GETTING QUESTION 1 RIGHT:

Investment Options for Equity in Public Higher Education

MassINC

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ABOUT MASSINC

MassINC's mission is to make Massachusetts a place of civic vitality and inclusive economic opportunity by providing residents with the nonpartisan research, reporting, analysis, and civic engagement necessary to understand policy choices, inform decision making, and hold the government accountable.

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EXECUTIVE SUMMARY

By approving Question 1 on the November 2022 state ballot, Massachusetts voters sent revenue flowing into the state's coffers to increase educational opportunity at a critical time. Four loud signals indicate higher education no longer provides an equitable path to upward mobility and conditions will worsen for low-income students and students of color without strategic investments:

1. Incredibly wide gaps in college attainment are growing even wider. The college completion gap between low-income and non-low-income students in Massachusetts has increased to 36 percentage points; college enrollment patterns since the pandemic suggest this gulf will grow even larger in the coming years, absent change.

2. College is increasingly unaffordable for low-income students. Over the past two decades, in-state tuition and fees rose by more than 200 percent at public four-year colleges, while real household income grew by less than 20 percent and state financial aid declined.

3. Enrollment is falling sharply at institutions that serve the most low-income students. Community colleges, state universities, and UMass campuses with higher shares of low-income students are seeing outsized reductions in enrollment, placing additional financial pressure on institutions responsible for educating those with the greatest need.

4. Tight labor markets make it difficult to recruit and retain faculty at current compensation levels. Adjusting for cost of living, community college faculty salaries in Massachusetts fall 25 percent below the national average; salaries for faculty at the state's public four-year colleges and universities also lag. Public colleges and universities are having difficulty recruiting and retaining faculty in high-demand fields, reducing access to programs that can prepare students for professions most likely to provide upward mobility.

Drawing from the many thoughtful policy proposals circulating on Beacon Hill, this policy brief offers the following recommendations for appropriating funds generated by Question 1 in the state's FY 2024 budget.

- Increase funding for need-based grants and provide cost of living stipends. Focus foremost on reducing all direct expenses and helping low-income students with living expenses. Importantly, this aid should be available across all three segments of the system to ensure that students can follow whichever path is most suitable for them.

- Launch the MassReconnect program. Meeting the demand for skilled workers will require new ways to help the large number of adults who do not yet have a college degree succeed in higher education.

- Grow comprehensive student support programs and Early College. These high-impact, evidence-based strategies will help ensure that Massachusetts gets the most from larger investments in financial aid.

- Strengthen the state's support of public colleges and universities, beginning with competitive faculty pay. Providing faculty with more compensation without spiking tuition and fees will require additional state support for public colleges and universities, especially community colleges, where low pay makes it most difficult to recruit and retain talented educators.

- Create a reserve fund. Set aside resources to protect public colleges and universities from budget cuts during economic downturns, when enrollment generally rises.

We also offer several near-term policy recommendations to maximize the impact of Question 1 investments in higher education. They include:

- Codify MassGrant Plus and market it as a College Promise program. For many students, creating a reliable College Promise program and increasing awareness through clear communication is just as important as providing additional financial aid.

- Simplify the complex system of scholarships and tuition waivers. Streamlining the number of scholarship programs will also give students and families more clarity and predictability, while reducing cost and the burden of administrative oversight.

- Empower the board of higher education to establish parameters around tuition and fee hikes. While campuses require latitude to make decisions around tuition and fees, the state should have the ability to establish minimum guardrails.

- Create a weighted, enrollment-based funding formula. Massachusetts' current approach of providing state resources directly to each campus produces large disparities in funding per student. Question 1 revenue can smooth the way toward a transition to a weighted enrollment formula that ties future funding at least partially to the number of students served.

- Form a legislative commission to explore options for campus consolidation. Declining enrollment as the college-going population decreases will produce long-term fiscal challenges for public higher education. Consolidation entails many significant challenges, but the time has come to objectively explore all options.

INTRODUCTION: THE AUSPICIOUS "QUESTION 1" OPPORTUNITY

A highly educated citizenry has long been our commonwealth's main driver of innovation, economic development, and social mobility. This growth model is under threat, with rising costs making higher education increasingly inaccessible to low-income students and families. The new revenue generated by Question 1 provides a unique opening to remedy this increasingly grave problem.

Massachusetts devotes far more than most states to health care, housing, K–12 education, and other supports to position children from families with modest means for upward mobility. However, higher education is essential for these investments to generate their full yield. With just 3 percent of tax collections going to public colleges and universities or financial aid programs, Massachusetts' annual commitment to higher education ranks in the bottom five states **(Figure 1)**.[1] As costs have risen, our public institutions have been forced to compensate with large tuition and fee hikes, making it more difficult for low-income students to afford a college degree.

In a knowledge economy—where most good jobs require postsecondary training—underinvesting in public higher education fans the fires of inequality.[2] With low birth rates, an aging population, and negative net migration, it also exacerbates a skilled worker shortage that grows more intense by the day.[3]

Question 1 will certainly produce enough revenue to put residents with modest means in a far better position to pursue postsecondary studies and succeed.[4] While estimates vary, even a fraction of the projected revenue represents a considerable boost to the roughly $2 billion that Massachusetts currently spends each year on higher education **(Figure 2)**.[5]

The disruptive force that these new resources have on large and growing inequities will depend heavily on how policymakers deploy them to meet four acute needs:

1. Increased financial aid to make public colleges an affordable option for low-income students once again.

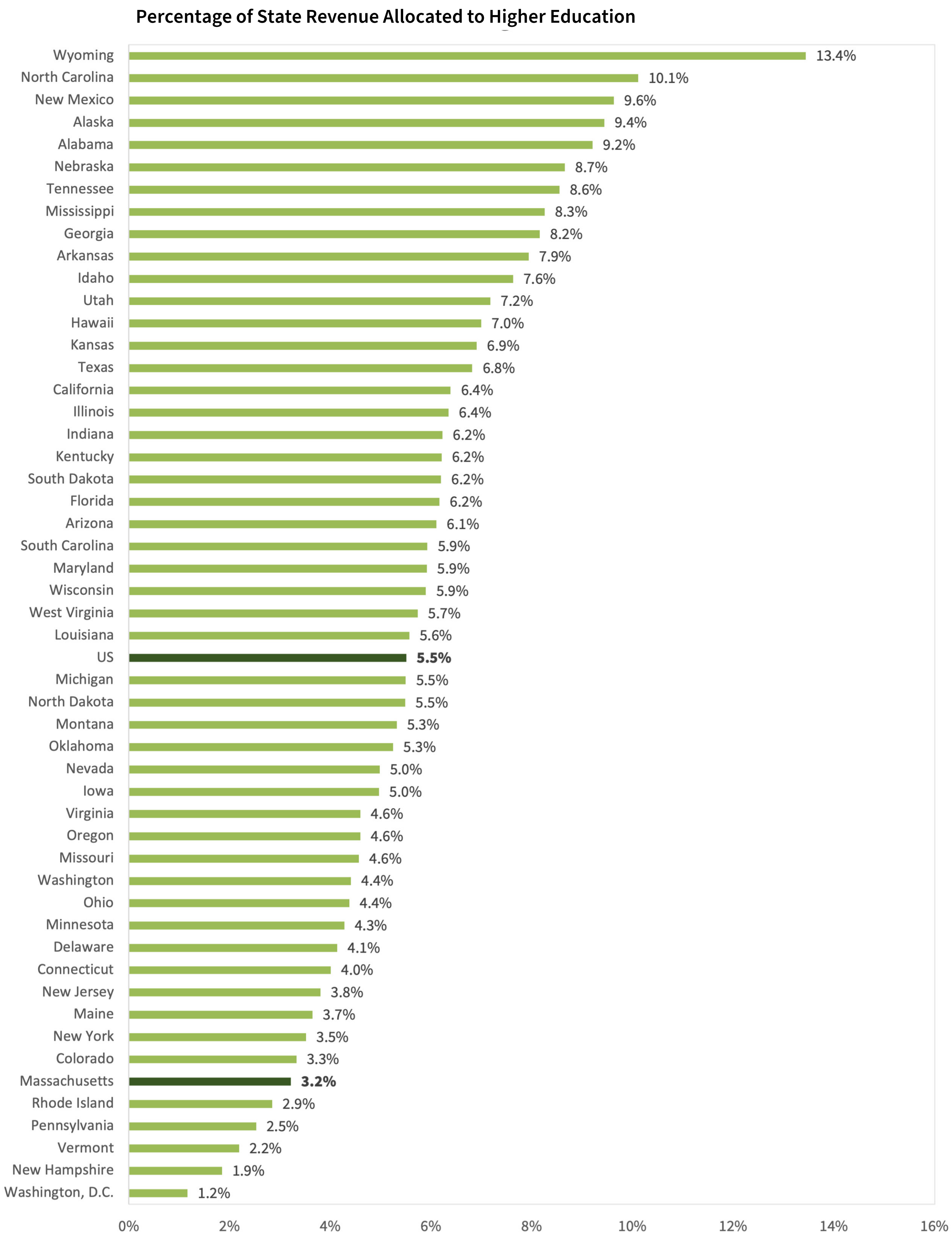
2. Strategic initiatives that provide a full range of support to underrepresented students, dramatically improving their odds of college success.

3. Additional operating funds so public colleges can attract and retain faculty in increasingly tight labor markets.

4. Appropriate reserves to reduce revenue and enrollment volatility.

In the pages that follow, we take a closer look at the compelling case for a large investment to meet these four discrete needs. We then examine how various proposals circulating on Beacon Hill respond to each of them. The paper concludes with our perspective on funding allocations and complementary near-term policy changes that will maximize the impact of Question 1 revenue.

Figure 1: Massachusetts trails most states on higher education spending.



Source: State Higher Education Executive Officers Association

I. THE CASE FOR LARGE, EQUITY-ORIENTED INVESTMENTS IN HIGHER EDUCATION

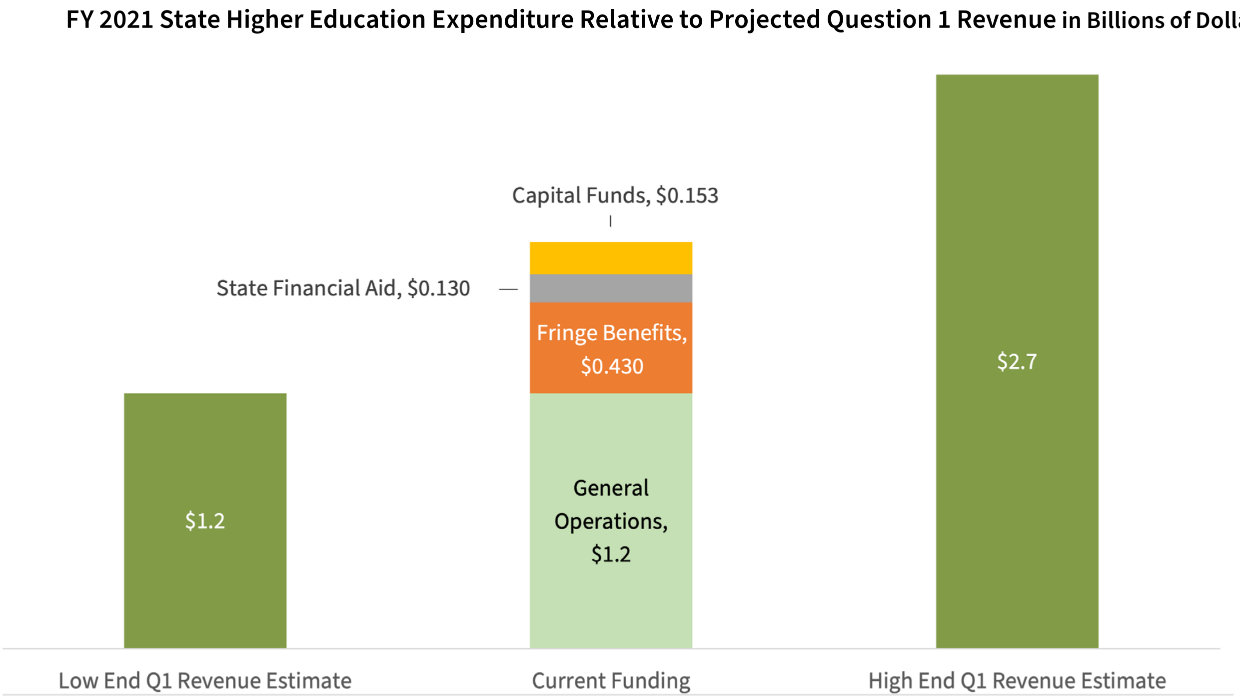
If you were to zoom out for a view of the higher education landscape from the perspective of low-income students and families in Massachusetts, you would almost certainly report an ominous scene, with gathering storm clouds threatening to make things far worse. Leaders tasked with appropriating Question 1 revenue face difficult political and policy choices. As they weigh these decisions, they must keep the following features and forces top of mind.

1. INCREDIBLY WIDE GAPS IN COLLEGE ATTAINMENT ARE GROWING EVEN WIDER

In the 2010s, an increasing share of low-income students pursued higher education, and their college completion rates began to rise from very low levels. However, they did not keep pace with the gains of their non-low-income peers. The college completion gap between low-income and non-low-income students in Massachusetts widened to an astounding 36 percentage points for the class of 2013, the most recent cohort for which postsecondary completion data is available **(Figure 3)**.

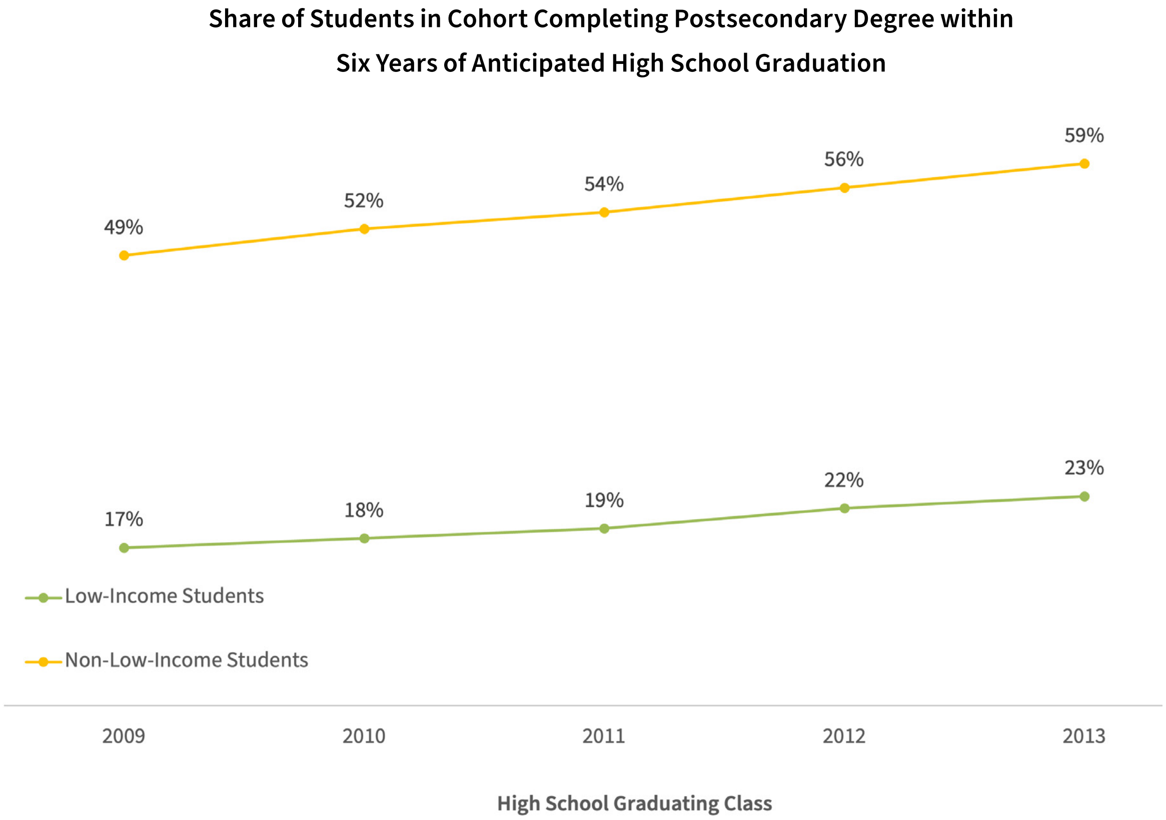
This yawning disparity is likely to grow even larger in the coming years. All else being equal, students who maintain their momentum by continuing to college after high school without interruption are significantly more likely to earn a postsecondary degree.[6] Even prior to 2020, the share of low-income students finishing high school on time and enrolling in college immediately was slipping, especially relative to non-low-income students. The pandemic intensified this uneven pattern, increasing the immediate college enrollment gap from 21 percentage points for the class of 2017 to 30 percentage points for the class of 2021 **(Figure 4)**.

Figure 2: Question 1 will generate enough revenue to significantly increase investment in public higher education.



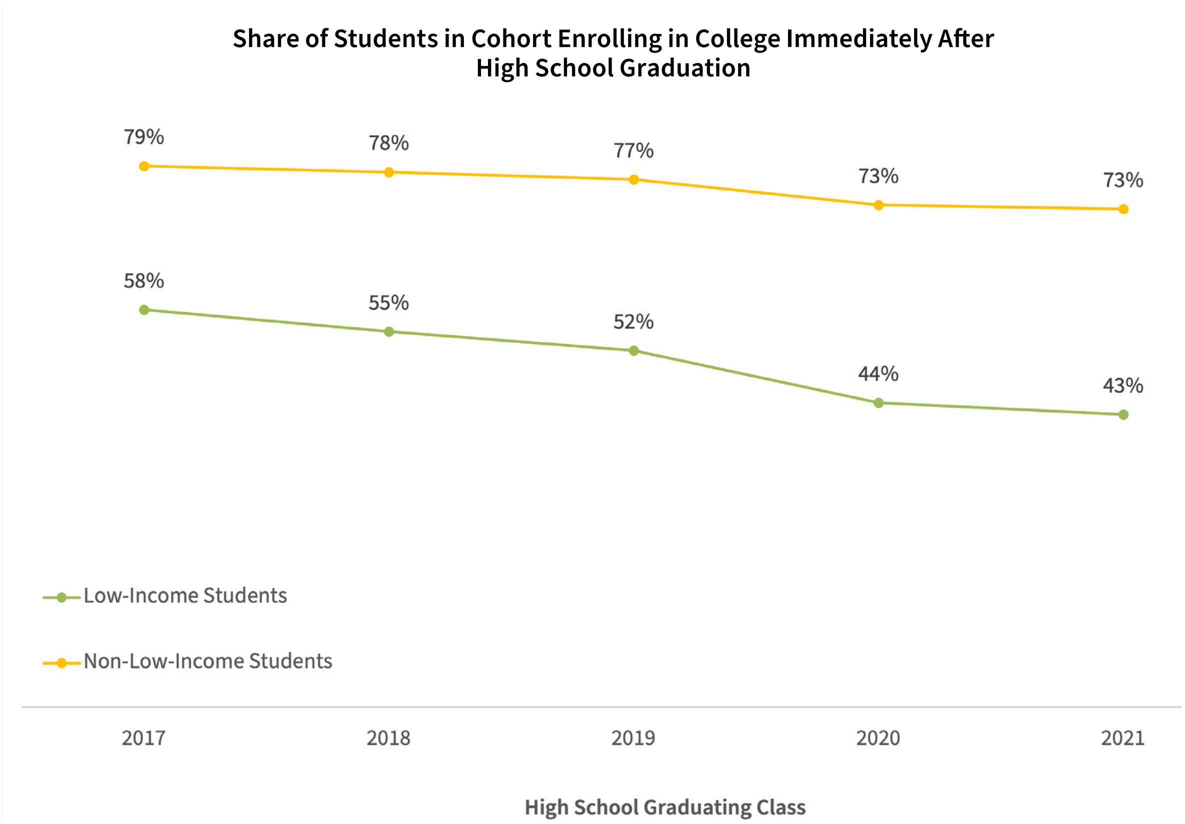
Sources: FAAP AC. "Strategic Review of Public Higher Education Financing: Establishing a Current State Baseline." (Boston, MA: August 2022); SHEEO. "State Higher Education Finance State Profile: Massachusetts." (Boulder, CO: 2022)

Figure 3: College completion gaps were widening prior to the pandemic in Massachusetts.



Source: Massachusetts Department of Elementary and Secondary Education

Figure 4: The pandemic reduced college access for low-income students.



Source: Massachusetts Department of Elementary and Secondary Education

2. COLLEGE IS INCREASINGLY UNAFFORDABLE FOR LOW-INCOME STUDENTS

While there are multiple forces behind growing socioeconomic disparities in college completion, cost is clearly a powerful driver. Over the past two decades, attending a public college or university in Massachusetts has become increasingly unaffordable: Real in-state tuition and fees have risen by more than 200 percent at public four-year colleges, while real household income has grown by less than 20 percent since 2000 **(Figure 5)**.[7]

Tuition and fees are just one component of the cost to attend higher education. Students must have funds to cover a variety of expenses, including textbooks, computers, transportation, food, and housing. According to the most recent estimates, non-tuition expenditures made up roughly 40 percent of expenses for students attending four-year institutions in Massachusetts and two-thirds of the total cost for students at the state's community colleges. With a rapidly rising cost of living in Massachusetts, these non-tuition expenses are making college exceedingly difficult for low-income students to finance.[8]

Massachusetts has not kept pace with other states when it comes to financial aid to insulate those with modest means from rising costs. Adjusting for inflation, state financial aid for those attending public institutions fell in Massachusetts over the past two decades. In stark contrast, state financial aid nearly doubled nationally over this period **(Figure 6)**. At $480 per FTE student, Massachusetts' funding for this critical student support is well below the national average ($920), ranking 29th among the states, and far behind leaders like Georgia and Tennessee **(Figure 7)**.[9]

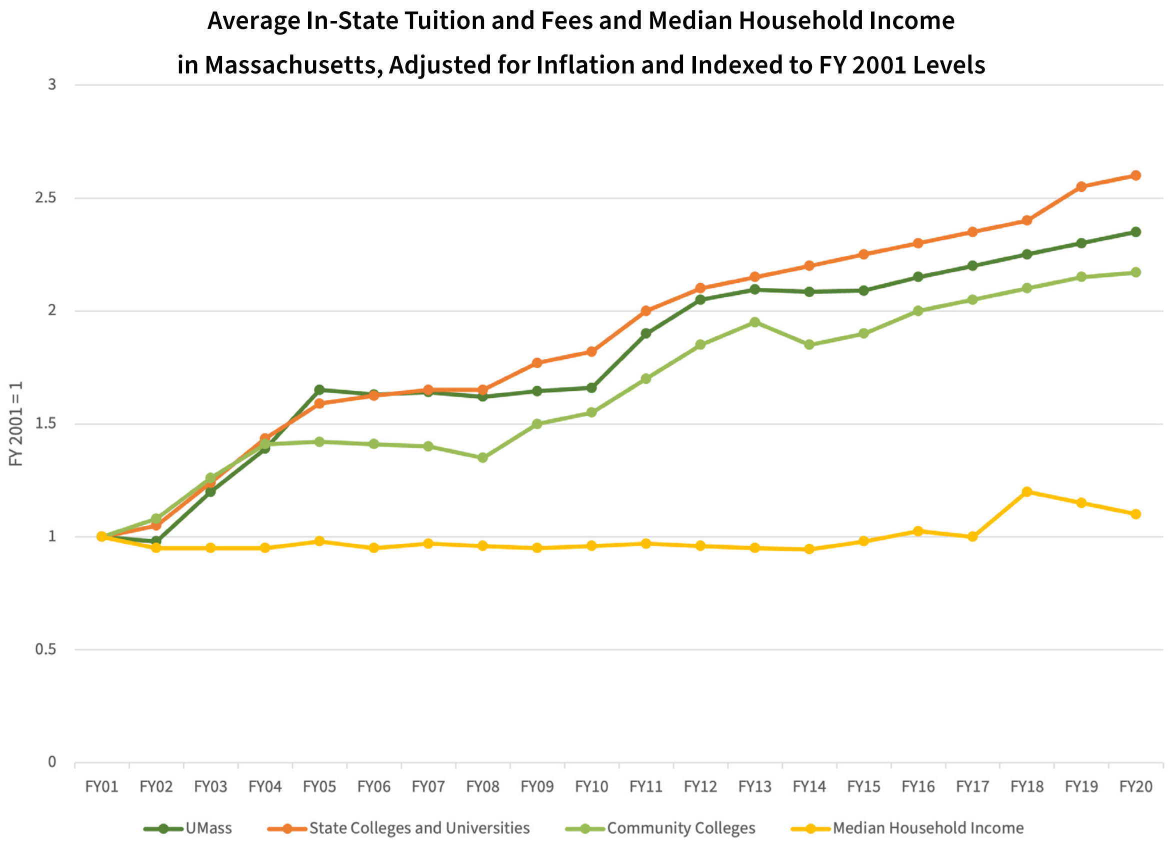
Rising costs and declining state aid are pushing student debt levels to a breaking point, as captured in a recent report from the Hildreth Institute. In current dollars, the average student debt load for associate degree graduates increased 31 percent from $8,400 in 2009 to $11,000 in 2021. Over the same period, bachelor's degree graduates saw their average debt increase 23 percent ($26,700 to $32,900). Massachusetts students now shoulder the fifth highest student loan debt load in the nation.[10]

Burdening young adults with this liability has disproportionately harmful consequences for students of color, many of whom face discrimination and wealth inequality, leading to much greater difficulty making loan payments than other graduates have.[11]

Moreover, focusing the conversation on debt levels obscures the true extent of the problem because many low-income students and students of color are loath to take on debt. Instead, they work full-time jobs to pay their way through college. Earning enough money to cover their costs is challenging. A Massachusetts community college student eligible for a full Pell grant and living off campus independently is left with nearly $12,000 remaining, after subtracting state and federal aid from the full cost of attendance (which includes food, housing, and transportation). At UMass, the average unfunded cost for a full Pell, off-campus independent student is more than $20,000 each year **(Figure 8)**. For generations, lower-income students have worked their way through higher education. This is no longer a reliable pathway. Most low-income students simply cannot shoulder the long hours required to earn enough to cover rising costs and succeed in their academic studies. When they succumb to this reality, they are left with very little return on their time, money, and effort.

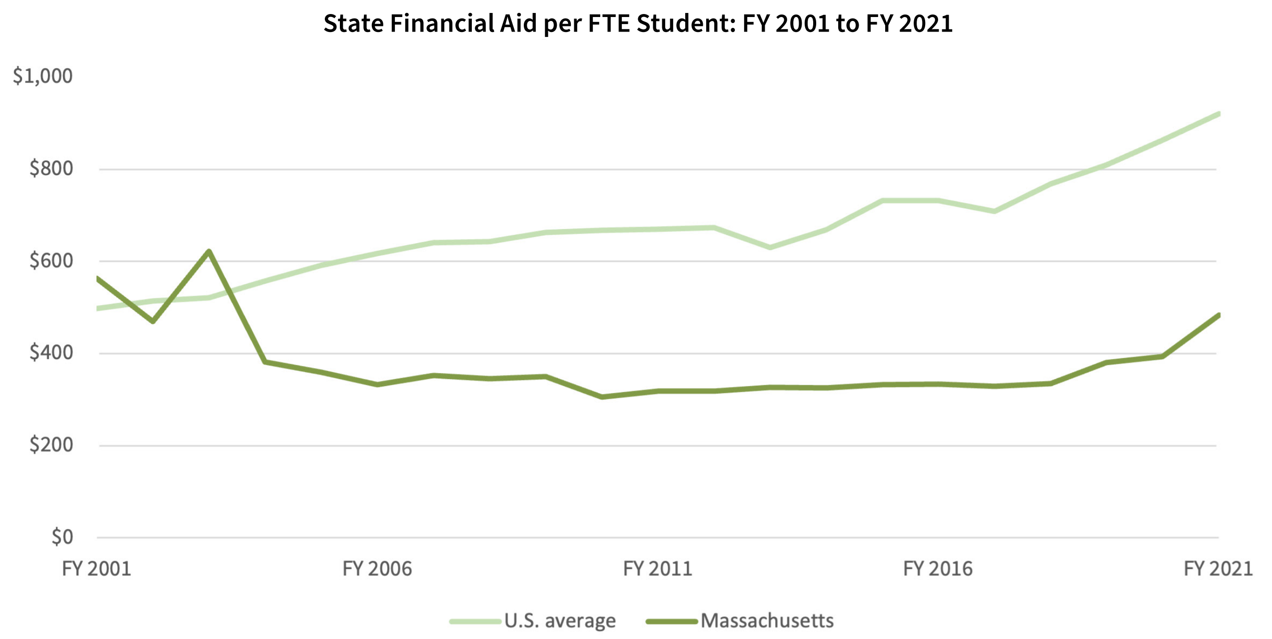
Finally, it is important to recognize that Massachusetts has triaged limited resources for aid programs in ways that leave out some groups of students, most notably working adults. Although these students are not explicitly excluded from state aid programs, full-time attendance reqirements and other terms and conditions make them difficult to access. Massachusets has 1 million (1 in 3) working age adults with a high school diploma or GED but no college degree or certificate.[12] These potential college graduates include disproportionate shares of people of color, including over 100,000 Black and more than 200,000 Hispanic adults.[13] In addition, there are over 150,000 undocumented immigrants in Massachusetts.[14] In-state tuition is only available for a tiny fraction of the state's undocumented residents with Deferred Action for Childhood Arrivals (DACA) status.[15] And even those with DACA status are ineligible for the state's largest need-based financial aid program.

Figure 5: College costs have been rising much faster than household income.



Source: HEIRS, US Census Bureau

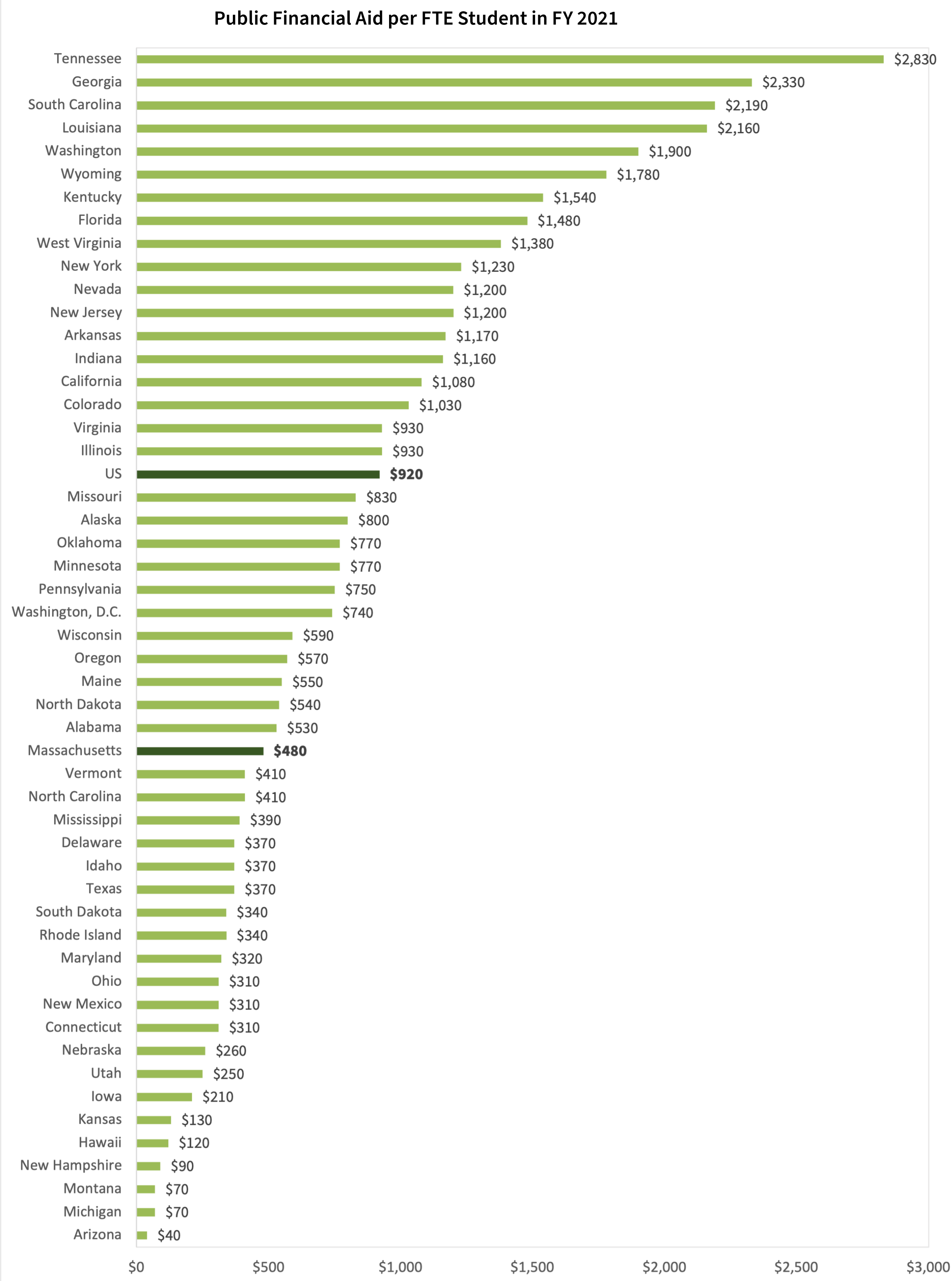
Figure 6: State grant and scholarship aid per student have long lagged behind the US average.



Note: Figures adjusted for CPI inflation, enrollment mix, and cost of living in Massachusetts.
Excludes aid at private and out-of-state institutions. FTE counts include graduate students.

Source: SHEEO

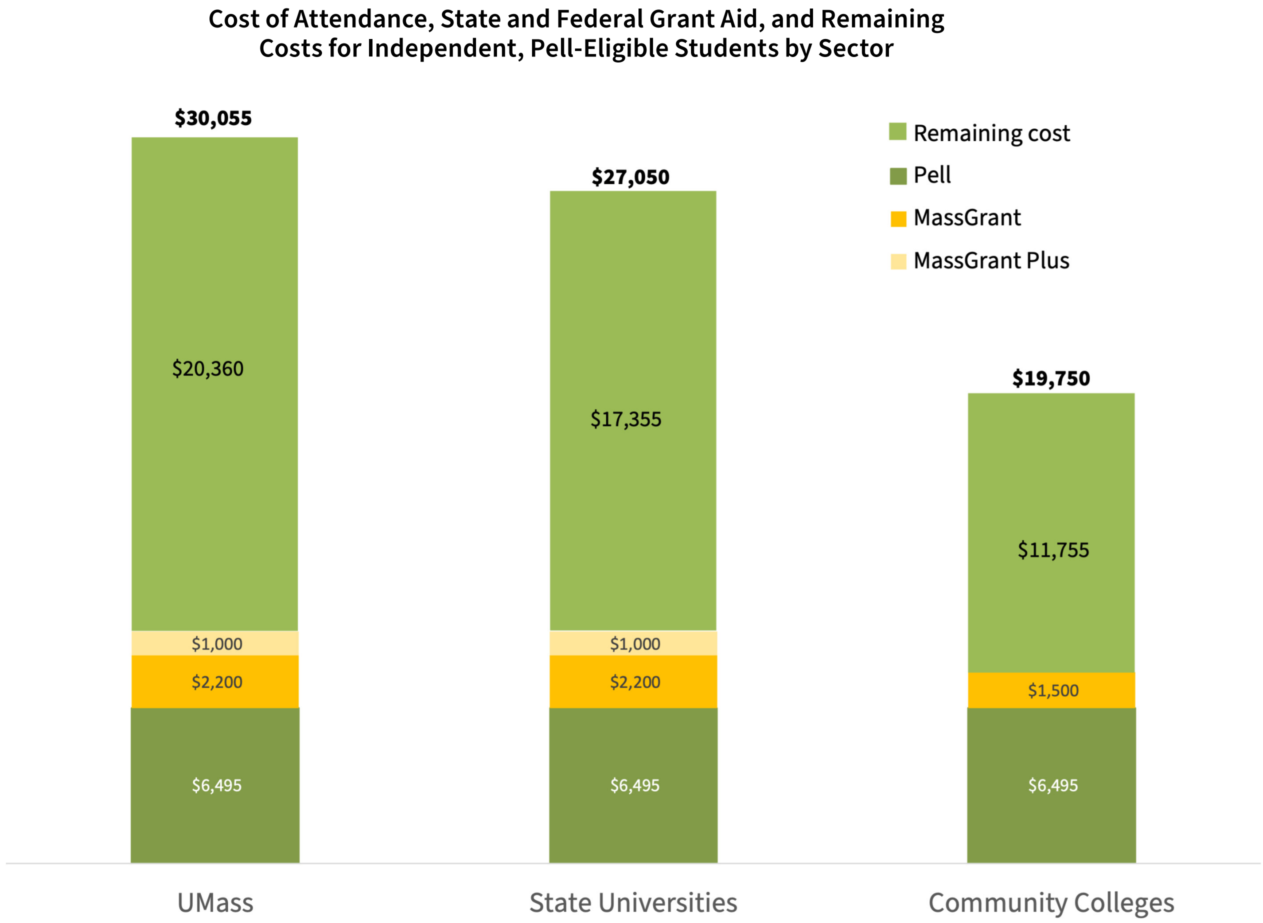
Figure 7: Massachusetts ranks 29th in state grant and scholarship aid per student.



Note: Figures adjusted for enrollment mix and cost of living in Massachusetts. Excludes financial aid at private and out-of-state institutions. FTE counts include graduate students. Rounded to the nearest $10.

Source: State Higher Education Executive Officers Association

Figure 8: Low-income students in Massachusetts are saddled with large amounts of unmet need.



Source: Authors' calculations (see Appendix for data and methods)

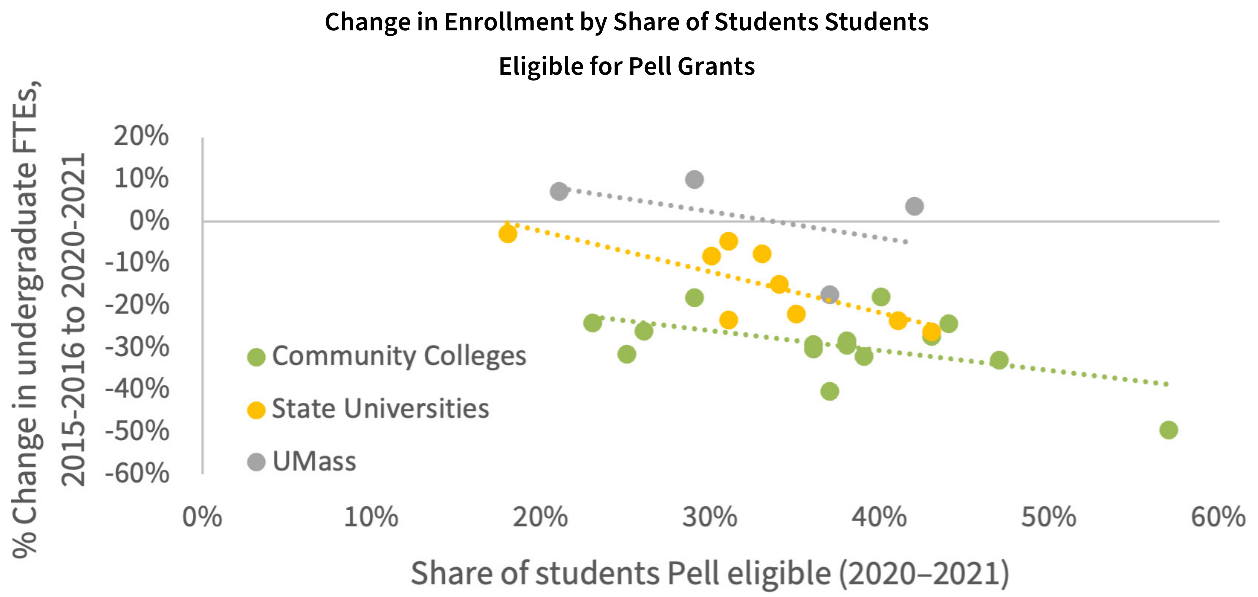
3. ENROLLMENT IS FALLING SHARPLY AT INSTITUTIONS THAT SERVE THE MOST LOW-INCOME STUDENTS

The growing cost of college has combined with powerful demographic trends to generate large reductions in student enrollment. As the college-age population shrinks in the coming years, these losses will intensify. This will have serious financial consequences for higher education, particularly institutions that lack large endowments and resources to recruit and educate students.[16] Colleges have substantial fixed costs to operate and revenue from tuition and fees and federal aid fall when enrollment declines.

Uneven enrollment patterns are already creating challenges for public colleges and universities serving the most disadvantaged students in Massachusetts.[17] While enrollment losses have been particularly heavy for the community college sector, state universities and UMass campuses with higher shares of low-income students are also seeing outsized reductions in enrollment **(Figure 9)**.

Massachusetts is already notable for having a large number of public institutions for a geographically small state and having relatively few students in the public system. We also have many small private colleges serving predominantly low-income students. These low-wealth institutions tend to be heavily supported by taxpayers, as they rely primarily on student tuition revenue, of which a large share is state and federal financial aid. As enrollment declines disproportionately at institutions serving low-income students, the high number of these colleges in Massachusetts means that more of this revenue will be devoted to overhead, leaving less to cover actual instruction and other student-focused services.

Figure 9: Across sectors, enrollment is falling fastest at institutions with more low-income students.



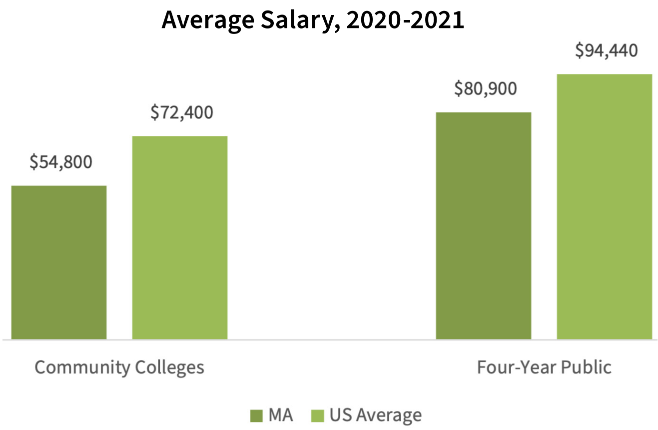
Source: Authors' calculations using data from IPEDS

4. TIGHT LABOR MARKETS MAKE IT DIFFICULT TO RECRUIT AND RETAIN FACULTY AT CURRENT COMPENSATION LEVELS

One could argue that fragmentation is already reducing instructional expenditure. On average, faculty at public colleges and universities in Massachusetts receive substantially less compensation than their peers nationally. Adjusting for cost of living, community college faculty salaries fall 25 percent below the national average; salaries for the state's public four-year faculty also lag (**Figure 10**). At least to some degree, this lower compensation makes it harder for public colleges to compete for highly qualified faculty in the same geographic market as private colleges in Massachusetts, which lead the nation in compensation.[18]

With increasingly tight labor markets, public colleges and universities are having an especially difficult time recruiting and retaining faculty in applied fields, such as accounting and health care. This reduces access to programs most likely to prepare students for high-wage jobs. Uncompetitive compensation also makes it harder for public colleges and universities to recruit faculty from diverse backgrounds.

Figure 10: Adjusted for cost of living, faculty salaries at public college and universities in Massachusetts are well below average.



Source: National Education Association data adjusted by authors for cost of living

III. DISSECTING QUESTION 1 REVENUE PROPOSALS

Investing Question 1 revenue in a manner that addresses current inequities in public higher education finance, while also working to ensure that the broader trends outlined in the previous section do not exacerbate current inequities, presents a major challenge. As of this publication, there are four big proposals circulating on Beacon Hill.

One is from the Board of Higher Education (BHE). BHE conducted a lengthy review of public higher education finance, which culminated in a December 2022 vote advancing a package of recommendations. While they provide more of a framework than a specific proposal, the board action is especially helpful to the policy debate because it is accompanied by reams of thorough analysis examining a range of funding scenarios.

The Higher Ed for All coalition, which includes the Massachusetts Teachers Association (MTA) and other higher education advocates, have also put forward a proposal. Building on their successful campaign to win large increases in K–12 funding through the Student Opportunity Act (2019), these groups have spent the last several years working to increase investment in higher education with a state bill known as the Cherish Act (H. 1260/S. 816), sponsored by Massachusetts State Senator Joanne Comerford and Massachusetts State Representative Sean Garballey. The coalition is advocating for advancing key provisions of this legislation with Question 1 funds in the FY 2024 budget.

We also have the Healey–Driscoll administration's FY 2024 budget proposal. While the new administration has had very little time to develop a strategy, it has released a nuanced plan with several proposed transformational investments in higher education. Finally, as all legislative budgeting matters begin in the House, we now have a first glimpse of how legislators tasked with making the difficult decisions are approaching the challenge with the recently passed House budget.

Below, we examine how each of the plans put forward so far respond to the four requirements outlined in the introduction:

1. Increasing state financial aid for low-income students.
2. Increasing funding for college campuses that disproportionately serve low-income students.
3. Funding for student success strategies.
4. Setting aside revenue to reduce volatility in public higher education spending.

A BRIEF GLOSSARY OF COLLEGE COST AND FINANCIAL AID TERMINOLOGY

Financial aid and college cost concepts can be subtle and confusing. Below are some definitions of common, important terms for policymakers:

- **Cost of attendance (COA):** The total cost of attending a college for one academic year, including tuition, fees, books, and computers, food, housing, transportation, health insurance, and other living expenses.[19]
- **Tuition and fees:** What students must pay colleges to enroll in classes and receive other services required for progressing through and completing their studies.
- **Direct costs:** The portion of the COA that the student or family pays directly to the college. For this brief, we define direct costs as the total of tuition and fees plus books and supplies.
- **Living expenses:** The portion of COA for indirect costs that students must pay for housing, food, and other items they need while attending college.[20] Financial aid professionals exclude living expenses from estimates of direct costs.
- **Grant and scholarship aid:** Funds awarded to the student to pay for COA that do not have to be repaid. This aid can be awarded based on financial need, academic achievement, and other criteria, such as whether the student is enrolled full time in school. Students can apply for aid from governments, colleges, corporations, and individuals.
- **Student loans:** A form of financial aid that must be repaid by the student or family. This is an option for students with higher net costs who are not able to fully cover their COA with earnings from work, savings, grants, and scholarship aid. Most loans are disbursed by the federal government, but states, colleges, and private banks and companies also lend to students.
- **Free Application for Federal Student Aid (FAFSA):** The application students fill out to receive federal student grant aid and loans. Massachusetts uses the FAFSA for determining eligibility for several of its grants, include the MassGrant and Mass Grant Plus programs.
- **Net price:** The amount of total COA remaining after all grant aid is applied. This includes both direct costs and indirect costs, such as living expenses.
- **Expected Family Contribution (EFC):** An eligibility index that financial aid professionals use to determine how much financial aid students will receive. Its calculation is primarily based on income, family size, and dependency and marriage status, as reported on the FAFSA. Higher values of EFC indicate more ability to pay for college with personal family resources.[21]
- **Unmet need:** This is a gauge of how much remaining college costs students and families have to account for with earnings from work, savings, and loans, after taking into consideration their existing economic resources and total awarded grant aid. Unmet need is calculated by subtracting total EFC, grant, and scholarship aid from COA.[22]
- **Pell grant:** The federal Pell grant is the largest and most widespread grant aid program in the nation, awarding renewable grants to over six million undergraduates from low-income families each year.[23] The maximum annual Pell award was $6,895 for 2022-2023. Pell grant eligibility is set by a sliding scale of EFC, with a zero EFC indicating eligibility for the maximum grant.
- **MassGrant (and MassGrant Plus):** MassGrant is the largest and most widespread state-funded grant aid program in Massachusetts, awarding up to as $2,800 for the 2022-2023 school year. MassGrant Plus is a supplementary state grant that provides as much as $1,000 in additional support to students who have remaining direct costs after subtracting EFC and other forms of grant aid.
- **First-dollar grant:** A “first-dollar” state grant means that the state’s funds are credited toward a student’s tuition bill — before they draw upon their Pell grant or other public aid.
- **Last dollar grant:** A “last-dollar” grant pays for a student’s remaining direct costs after they’ve drawn upon their other forms of public aid, such as a Pell grant.

1. INCREASING FINANCIAL AID FOR LOW-INCOME STUDENTS

A growing body of evidence shows increased funding for carefully tailored state financial aid programs can be an effective way to increase college access and student success.[24] Directing the most support to students with the least resources is a key principle for cost-effective state grant programs. These students typically face the greatest amount of unmet financial need under current policies.[25] Eligibility for the federal Pell grant and eligibility for the maximum Pell award are broadly accepted indicators for high financial need.[26] Tailoring additional aid according to these indicators will also help to steer more funding to underrepresented students of color in Massachusetts, with about half of the state's Black and Hispanic students qualifying for full Pell, compared to one-quarter of White students.[27]

A second important principle for structuring additional grant funding is ensuring that resources flow equitably to students across all three segments. Four-year colleges serve half of all low-income students in Massachusetts' public higher education system, and low-income students attending these institutions have the greatest raw amount of unmet need. They are also more likely to graduate with college debt than their community college peers.[28] However, community colleges are critical access points for students of color and low-income students, and the path toward completing a degree is often more precarious for students at these less well-resourced institutions.[29] When financial pressures make community college unaffordable, many students who are underrepresented in higher education have nowhere else to turn for college offerings that are within their budget.[30]

Providing aid to defray living expenses is another critical principle to consider when structuring additional investments in state financial aid.[31] As noted previously, living expenses make up a large majority of the cost of attendance for many low-income students who attend colleges that charge relatively low tuition. Financial aid programs that eliminate tuition and fees still leave them with an enormous financial barrier, particularly in our high-cost state. First-dollar state grant programs allow students to use leftover funds for living expenses when other forms of aid are sufficient to cover tuition and fees. This flexibility can help ensure that increases in financial aid are not eroded by hikes in tuition and fees because it gives students an incentive to shop for lower tuition options.[32]

A final and especially important principle is clearly communicating about programs that make college affordable. Many low-income students and families believe they cannot pay for higher education. The ability to market affordable college options accounts for a sizeable share of the impact attributed to successful "Promise Programs" in cities and states throughout the country.[33]

THE PROPOSALS:

- **The Board of Higher Education.** BHE's framework calls for "at least doubling the current annual budgetary financial aid level." This would increase state aid to a minimum of $1,000 per FTE, just above the national average. While the board's motion was silent on the exact structure of the increase, the language called for increasing aid to "make college truly accessible for our lowest-income students; require less debt for our moderate- and middle-income students." BHE's analysis presented several scenarios for policymakers to evaluate.

One would make college more affordable by eliminating all direct costs and providing a $2,000 stipend to cover cost of living for all Pell-eligible students ($118 million), and providing a $1,000 grant to reduce the Expected Family Contribution (EFC) for middle-income students ($75 million) who fall above the Pell cutoff. This proposal would cost approximately $193 million in total, and it would come closest to meeting the principles outlined above, as funds would flow two-to-one to those with the greatest need, the sectors would be resourced equitably based on their share of low-income students, and the funding would be available to the lowest-income students to cover living expenses.

A second, slightly more expensive option, would eliminate the EFC for all low- and moderate-income students. By removing family income and other financial resources as a major factor in determining the flow of additional state aid, this approach skews funding heavily toward students with financial resources who attend pricier schools with higher direct costs. It provides little or no benefit to students with the lowest incomes and greatest need, since they already have an EFC of zero. The design's inherent inequity is apparent in the BHE analysis: Zeroing out EFC for all low- and moderate-students would cost $222 million, with 85 percent of the resources flowing to moderate-income households (those with income between $68,000 and $125,000); less than 4 percent would support low-income students attending community colleges.

- **The Healey–Driscoll administration.** The governor's FY 2024 budget proposal increases financial aid by $93 million, a 53 percent increase over FY 2023. While the line item language gives DHE wide latitude to invest these resources as it sees fit, briefing materials suggest the administration intends to use these funds to expand the MassGrant Plus scholarship to part-time students, cover additional direct costs of attendance, and provide low-income students with a cost-of-living stipend of up to $1,000.

The administration's proposal also features "higher education fee stabilization," providing all three sectors with funds to freeze tuition for four years for each freshman class at least through 2027. This $59 million investment is billed as an innovative approach to help with recruitment in a competitive admissions environment, and a method to incentivize on-time degree completion. Based on how tuition and fees payments are currently distributed, upper income families (households with income over $125,000) will receive approximately 50 percent of the benefit and nearly 60 percent of these funds will go to students in the UMass system.

In addition, the Healey–Driscoll administration proposal provides $20 million for a new MassReconnect aid program, a last-dollar grant to eliminate tuition and fees for community college students age 25 or older who enroll in a certificate or degree program, either full or part time. This positions Massachusetts to market community college as free to all adult students without college degrees. Experience in other states suggests this can produce a large enrollment response.[34]

Finally, the administration's proposal includes $10 million from Question 1 revenue to support the expansion of Early College and Innovation Pathways. This money would compensate colleges for providing free courses to high school students and can be thought of as a form of financial aid. Early College and Innovation Pathways largely enroll low-income students, which makes this allocation relatively progressive.

- **Higher Ed for All.** The coalition's proposal calls for making it possible for Massachusetts students to attend public colleges and universities debt free by covering the full cost of attendance, including living expenses. The coalition recommends beginning with community college in FY 2024. According to the coalition's analysis, this will cost $135 million above the governor's proposed scholarship increase ($228 million), assuming modest enrollment growth. Fully phased in to allow students to attend any public college or university debt free would cost approximately $500 million. This estimate includes making college debt free for part-time students and those who are undocumented.[35]

- **The House Budget.** The House directs an additional $84 million from Question 1 revenue to state financial aid for students attending public institutions. While the line item language authorizes the DHE to allocate these funds as it sees fit, this approach is likely to lean toward an allotment that favors equity, given the stated priorities of the department and board.

In addition, the House provides $50 million for the High Demand Scholarship. This program began 10 years ago and has been operating with about

$1.5 million per year. The most recent guidelines provide eligibility to full and part time undergraduates at public institutions who are pursuing

STEM majors and have maintained a college GPA of at least 3.0. DHE prioritizes students with demonstrated financial need and high academic achievement. Language in an outside section of the House budget codifies these criteria, and makes one major structural change: Students must repay their scholarship benefits if they do not serve in a high-demand profession in Massachusetts for at least five years upon graduation.

Finally, the House provides $20 million for MassReconnect, creating the program with authorizing language that is identical to the governor's budget.

2. INCREASING FUNDING FOR CAMPUSES THAT DISPROPORTIONATELY SERVE LOW-INCOME STUDENTS

Another policy lever to advance equity is increasing funding to address longstanding and persistent underinvestment in public colleges and universities that disproportionately educate low-income students. Evidence suggests additional state institutional funding can slow increases in tuition, drive down college debt, and pay for student supports that increase completion.[36]

Most states allocate funding to campuses through a combination of three approaches: base funding, enrollment-based funding, and outcomes-based funding.[37] Base funding allocates additional dollars as an increment of the previous year's budget. Enrollment-based funding ties budget increases to growth in the number of students served and sometimes provides additional support according to the share of students with greater need for support. Outcomes-based funding appropriates a portion of resources to institutions that meet various performance metrics.

Three chief concerns of state budget allocations are funding campuses predictably and transparently, equitably directing support to schools that require more resources, and incentivizing institutions to use money more effectively. Although base funding is the most predictable approach, it does less to direct funds to where resources are needed most. For this reason, states increasingly look to enrollment-based and outcomes-based formulas.[38]

States Typically Allocate Institutional Funding Through a Mix of Three Approaches

Base-plus (or -minus)	Enrollment-based	Outcomes-based funding (OBF)
• State funding to individual colleges and universities based primarily **on last year's allocation.** • **Incremental increases or decreases for each year** determined by factors like inflation and changes in operating costs. • Massachusetts and nearly all other states have historically allocated the majority of their funds to institutions using this approach.	• State funding allocated based on the **number of students** enrolled at each institution. • Funding per student **can vary with factors like student demographics** (e.g., income, race, etc.), **degree type** (e.g, graduate vs. undergraduate), and **enrollment intensity** (e.g., full-time vs. part-time). (Often referred to as a "weighted" formula.) • Designed to allocate more funds to colleges and universities serving students with greater need for supports and educational resources.	• State funding allocated based on performance metrics like prior year's graduation rates. • Often includes **greater weights (i.e., bonus funding)** for stronger outcomes among students from marginalized backgrounds, such as underrepresented minorities and Pell recipients. • In most states, OBF allocates a small proportion of total state funding. Ohio is the only state that exclusively allocates funds using OBF.

Sources: Ithaka S+R and FAAP AC

Enrollment-based funding may be the best tool for transparently addressing persistent inequities. UMass campuses currently receive about twice as much state institutional support per student ($10,200) as community colleges ($5,500). But even more notable are the disparities within sectors. State support for the four UMass campuses ranges from about $7,000 per student to over $12,000. The variation is even larger in the community college sector ($4,000 to $10,000) and state universities ($6,000 to $16,000).[39] While some of these differences reflect economies of scale at larger campuses, much of the variation likely results from historic choices that have led to persistent inequity.

An enrollment-based funding formula weighted for the number of low-income students could help to create more equity across the sectors and help ensure that institutions have more resources to serve students who would benefit most from additional support.[40] Enrollment-based formulas can also strike a balance between allocating funds based on both total enrollment (headcount that treats full-time and part-time students equally) and FTE enrollment.[41] This approach recognizes that some educational costs, such as advising and counseling, do not directly scale with the number of courses that students take.

Outcomes-based funding has a mixed record in advancing equity and improving outcomes for all students. Research consistently shows that the incentives these formulas create result in either negative or small impacts for underrepresented students of color and low-income students, and often harm the colleges and universities that disproportionately educate these students.[42]

Many states failed to sufficiently consult stakeholders from diverse communities when developing outcomes based formulas.[43] Few placed sufficient weight on racial equity metrics and factors like campus climate.[44] And they did not provide public colleges and universities with upfront funding and stronger data and evaluation practices to effectively implement programs and policies with the potential to deliver the intended outcomes. Any attempt to adopt outcomes-based funding formulas must consider these lessons and conscientiously avoid repeating the same mistakes.[45]

THE PROPOSALS:

- **The Board of Higher Education.** BHE's strategic review of higher education financing examined a range of scenarios to equitably increase institutional funding. The base scenario would not direct any additional funding to the system but simply reallocate resources according to enrollment by providing each institution with 50 percent of their FY 2023 appropriation, plus additional funding based on three-year average FTE counts. Under this scenario, five community colleges, four state universities, and two UMass campuses would see funding increases. The others would be held harmless for a transition period.

  The second scenario expands upon the first and injects $130 million into the system by providing each institution with $2,000 per Pell-eligible student. All institutions gain significant funding, with several community colleges receiving around 20 percent more than their current appropriation.

  The final option expands upon the second, with an additional $145 million (10 percent of total FY 2023 funding) for a performance-based funding formula to reward institutions for equity and outcomes gains for underrepresented groups.

- **The Healey–Driscoll administration.** The governor's budget provides no additional institutional support with Question 1 revenue in FY 2024. However, it does give the campuses a one-time $140 million allocation for capital projects. The line item empowers the Division of Capital Asset Management to distribute these funds, in collaboration with the Executive Office of Education. They may be utilized to study, design, and construct campus instructional lab facilities, infrastructure modernization, decarbonization projects, or critical repairs.

While there is a strong rationale for an allocation that makes overdue investment in higher education facilities without adding to year-one reoccurring spending, the line item lacks language describing how these funds will be allocated across the system to ensure equity.

- **Higher Ed for All.** The coalition's proposal calls for providing health and pension benefits to adjunct faculty and part-time staff at the state's community colleges in FY 2024. They estimate that this will cost approximately $22 million annually. The full approach contained in the Cherish Act also has the state assume the obligation for the debt service on higher education facilities, an annual savings to public higher education of $300 million. This change is far less targeted to low-income students than the other proposals put forward by the coalition, as UMass accounts for over 70 percent of the debt, state colleges shoulder 29 percent, and community colleges have less than 1 percent.[46]
- **The House Budget.** The House provides $10 million for state matching grants to encourage private donations to capital projects and endowed faculty positions at public colleges and universities. The language requires at least $5 million to go to community colleges and $5 million to state universities. Additional resources will presumably be available to UMass through balances from previous years. The fund was initially capitalized with $10 million in FY 2020, followed by a $20 million infusion in FY 2023.

3. FUNDING FOR STUDENT SUCCESS STRATEGIES

A growing body of research shows that frequent, intensive advising, combined with additional financial assistance, can make a tremendous difference helping students complete college.[47] In response, success initiatives are springing up in states across the country.

Many of these initiatives are modeled on the City College of New York's Accelerated Study in Associate Programs (ASAP), an extensively studied and evaluated student success program. Through ASAP, students receive a dedicated advisor, a simplified course-taking sequence, career development support, and enhanced financial aid. By packaging these wraparound supports, ASAP more than doubled the share of underrepresented students graduating with their degree in three years.[48] The Accelerate, Complete, Engage (ACE) program—the bachelor's degree equivalent to ASAP—has also demonstrated a large impact in closing attainment gaps.[49] Results from similar strategies in other states and localities also show that these comprehensive student success strategies can be replicated and maintain their power serving students at a large scale.[50]

Massachusetts has existing initiatives that support students in similar ways, most notably the Community College SUCCESS Fund.[51] However, this effort is relatively new and not as well-funded as ASAP.

THE PROPOSALS:

- **The Board of Higher Education.** BHE's framework calls for "a major new investment into our institutions' annual state appropriations focused on providing institutions with more resources to support low-income students through a weighted-enrollment approach that provides additional funding for each of their low-income students." While the framework does not provide a set amount, this reads very much like option 2 described in the previous section: $2,000 per Pell-eligible student.
- **The Healey–Driscoll administration.** The governor's FY 2024 budget—which the MTA proposal endorses in its entirety—increases the Community College SUCCESS line item from $14 million to $18 million. In addition, the proposal creates a new $30 million fund from Question 1 revenue to provide student success services, equitably apportioning these dollars based on each sector's share of Pell-eligible students.
- **Higher Ed for All.** The coalition supports the governor's success funding appropriations in FY 2024. However, the Cherish Act contains language calling for a formula that awards funding to success programs based on the enrollment of low-income students and other students currently eligible for the SUCCESS program.

4. SETTING ASIDE REVENUE TO HELP STABILIZE PUBLIC HIGHER EDUCATION FUNDING

During economic downturns, funding for public higher education typically declines—just as more residents enroll in college to reskill. Funding then gradually rebounds, while enrollment diminishes. The Great Recession presented especially difficult challenges because it brought considerable growth in students in public higher education, and declines in funding were steeper and longer in duration than previous downturns.[52] Studies show this volatility contributed to inequality because of particularly pronounced declines in per-student funding at less selective public colleges and universities that disproportionately educate low-income students and students of color.[53]

While Massachusetts has built up a historically large reserve fund, the higher education budget will likely experience additional volatility in the future as it becomes more reliant on Question 1 revenue.

THE PROPOSALS:

- **The Healey–Driscoll administration.** The governor's FY 2024 budget creates stability by conservatively drawing down Question 1 revenue, appropriating $1 billion in the first year and directing anticipated revenues above this figure to a trust fund. The fund must maintain a balance of one-third of the annual recurring spending limit (recurring appropriations are identified in each line item). The administration notes that this is due not just to the uncertainty of this new revenue source in the first year of collection, but also the long-term volatility associated with a tax solely on high earners.
- **The House budget.** The House language creates an Education and Transportation Fund with an annual spending limit set jointly by the Secretary of Administration and Finance and the chairs of the House and Senate Committees on Ways and Means. Excess revenue above this annual limit flows into two additional funds: 15 percent to an education and transportation stabilization reserve (not to exceed 33 percent of the previous year's spending level) and 85 percent to an innovation fund. Other than requiring investments in education and transportation, the authorizing language does not explain how resources from the innovation fund will be allocated.

Key Design Elements of Proposals to Allocate Question 1 Revenue

	Board of Higher Education	Healey–Driscoll Administration	Higher Ed for All	House Budget
Financial aid	Increase financial aid **by at least doubling funding** for the state's financial aid (~$190M).	Expand **MassGrant Plus** scholarship to part-time students and cover additional direct costs of attendance ($93M). Provide **higher education fee stabilization** in all three sectors for the next four entering classes of students ($59M). Create **MassReconnect** last-dollar grant program to eliminate tuition and fees for community college students age 25 or older ($20M). Provide funding to support **Early College** and Innovation Pathways ($10M).	Implement a **debt-free college plan** that covers tuition, fees, and living expenses for community college students, beginning with community colleges in FY 2024 $135M above House 1 and expanding to all sectors (~$500M). The program would fund the gap between the full cost of attendance and available resources, including Pell grants and income from 12.5 hours per week of work.	Increase funding for **state scholarship program** ($84M). Provide additional funds for **High Demand Scholarship program,** awards based on financial need and academic merit and requiring repayment if not employed in high-demand occupation in Massachusetts for five years ($50M). Create **MassReconnect** last-dollar grant program to eliminate tuition and fees for community college students age 25 or older ($20M).
Funding for public colleges & universi-ties	Commit to funding **three years of salary increases** for each new collective bargaining agreement.	One-time allocation for **capital projects** ($140M).	Directly fund **health insurance, pensions, and related costs for adjunct faculty** ($22M). **Pay off outstanding capital debt** on campus buildings and investments ($300M). Conduct a **wage equity study for all faculty and staff**.	Recapitalize **state endowment matching grant** fund ($10M).
Student success initiatives	**Make and sustain a major new investment** in the state's funding of operations at public institutions, allocating these additional funds based on the number of students from low-income families enrolled at each school.	Provide **student success funds** to all campuses based on their share of Pell students ($30M).	Pass the governor's proposal in FY 2024 ($30M). The Cherish Act calls for weighted funding based on low-income students and students of color. This would provide $2,000 per student at an estimated cost of $160M.	
Setting aside revenue		Create a trust fund and maintain a balance of one-third of reoccurring revenue.		Create a stabilization fund with a balance not to exceed one-third of the previous year's spending level.
Total cost	**Roughly $200–400M (depending on exact scenario and design)**	**Recurring: $212M One-time: $140M Total FY 2024: $352M**	**FY 2024: $280M Full package: ~$1 billion**	**FY 2024: $164M**

GETTING QUESTION 1 RIGHT: IMMEDIATE INVESTMENTS AND NEAR-TERM POLICY PRIORITIES

Question 1 revenue presents an auspicious opportunity to dramatically increase college access and success. As leaders lay the groundwork to make the most with these new resources, they will need to carefully consider how they structure immediate new investments in the FY 2024 budget. At the same time, they must begin to think strategically about how these allocations pave the way for near-term policy changes that will help maximize the impact of these new funds. Toward these ends, we offer the following guidance.

IMMEDIATE INVESTMENTS

- **Increase funding for need-based grants and provide cost of living stipends.** Students cannot successfully tackle college-level coursework when they lack food, transportation, and stable housing. With increases in financial aid, the state should focus foremost on reducing all direct expenses and helping low-income students cover living expenses. Most importantly, this aid should be available to low-income students across all three segments to maximize their options. According to BHE's estimates, this would likely require approximately $150 million annually to decrease direct expenses and pay for a $2,000 stipend per year for all Pell-eligible students. This sizeable investment would bring Massachusetts closer to the national average for state financial aid expenditure, and do so in a manner that makes it possible for more students to attend public colleges and universities without extreme financial hardship. If, as expected, Question 1 produces sufficient funding to reliably support additional increases to financial aid, the state can then extend additional aid to moderate-income families to reduce their out-of-pocket costs.
- **Launch the MassReconnect program.** Tackling higher education is often difficult for adult students, given the lack of continuity in their academic studies and that many shoulder heavy responsibilities as caretakers and primary breadwinners. However, meeting the demand for skilled workers in the future will require new ways to help the large number of adults who do not yet have a college degree succeed in higher education. Financial aid programs marketed and tailored specifically to these students will help draw a sizeable number to community colleges across the state.
- **Grow comprehensive student support programs and Early College.** Large outlays on financial aid for adults and low-income students will generate the strongest returns when coupled with effective comprehensive student support programs. As both Governor Healey and the board have proposed, the state can provide these funds directly to campuses based on the proportion of Pell-eligible students. This direct funding approach will create predictability and reduce bureaucratic friction and administrative expenses. However, to help ensure effective implementation and robust data collection, the legislature should also provide modest resources to DHE for technical assistance and external evaluation.

  Similarly, Massachusetts requires a reliable funding stream to grow Early College. The legislature has been a committed partner, fully funding the course costs of participating students and providing substantial startup resources to help new programs launch and expand. While Question 1 revenue is not essential to fund programs at the current scale, creating a dedicated Question 1 line item now will provide yet another important signal to higher education leaders that the legislature solidly backs expansion.
- **Strengthen the state's support for public colleges and universities, beginning with competitive faculty pay.** Providing faculty with competitive compensation without spiking tuition and fees will require more state support for public colleges and universities, especially community colleges, where low pay makes it most difficult to recruit and retain talented educators. According to our estimates, bringing community college faculty up to the US average salary would cost approximately $39 million annually, while increasing salaries at

the four-year institutions to the US average would require $121 million. A less expensive approach would be to start with full-time faculty, which would require $26 million and $94 million for the two- and four-year sectors, respectively.

- **Create a reserve fund.** Any Question 1 higher education investment strategy that provides resources for ongoing operations must include a reserve fund to reduce volatility. Budget makers will need to be especially conservative with Question 1 investment in the first year, given the uncertainty around how much revenue the surtax will produce. This unexpended revenue can go a long way toward helping to capitalize the necessary reserve fund.

NEAR-TERM POLICY PRIORITIES

- **Codify MassGrant Plus and market it as a College Promise program.** Many low-income residents believe they cannot afford college. This impacts a student's college and career identity development throughout adolescence. Evidence shows that creating a reliable College Promise program and increasing awareness through clear communication is just as important as providing additional financial aid—students make additional effort in high school when they know college is a possibility, and they are more likely to pursue postsecondary education without interruption. With Question 1 investments, Massachusetts will have devoted the resources necessary to cover all direct expenses and a meaningful portion of cost of living for low-income students at any of the state's college and universities. The legislature can help ensure that these funds have the most impact by codifying a College Promise program in law.
- **Simplify the complex system of scholarships and tuition waivers.** A 2018 financial aid study recommended the state reduce the number of scholarship programs to reduce cost, make administrative oversight easier, and give families more predictability. BHE's most recent analysis finds this problem still exists. With new College Promise and student success efforts placing additional demands on the department, there is added urgency to free staff from the burden of managing programs that reach relatively few students.
- **Empower BHE to establish parameters around tuition and fee hikes.** Over time, fees at public colleges and universities have grown to exceed the cost of tuition. This is the result of policies regarding who establishes tuition and fee charges and where these revenues go. For community colleges and state universities, BHE approves tuition, and all tuition revenue flows to the state. However, campuses retain fees, and campus boards have authority to set them. This approach leads to confusion for students and families. It also makes it difficult for state leaders to manage growth in pricing. While ultimately, campuses require latitude to make decisions regarding tuition and fees, the state should have the ability to establish minimum guardrails.
- **Create a weighted, enrollment-based funding formula.** To advance equity, Massachusetts must move away from a purely base-plus approach, which produces large disparities in funding per student. Question 1 revenue can smooth the way towards a transition to a weighted enrollment formula that ties future funding at least partially to the number of students served. Weighting this enrollment formula by the number of Pell-eligible students will be a step in the right direction towards creating incentives to enroll underrepresented students and providing institutions with additional resources to help support their education.
- **Form a legislative commission to explore options for campus consolidation.** Low-income students benefit from geographic proximity to campuses, and there is certainly a strong argument for regional governance that ensures public colleges and universities can meet their multidimensional missions and contribute fully to the communities they serve. However, many regions have room for significant consolidation, and merging institutions will ensure that their local institutions are stronger and more effective over the long term.

Massachusetts is fortunate to have creative and courageous higher education leaders. Through a commission or some other avenue, the legislature must provide them with the means to have the difficult conversations required to find equitable solutions to impending fiscal challenges. Consolidation is obviously a challenging question, but the time has come to objectively explore all options.

- **Provide sufficient funding to meet our higher education needs.** Question 1 is an arbitrary revenue number when it comes to meeting actual needs. We must take great caution to ensure that it does not become an artificial cap on how much the commonwealth increases its investment in higher education. As noted at the outset, legislators face difficult choices when it comes to finding the resources necessary to overcome historic inequities and build a more equitable commonwealth. Given the transformation of our economy, coupled with the changing demographics of our population, we must be prepared to make sacrifices to ensure that quality postsecondary education is accessible to all. Financial aid expansion and success programs will likely lead to much greater enrollment and persistence to upper-level courses, which cost more on average. As we recommit to making public colleges and universities an affordable pathway to higher education in Massachusetts, we must anticipate that costs will steadily rise if we accomplish our objectives.

APPENDIX:
NET COST ESTIMATES FOR LOW-INCOME STUDENTS

METHODOLOGY:

- Assumes student has a zero EFC, attends school on a full-time schedule, and lives off-campus, not with family.
- Cost of attendance and direct costs figures calculated using 2020–2021 data from IPEDS.
- Pell and MassGrant amounts based on the award schedule for 2020–2021.
- MassGrant Plus amounts based on award schedule after full phase-in of the program in 2023.
- All figures rounded up to the nearest $10.

University of Massachusetts	**Grant aid** $6,495 (Pell) + $2,200 (MassGrant) + $1,000 (MassGrant Plus) = $9,695			
	Cost of attendance: direct costs + living expenses	Direct costs: tuition, fees, books, & supplies	Remaining *direct* costs, after grant aid	**Remaining total costs, after grant aid**
University of Massachusetts-Amherst	$32,430	$17,440	$7,750	$22,740
University of Massachusetts-Boston	$32,550	$15,480	$5,790	$22,850
University of Massachusetts-Dartmouth	$27,680	$15,610	$5,920	$17,990
University of Massachusetts-Lowell	$24,670	$16,900	$7,210	$14,980
Segment median	**$30,055**	**$16,255**	**$6,555**	**$20,360**

Massachusetts State Universities	**Grant aid** $6,495 (Pell) + $2,200 (MassGrant) + $1,000 (MassGrant Plus) = $9,695			
	Cost of attendance: direct costs + living expenses	Direct costs: tuition, fees, books, & supplies	Remaining *direct* costs, after grant aid	**Remaining total costs, after grant aid**
Bridgewater State University	$29,160	$11,730	$10,730	$19,470
Fitchburg State University	$24,330	$12,030	$11,030	$14,640
Framingham State University	$28,000	$13,380	$12,380	$18,310
Massachusetts College of Art and Design	$31,900	$16,200	$15,200	$22,210
Massachusetts College of Liberal Arts	$25,930	$12,510	$11,510	$16,240
Massachusetts Maritime Academy	n/a	$12,020	$11,020	n/a
Salem State University	$27,120	$12,880	$11,880	$17,430
Westfield State University	$26,980	$12,210	$11,210	$17,290
Worcester State University	$19,550	$11,950	$10,950	$9,860
Segment median	**$27,050**	**$12,210**	**$11,210**	**$17,360**

Massachusetts Community Colleges	**Grant aid** $6,495 (Pell) + $1,500 (MassGrant) + $0 (MassGrant Plus) = $7,995			
	Cost of attendance: direct costs + living expenses	Direct costs: tuition, fees, books, & supplies	Remaining *direct* costs, after grant aid	**Remaining total costs, after grant aid**
Berkshire Community College	$22,890	$6,690	-$1,300	$14,900
Bristol Community College	$14,060	$7,210	-$790	$6,060
Bunker Hill Community College	$18,300	$7,300	-$700	$10,310
Cape Cod Community College	$16,900	$6,550	-$1,440	$8,910
Greenfield Community College	$18,660	$7,290	-$700	$10,670
Holyoke Community College	$20,830	$6,980	-$1,010	$12,830
Massachusetts Bay Community College	$17,790	$7,380	-$610	$9,800
Massasoit Community College	$18,010	$6,600	-$1,390	$10,020
Middlesex Community College	$19,750	$7,150	-$840	$11,760
Mount Wachusett Community College	$20,450	$7,130	-$860	$12,460
North Shore Community College	$21,250	$6,550	-$1,440	$13,260
Northern Essex Community College	$22,580	$6,940	-$1,050	$14,590
Quinsigamond Community College	$19,220	$6,790	-$1,200	$11,230
Roxbury Community College	$20,230	$7,780	-$210	$12,240
Springfield Technical Community College	$21,530	$6,720	-$1,275	$13,540
Segment median	**$19,750**	**$6,980**	**-$1,010**	**$11,760**

NOTES

1. See Figure 2: State Higher Education Executive Officers Association (SHEEO). “State Effort and Capacity to Fund Higher Education.” (Boulder, CO: 2021).
2. The Institute for College Access & Success (TICAS). “Pell Grants Help Keep College Affordable for Millions of Americans.” (Washington, DC: May 2020); “Beyond College Credit: Leveraging AP as an Effective Workforce Strategy.” (Boston, MA: Mass Insight, August 2018).
3. MassInc. “Sizing Up Massachusetts’ Looming Skilled-Worker Shortage.” (Boston, MA: June 2022).
4. FAAP AC. “Strategic Review of Public Higher Education Financing: Establishing a Current State Baseline.” (Boston, MA: August 2022); SHEEO. “State Higher Education Finance State Profile: Massachusetts.” (Boulder, CO: 2022).
5. Evan Horowitz. “Evaluating the Massachusetts Millionaires Tax.” (Boston, MA: Tufts University, Center for State Policy Analysis, January 2022); Michael Mazerov. “Massachusetts Ballot Measure Would Raise Billions for Education, Infrastructure.” (Washington, DC: Center on Budget and Policy Priorities, September 2022); Marco Guzman. “Massachusetts Voters Score Win for Tax Fairness with ‘Fair Share Amendment.’” (Washington, DC: Institute on Taxation and Economic Policy, November 2022); Timothy Vermeer. “What to Expect in a Post-Flat Tax Massachusetts.” (Washington DC: Tax Foundation, November 2022).
6. Paul Attewell and others. “What Is Academic Momentum? And Does It Matter?” Educational Evaluation and Policy Analysis 34.1 (2012); William Doyle. “Effect of Increased Academic Momentum on Transfer Rates: An Application of the Generalized Propensity Score.” Economics of Education Review 30.1 (2011); and Xueli Wang. “Toward a Holistic Theoretical Model of Momentum for Community College Student Success.” *Higher education: Handbook of theory and research*. Springer, Cham, 2017.
7. FAAP AC. “Strategic Review of Public Higher Education Financing: Financing: Student Outcome Analysis.” (Boston, MA: August 2022.)
8. National Postsecondary Student Aid Study: 2018-Administrative Collection (NPSAS:18-AC); TICAS. “What College Costs for Low-Income Californians: 2020.” (Oakland, CA: July 2020); Sandy Baum and Jason Cohn. “Nontuition Expenses: Implications for College Affordability and Financial Aid Policies.” (Washington, DC: Urban Institute, June 2022).
9. Figures adjusted for enrollment mix and cost of living in Massachusetts. Excludes financial aid at private and out-of-state institutions. FTE counts include graduate students. Rounded to the nearest $10. Source: SHEEO. “State Higher Education Finance.” (Boulder, CO: 2022).
10. Note: The debt figures reported here are from the Hildreth Institute report, adjusted for inflation by the authors. See: Hildreth Institute. “Rising Barriers, Shrinking Aid: The State of Financial Aid in Massachusetts.” (Boston, MA: February 2023).
11. TICAS. “Student Debt and the Class of 2019.” (Washington, DC: October 2020).
12. Lumina Foundation. “A Stronger Nation: America’s Promise.” (Indianapolis, IN: 2023).
13. Calculated using data from the 2021 American Community Survey (ACS). Source: U.S. Census. “American Community Survey (ACS).” (Washington, DC: 2023).
14. Ibid.
15. The Higher Education Immigration Portal. “Massachusetts.” (2023).
16. Afet Dunbar, Don Hossler, and Doug Shapiro. “National Postsecondary Enrollment Trends: Before, During, and After the Great Recession.” (Herndon, VA: National Student Clearinghouse, July 2011); Kevin Carey. “The Incredible Shrinking Future of College.” (Washington, DC: The Highlight by VOX, November 2022.); TICAS. “Student Debt and the Class of 2020.” (Washington, DC: November 2021). Lauren Bauer and others. “Has COVID Disrupted the Postsecondary Pipeline?” (Washington, DC: Brookings Institution, October 2021).

17. FAAP AC. “Strategic Review of Public Higher Education Financing: Establishing a Current State Baseline.” (Boston, MA: August 2022).

18. “Collateral Damage: Effects of the Pandemic on Academe.” (Washington, DC: National Education Association, 2022).

19. COA is sometimes also referred to the “student budget.”

20. “Non-tuition costs” also refer to a similar concept as living expenses.

21. EFC was recently renamed the Student Aid Index (SAI), with policymakers making some minor changes to the calculation of the index. This brief will use the old acronym of EFC to refer to calculated SAI.

22. Although loans are sometimes subtracted from CAO as well, this brief will exclude loans from all calculations of unmet need.

23. TICAS. “Pell Grants Help Keep College Affordable for Millions of Americans.” (Washington, DC: May 2020).

24. Judith Scott-Clayton. “Undergraduate Financial Aid in the United States.” (Washington, DC: American Academy of Arts and Sciences, March 2017); SHEEO. “Public Investment in Higher Education: Research, Strategies, and Policy Implications.” (Boulder, CO: May 2021).

25. In 2017–2018, unmet financial aid was highest for Massachusetts students with incomes below 200 percent of the federal poverty line, with roughly $13,000 of unmet need for a high poverty student going to a public four-year school and roughly $6,500 of unmet need for such a student attending at community college. Data from NPSAS-AC:18. Also see FAAP AC. “Strategic Review of Public Higher Education Financing: Financing: Student Outcome Analysis.” (Boston, MA: August 2022); DHE Data Center. “Advancing the Equity Agenda Through Financial Aid Redesign and Beyond.” (Boston, MA: October 2019).

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27. Data from NPSAS:18-AC.

28. Ibid.

29. National Student Clearinghouse. “Completing College National and State Reports: With Six- and Eight-Year Completion Rates Dashboards.” (Herndon, VA: National Student Clearinghouse, November 2022).

30. Kate Sablosky Elengold and others. “Dreams Interrupted: A Mixed-Methods Research Project Exploring Latino College Completion.” (Washington, DC: UnidosUS, September 2021).

31. Tiffany Jones, Jaime Ramirez-Mendoza, and Victoria Jackson. “A Promise Worth Keeping: An Updated Equity-Driven Framework for Free College Programs.” (Washington, D.C., The Education Trust, October 2020).

32. TICAS. “No Causal Link Between Federal Student Aid and Higher Tuition.” (Washington, DC: March 2017); Robert Kelchen. “An Empirical Examination of the Bennett Hypothesis in Law School Prices.” (New York City, NY: Economics of Education Review, vol. 73., December 2019). Bradley Curs and Luciana Dar. “Do Institutions Respond Asymmetrically to Changes in State Need- and Merit-Based Aid?” (SSRN, November 2010).

33. Jacklyn Willard and others. “Designing for Success: The Early Implementation of College Promise Programs.” (New York, NY: MDRC, 2019).

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