following set of principles for consideration:

- **Ensuring greater predictability and transparency of funding.** A clear funding model can create predictability for institutions and allow for more strategic decision-making. Well-resourced institutions are generally better positioned to be strategic and maximize funding; creating predictability may allow struggling institutions more opportunities to be strategic. The Working Group also found that institutions appreciate the transparency of the recent rounds of the Major Capital Projects program, in which institutions understood the criteria and could receive feedback and make edits to the applications over several months.
- **Preserving flexibility to meet evolving needs.** Capital construction projects in Massachusetts often take between 2 to 5 years to complete, but campus needs can evolve rapidly from the time an application is submitted to the time construction begins, and the process must recognize that. Within the last five years alone, campuses have seen a number of changes: rising construction costs across the state, an increase in the population of first-time college students due to the success of MassEducate, and a shift towards hybrid and online learning as a result of adaptations made during the pandemic. Cost escalation that occurs during the study and design phases means that the awarded funding cannot purchase what was originally intended by the time the construction starts.
- **Prioritizing deferred maintenance and critical repairs of existing facilities.** Deferred maintenance poses significant risks, including safety hazards, inefficient

energy use, and disruptions to educational activities. Institutions can better protect students and staff by addressing issues including aging infrastructure, structural vulnerabilities, campus accessibility, and inadequate emergency systems. However, this prioritization should not necessarily preserve all existing structures; in some cases, disposition or demolition may be the most practical solution, particularly when the presence of hazardous materials or the high cost of renovation makes continued use unfeasible. By addressing these issues proactively, the Commonwealth ensures the longevity of its existing infrastructure while avoiding higher costs associated with emergency repairs.

- **Prioritizing alignment with administration priorities, including:**
    - **Net zero carbon emissions goals.** The Commonwealth's public higher education system generates two-thirds of the carbon emissions in the DCAMM portfolio. The state has promised to achieve net zero emissions by 2050. Renewing facilities, systems, and infrastructure on higher education campuses is a necessary step towards decarbonizing state assets.
    - **Strategy outlined in the Workforce Skills Cabinet Regional Blueprints.**[8] The Cabinet and the regional blueprints aim to develop a workforce that is sufficient in size, well-prepared, and well-educated in high-demand fields. The blueprints establish educational and training pathways, up through higher education, to align Massachusetts students with priority industries. Integrating blueprint alignment with funding decisions would ensure higher education capital investments are also investments in the state's future workforce.
- **Developing smarter program delivery models, including:**
    - **Preparing facilities for changing student demographics and enrollment trends.** Massachusetts higher education institutions are seeing enrollment shifts due to initiatives like MassEducate and MassReconnect. Enrollment at community colleges has increased by 14 percent, while state universities and UMass show more modest increases. Despite these increases, even community college enrollments remain well below where they were ten years ago, and most other institutions lag pre-pandemic peaks, sometimes by very large percentages. Demographic forecasts and increased uncertainty about the value of college degrees (even the state has eliminated most degree requirements for hiring) suggest that enrollment is unlikely to recover. Whether enrollment numbers stabilize or decline again, institutions should consider consolidating space to better align with current and future enrollment projections, reducing overall square footage to meet emerging needs and avoid maintaining excess capacity.
    - **Modernizing and optimizing space utilization to support evolving pedagogies and new learning needs.** Post-pandemic pedagogies and

[8] Regional Workforce Blueprints | Mass.gov; MassHire Department of Career Services 2024.

hybrid office models have reduced utilization of instructional and administrative space on many campuses. Additionally, programs like MassReconnect have significantly increased the number of nontraditional students enrolling in community colleges, driving demand for retraining programs. Optimizing space for more efficient utilization could greatly reduce carbon impacts, operating costs, and deferred maintenance. Modernizing spaces to better serve a range of student types—such as nontraditional students—can lead to more efficient, flexible environments that support contemporary teaching, learning, and administrative functions.

  - **Finding opportunities to encourage or support cross-institutional collaboration and space sharing.** Strategic collaboration among higher education institutions and with external partners in K-12 education and industry can lead to cost savings, more robust academic offerings, and improved resource utilization. Shared spaces for research, career training, or student services allow institutions to collaborate, pool resources, and avoid duplicating efforts.
  - **Meeting needs for research and applied learning space.** Specialized facilities for research and career training equip students with skills that meet workforce demands. High-demand industries in Massachusetts have already found ways to build partnerships with institutions, like through the limited-use Workforce Skills Capital grant program. Applications and awards from that program reveal a need for technology related to programming and web development, robotics and automation, advanced manufacturing, construction management and building trades, and more.

- **Requiring (and providing support for) longer-term planning to inform project evaluation and selection, in the form of master plans.** Master planning helps institutions take a comprehensive, long-term approach to facility management, aligning investments with strategic priorities and demographic trends. Providing support for these efforts ensures campuses can make data-driven decisions about future projects. Robust planning also enhances the efficiency and effectiveness of capital projects.
- **Recognizing the distinct missions and needs of the different public higher education sectors in developing and administering capital funding programs.** Community colleges focus on workforce development, offering job training, retraining, certification, skills improvement, and developmental courses for students preparing for college-level study or entering the workforce. State universities provide baccalaureate and master's degree programs that integrate liberal arts, sciences, and professional education. Meanwhile, the University of Massachusetts serves as a public research university system, advancing knowledge through comprehensive instruction, research, and public service. Related to these differing missions, it will be important to consider how factors like square footage and enrollment are incorporated into any kind of funding

formula – so as to not disincentivize institutions from serving their unique needs and student bodies – see callout box for more details.

Square Footage, Enrollment, and the Importance of Treating Sectors Differently

Square footage reflects deferred maintenance needs, decarbonization requirements, and the space required for program modernization. Considering square footage avoids penalizing institutions that have historically made investments in maintaining and upgrading their facilities. However, using square footage alone does not account for how efficiently those spaces are utilized, and institutions with less efficient space utilization could receive more funding, possibly leading to inefficiencies.

Enrollment is another important metric, as it reflects demand for institutional services. Metrics like headcount, which counts the total number of enrolled students, and full-time equivalent (FTE), which normalizes enrollment by accounting for part-time students' reduced attendance, offer different perspectives. Headcount could disproportionally benefit institutions with many part-time students, while FTE might favor those with a greater percentage of full-time students. But institutions that serve a significant number of non-traditional, part-time students—such as community colleges—should not be incentivized to shift away from serving these students, and the formula should account for their unique needs. Likewise, institutions with a larger proportion of full-time students, such as those in the UMass system, should not be penalized for their enrollment patterns.

A combined square-foot-per-student metric may reflect the actual demand for facilities by accounting for both the amount of space and the number of students it serves. However, a square-foot-per-student approach could disadvantage institutions with substantial research programs or a high share of resident students, as these types of institutions often require additional space for non-instructional purposes like labs, housing, and student services.

Process for Application, Approval, Design, and Delivery of Capital Projects

The Working Group evaluated the application, approval, design, and delivery of current and recent state capital programs to understand what has worked well in existing programs, to expose unmet need, and to identify opportunities for improvement over the current process.

What has worked well:

- **The focus of the three historical programs – critical repairs, campus-wide infrastructure, and major capital projects.** The critical repairs program addresses deferred maintenance needs in Commonwealth-owned facilities, established in Facility Condition Assessments (FCAs) and supplemented with data provided by institutions. Campus-wide infrastructure projects reduce the risk of catastrophic failures, revealed in FCAs and Infrastructure Assessments (IAs). The major capital projects program serves as the main opportunity for institutions to address the programmatic priorities of students and the state.

- **The predictability and flexibility of the critical repairs program.** The formulaic allocation and the five-year funding cycle allow campuses to plan for larger projects and adjust to evolving priorities. This model particularly suits the centralized strategic planning structure within the UMass system, because the program allows reallocation of funds across campuses to address urgent needs.
- **The model of the infrastructure program to support priorities like decarbonization.** This program prevents campus leaders from having to choose between programmatic modernization projects and large-scale infrastructure projects that are often hidden from view but pose major risks to campus operations should failure occur. This program could serve as a model for future efforts to support campus-wide decarbonization, through its central planning and prioritization, its focus on systems serving multiple buildings, and its efficient delivery mechanisms.
- **The transparent and supportive application process in the major capital projects program.** Institutions value the transparency in criteria and guidelines shared by DCAMM and EOE in the application process. They also appreciated the opportunity, within the application timeline, to submit draft applications for review and feedback.

The Working Group also identified several needs that are not fully addressed by current programs, including:

- **Planning and executing workforce-aligned projects.** These projects, often focused on retrofitting space to meet today's workforce demands, are too small for a campus to select as the one big project in a year to submit to the major capital projects program but fall outside the scope of critical repairs or infrastructure funding. The Workforce Skills Capital grants are also not designed to address this need, as they primarily fund equipment rather than the associated building renovations. Examples of programs that create or retrofit learning space to address emerging workforce needs include Nevada's Workforce Innovations for the New Nevada (WINN) program and UMass Lowell's

Nevada's Workforce Innovations for the New Nevada (WINN)
The WINN program fosters industry partnerships by requiring community colleges to have secured hiring agreements from a local employer before applying. It also offers frequent application cycles so that colleges can move quickly when an opportunity arises rather than waiting out an annual cycle.

UMass Lowell's Lowell Innovation Corridor Network (LINC)
The LINC development is supported by local employers; Draper Laboratory will be an anchor tenant, and other tenants in the new commercial laboratory and office space include companies in sectors like biotechnology, robotics, electronics, climate tech, and more. This project will be financed mostly by private developers. UMass, but not all public higher education campuses in Massachusetts, have the strategic planning capacity to identify and secure these types of opportunities.

Lowell Innovation Corridor Network (LINC)—see callout box for more information.

- **Demolishing outdated buildings where the building is unsafe and there is no intention or need to replace.** High upfront costs deter campuses from addressing these issues, even though maintaining unsafe, outdated buildings can be more expensive long-term.
- **Vertical infrastructure projects.** The three previous phases of the Accelerated Infrastructure program focused on major campus-wide horizontal infrastructure at 14 campuses, mainly addressing problems in pipes and steam tunnels. However, vertical infrastructure projects, like elevators that also enhance accessibility, are not covered under existing programs.

Opportunities for improvement:

- **The major capital project application process is perceived as taking too long relative to the level of funding available.** The current program model requires a full fiscal year between the opening of an application round and award announcements. Accelerating this process could be more responsive to urgent campus needs and reduce the impact of construction cost escalation on the amount of work that can be completed with available funding.
- **The timeline from award announcement to project construction is a significant bottleneck.** Projects often encounter delays, particularly in the study phase. A campus might be awarded funding, only for issues like unanticipated building code compliance requirements to arise during the study phase, forcing delays for value engineering to realign the project scope with the available funding in order to meet the statutory requirement for study certification. During periods of particularly high construction cost escalation, like the post-pandemic years, this can create a vicious cycle where the redesign delay period compounds funding gaps as projected costs continue to rise.

- **The $300,000 statutory threshold for requiring a study has not kept pace with inflation.** Originally meaningful, this threshold now applies to nearly all deferred maintenance projects, imposing excessive pre-design requirements on comparatively modest, straightforward repair projects, and often delays implementation.
- **The major project request funding cap level is a constraint on project delivery and creates financial burdens for campuses.** The funding cap level was set at $30 million for the round awarded in FY23, and $25 million for the rounds awarded in FY22 and FY19. Although understandable as a measure of fiscal responsibility, the cap severely constrains the scopes and sizes of projects

or forces institutions to fund the difference, which not all institutions have the same capacity to do**.**

- **Spending requirements should align with multi-year construction timelines.** Many projects span fiscal years, because of the seasonal nature of most construction and because institutions may prefer construction disturbances during the summer when there are fewer students and fewer classes to disrupt. As a result, it is seldom practical to use operating budget sources to fund capital investments, as was done in FY24 with the one-time allocation of Fair Share funding that year to higher education capital projects. It can also be challenging to project cash flows and align expenditure needs with timing of funding availability in the traditional CIP.
- **The matching funds model could benefit from greater flexibility and transparency.** While matching funds have only been encouraged in recent rounds of the major capital projects program, they have functioned as a de facto requirement. This is challenging for public higher education institutions due to limited borrowing capacity for institutional advancement and limits on student fee increases. Working Group members expressed support for greater transparency in match expectations and for considerations of alternative forms of matching, such as leveraging public-private partnerships or surplus land disposition.
- **Reporting requirements can be overly burdensome for some institutions.** Several institutions testified that the reporting requirements associated with critical repairs funding can be a significant challenge, particularly for smaller schools with fewer resources. While well-staffed institutions may be able to manage these requirements more efficiently, smaller institutions often lack the staff or expertise needed to navigate the reporting system, leading to inefficiencies and delays. Streamlining the reporting process or providing additional support to these institutions could help mitigate this burden.
- **Competitive applications across all three segments of higher education forces difficult and unfair comparisons.** The Working Group heard interest in the idea that the segments be treated differently, rather than asking them to compete on uneven playing fields. Some institutions both have the capacity for and the need for longer-term strategic planning, while others have missions that align more directly with short-term goals. One possible solution may be to create a formulaic distribution across segments and then have a competitive application within that.

<u>Supports for the Institutions and Authorities to Identify and Finance Investments</u>

In coordination with DCAMM and the Board of Higher Education (BHE), the Massachusetts State College Building Authority (MSCBA) mainly supports planning, financing, and development of revenue-producing facilities on state university and community college campuses. Revenue-producing facilities include housing, dining, athletic, parking, and other student activity facilities. However, exceptions have been granted in the past; the MSCBA was specifically authorized to finance certain academic facility projects listed in the 2008 higher education bond bill, including an academic

center at Mount Wachusett Community College, a wellness center at Worcester State University, and a theater at Salem State University. The MSCBA receives no appropriation from the Commonwealth; all revenues are derived from the rents and fees paid by the students for the use of the facilities and services. The projects are financed through revenue bonds that are repaid through student fees, vendor contributions, and university operating and reserve funds. When a campus needs new student housing or other facilities, they work with the MSCBA to identify the need and develop a project plan. The MSCBA is not selecting or prioritizing among projects proposed by institutions.

UMBA is responsible for designing, building, and maintaining facilities on the University of Massachusetts campuses. This includes hiring the architects, engineers, and construction firms to design and build facilities. To the extent that projects across the UMass system are considered and planned more holistically, this is a result of the capital plan developed and updated by the UMass president's office every two years. The plan prioritizes projects and identifies funding sources. UMBA works with the president's office and each campus to manage projects. UMBA can borrow funds by issuing bonds, and each campus pledges to pay the principal and interest on the bonds issued for their facilities. Facilities are financed with student fees.

The Working Group found broad interest in strengthening the MSCBA. One idea that surfaced in a Working Group meeting is to increase the MSCBA's ability to contribute resources to academic building projects and support community colleges as well as state universities. This might resemble the direction in the 2008 higher education bond bill for the MSCBA to issue debt to fund specified academic building projects, done through a language change to the Authority's statute, or by expanding their statute to cover all academic buildings. Another aspect may be to encourage pooled fees and revenues across facilities, where currently any revenue generated by a facility is sunk back in for maintenance of that same facility.

Another idea that surfaced to strengthen Massachusetts' public higher education institutions would be for the state to offer guidance to standardize the development of and required content included in master plans, in part to ensure consistent alignment with applicable state policy priorities that influence capital investment, including decarbonization mandates. As enrollment numbers and institutions grew for several decades until recently, master plans often were focused on what buildings and programs institutions needed to grow and attract students, and then considered how funds might be raised. In this new era of capital funding where allocations may be planned further in advance, master plans may instead focus on how to spend and prioritize among the available and expected dollars. These master plans have been available for DCAMM and BHE, but if they become more standardized, they might be used to plan more strategically and holistically across the system of higher education.

Future Bond Legislation Investments and Next Steps

Legislation will be needed to establish a permanent financing structure using income surtax revenues for the issuance of debt for the benefit of public higher education institutions. A higher education bond bill must propose sufficient bond issuance authorization to cover expected higher education capital spending over the next 10 years. The borrowing capacity authorized in this bond bill should be informed by the amount the Commonwealth expects can be leveraged from the Fair Share revenue that is set aside. A pledge of Fair Share revenues to a new Higher Education Special Obligation Credit should also be authorized in legislation. Once pledged, the agreement to repay debt service will become permanent for the life of the debt. Although both the authorization and the agreement to repay debt service will be needed to support such a program, they can be drafted in such a way that either can be passed first.

This strategy entails a series of bond issuances over the next 10 years. Bond issuances will be structured such that the debt service on outstanding bonds will not exceed an amount between $100 and 150 million in any given year, which outside financial consultants expect will allow the Commonwealth to borrow between $2 to 3.5 billion over 10 years. The debt service required in the early years will be less than the pledged amount, given the relatively small amount of bonds that will be outstanding. However, as more bonds are issued, debt service will gradually increase to the pledged amount between $100 and 150 million. To the extent that the debt service amount that's pledged annually is more than what is needed in a given year, that funding can be used to relieve institution debt or fund additional higher education capital projects.

Current modeling assumes that the administration issues $500 million of debt every two years, although there are many possible models. Based on the planning done to date and the state's recent experience in allocating capital funds to higher education capital projects, this funding can be allocated quickly and bring meaningful, tangible impacts within the first year or two. Smaller accelerated infrastructure or lab modernization projects can be accomplished within 2 years, while larger major capital projects may take 4-5 years to be constructed.

Securing funding to address higher education capital needs is only the first step. DCAMM, EOE, A&F, and other members of the administration should continue to engage members of the Working Group and other stakeholders on implementation of any programs that come out of this new financing mechanism. This collaborative effort may include reviewing anticipated formulas, criteria for existing programs, and the substance of any potential new capital programs to support unmet needs like nimble workforce programming.

Conclusion

The public higher education system in Massachusetts is facing a critical set of capital challenges that threaten its ability to meet the evolving needs of students and the workforce. Outdated infrastructure, a backlog of deferred maintenance, and the pressing demands of decarbonization are all creating obstacles for institutions striving to provide a modern, high-quality education. These issues, if left unaddressed, risk undermining the Commonwealth's ability to remain a leader in creating educational opportunity and economic growth. To address these systemic challenges, the state must adopt innovative, long-term solutions that go beyond the limitations of traditional funding mechanisms. By leveraging Fair Share revenue through a special obligation bond structure, similar to the model used by the Commonwealth Transportation Fund, Massachusetts can create a sustainable, dedicated funding stream for higher education capital needs, while retaining the flexibility to support broader state priorities with Fair Share revenues.

This report outlines a set of findings and proposed strategies to address the challenges faced by the public higher education system. Expanding funding through innovative financing mechanisms will provide the flexibility needed to modernize campuses, reduce deferred maintenance, and support critical decarbonization efforts. In doing so, the state can prioritize values such as safety, predictability, and transparency in capital project processes, while ensuring alignment with broader state goals for sustainability and workforce development. With these measures in place, Massachusetts can not only address the pressing needs of its public higher education system but also secure its future as a hub of opportunity for students, faculty, and the workforce. By taking bold, decisive action now, Massachusetts will strengthen its higher education institutions and help ensure the long-term success of the state and its residents.

Appendices

Appendix 1 – FY25 GAA Section 196 Language

SECTION 196. (a) There is hereby established a working group to develop and identify the future needs of the public higher education system to provide affordable, equitable and competitive higher education in the commonwealth.

(b) The working group shall include, but shall not be limited to: the secretary of administration and finance or a designee; the secretary of education or a designee; the Massachusetts climate chief or a designee; the commissioner of higher education or a designee; the commissioner of capital asset management and maintenance or a designee; the executive director of the Massachusetts clean energy center or a designee; the chairs of the joint committee on higher education; the chairs of the joint committee on bonding; a representative from the University of Massachusetts, appointed by the president of the University of Massachusetts; a representative from the state universities, appointed by the State Universities Council of Presidents; a representative of the Massachusetts association of community colleges; a representative of the University of Massachusetts Building Authority; and a representative of the Massachusetts State College Building Authority.

(c) The working group shall study and report on: (i) the feasibility and impacts of establishing a permanent financing structure using income surtax revenues for the issuance of debt for the benefit of public higher education capital needs; (ii) support for the University of Massachusetts Building Authority and the Massachusetts State College Building Authority to identify and finance investments in public higher education infrastructure; (iii) the capital funding necessary for public higher education campuses, broken down by campus; (iv) potential federal sources of reimbursement or grant funding for public higher education capital projects; (v) a prioritization process for public higher education capital needs; (vi) the total bonding capacity available for a public higher education capital projects bond legislation, including recommendations for the use of any general or special obligation bonds; (vii) a recommendation for a funding amount for future bond legislation for public higher education capital needs; (viii) potential processes for application, approval, design and delivery of capital projects for public higher education campuses; and (ix) possible investments for future bond legislation for public higher education capital needs, including, but not limited to, decarbonization, deferred maintenance and facilities improvement for the public higher education system of the commonwealth.

(d) Not later than March 1, 2025, the working group shall submit its report, including any proposed legislation necessary to carry out its recommendations, to the governor, the clerks of the house of representatives and the senate, the house and senate committees on ways and means, the joint committee on higher education and the joint committee on bonding.

Appendix 2 – Campus Dashboards

The metrics and sources are listed in the table below:

DATA	SOURCE
Enrollment Fall 2014 – Fall 2023	• Department of Higher Education ODATA feed: https://educationtocareer.data.mass.gov/api/odata/v4/gzpm-dvfd • UMass Medical numbers from National Center for Education Statistics, Integrated Post-secondary Education Data System (IPEDS): https://nces.ed.gov/ipeds/datacenter/InstitutionList.aspx?sid=2454d2ba-b21b-41db-9f95-b4ca42378d18&rtid=6
Research Expenditures, 2023	• National Science Foundation data: https://ncses.nsf.gov/surveys/higher-education-research-development/2023#data
Age of Buildings	• DCAMM CAMIS database, exported 9/1/2024, and filtered for Major Buildings • CAMIS has not been updated with Gordian data on age of buildings or renovations.

Space use broken down by high-level use categories (classroom, class lab, research, office, residence hall, student life, support)	• Square footage includes State-owned and non-State-owned space
	• Facilities Inventory and Classification Manual (FICM) use codes were grouped into display categories.
	• 23 of 29 institutions provided room-level space use data.
	• For the following 6 institutions, DCAMM Planning used building-level CAMIS use data and average use distributions for each sector from SCUP publication “Kings of Infinite Space”, Janks, 2012
	  • Massasoit Community College
	  • Middlesex Community College
	  • Mount Wachusett Community College
	  • Springfield Tech Community College
	  • Massachusetts Maritime Academy
	  • Salem State University

10-year deferred maintenance backlog	• State-owned buildings only • Data from DCAMM Facility Condition Assessment, 2024

	• UMass system data from Gordian, FY22
Projected decarbonization costs	• State-owned buildings only • DCAMM internal assessment based on square footage, recent dollar per square foot project costs, and adjusted to eliminate overlap with Deferred Maintenance • Westfield State has recently completed a decarbonization roadmap that indicates projected costs of $590 M for their state-owned buildings and all infrastructure
Estimate of 10-year capital needed for programmatic modernization	• For the UMass system, DCAMM used project lists and costs from the 2024 Board of Trustees presentation • For the Community Colleges and State Universities, DCAMM requested and received, over a 2-week period in September 2024, list of programmatic modernization projects • Where the institutions lists did not include dollar amounts, DCAMM analyzed the requests and developed total project costs based on: o $720/square foot for non-lab renovation; o $1,000/square foot for lab renovation; and o $1,000/square foot for new construction. • The following logic and formula was used to adjust the Programmatic Modernization dollar amount o Campus GSF > 50 years * $500/gsf, which excludes deferred maintenance and decarbonization costs. o If that dollar amount was greater than the institution's submitted list, the adjusted amount was used o If the amount was less than the total of the list, no adjustment was made
Currently planned investments - including critical repairs allocation and match, approved capital plan/projects	• DCAMM Budget/Finance Office, September 2024

Gross Need	• Sum of Deferred Maintenance, Decarbonization, and Programmatic Modernization
Net Need	• Gross need minus the sum of State and Non-State investments

The campus dashboards can be found here: https://www.mass.gov/doc/campus-dashboards/download

Appendix 3 – Working Group Meeting Slides

The meeting slides can be found here: https://www.mass.gov/doc/higher-education-working-group-meeting-slides/download