



# Grade Incomplete

Implementation of the Community College Funding Formula  
in Massachusetts

The Boston  
Foundation 

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U N D E R S T A N D I N G B O S T O N

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BY

The Massachusetts Taxpayers Foundation

EDITORS

Sandy Kendall and Antoniya Marinova,  
The Boston Foundation

# Preface

Our interest in community colleges is not new. Between 2007 and 2013, the Boston Foundation commissioned and published three reports taking a deep look at our community college system.

First, in 2007, understanding that community colleges are critical components of any higher education investment or workforce development strategy, and admitting that the Commonwealth's community colleges were underperforming, we sought to understand how we might strengthen them. *Massachusetts Community Colleges: The Potential for Improving College Attainment* provided recommendations for new investments paired with accountability measures of student outcomes, pulling from best practices nationally.

In 2011, given continuing and growing concern about the mismatch between the middle-skilled jobs going unfilled and the workforce preparation opportunities offered by higher education, we commissioned *The Case for Community Colleges: Aligning Higher Education and Workforce Needs in Massachusetts*. That report called for community colleges to become true leaders in meeting employment needs, and recommended clarifying their mission. The report placed a priority on preparing students to meet critical labor market needs; strengthening the system's governance and accountability; stabilizing state funding; and forming a community college coalition. As a result, Governor Deval Patrick's next state budget called for increased financial support and development of a revamped community college funding formula to take performance into account. The Boston Foundation convened the Coalition FOR Community Colleges—a remarkably diverse group of 62 civic, community and business organizations eager to see community colleges live up to their potential for all students.

In a 2013 report, *Stepping Up for Community Colleges: Building on the Momentum to Improve Student Success in Massachusetts*, researchers focused on developmental programs and explored models for transferring credits within state systems. Many of the strategies showed great potential for improving outcomes for low-income and underprepared students seeking to improve their skills.

That has been gratifying to track. But what about the funding formula? That recommendation was implemented for three fiscal years, though is now inactive. Today, we want to know how that transpired and what has been learned. We commissioned this report to provide a data-driven analysis of the process.

The authors conclude that a funding formula remains a good idea. More than that, they explore what has made the formula challenging to execute and suggest ways to build on its promise while improving its implementation. At the Foundation we agree that the formula approach offers the best funding mechanism, as long as the creation of the formula is iterative and inclusive.

We look forward to supporting such an effort. In the meantime, the Boston Foundation continues to work closely with the Commissioner of Higher Education and community college presidents, hosting forums, marking progress and awarding the annual \$50,000 Deval Patrick Prize for Community Colleges to honor effective workforce partnerships. The beauty of being a 103-year-old organization is that we can stick with an issue over time—even over many legislative sessions. The future success of community colleges and the contributions they make to our thriving region deserves our perseverance.

Paul S. Grogan  
President & CEO, The Boston Foundation

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# Executive Summary

Massachusetts' 15 community colleges play a vital role in connecting more than 100,000 residents each year with postsecondary educational opportunities and skills training. These schools have a unique opportunity to prepare students for in-demand career fields. And community college students make up the most diverse population within the state's public education system. In spite of the clear importance of community colleges, historically state funding in Massachusetts has been low by national standards and distributed without taking into account underlying campus need or system goals.

In 2012 the state implemented a funding formula for community colleges that would connect state support to campus enrollment and activity, incentivize setting and achieving system goals, and move toward more appropriate levels of funding. The formula was created amid a time of heightened interest and analysis of community colleges and the role they play, both in Massachusetts and nationally. At that time, community college enrollment in the Commonwealth was at the peak of an enrollment surge that caused the system to grow by 15 percent between the 2008 and 2013 school years. At the same time, as the nation emerged from the Great Recession, researchers were highlighting the importance of community colleges in addressing postsecondary achievement gaps and training a workforce that could meet the needs of the state economy.

Research into the value and potential of community colleges occurred simultaneously with efforts to assess the Massachusetts system in terms of quality, cost and consistency of outcomes. These assessments, which included Governor Deval Patrick's Vision Project and the Boston Foundation's *The Case for Community Colleges*, examined the system in different ways, but findings concerning state funding were consistent: Low levels of support resulted in higher student costs, and the lack of a fair method for distribution led to

inequities among campuses, making it difficult to establish consistent system goals and incentive progress through funding. Largely as a result of this work, the state embarked on a process to create a funding formula that was fair and aligned with workforce and educational outcome goals.

A community college funding formula was completed in late 2012 and was used, to varying extents, over a three-year period (fiscal years 2014 through 2016). The formula, developed by a national expert using feedback from community college leaders, was intended to allocate all community college funding. The formula provided each campus with an equal operating subsidy (defined as \$4.5 million per campus) and then distributed remaining funds based on enrollment and outcome metrics tracked across all schools. This was a major change in the relative allocation of funds among all of the schools.

The formula as implemented, however, differed in important ways from the formula as devised. While the formula was designed to distribute *all* community college funds in a given year, in practice it was only used to distribute a portion of marginal increases in funding. This limited application reduced the ability of the formula to improve equity; it also made several of its elements unnecessary, such as the provisions designed to mitigate funding swings. Finally, commitment to the funding formula was short-lived, lasting only three years. In each year of implementation the amount of new money dedicated to the formula decreased substantially and by fiscal year 2017 the formula was no longer used.

Even in an amended form and with lessening commitment to implementation, the formula had a clear impact on community college funding. Over its three years of implementation, 69 percent (\$42.1 million) of all new community college funds was distributed through the formula and those funds had a material impact. Using the original version of the formula as a guide

for how community college funds should have been divided theoretically, it is apparent that 13 of the 15 campuses moved significantly closer to this fair share. The formula was effective in directing more funds to schools with more need, as defined by enrollment and course offerings. Bunker Hill, Quinsigamond and Bristol community colleges especially benefitted from a distribution system that used actual campus data to direct spending.

Several decisions related to the implementation of the formula ultimately limited its effectiveness and its staying power. First, the formula was not used as it was intended—as a full funding system. Using the formula only on new money mitigated its impact and invalidated some of its provisions. The formula was never measured against funding goals—either annually or over time—which made it difficult to build the momentum necessary for continued support. In addition, the failure to utilize minimum funding standards meant that when community college enrollment plummeted after 2013, per-student funding inequities between campuses actually worsened because of the formula’s use.

Several data and process issues also made it less likely that the formula would be permanent. Unlike other K–12 education funding formulas, public data on formula inputs and mechanics were limited, which made it difficult for stakeholders to gain an understanding of how the formula worked in action. This opacity, in turn, made it difficult to clearly demonstrate its equity benefits. Finally, the formula was never codified into law. Therefore, as the state’s fiscal circumstances changed, along with its executive and legislative leadership, there was nothing in statute to push lawmakers to continue implementation.

While the funding formula has not been used since fiscal year 2016, the factors that led to its creation remain valid. Community colleges continue to play a pivotal education and workforce development role in Massachusetts. Tuition and fees continue to be among the highest in the nation while the amount of state funding for community colleges is neither determined nor allocated based on clear goals or a transparent formula. Some version of a community college funding formula still makes sense and the most recent attempt

to implement such a formula provides policy makers with clear lessons for moving forward with a formula-based approach:

- **BUILD ON PAST SUCCESSES:** The prior formula was developed using national best practices and had the support of each of the community college campuses. Any new formula should follow this template.
- **ESTABLISH CLEAR GOALS:** A funding formula must be measured against annual and longer-term outcome metrics and goals.
- **BE REALISTIC:** The formula should be implemented for its intended use, not designed for one purpose but partially adjusted to accomplish other political or budgetary objectives.
- **PUT THE FORMULA IN STATE LAW:** Codifying the funding formula would signal an ongoing commitment to distributing community college funds in a fair and understandable way.
- **GIVE PEOPLE THE TOOLS TO UNDERSTAND IT:** Formula inputs and mechanics should be publicly available so that stakeholders can understand how it works and what the impact of various provisions is on specific campuses.

This report looks back at the state’s most recent attempt to improve the system for determining community college funding. It examines the environment at both the state and national level that led to the creation of a funding formula, considers the strengths and weaknesses of the formula that was devised and assesses the success of implementation efforts. It concludes that a well-developed, clearly articulated funding formula is valuable, particularly if implemented as devised, and something for today’s policy makers to consider as they contemplate how to improve state support for community colleges.



# Introduction and Overview

Massachusetts' community college system is the largest and most diverse provider of public higher education in the Commonwealth. Fifteen campuses provide more than 120,000 residents with credit-bearing coursework to connect them with in-demand career fields or prepare them for further education. Performing at their best, community colleges are a unique and invaluable tool for workforce development, improved economic opportunity and educational attainment.

Efforts began in 2010 to examine the state's community college system to determine whether it was meeting the Commonwealth's training, economic advancement and educational goals. A series of reports examined the current community college system and found that it was growing quickly, serving a more diverse student body and expanding its curricula to prepare students for a wide range of workforce options.<sup>1</sup> These reports also found a decentralized system with high tuition and fees as well as inconsistent outcomes. The reports' foci, findings and recommendations varied, but several common themes related to state funding emerged:

- State financial support for community colleges was low by historic and national standards;
- State funding was not distributed in a way that reflected underlying campus need; and
- State funding was not being used effectively to establish and achieve system-wide goals for student outcomes and workforce connections.

In light of these findings, the legislature directed the Department of Higher Education (DHE) to develop a funding formula for community colleges. Over a period of four years, the state created this new funding formula and dedicated close to \$42 million in new funds toward its implementation. This report attempts to examine the creation and implementation of that funding formula and answer certain questions with respect to it, such as what were its goals? Did it work? Does the same formula still make sense?



# The Massachusetts Community College System Pre-Funding Formula (2008–2013)

To understand how successful the funding formula for community colleges has been, it is important to first understand what the system looked like in terms of student makeup, program offerings and fiscal support in the years immediately prior to the formula’s creation. By examining the trends and dynamics in each of these areas, the need to create a funding formula that rationalized state support, recognized differences among campuses and incented positive outcomes becomes apparent.

## Community College Profile: Demographics

During the five-year period prior to fiscal year (FY) 2013, the year the Legislature asked DHE to create a funding formula, community colleges were not only the largest segment of the state’s higher education system, they were also growing at a rapid rate. Community college enrollment increased by 18,000 students, or a rate of 14.8 percent, between FY 2008 and FY 2013.<sup>2</sup> By comparison, undergraduate enrollment at state universities grew by 4,000 students or 9 percent over the same time period. While growth rates differed across campuses, in general community colleges were in high demand as the economy faltered. Enrollment increased at all but one campus during this time period (see **Figure 1**, page 10).

Not only were community colleges educating more students, but their students came from increasingly diverse backgrounds. Between FY 2009 and FY 2013, the number of African Americans and Latinos entering community college increased by 40.7 percent (from 3,098 to 4,361).<sup>3</sup> In total, non-white students made up 41.5 percent of community college enrollment in the fall of 2012, a much larger percentage than the 21.8 percent of state university enrollment during the same semester.<sup>4</sup> The diversity of community colleges extended beyond racial and ethnic lines. Whether considered by income level, English language proficiency or academic need,

community colleges clearly played a vital role in ensuring that students of all socio-economic statuses and learning abilities had access to public higher education (see **Table 1**).

TABLE 1  
**Public Higher Education Enrollment**  
2012 – 2013 School Year

	Community colleges	State universities	U. Mass	Total
Share of all new students	52.4%	22.2%	25.5%	100%
Share of low-income students	69.6%	14.2%	16.2%	100%
Share of English language learners	77.9%	6.6%	15.5%	100%
Share of students with disabilities	77.9%	14.7%	7.4%	100%

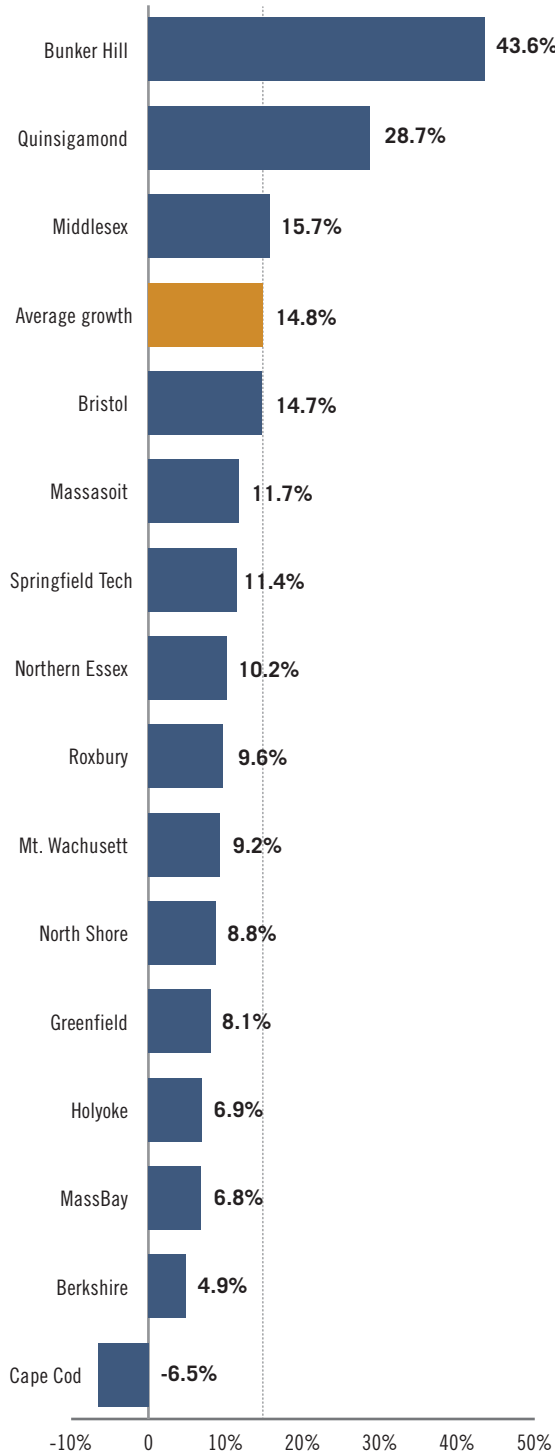
Source: Massachusetts Department of Elementary and Secondary Education summary reports on National Student Clearinghouse data

While the community college system led the public higher education system in terms of racial, ethnic and socioeconomic diversity, there was wide variation among the different campuses.

Divergence in racial diversity among the campuses provided the starkest difference (see **Figure 2**, page 10). To a large extent, these differences reflected the broader population characteristics of the various regions of the state. In the fall of 2012, Berkshire Community College and Greenfield Community College educated student bodies that were more than 80 percent white, mirroring the largely white populations of Berkshire and Franklin counties where the colleges are located (88 percent white<sup>5</sup>). In contrast, Roxbury and Bunker Hill Community Colleges educated 71 and 93 percent non-white student bodies, respectively, reflecting Suffolk County’s majority-minority population.

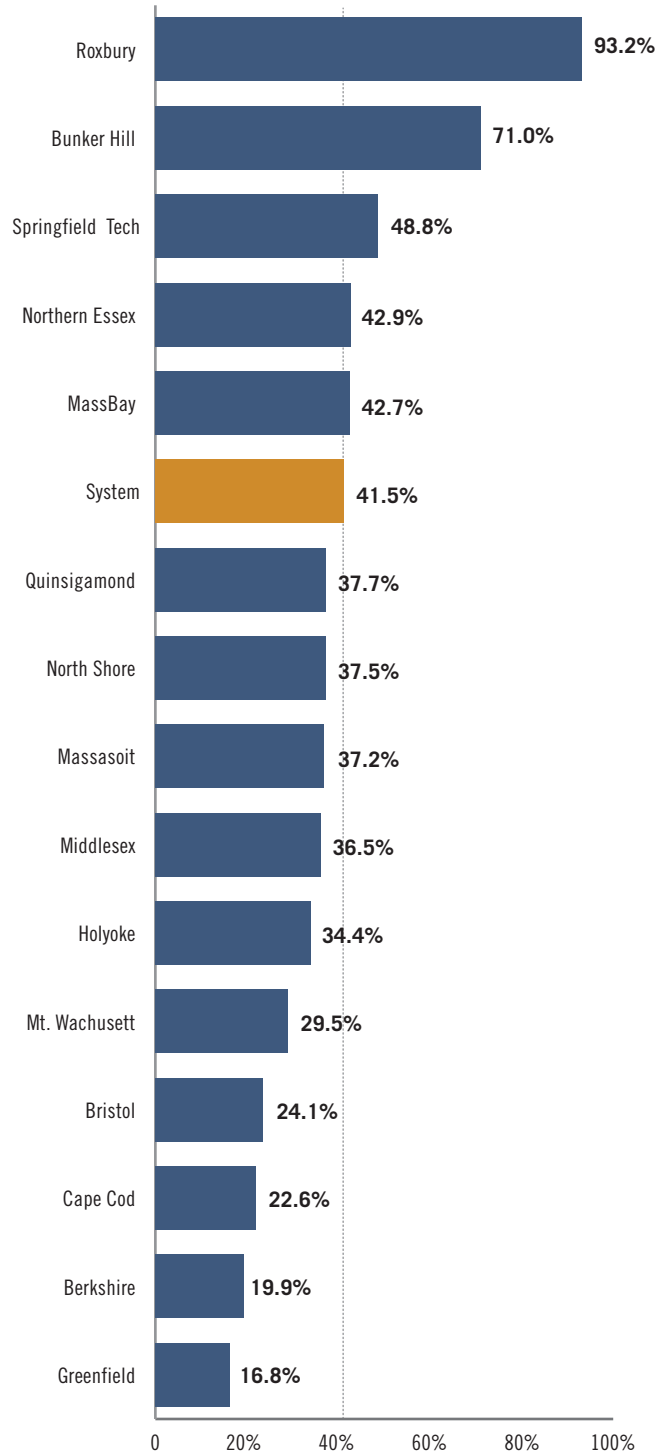
The economic status of students at community colleges also varied widely, although differences across

FIGURE 1  
**Community College Enrollment Growth**  
 FY 2008 – FY 2013



Source: Massachusetts Department of Higher Education annual unduplicated headcount

FIGURE 2  
**Non-White Student Enrollment Share**  
 Fall of 2012



Source: Massachusetts Department of Higher Education Data Center

campuses were not as pronounced as differences in racial diversity. In the fall of 2012, approximately 55 percent of full-time, first-time community college students in Massachusetts received federal Pell Grant support—a program targeted to low-income students. Almost 70 percent of full-time, first-time students received Pell Grants at Roxbury Community College, while less than half were Pell recipients at Cape Cod, Massasoit and Middlesex.<sup>6</sup>

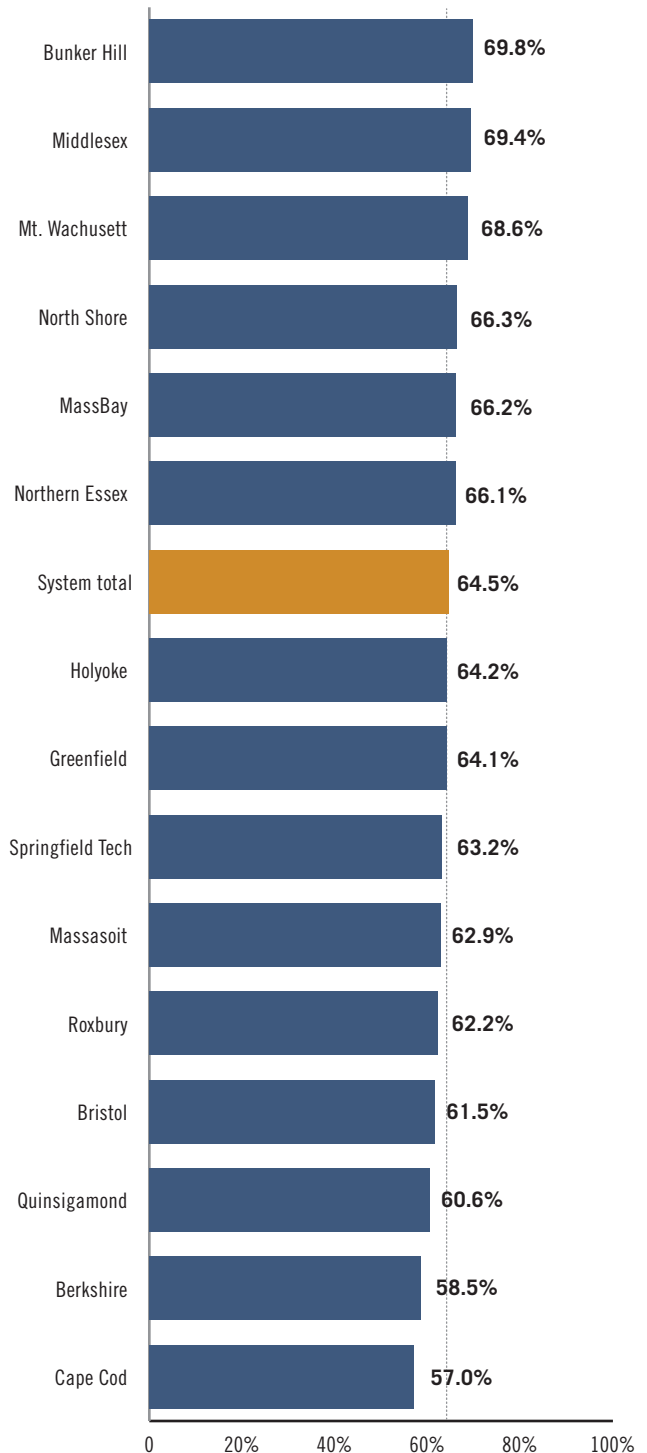
### Community College Profile: Outcomes

The unique role of community colleges in providing educational opportunities to a diverse segment of the population was evident prior to the creation of the formula. So, too, was the fact that, while community colleges were serving more students, the extent to which they succeeded in achieving positive outcomes required more attention. The state’s Vision Project, an effort launched in 2010 to assess outcomes and improve higher education performance across seven key areas, estimated that 45 percent of first-time, degree-seeking community college students attending in 2012 attained an associate’s degree or professional certificate within six years of enrollment, compared with 58 percent in Texas, the leading state in that category.<sup>7</sup> The report’s examination of racial and ethnic achievement gaps found similar results: Massachusetts fell significantly behind national leaders.

Another way to consider community college outcomes is to look at student success in passing licensure exams. Here too, the Vision Project identified an area for improvement. The report found that Massachusetts was not a national leader in community college success on licensure exams. The passing rate for Massachusetts students (87 percent) exceeded the national average (85 percent), but fell well short of leading states (94 percent).<sup>8</sup>

As with student demographic information, system averages for outcome measures masked campus-to-campus variation. One of the primary outcome measures reported by the Department of Higher Education is a college’s first-year retention rate among first-time, full-time students. In 2013, the system-wide first year retention rate was 64.5 percent. Among campuses, this rate varied by more than 10 percentage points from a high of 69.8 percent (Bunker Hill) to a low of 57 percent (Cape Cod)<sup>9</sup> (see Figure 3).

FIGURE 3  
**First-Year Retention Rate**  
 2012-2013 School Year



Source: Massachusetts Department of Higher Education Data Center

Student retention data illustrate one of the major problems in assessing student outcomes over time in community colleges: Campuses often experience significant year-to-year changes. It is not uncommon for a campus' retention rate to change by 5 percentage points or more from one year to the next, making it difficult to draw conclusions from annual data. This problem takes on added significance when these types of outcome measures are tied directly to state funding decisions, as was the case in the funding formula that was ultimately developed.

### Community College Profile: State Funding

In FY 2013, community college enrollment was surging, while state funding was decreasing dramatically as a result of budget cuts related to the Great Recession. Community colleges were reeling from these changes. State funding fell by 21.7 percent between FY 2008 and FY 2010, then increased as the state economy recovered, but funding remained 10.2 percent lower in FY 2013 than in FY 2008 (see **Table 2**).<sup>10</sup>

These funding cuts were even more problematic when considered relative to enrollment. On a per student basis, funding was cut by 20 percent between FY 2008 and FY 2013. The impact of that cut can be seen in student cost increases. Mandatory tuition and fees at community colleges rose from \$3,885 to \$5,115 between FY 2009 and FY 2013, an increase of 31.7 percent.<sup>11</sup>

To make matters worse, community college funding had only just returned to FY 2001 levels when the Great Recession hit. Between FY 2001 and FY 2004 the state had cut community college funding by more than \$40 million. By the time those cuts were restored, the next recession was upon us and a second round of

budget cuts was necessary. By FY 2013, community colleges, along with many other areas of the budget, had experienced two rounds of significant cuts over a 12-year period. Thus in real terms the level of state funding was far lower in FY 2013 than it had been more than a decade prior (see **Figure 4**).<sup>12</sup>

Not only was the aggregate level of community college funding at issue in FY 2013, so was the distribution of that funding among campuses. Without a formula to determine funding decisions, each campus' annual appropriation was primarily the result of prior year funding, with periodic adjustments for new costs related to collective bargaining agreements (CBA). This approach created equity problems in state funding that were only exacerbated as campuses experienced differing levels of enrollment growth and total state funding was reduced.

Between FY 2008 and FY 2013, the distribution of funds among campuses remained almost constant, in spite of changing enrollment dynamics at the different campuses. This disconnect between state funding and enrollment changes meant that the per-student impact of funding cuts over the Great Recession were unevenly distributed. For example, Bunker Hill experienced a per-student funding reduction of 38.2 percent, while Cape Cod's per-student funding fell by just 4.3 percent (see **Table 3**).

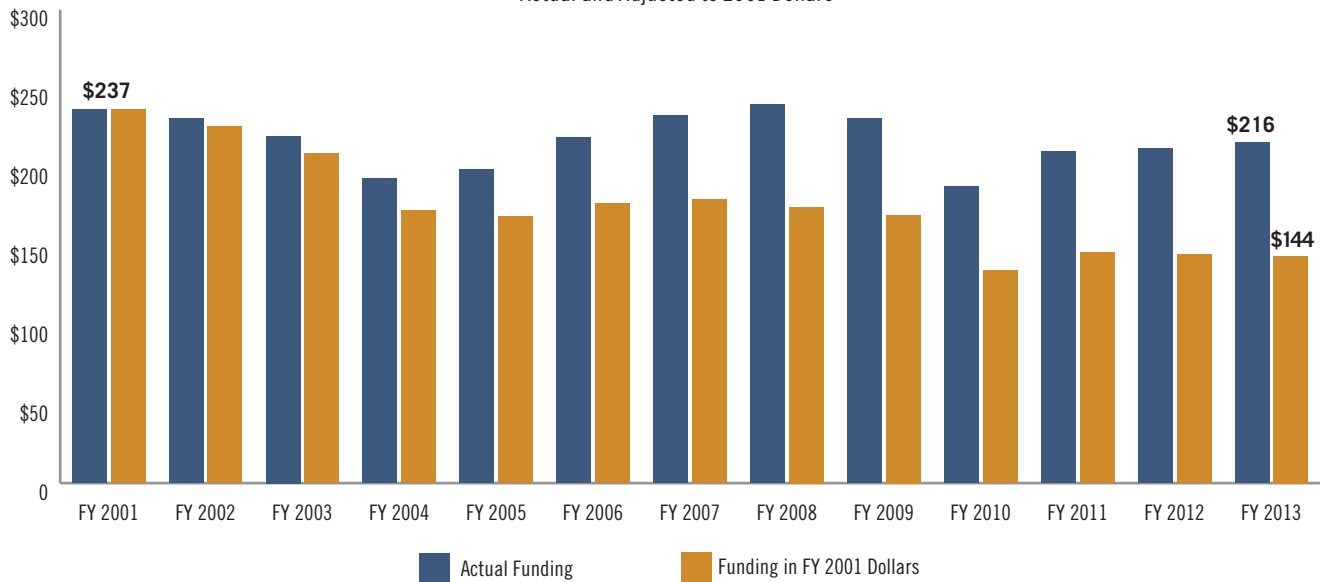
Prior to the introduction of the funding formula, state support for community colleges neither accounted for enrollment changes on campuses, nor did it attempt to influence future outcomes; the prior method merely prorated prior year support based on the total amount of funds available.

TABLE 2  
**Community College Funding**  
FY 2008 – FY 2013 (\$ in millions)

	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
State funding	\$240.2	\$230.7	\$188.1	\$210.3	\$211.6	\$215.6
\$ difference from FY 2008		-\$9.4	-\$52.0	-\$29.8	-\$28.6	-\$24.5
% difference from FY 2008		-3.9%	-21.7%	-12.4%	-11.9%	-10.2%

Source: MTF Budget Database

FIGURE 4  
**Community College Funding**  
 Actual and Adjusted to 2001 Dollars



Source: MTF Budget Database & Bureau of Economic Analysis Implicit Price Deflator data

TABLE 3  
**Community College Funding Comparison by Campus**  
 FY 2008 v. FY 2013 (\$ in millions)

	FY 2008			FY 2013			Per Pupil Change	
	Share of Funds	Share of Enrollment	\$ Per Pupil	Share of Funds	Share of Enrollment	\$ Per Pupil	\$	%
Berkshire	3.8%	2.5%	3,054	3.8%	2.3%	2,620	-434	-14.2%
Bristol	6.6%	8.6%	1,516	6.7%	8.6%	1,209	-306	-20.2%
Bunker Hill	8.5%	11.2%	1,506	8.5%	14.0%	931	-575	-38.2%
Cape Cod	4.7%	5.4%	1,736	4.7%	4.4%	1,662	-74	-4.3%
Greenfield	3.8%	2.4%	3,123	3.8%	2.3%	2,565	-557	-17.8%
Holyoke	7.6%	7.2%	2,090	7.8%	6.7%	1,787	-303	-14.5%
MassBay	5.8%	6.4%	1,794	5.7%	5.9%	1,476	-318	-17.7%
Massasoit	8.3%	8.7%	1,885	8.4%	8.5%	1,523	-362	-19.2%
Middlesex	8.2%	9.4%	1,725	8.2%	9.5%	1,336	-388	-22.5%
Mount Wachusett	5.2%	4.8%	2,113	5.3%	4.6%	1,776	-337	-15.9%
North Shore	8.5%	8.4%	1,987	8.5%	8.0%	1,644	-343	-17.3%
Northern Essex	7.8%	7.3%	2,132	7.8%	7.0%	1,734	-397	-18.6%
Quinsigamond	6.3%	7.8%	1,595	6.3%	8.7%	1,116	-478	-30.0%
Roxbury	4.7%	2.9%	3,208	4.6%	2.7%	2,616	-593	-18.5%
Springfield Tech	10.1%	7.0%	2,865	10.0%	6.8%	2,271	-594	-20.7%

Source: MTF Budget Database & DHE Data Center

## Community College Profile: National Context

There were several ways for policy makers to examine Massachusetts' level of community college funding as a first step toward improving it. A key consideration was how the Massachusetts system fared when compared with other states. In general, Massachusetts ranked poorly in terms of state support, average in terms of outcomes and among the worst when it came to required tuition and fees.

One way to examine Massachusetts' support for community colleges compared with other states is to look at state community college spending as a share of total budgetary expenditures. In FY 2008, Massachusetts devoted 0.72 percent of all appropriations to community colleges, ranking 33rd among the states. To reach the national average level of appropriations, Massachusetts would have had to increase state spending by \$120 million (50 percent).<sup>13</sup> Massachusetts also fell below the national average for the share of community college operating budgets that came from state and local support. In FY 2008, Massachusetts provided community colleges with 43.3 percent of their operating budget, compared to 48.3 percent nationally.

As one would expect, the relatively low level of state support for community colleges resulted in higher than average student costs. Between FY 2008 and FY 2013, mandatory tuition and fees at Massachusetts community colleges exceeded the national average by between 150 and 163 percent each year (see **Table 4**). Tuition and fees as a share of community college spending also exceeded the national average. Net tuition accounted for 31 percent of community colleges' operating spending in Massachusetts, compared to the national level of 21 percent—a difference of 45 percent.<sup>14</sup>

Massachusetts community colleges performed slightly below the national average when looking at graduation rates three years after first enrolling.<sup>15</sup> Between 2002 and 2013, the graduation rate for first-time, full-time students in Massachusetts ranged between 15 and 18 percent. In 2013, the Massachusetts rate of 15.9 percent ranked 33rd and fell far short of the national average of 19.4 percent.<sup>16</sup>

## Community College Profile: Putting It All Together

As the state emerged from the Great Recession, the community college system faced many challenges and opportunities. Among its clearly defined strengths was an enrollment boom as more students considered it a more practical and cost effective alternative to a four-year college for obtaining the requisite skills for the changing economy. At the same time, the community colleges continued to educate the most diverse student population in terms of race, ethnicity and socioeconomic background of all the institutions within the Commonwealth's public higher education system. Community colleges were in a prime position to help meet economic development and workforce goals and offer opportunities to students who might otherwise forego postsecondary education.

The community college system was also confronted with some clear challenges. As a system, community colleges failed to meet national averages for graduation and course completion while student retention rates varied widely by campus. Community colleges were dealing with a simultaneous enrollment spike and a big decline in state funding, both of which were happening in the broader context of state budgetary challenges, a situation that underscored the disadvantages of a state funding system untethered to any funding formula. Unsurprisingly, two rounds of state funding cuts led colleges to increase student charges, undermining their mission of access and affordability.

TABLE 4

### Community College Tuition & Fees, MA v. US Average

	2008-9	2009-10	2010-11	2011-12	2012-13
US Mandatory Tuition & Fees	\$2,136	\$2,285	\$2,439	\$2,467	\$2,792
MA Mandatory Tuition and Fees	\$3,252	\$3,522	\$3,759	\$4,009	\$4,186
MA as a % of US	152%	154%	154%	163%	150%

Source: Digest of Education Statistics



# Creating the Funding Formula

Massachusetts assessed the strengths and potential areas of improvement of its community college system at the same time as a new national discussion was underway on the larger potential role of community colleges in meeting future workforce needs. These issues were explored in a series of reports published between 2010 and 2013. The reports highlighted the importance of the community college system and called for policy changes related to funding, governance and course offerings. Those reports in turn led to the creation of the funding formula in Massachusetts.

## Highlighting the Need for Change

There was a growing recognition in Massachusetts by employers, employees and policy makers of the pivotal role community colleges played in developing the state's workforce. A 2010 report, *Massachusetts' Forgotten Middle-Skill Jobs*, highlighted the importance of jobs that require more than a high school diploma, but less than a four-year degree—so called “middle skill” jobs—to the state economy.<sup>17</sup> The report estimated that 44 percent of jobs in Massachusetts required middle skills and yet the state had been losing workers who fit the middle-skill profile. Community colleges offering associate and vocational certificate programs were cited as essential to the state's ability to fill this segment of the workforce. Unfortunately, the report noted, Massachusetts lagged behind other states in terms of community college funding.

The regional importance of community colleges to the economy was also highlighted by the New England Public Policy Center at the Federal Reserve Bank of Boston. The Center's 2010 report, entitled *Mismatch in the Labor Market* underscored the imbalance between the number of middle-skill jobs and the region's labor market.<sup>18</sup> It cited community colleges as an important tool in expanding the number of workers with the skills necessary to meet these jobs.

The focus on the importance of community colleges extended beyond Massachusetts. In October of 2010, President Barack Obama convened a summit at the White House to highlight the role of community colleges and to announce a goal of five million new community college graduates by 2020.<sup>19</sup> At the same time the Brookings Institute published a policy brief recommending several federal actions to increase support for community colleges.<sup>20</sup>

As the growth in community college enrollment and the system's importance to the state's economic future became clearer, so too did the need to identify ways to stabilize and improve the system. Both in and out of government, work was being done to figure out how Massachusetts could get more from its community colleges.

Beginning in 2010, under Governor Deval Patrick's administration, the Vision Project produced a series of working papers and reports that set specific outcome, access and workforce goals for the public higher education system. The 2012 report *Time to Lead* highlighted the importance of creating a system that was a national leader and establishing metrics to assess the system's success.<sup>21</sup> The report provided baseline data and metrics related to participation, completion, academic outcomes and workforce alignment goals at both state universities and community colleges. The report did not delve into how state funding related to meeting these goals, but did set forth guideposts that could be used to gauge campus performance.

At the same time, the Legislature commissioned *Investing in Community Colleges of the Commonwealth*, a report that analyzed existing streams of funding in Massachusetts, identified weaknesses and compared the Massachusetts system to other models from around the nation.<sup>22</sup> The report found that failure to use a funding formula in community college appropriations made it difficult for schools to prepare for budget cuts or make long-term financial plans. Unpredictable

state funding that did not keep pace with cost drivers (specifically enrollment and deferred maintenance) led schools to rely more heavily on tuition and fees. The report recommended three options for improving funding transparency and equity: (1) create a funding formula; (2) institute a minimum per-student level of state funding or (3) tie funding to performance metrics.

The challenge of how to help community colleges consistently improve outcomes and strengthen linkages to the workforce system was tackled in *The Case for Community Colleges*, a 2011 report prepared for the Boston Foundation.<sup>23</sup> That report highlighted five elements of a community college improvement blueprint:

- Clarify the mission, with priority on meeting labor market needs;
- Strengthen governance and accountability;
- Adopt performance metrics;
- Improve community college readiness for high school students; and
- Stabilize community college funding.

The community college funding formula was designed with many of these elements in mind. Specifically, it attempted to link funding to labor market needs, strengthen accountability, implement performance metrics and stabilize funding.

## Developing the Formula

In response to the findings of these reports and the consistent identification of state funding as a challenge at community colleges, lawmakers used the FY 2013 budget to direct DHE to develop a funding formula.<sup>24</sup> The budget language provided broad latitude to DHE on the final product, but did offer several guiding principles:

- Basing funding allocations partly on performance;
- Taking into account enrollment, overall available revenue and operational needs for each campus;
- Assessing institutional performance against “clearly defined goals and metrics;” and
- Considering activities that support workforce development goals (including partnerships and collaboration with private business, state universities and vocational schools).

The law specified that the Vision Project’s findings were to serve as the starting point for the goals and metrics used in the formula, and language explicitly allowed DHE to set aside a portion of any performance-based funding for grants to reduce costs, increase efficiency and improve outcomes.

The budget language advanced the notion of using a formula to distribute community college funds, along with the idea that any formula should be in furtherance of broader system goals. However, the language had several flaws that limited the funding formula’s ultimate impact.

One shortcoming was that the language did not establish a concrete goal or goals for the formula. Is the formula intended to increase state support to meet some standard of funding adequacy? Reduce tuition and fee increases? Improve the equity of funding between campuses? Some combination of all three? Without a clear goal, it is difficult to build sustained legislative support or assess progress—two major problems in implementing the formula that became evident over time.

Secondly, the language allowing DHE to distribute some amount of performance funding as grants muddied the water around what the funding formula was intended to do. Typically, funding formulas use an established set of criteria to distribute an amount of money among like entities in a way that achieves clearly defined goals, such as fairness, predictability or programmatic change; the goal of a formula is that those goals are achieved by the distribution method. Allowing DHE to set aside formula funding for discretionary grants undercuts the ability of the formula to do its job. It also created an incentive for DHE to prioritize funding for these discretionary grants over funding to implement the formula.

To develop the mechanics of the formula, DHE convened a Task Force on the Community College Funding Formula composed of community college presidents and the Massachusetts Teachers Association.<sup>25</sup> An outside consultant was hired to develop an initial formula that was then adjusted based on the feedback of the Task Force.<sup>26</sup>

The basic framework of the formula included three components:

- **OPERATION SUBSIDY:** (\$67.5 million) The formula awards each of the 15 campuses an equal \$4.5 million operation subsidy. This fixed amount is meant to reflect the fixed costs irrespective of the size of the school. Neither the Task Force report, nor DHE’s final submission to the Legislature, provided detail as to how \$4.5 million figure was chosen.
- **BASE FUNDING:** (50 percent of remaining funds) The formula allocates 50 percent of the remaining funds available after the operation subsidy as “base funding.” This element is intended to ensure that campus funding is based, in part, on enrollment and to mitigate per student funding inequities that have developed over time. The formula uses credit hours completed weighted by type of coursework to determine each campus’ base funding allocation.
- **PERFORMANCE FUNDING:** (50 percent of remaining funds) The formula dedicated the other half of remaining state funds to performance funding. Two types of performance metrics were developed: those related to college completion and those aligned with workforce and achievement gap goals. In total, eight college completion measures and four alignment measures are scored for each campus to determine its share of performance funding.

While the operating subsidy was straightforward, both the base and performance funding measures were more complex. The base funding distribution was based on course credit completion in 13 different areas of study. Those areas were then given one of four different weights depending on how cost intensive the field was considered to be. Therefore, under the formula, each campus’ base funding share is determined by how many students are completing credits and in what programs the credits are completed. The weights of different programs vary significantly—a credit completed in a trade is worth 2.5 times that of a credit completed in business.

The performance funding element of the formula was designed to align with the broad goals of the Vision Project.<sup>27</sup> Eight different inputs, each with a different weight, and then further adjusted by four different alignment variables, were used to develop a performance “index score” for each campus; this

index score then determined the campus share of performance funding. The index scores were adjusted so that 50 percent of a college’s value was determined by the number of students attaining certain outcomes (i.e., graduating) and half the value was determined by the rate at which those outcomes were achieved.

Prior to a potential implementation of the formula in FY 2014, DHE illustrated the formula’s impact by showing how the state’s FY 2013 funding for community colleges would have differed had the formula been used; **Table 5** (next page) shows how much that simulated allocation diverged from the original budget appropriation for that year.

The new formula resulted in sizable funding differences—both positive and negative—for community colleges. Had funds been distributed through the formula, nine of the 15 community colleges (*shaded rows in Table 5*) would have experienced funding swings in excess of 10 percent. To alleviate funding disruptions, the Task Force recommended that the formula include a “Stop Loss” adjustment to limit reductions of prior-year state aid levels. According to the DHE report, Stop Loss was originally intended to be used only in the first year of the funding formula. Effectively, Stop Loss would provide campuses with a minimum base aid of 95 percent of prior-year state funding, with remaining state funds distributed through the performance and base allocations. **Table 6** (next page) compares state aid for each campus based on three different distributions of \$208.2 million.

Using Stop Loss, six campuses would receive the maximum five percent reduction. Ultimately, the Task Force and DHE agreed that cutting appropriations for any campus, especially after the budget cuts of the prior decade, was counterproductive. Instead, it was agreed that the formula should only be used to allocate new funds and not reduce state subsidies to any college. This approach, typically called “hold harmless,” is common in funding formulas in other areas of the budget. While holding aid harmless minimizes funding disruptions and political opposition to change, it can prove problematic because it bakes in preexisting inequities.

DHE submitted its funding formula proposal in December of 2012. The final proposal retained the three-factor approach—operating subsidy, base

TABLE 5  
Initial Community College Funding Formula

Community College	FY 2013 (Actual)	Operating Subsidy	Base Allocation	Performance Allocation	Initial Total (Simulated)	Difference with FY 2013
Berkshire	\$7,988,207	\$4,500,000	\$1,849,354	\$2,664,846	\$9,014,200	12.84%
Bristol	\$13,885,391	\$4,500,000	\$5,971,516	\$4,748,353	\$15,219,869	9.61%
Bunker Hill	\$17,496,631	\$4,500,000	\$7,803,205	\$7,230,731	\$19,533,936	11.64%
Cape Cod	\$9,823,796	\$4,500,000	\$2,823,037	\$2,161,156	\$9,484,193	-3.46%
Greenfield	\$7,805,889	\$4,500,000	\$1,883,263	\$2,370,213	\$8,753,476	12.14%
Holyoke	\$16,074,594	\$4,500,000	\$5,226,188	\$5,507,068	\$15,233,256	-5.23%
MassBay	\$11,859,106	\$4,500,000	\$3,914,111	\$6,001,336	\$14,415,447	21.56%
Massasoit	\$17,376,154	\$4,500,000	\$5,867,757	\$4,404,678	\$14,772,435	-14.98%
Middlesex	\$17,121,183	\$4,500,000	\$7,191,094	\$6,126,711	\$17,817,805	4.07%
Mount Wachusett	\$11,007,508	\$4,500,000	\$4,152,964	\$3,125,861	\$11,778,825	7.01%
North Shore	\$17,629,906	\$4,500,000	\$5,576,888	\$5,397,477	\$15,474,365	-12.23%
Northern Essex	\$16,305,635	\$4,500,000	\$4,710,247	\$5,762,878	\$14,973,125	-8.17%
Quinsigamond	\$12,980,557	\$4,500,000	\$6,418,834	\$5,990,485	\$16,909,319	30.27%
Roxbury	\$9,729,356	\$4,500,000	\$1,907,086	\$2,054,542	\$8,461,628	-13.03%
Springfield Tech	\$21,070,398	\$4,500,000	\$5,031,611	\$6,780,819	\$16,312,430	-22.58%
<b>Total</b>	<b>\$208,154,311</b>	<b>\$67,500,000</b>	<b>\$70,327,155</b>	<b>\$70,327,154</b>	<b>\$208,154,309</b>	<b>0.00%</b>

Source: Community College Funding Report, Appendix C

funding and performance funding—and added the hold harmless provision for the first year of implementation. The formula intentionally does not speak to what the overall level of state support for community colleges should be, nor does it set any goals in that regard. This is a significant departure from other education funding formulas, such as the formula used to distribute state aid to K–12 districts, or other formulas used to reimburse school districts for special education, transportation or charter school costs. Each of these formulas calculates what the total level of state funding should be in addition to how a marginal dollar of state funding should be distributed. In contrast, the community college funding formula makes no attempt to establish a goal for total state funding, either annually or over time.

DHE also recommended that new collective bargaining costs borne by the campuses be funded by the state outside of the funding formula. The recommendation was that these amounts be added to each college’s base appropriation.

The final funding formula report attempted to balance the equitable distribution of funding with incenting the Vision Project’s system goals. However, that balance came at a cost. Introducing a number of variables into the formula with different weights and adjustments made it difficult to understand the formula distribution without access to a significant amount of input data; these data were not consistently made available during the implementation of the formula. Finally, because the formula had no end goal (such as ensuring that each campus receive a minimum level of state aid per student each year), it was not possible to assess success in any tangible or consistent way.

TABLE 6  
**Comparison of FY 2013 GAA, Formula & Formula with Stop Loss**<sup>28</sup>

<b>Community College</b>	<b>FY 2013 (Actual)</b>	<b>Initial Total</b>	<b>Formula Stop Loss</b>	<b>Difference from FY 2013</b>
Berkshire	\$7,988,207	\$9,014,200	\$8,393,168	\$404,961
Bristol	\$13,885,391	\$15,219,869	\$14,412,112	\$526,721
Bunker Hill	\$17,496,631	\$19,533,936	\$18,300,759	\$804,128
Cape Cod	\$9,823,796	\$9,484,193	\$9,484,193	-\$339,603
Greenfield	\$7,805,889	\$8,753,476	\$8,179,904	\$374,015
Holyoke	\$16,074,594	\$15,233,256	\$15,270,864	-\$803,730
MassBay	\$11,859,106	\$14,415,447	\$12,868,098	\$1,008,992
Massasoit	\$17,376,154	\$14,772,435	\$16,507,346	-\$868,808
Middlesex	\$17,121,183	\$17,817,805	\$17,396,141	\$274,958
Mount Wachusett	\$11,007,508	\$11,778,825	\$11,311,948	\$304,440
North Shore	\$17,629,906	\$15,474,365	\$16,748,411	-\$881,495
Northern Essex	\$16,305,635	\$14,973,125	\$15,490,353	-\$815,282
Quinsigamond	\$12,980,557	\$16,909,319	\$14,531,246	\$1,550,689
Roxbury	\$9,729,356	\$8,461,628	\$9,242,888	-\$486,468
Springfield Tech	\$21,070,398	\$16,312,430	\$20,016,878	-\$1,053,520
<b>Total</b>	<b>\$208,154,311</b>	<b>\$208,154,309</b>	<b>\$208,154,309</b>	<b>\$208,154,309</b>

Source: Community College Funding Report, Appendix C



# Formula Implementation

The community college funding formula was used to varying degrees between FY 2014 and FY 2016. Over that time, the formula was able to improve the relative distribution of funding among community colleges based on enrollment and performance metrics. However, declining state support and a lack of publicly available information on formula inputs limited the impact while also making it difficult to evaluate the strengths and weaknesses of the formula in its application.

## Fiscal Year 2014

Following the release of DHE's funding formula report, Governor Deval Patrick's FY 2014 budget fully incorporated the formula. His budget eliminated separate line items for each campus and instead proposed one \$240.3 million community college account (an increase of \$31 million over the prior year) to be distributed through the new formula. The language did include a hold harmless provision, requiring that each campus receive at least as much as it had in FY 2013, which effectively meant that the formula would be used to distribute the \$31 million in new funds. The Governor's budget did not provide a breakdown, by campus, of how the new funds would be distributed, creating uncertainty as to what the formula meant for each campus.

Potentially harming the permanence of the formula, the Governor's budget did not propose codifying it in statute; furthermore documentation to explain the mechanics of the formula was limited. This approach deviates from the funding formulas used in K-12 education. The K-12 formulas are set forth in statute, which has been helpful in ensuring adherence, predictability and continued evaluation. In addition, the inputs used to generate the annual distribution through the formulas are clearly defined and publicly available.

The Legislature's final budget restored separate line items for each of the 15 campuses, which included \$17.5 million in new funding to support the cost of

collective bargaining agreements. The final budget set aside \$20 million in new money for distribution through the funding formula, specifying the amounts each campus would receive. Like the Governor, the Legislature produced a final budget that did not codify a community college funding formula into statute, nor require DHE to make an interactive version of the formula available.

The \$20 million in new funds provided to community colleges through the formula was the largest amount of new funds ever dedicated to the formula (see **Table 7**). In addition, the FY 2014 budget also provided each community college with full funding for the annualized costs of collective bargaining agreements entered into the year before. In total, the \$245.7 million for community colleges was an 18 percent increase in state support over the prior year's General Appropriation Act (GAA). To put this in perspective, the next largest annual funding increase over the last 20 years was 10.5 percent in FY 2002. Because the FY 2014 budget distributed significant funds through the formula and included full funding for collective bargaining agreements (CBAs), it provides a good test case for what the formula could achieve if it were prioritized.

**Table 7** shows the build-up for each campus' FY 2014 appropriation. Each campus began with the amount received in the prior year GAA and then added CBA and funding formula components. What is immediately apparent is that there is little relationship between the formula's allocation and the new collective bargaining costs incurred by each school. This indicates that omission of new CBA costs from the funding formula mutes the impact of the funding formula in covering actual operational expenses. However, it is also apparent that utilizing the formula to distribute \$20 million in incremental increases—even while holding each campus harmless and providing separate CBA funds—made progress.

TABLE 7  
**FY 2014 Community College Funding**

Community College	FY 2013 GAA Base	FY 2014 CBA	FY 2014 Funding Formula	Total Funding	Increase over FY 2013
Berkshire	\$7,988,207	\$581,167	\$1,091,424	\$9,660,798	\$1,672,591
Bristol	\$13,885,391	\$1,338,620	\$2,940,286	\$18,164,297	\$4,278,906
Bunker Hill	\$17,496,631	\$1,697,569	\$2,282,913	\$21,477,113	\$3,980,482
Cape Cod	\$9,823,796	\$712,805	\$343,833	\$10,880,434	\$1,056,638
Greenfield	\$7,805,889	\$620,946	\$1,150,565	\$9,577,400	\$1,771,511
Holyoke	\$16,074,594	\$1,474,952	\$1,086,747	\$18,636,293	\$2,561,699
MassBay	\$11,859,106	\$878,858	\$1,937,546	\$14,675,510	\$2,816,404
Massasoit	\$17,376,153	\$1,508,833	\$608,165	\$19,493,151	\$2,116,998
Middlesex	\$17,121,183	\$1,363,037	\$1,862,410	\$20,346,630	\$3,225,447
Mount Wachusett	\$11,007,508	\$900,497	\$1,076,995	\$12,985,000	\$1,977,492
North Shore	\$17,629,906	\$1,590,465	\$617,047	\$19,837,418	\$2,207,512
Northern Essex	\$16,305,635	\$1,256,985	\$570,697	\$18,133,317	\$1,827,682
Quinsigamond	\$12,980,557	\$1,417,817	\$3,353,379	\$17,751,753	\$4,771,196
Roxbury	\$9,729,356	\$626,821	\$340,527	\$10,696,704	\$967,348
Springfield Tech	\$21,070,398	\$1,548,333	\$737,464	\$23,356,195	\$2,285,797
<b>Total</b>	<b>\$208,154,310</b>	<b>\$17,517,705</b>	<b>\$19,999,998</b>	<b>\$245,672,013</b>	<b>\$37,517,703</b>

Source: MTF Budget Database

TABLE 8  
**Share of State Funding by Campus**  
 FY 2013 v. FY 2014

Community College	Share of FY 2013 GAA	Share of Funding Formula	Share of FY 2014 GAA
Berkshire	3.8%	5.5%	3.9%
Bristol	6.7%	14.7%	7.4%
Bunker Hill	8.4%	11.4%	8.7%
Cape Cod	4.7%	1.7%	4.4%
Greenfield	3.8%	5.8%	3.9%
Holyoke	7.7%	5.4%	7.6%
MassBay	5.7%	9.7%	6.0%
Massasoit	8.3%	3.0%	7.9%
Middlesex	8.2%	9.3%	8.3%
Mount Wachusett	5.3%	5.4%	5.3%
North Shore	8.5%	3.1%	8.1%
Northern Essex	7.8%	2.9%	7.4%
Quinsigamond	6.2%	16.8%	7.2%
Roxbury	4.7%	1.7%	4.4%
Springfield Tech	10.1%	3.7%	9.5%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

Source: MTF Budget Database

According to the formula, Bristol, Bunker Hill and Quinsigamond were the three community colleges most underfunded in previous allocations (see **Table 8**). Combined, the three campuses received just over 20 percent (21.2 percent) of community college funding in the FY 2013 GAA, while they received more than 40 percent (42.9 percent) of formula funding. This shift in formula funds resulted in each of these three colleges receiving a larger share of community college funding in FY 2014.

The original formula proposal submitted by DHE in December of 2012 was based on a \$208.2 million distribution of funds (the amount appropriated to community colleges in the FY 2013 GAA). If, instead, the formula were implemented with a \$245.7 million distribution (the amount provided in the FY 2014 GAA), and no stop loss or hold harmless provisions were included, it would look as shown in **Table 9**.



TABLE 9  
**Projected Distribution of all FY 2014 Funding through the Formula**

Community College	Actual FY 2014 Distribution	Formula Distribution of \$245.7M	Share of Full Formula (\$245.7M total)
Berkshire	\$9,660,798	\$10,218,304	4.2%
Bristol	\$18,164,297	\$18,079,255	7.4%
Bunker Hill	\$21,477,113	\$23,544,043	9.6%
Cape Cod	\$10,880,434	\$10,813,662	4.4%
Greenfield	\$9,577,400	\$9,888,035	4.0%
Holyoke	\$18,636,293	\$18,096,212	7.4%
MassBay	\$14,675,510	\$17,060,263	6.9%
Massasoit	\$19,493,151	\$17,512,473	7.1%
Middlesex	\$20,346,630	\$21,370,156	8.7%
Mount Wachusett	\$12,985,000	\$13,720,357	5.6%
North Shore	\$19,837,418	\$18,401,634	7.5%
Northern Essex	\$18,133,317	\$17,766,695	7.2%
Quinsigamond	\$17,751,753	\$20,219,343	8.2%
Roxbury	\$10,696,704	\$9,518,341	3.9%
Springfield Tech	\$23,356,195	\$19,463,242	7.9%
<b>Total</b>	<b>\$245,672,015</b>	<b>\$245,672,015</b>	<b>100%</b>

Source: MTF Budget Database & Funding Formula Appendix C

Using this projection of FY 2014 funding distribution if fully adhering to the formula, it is possible to calculate how much progress toward achieving this distribution was made in FY 2014—even when all campuses were held harmless and \$17.5 million in new CBA funds was allocated outside of the formula.

**Table 10** (next page) compares each campus’ FY 2013 funding share with the share it would have received if *all* community college funds were distributed through the formula (the “Share of Full Formula” column). It then presents actual FY 2014 funding share to show how much progress was made in moving from each campus’ FY 2013 share to the share that campus would have received if all funds were distributed through the formula. As the right-most column in **Table 10** shows, in the case of Berkshire Community College, for example, the FY 2014 share of 3.93 percent moved about 30 percent of the way from its FY 2013 GAA share (3.84 percent) to its full formula share (4.16 percent).

At seven of the state’s 15 community colleges, adherence to the modified formula funding in FY 2014 shrank the gap by at least 40 percent between their FY 2013 share of funding and the share called for by the formula. In the case of Bristol—one of the campuses most in need of funding adjustments based on the DHE methodology—the formula funds closed the gap entirely.

TABLE 10  
**FY 2014 Funding Share Compared to Full Formula Share**

Community College	Share of FY 2013 GAA	Share of Full Formula (\$245.7M total)	Difference	Share of FY 2014	% Achieved in FY 2014 GAA
Berkshire	3.8%	4.2%	0.3%	3.9%	29.5%
Bristol	6.7%	7.4%	0.7%	7.4%	105.0%
Bunker Hill	8.4%	9.6%	1.2%	8.7%	28.6%
Cape Cod	4.7%	4.4%	-0.3%	4.4%	91.4%
Greenfield	3.8%	4.0%	0.3%	3.9%	54.0%
Holyoke	7.7%	7.4%	-0.4%	7.6%	38.3%
MassBay	5.7%	6.9%	1.2%	6.0%	22.2%
Massasoit	8.3%	7.1%	-1.2%	7.9%	33.9%
Middlesex	8.2%	8.7%	0.5%	8.3%	12.0%
Mount Wachusett	5.3%	5.6%	0.3%	5.3%	-0.9%
North Shore	8.5%	7.5%	-1.0%	8.1%	40.3%
Northern Essex	7.8%	7.2%	-0.6%	7.4%	75.2%
Quinsigamond	6.2%	8.2%	2.0%	7.2%	49.6%
Roxbury	4.7%	3.9%	-0.8%	4.4%	40.0%
Springfield Tech	10.1%	7.9%	-2.2%	9.5%	28.0%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>0%</b>	<b>100%</b>	<b>NA</b>

Source: MTF Budget Database & Funding Formula Appendix C

## Fiscal Year 2015

The state continued to implement the community college funding formula in FY 2015. While that year's budget did not provide the same level of support for community colleges as in the prior year, it still provided a \$5.1 million increase related to collective bargaining as well as \$13.2 million to distribute through the funding formula. In addition, both funding formula and CBA increases from FY 2014 were built into each campus' funding level base for FY 2015. The \$264 million in campus support was an increase of \$18.3 million, 7.4 percent over the prior year (see **Table 11**). DHE used the same formula in both FY 2014 and FY 2015 and the relative distribution among campuses between the two years is very similar overall. However, based on updated inputs, some notable changes did occur.

For example, as **Table 12** shows, Bristol Community College received the second largest share of formula

funds in FY 2014 but saw the steepest decline in its share of formula funds in FY2015. This reduced share was likely attributable to the progress the formula made in moving Bristol toward its theoretical fair share of state funding in FY 2014.

In general, the largest share of formula funds in FY 2015 went to the colleges whose FY 2014 share of state funding fell below their "formula share," with Bunker Hill, Middlesex and Quinsigamond receiving 43.7 percent of all formula funds. However, MassBay, which also ended FY 2014 with a gap between its formula share and its actual state share, received just 4.5 percent of formula funds, compared with 9.7 percent in FY 2014. This large drop is presumably due to a change in the formula input data related to student attendance or performance.

The lack of clarity surrounding the formula allocations to both Bristol and MassBay in FY 2015 arose from the fact that funding formula specifics were not published

TABLE 11  
**FY 2015 Community College Funding**

Community College	FY 2014 Base	CBA	Funding Formula	Total
Berkshire	\$9,660,798	\$166,633	\$690,276	\$10,517,707
Bristol	\$18,164,297	\$310,083	\$1,118,093	\$19,592,473
Bunker Hill	\$21,477,113	\$523,098	\$2,381,552	\$24,381,763
Cape Cod	\$10,880,434	\$203,933	\$445,930	\$11,530,297
Greenfield	\$9,577,400	\$203,473	\$313,476	\$10,094,349
Holyoke	\$18,636,293	\$357,231	\$600,647	\$19,594,171
MassBay	\$14,675,510	\$242,588	\$590,864	\$15,508,962
Massasoit	\$19,493,151	\$401,171	\$629,451	\$20,523,773
Middlesex	\$20,346,630	\$392,580	\$1,489,492	\$22,228,702
Mount Wachusett	\$12,985,000	\$240,682	\$683,953	\$13,909,635
North Shore	\$19,837,418	\$434,289	\$638,643	\$20,910,350
Northern Essex	\$18,133,317	\$357,695	\$590,672	\$19,081,684
Quinsigamond	\$17,751,753	\$717,785	\$1,883,745	\$20,353,283
Roxbury	\$10,696,704	\$169,893	\$352,446	\$11,219,043
Springfield Tech	\$23,356,195	\$406,355	\$763,275	\$24,525,825
<b>Total</b>	<b>\$245,672,013</b>	<b>\$5,127,489</b>	<b>\$13,172,515</b>	<b>\$263,972,017</b>

Source: MTF Budget Database & Massachusetts Comptroller CTHRU

TABLE 12  
**Share of Formula Funds**  
 FY 2014 v. FY 2015

Community College	FY 2014	FY 2015
Berkshire	5.5%	5.2%
Bristol	14.7%	8.5%
Bunker Hill	11.4%	18.1%
Cape Cod	1.7%	3.4%
Greenfield	5.8%	2.4%
Holyoke	5.4%	4.6%
MassBay	9.7%	4.5%
Massasoit	3.0%	4.8%
Middlesex	9.3%	11.3%
Mount Wachusett	5.4%	5.2%
North Shore	3.1%	4.8%
Northern Essex	2.9%	4.5%
Quinsigamond	16.8%	14.3%
Roxbury	1.7%	2.7%
Springfield Tech	3.7%	5.8%
<b>Total</b>	<b>100%</b>	<b>100%</b>

Source: MTF Budget Database

in FY 2015. DHE presentations on the FY 2015 budget from that time indicate that the formula would not be changed from FY 2014 to FY 2015, but the inputs to the formula—the campus attendance and performance metrics that determine allocations—presumably did change and those changes appear to have had large impacts on several campuses. The decision to not publicize formula information in FY 2015 makes analysis of the formula and its impact very difficult and runs counter to one of the primary goals of funding formulas: creating a clear and transparent method for fairly distributing funding.

## Fiscal Year 2016

Budget constraints and a new gubernatorial administration provided new challenges to implementation of the funding formula in FY 2016. The state continued to dedicate funding to the community college formula in FY 2016, but other cuts to community colleges limited the impact. In addition, DHE once again did not provide any accompanying materials on the underlying formula inputs and mechanics to enable an in-depth assessment of the formula funding's impact over time.

The FY 2016 state budget was developed in a context of fiscal uncertainty. The state made more than \$400 million in midyear budget cuts in FY 2015 and revenue expectations were downgraded just as the FY 2016 budget process began. Community college funding reflected these budgetary concerns. Unlike the two previous years, FY 2016 funding did not incorporate prior-year collective bargaining cost increases. Instead, each campus received non-CBA prior-year funding (starting appropriation plus additional formula funds) less one percent. This approach, though understandable from a fiscal standpoint, meant that the \$9.1 million in new formula funding that was appropriated in FY 2016 was used to partially offset reductions in CBA and other funding. This is especially true since only \$8.9 of the \$9.1 million was ultimately distributed through the formula (see **Table 13**).

For the first time since the implementation of the funding formula, the budget did not earmark formula funds by campus. Similarly, DHE did not publish the distribution of formula funds (nor any other information on the formula inputs to determine the allocation). Again, this lack of basic information on how funds were allocated runs counter to a primary purpose of such a formula.

Despite the incompleteness of publicly available information, it does appear that updated information was used to determine formula allocations.

While the FY 2016 allocation is similar to the prior year, differences are notable (see **Table 14**). For example, Quinsigamond Community College received more than 15 percent of formula funds over the first two years of implementation, but received just 5.9 percent in FY 2016. Lack of formula input information means that it is not possible to connect this change in funding share with specific attendance or performance information.

The formula continued to be the primary mechanism for distributing new community college funds in FY 2016—in spite of budget challenges and a change in executive leadership. However, the formula appropriation was not accompanied by funding to address CBA costs. In its development, the formula did not incorporate new CBA costs, but the taskforce was clear that, in order for the formula to work, CBAs should be included in each campus' pre-formula funding amount.

TABLE 13  
**FY 2016 Community College Funding**

Community College	FY 2015 Final	FY 2016 GAA	FY 2016 Formula	FY 2016 Midyear CBA	FY 2016 Final
Berkshire	\$10,517,707	\$10,371,027	\$394,432	\$5,777	\$10,771,236
Bristol	\$19,592,473	\$19,518,238	\$927,780	\$17,007	\$20,463,025
Bunker Hill	\$24,381,763	\$24,053,931	\$1,312,298	\$7,056	\$25,373,285
Cape Cod	\$11,530,297	\$11,369,527	\$709,750	\$5,806	\$12,085,083
Greenfield	\$10,094,349	\$9,948,739	\$244,681	\$6,033	\$10,199,453
Holyoke	\$19,594,171	\$19,310,996	\$474,938	\$13,342	\$19,799,276
MassBay	\$15,508,962	\$15,368,132	\$441,524	\$6,550	\$15,816,206
Massasoit	\$20,523,773	\$20,227,372	\$497,462	\$9,021	\$20,733,855
Middlesex	\$22,228,702	\$21,919,236	\$1,062,582	\$16,214	\$22,998,032
Mount Wachusett	\$13,909,635	\$13,842,635	\$433,616	\$10,971	\$14,287,222
North Shore	\$20,910,350	\$20,608,175	\$506,841	\$13,549	\$21,128,565
Northern Essex	\$19,081,684	\$18,806,189	\$549,384	\$7,236	\$19,362,809
Quinsigamond	\$20,353,283	\$19,777,823	\$528,277	\$3,470	\$20,309,570
Roxbury	\$11,219,043	\$11,056,826	\$271,917	\$5,145	\$11,333,888
Springfield Tech	\$24,525,825	\$24,170,848	\$594,262	\$9,974	\$24,775,084
<b>Total</b>	<b>\$263,972,017</b>	<b>\$260,349,694</b>	<b>\$8,949,745</b>	<b>\$137,151</b>	<b>\$269,436,590</b>

Source: MTF Budget Database & Massachusetts Comptroller CTHRU

TABLE 14  
**Community College Formula Share**  
 FY 2014 – FY 2016

Community College	FY 2014	FY 2015	FY 2016
Berkshire	5.5%	5.2%	4.4%
Bristol	14.7%	8.5%	10.4%
Bunker Hill	11.4%	18.1%	14.7%
Cape Cod	1.7%	3.4%	7.9%
Greenfield	5.8%	2.4%	2.7%
Holyoke	5.4%	4.6%	5.3%
MassBay	9.7%	4.5%	4.9%
Massasoit	3.0%	4.8%	5.6%
Middlesex	9.3%	11.3%	11.9%
Mount Wachusett	5.4%	5.2%	4.8%
North Shore	3.1%	4.8%	5.7%
Northern Essex	2.9%	4.5%	6.1%
Quinsigamond	16.8%	14.3%	5.9%
Roxbury	1.7%	2.7%	3.0%
Springfield Tech	3.7%	5.8%	6.6%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

Source: MTF Budget Database & Massachusetts Comptroller CTHRU

## Fiscal Year 2017

The state provided separate funds for the community college funding formula for the last time in FY 2017. The budget provided \$2.7 million in new formula funds in addition to a base appropriation consisting of \$8.9 million in FY 2016 formula funds and approximately \$200,000 in CBA costs. Over the course of FY 2017, community colleges also received \$5.2 million for CBA costs incurred in FY 2016 and FY 2017 (see **Table 15**).

The maintenance of base aid from prior year funding and the inclusion of additional CBA funds meant that dedicated formula funding in FY 2017 was not offset by other cuts or funding needs. However, it does not appear that the formula was actually used to distribute any funds.

As **Table 16** shows, the distribution of formula funds in FY 2017 bears no resemblance to prior year distributions. Rather, the distribution is almost identical to each campus' share of total FY 2016 funding. It appears that instead of distributing these funds through the formula, they were allocated based on each campus' prior year share of total funding. Given that the formula was developed in part to do away with prorated funding changes unrelated to school size or success metrics, the FY 2017 approach was a step backwards.

TABLE 15  
FY 2017 Community College Funding<sup>29</sup>

Community College	FY 2016 Final (including formula)	FY 2017 GAA	Funding Formula	CBA	Total FY 2017
Berkshire	\$10,771,236	\$10,777,744	\$106,312	\$184,712	\$11,068,768
Bristol	\$20,463,025	\$20,578,333	\$202,986	\$312,248	\$21,093,567
Bunker Hill	\$25,373,285	\$25,396,615	\$252,998	\$593,290	\$26,242,903
Cape Cod	\$12,085,083	\$12,096,928	\$119,275	\$186,688	\$12,402,891
Greenfield	\$10,199,453	\$10,253,490	\$101,141	\$203,350	\$10,557,981
Holyoke	\$19,799,276	\$19,807,113	\$195,379	\$406,344	\$20,408,836
MassBay	\$15,816,206	\$15,823,504	\$156,084	\$273,616	\$16,253,204
Massasoit	\$20,733,855	\$20,742,077	\$204,601	\$448,126	\$21,394,804
Middlesex	\$22,998,032	\$23,015,565	\$227,027	\$432,910	\$23,675,502
Mount Wachusett	\$14,287,222	\$14,294,497	\$140,953	\$244,542	\$14,679,992
North Shore	\$21,128,565	\$21,136,928	\$208,496	\$439,380	\$21,784,804
Northern Essex	\$19,362,809	\$19,371,874	\$191,086	\$319,380	\$19,882,340
Quinsigamond	\$20,309,570	\$20,318,287	\$200,421	\$500,190	\$21,018,898
Roxbury	\$11,333,888	\$10,438,392	\$102,965	\$161,400	\$10,702,757
Reggie Lewis Center at Roxbury	\$0	\$900,000	\$0	\$0	\$900,000
Springfield Tech	\$24,775,084	\$24,785,093	\$244,476	\$456,824	\$25,486,393
<b>Total</b>	<b>\$269,436,590</b>	<b>\$269,736,440</b>	<b>\$2,654,200</b>	<b>\$5,163,000</b>	<b>\$277,553,640</b>

Source: MTF Budget Database & Massachusetts Comptroller CTHRU

TABLE 16  
**FY 2017 Formula Distribution Share v. Prior Years**

Community College	FY 2016 Share of Funding	Share of Formula Funds FY 2014 - FY 2016	Share of FY 2017 Formula Funds
Berkshire	4.0%	5.2%	4.0%
Bristol	7.6%	11.8%	7.6%
Bunker Hill	9.4%	14.2%	9.5%
Cape Cod	4.5%	3.6%	4.5%
Greenfield	3.8%	4.1%	3.8%
Holyoke	7.3%	5.1%	7.4%
MassBay	5.9%	7.1%	5.9%
Massasoit	7.7%	4.1%	7.7%
Middlesex	8.5%	10.5%	8.6%
Mount Wachusett	5.3%	5.2%	5.3%
North Shore	7.8%	4.2%	7.9%
Northern Essex	7.2%	4.1%	7.2%
Quinsigamond	7.5%	13.7%	7.6%
Roxbury	4.2%	2.3%	3.9%
Springfield Tech	9.2%	5.0%	9.2%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

Source: MTF Budget Database & Massachusetts Comptroller CTHRU

## Fiscal Years 2018 and 2019

The community college funding formula received no dedicated funding in FY 2018. Just under \$3 million in formula funds were included in the initial budget proposals of the Governor, House and Senate, but those funds were stripped out during the conference committee process, likely the result of significantly downgraded revenue expectations. The final budget level funded each community college at its base FY 2017 appropriation (not including the \$2.7 million in formula funds) then added an assumed amount for additional collective bargaining costs.

The FY 2019 budget finalized in July 2018 includes \$2.8 million for the community college funding formula line item, while providing each campus with a 1 percent increase over its prior year funding plus approximately \$7 million for collective bargaining cost increases. The Board of Higher Education has yet to decide on how the additional formula funds will be allocated.





# Taking Stock

It has been three years since the community college funding formula was last used, falling victim to larger budget challenges and competing spending priorities. While progress in implementing the funding formula has been at a standstill, the push to increase investment in community colleges and to ensure that new funds are distributed in a fair way that incents system improvements has not waned. As policy makers consider additional improvements, they should use this opportunity to take stock of what the funding formula was able to accomplish during the brief period of adherence, the shortcomings that became apparent upon implementation and ways in which the state system has changed since the formula was developed.

## The Funding Formula in Aggregate

The community college funding formula was used over a three-year period and, in that time, was responsible for the distribution of the majority of new community college funds. Between the FY 2013 GAA and the end of FY 2016, 69 percent of all new community college funds (\$42.1 million of \$61.3 million in total increases) were administered through the new formula. The primacy of the formula in distributing new community college funds is noteworthy; it demonstrates that in spite of the challenges, the formula was able take hold as the primary mechanism for allocating new funding.

Comparing each campus' share of funding prior to the formula with the distribution it received through the funding formula reveals stark differences. Formula funds prioritized campuses with higher enrollments and schools that were performing at high levels against performance metrics as intended.

Because the formula considered more than 20 measures (which included both aggregate and rate statistics) and because formula inputs were not consistently published, it is difficult to assess which factors drove the relative distribution of formula funds among the campuses. Nevertheless, the formula fundamentally changed how state funding was

TABLE 17  
Share of Formula Funds v. FY 2013 GAA Funding

Community College	Share of FY 2013 GAA	Share of Formula Funds (2014-2016)
Berkshire	3.8%	5.2%
Bristol	6.7%	11.8%
Bunker Hill	8.4%	14.2%
Cape Cod	4.7%	3.6%
Greenfield	3.8%	4.1%
Holyoke	7.7%	5.1%
MassBay	5.7%	7.1%
Massasoit	8.3%	4.1%
Middlesex	8.2%	10.5%
Mount Wachusett	5.3%	5.2%
North Shore	8.5%	4.2%
Northern Essex	7.8%	4.1%
Quinsigamond	6.2%	13.7%
Roxbury	4.7%	2.3%
Springfield Tech	10.1%	5.0%
<b>Total</b>	<b>100%</b>	<b>100%</b>

Source: MTF Budget Database & Massachusetts Comptroller CTHRU

allocated. As **Table 17** shows, three campuses (Bristol, Bunker Hill and Quinsigamond) received between 69 and 119 percent more through the formula than their prior share of state funds, while four campuses (Massasoit, North Shore, Roxbury and Springfield Technical) had formula shares that were less than half of their standard share of funds under the old system.

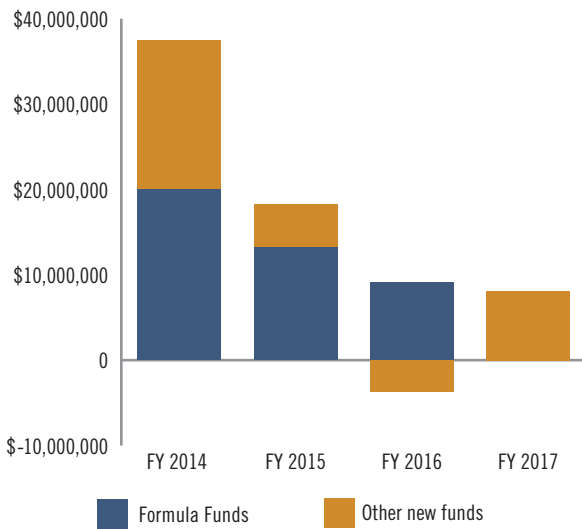
In the brief time the formula was used, 13 campuses got significantly closer to their share of the "full formula" distribution (the theoretical distribution if the formula were used to allocate all funds with no stop loss or hold harmless provisions). Even while ensuring that each campus' state subsidy was held harmless and

using other new funds to support collective bargaining agreements, the \$42.1 million in formula funds was able to move the needle and connect state funding to actual enrollment and performance data.

Ultimately, though, the formula lacked staying power. In each of the three years of usage, the amount of funds dedicated to the formula declined, as did total new funds for community colleges (as shown in **Figure 5**). By FY 2017, the formula was no longer in use.

At the same time the formula was being implemented, the community college system was going through a period of transition, with enrollment declining significantly throughout the system. These system changes negated a lot of the improvements the formula made, and in some case, worsened funding inequities.

**FIGURE 5**  
**New Community College Funds by Type<sup>30</sup>**  
 FY 2014 – FY 2017

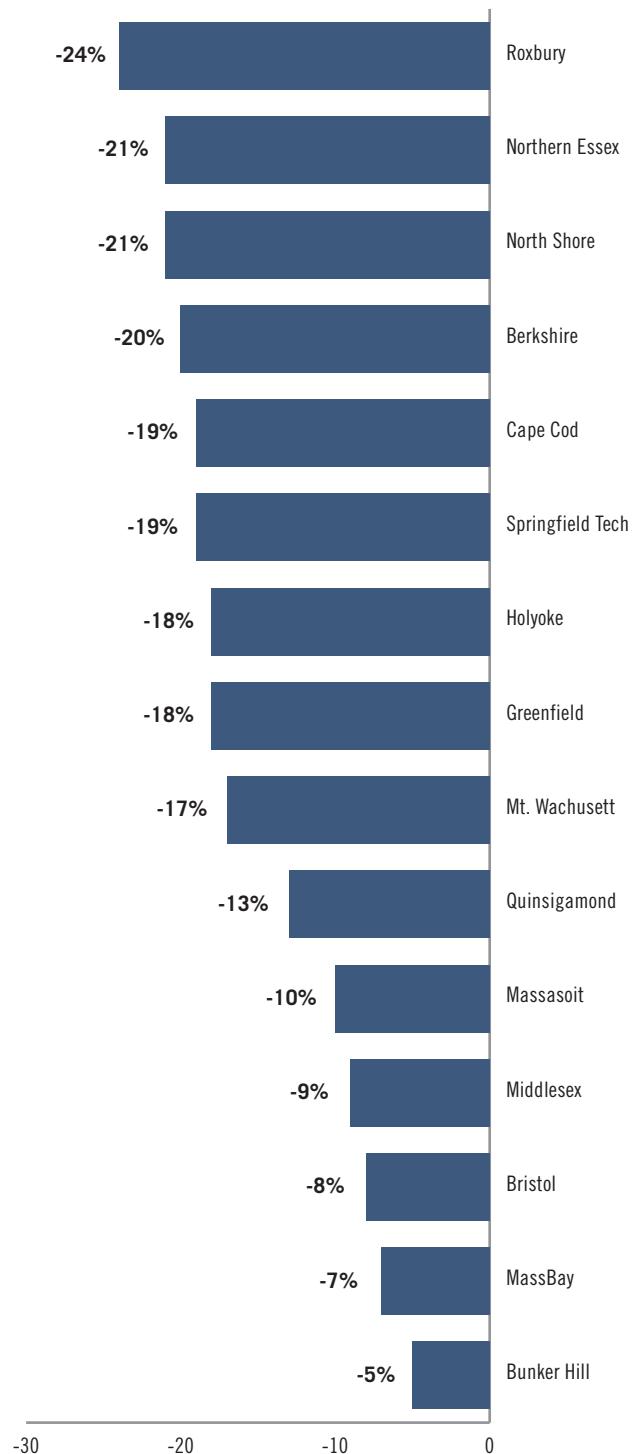


Source: MTF Budget Database

### System Changes

The funding formula was developed during a time of large enrollment increases throughout the community college system; it was implemented as enrollment plummeted. Between FY 2013 and FY 2017, community college enrollment fell by 13.5 percent, in almost a mirror image of the enrollment gains in the years leading up to the formula (see **Figure 6**).

**FIGURE 6**  
**Community College Enrollment Changes**  
 FY 2013 – FY 2017



Source: Massachusetts Department of Higher Education annual unduplicated headcount

As with enrollment growth, these losses were not evenly distributed among the campuses. Eight colleges experienced enrollment declines of 18 percent or more during this time, while four campuses experienced declines of less than 10 percent. These large differences in enrollment decline obscure the positive impact of formula funding.

The effect of enrollment decline among campuses on the efficacy of formula funds can be seen when per-student spending is examined. **Table 18** presents each campus' FY 2013 per-student funding and how that figure compared with the statewide average, and then provides the same information in FY 2017. The dual impact of falling enrollment and holding all campuses harmless can be clearly seen.

Two of the three campuses (Bristol and Bunker Hill) that received the largest share of formula funds also had relatively low levels of enrollment loss. This means that in spite of a larger share of formula funds,

their per-student subsidy actually lost ground when compared with the statewide average. Conversely, several schools that saw a declining share of formula funds also experienced steep enrollment declines. This meant that their per-student funding actually increased significantly. Because the formula was not developed with a minimum per-student funding goal, and because of the hold harmless provision, the per-student funding variance at community colleges grew by more than 50 percent since implementation of formula funding began.

State-by-state data comparing community college systems are not yet available for the period of funding formula implementation, but state-level data show some positive signs in terms of student outcomes. The community college course completion rate grew slightly between FY 2013 and FY 2017 (from 78.4 percent to 79 percent), although growth varies a great deal across campuses. Similarly, the share of community

TABLE 18  
**Community College Funding per Student (FTE)**  
FY 2013 v. FY 2017

Community College	FY 2013 per FTE	Difference from Statewide Average	FY 2017 per FTE	Difference from Statewide Average	Enrollment Change
Statewide average	\$1,546	\$0	\$2,300	\$0	-18,823
Berkshire	\$2,620	\$1,074	\$4,396	\$2,096	-629
Bristol	\$1,209	-\$336	\$1,906	-\$395	-918
Bunker Hill	\$931	-\$615	\$1,416	-\$884	-1,037
Cape Cod	\$1,662	\$116	\$2,514	\$213	-1,171
Greenfield	\$2,565	\$1,019	\$4,089	\$1,789	-572
Holyoke	\$1,787	\$241	\$2,668	\$368	-1,709
MassBay	\$1,476	-\$70	\$2,112	-\$188	-588
Massasoit	\$1,523	-\$23	\$2,016	-\$284	-1,243
Middlesex	\$1,336	-\$210	\$1,971	-\$329	-1,245
Mt. Wachusett	\$1,776	\$230	\$2,762	\$462	-1,106
North Shore	\$1,644	\$98	\$2,461	\$161	-2,292
Northern Essex	\$1,734	\$188	\$2,582	\$282	-2,033
Quinsigamond	\$1,116	-\$430	\$1,984	-\$316	-1,580
Roxbury	\$2,616	\$1,070	\$4,016	\$1,716	-935
Springfield Tech	\$2,271	\$725	\$3,304	\$1,004	-1,765

Source: MTF Budget Database & Massachusetts Department of Higher Education annual unduplicated headcount

college students receiving a degree or certificate per year has grown from 9.8 percent in FY 2013 to 11.8 percent in FY 2017; it is possible, however, that declining enrollment makes direct year-to-year comparisons like this problematic.

## Formula Strengths and Weaknesses

Analysis of the formula in terms of its implementation, impact and staying power is hampered by the complexity of the formula itself; however, it is possible to assess what the formula did well and where it struggled. One of the formula's major strengths was the buy-in it received from the community college system. Instituting a new funding system on a relatively autonomous area of government is not easy. Historically, these efforts are undermined by the entities that benefit from the status quo. Without a corresponding constituency to fight for changes, reforms can be difficult to enact and nearly impossible to implement. The fact that the community college system was able to coalesce around a formula that tied new money to performance and enrollment outcomes is an achievement that should not be understated. Not only was this new formula developed, but, for three years at least, it was the chief mechanism for allocating new funds. This means that the campuses largely lived by the formula they created and did not attempt to undo or mitigate its impact through other funding means. This provides a strong foundation from which to build.

Massachusetts was able to use best practices created in other states to develop a formula that included both enrollment and outcome measures. Connecting funding to actual school drivers (enrollment) while ensuring that campuses were rewarded for achieving outcomes and aligning with system-wide goals created a powerful tool for selling the formula to policy makers and other stakeholders. There is a correlation between enrollment and outcome measures and so the inclusion of both helped create a formula that was fair and provided a clear link to much of the community college research and advocacy that called for state funding to incent system goals.

Formula weaknesses, both in development and implementation, are also clear. Chief among the implementation weaknesses is the difference between how the

formula was developed and how it was used. The funding formula was created as a "full funding" system—a method to distribute the entire state appropriation for community colleges. However, the hold harmless requirement that was ultimately adopted meant that in practice the formula was only used to distribute new funds. This difference is important because the factors used in the formula—such as the \$4.5 million campus operation subsidy and the specific weights provided to each of the variables—were developed in part to minimize the year-to-year disruption a full funding formula would create. The decision to hold all campuses harmless when implementing the formula rendered these elements of the original unnecessary at best and at worst further distorted the distribution of new funds. In effect, the formula was used in a different way than indicated by the purpose for which it was designed, ultimately limiting its ability to make changes and creating some unanticipated consequences.

Secondly, the formula never had measurable implementation goals, such as a minimum level of funding per student or a specific target share of state funding for each campus. This lack of goals made it difficult to galvanize sustained support for implementation. Instead of providing budget makers with the amount of new funds necessary to meet the next formula goal, the formula was retrofitted for however much was appropriated. After three years of implementation, there was no clear way to assess the progress that had been made and the distance left to go. Formula goals are not a guarantee of success, but they are helpful in generating support for new funding and measuring success—two things the community college formula struggled to do.

There was never any guarantee that the community college funding formula would become permanent, but the failure to incorporate the formula into law and a lack of data transparency hurt its chances of survival. It is common that formulas for distributing state aid are put into state law. Putting a formula in statute does not necessarily mean that lawmakers adhere to it (the state budget commonly disregards the statutory formula for the distribution of unrestricted aid to cities and towns), but it does create an expectation that the formula be followed. This statutory reminder of the existence of a

formula is especially helpful when administration or legislative leadership changes.

The formula also suffered from a lack of data transparency. Unlike K–12 funding formulas, detailed information on the inputs used in the formula and how those inputs translated into funding was not made available consistently. Without this type of information it is almost impossible for people interested in community college funding to develop an intuitive understanding of how the formula works and why it is preferable to other funding methods. Contrast this with the state’s K–12 education aid formula (commonly referred as Chapter 70, the relevant chapter of state law) that is publicly available to policy makers, local officials, parents, students or other interested persons. They can see and understand how the formula works in their school district and what formula changes will have the biggest impact. More fundamentally, it is difficult to build strong backing for a permanent funding system that is not understood.



# Next Steps and Recommendations

FY 2019 is likely to mark the third year since the funding formula was last used. In that time, new community college funds have been distributed based on new collective bargaining costs and prior year funding amounts. Still the desire and need to allocate funds based on a formula remains. The Department of Higher Education continues to look into re-implementing a formula that ties new state funds to campus cost drivers and outcome goals, while the adequacy, equity and performance issues that led to the original creation of the formula still persist.

The next step for policy makers must be a recommitment to using a formula to distribute new funds. Whether or not the formula is based on the work done in 2012 and 2013, or is completely new, adherence to a formula based on actual cost drivers and system goals is the best way to equitably and effectively allocate community college funding. Assuming commitment is made, we make the following recommendations:

## Build on Areas of Success

The 2013 formula was created using national expertise and guided by community college system leaders in Massachusetts. That model resulted in a formula that withstood policy scrutiny in terms of its mechanics and still had the support of the 15 community colleges in the state. If a formula is to be successful, it must gain acceptance from the system, and policy makers must be confident that it improves accountability and ties distributed dollars to improved outcomes. The earlier formula accommodated these two goals well and any new formula should do so, too.

## Establish Clear Goals

A community college formula must be designed in furtherance of a measurable funding outcome. One option is to establish a minimum level of state support per student (adjusted for appropriate cost differences)

that applies to all campuses. Another option would be to provide each campus with a “target share” of state funding and to prioritize new funds to campuses receiving less than their target share. From year to year, these goals help to define and contextualize funding requests; budget makers can know how a funding increase translates to achieving or maintaining formula goals. Over time, these goals can help determine whether the system has lived up to its formula commitments or not.

## Be Realistic in Designing the Formula

It is unlikely that any formula will be faithfully implemented if it does not hold campuses harmless at prior-year aid levels for at least some transitional period. Therefore, the formula should be designed in a manner that is consistent with the hold harmless approach. In FY 2014, a full funding formula was used only to allocate marginal increases, causing allocation distortions. Knowing that the formula is going to be used only for new funds will inform what variables are used and how they work together to meet funding goals.

Secondly, the new formula should account for collective bargaining (CBA) cost increases. The original funding formula report recommended that new CBA costs be included in campuses’ base appropriation, but did not include new CBA costs as a part of the formula. Therefore, in practice, state funds to support new CBA costs had to compete with formula funds for the same pool of money. In fact, in FY 2016 prior year CBA funding was reduced by \$3.6 million while formula funding was increased by \$9 million. The formula should not work at cross purposes with efforts to fund CBAs.

## Put the Formula in State Law

Several different K–12 funding formulas provide a template for how a community college funding formula can become part of the annual fabric of the budget. Whether for general school aid, special education

costs, charter school reimbursements or regional transportation obligations, each funding formula is a part of state law that remains in place even as policy leaders and the fiscal environment changes. A statutory formula, which is subject to periodic review and amendment, is not a silver bullet for creating permanence, but it does indicate an ongoing commitment to adhere to the law's requirements.

## **Make It Accessible and Make It Simple**

At a minimum, the formula calculation for each campus, including enrollment and performance inputs, should be made publicly available each year so that those interested can understand the formula and its effect on different colleges.

The formula should be as simple as possible. Each formula variable and weight comes at the expense of clarity and the less a formula is understood, the less likely it is to garner strong support. K-12 formulas provide a helpful roadmap for how complex funding systems can be distilled into relatively simple formula models. That roadmap should help guide the community college funding formula.

Community colleges serve a unique and vital role in public education, workforce development and economic growth. In spite of the clear importance of community colleges, state support has long been distributed without much regard for system outcomes, equity or funding adequacy. The implementation of a community college funding formula in 2013 was a landmark effort to improve the state funding and incent positive system outcomes. While that formula had flaws, it proved that it was possible to generate system-wide support for an enrollment and outcome based distribution system. It also proved that real funding progress could be made in a relatively short period of time. The importance of the community college system and the need for a rational funding formula are no less compelling now than they were in 2013. By retaining the strengths of the earlier formula and learning lessons from its implementation, Massachusetts can help to improve system outcomes, accountability and affordability.



# Endnotes

1. Reports include *Time to Lead* (Department of Higher Education Vision Project), *Mismatch in the Labor Market: Measuring the Supply of and Demand for Skilled Labor in New England* (Federal Reserve Bank of Boston) and *The Case for Community Colleges: Aligning Higher Education and Workforce Needs in Massachusetts* (the Boston Foundation). All are cited later in this report.
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27. The six Vision Project goals are: college participation, college completion, student learning, workforce alignment, closing achievement gaps, and preparing citizens.
28. The GAA refers to the General Appropriations Act or the FY 2013 budget as signed by the Governor and following any veto overrides.
29. In FY 2016, the state budget broke out \$900K in support for the Reggie Lewis Track Center at Roxbury Community College into a separate line item. To make comparisons to prior year funding, the new line item is included.
30. In FY 2016, campuses received \$8.9 million in new formula funds, but had prior year CBA funding of \$3.6 million cut from their appropriations. FY 2017 does not reflect any formula funds because no funds were distributed through the original formula.



