Investing in Community Colleges of the Commonwealth: A Review of Funding Streams

June 2011

Final Report 1.2
Investing in Community Colleges of the Commonwealth: A Review of Funding Streams

Submitted to:
Massachusetts Legislature

June 2011

Final Report 1.2

Prepared by:
Public Consulting Group and the Mosakowski Institute for Public Enterprise

Primary Authors:
Michelle LaPointe, Ph.D.
Elizabeth Chmielewski
# TABLE OF CONTENTS

**Executive Summary** .......................................................................................................................... iii

- Funding for Community Colleges in Massachusetts ......................................................................... iv
- Funding for Community Colleges Across the Nation ........................................................................... v
- Implications for Policymakers ............................................................................................................. vii

**I. Introduction** .................................................................................................................................... 1

- Project Overview ................................................................................................................................. 1
- Project Context ...................................................................................................................................... 2
- Description of Study ............................................................................................................................. 3

**II. Funding System for Community Colleges in Massachusetts** ......................................................... 5

- Appropriations from the Commonwealth ............................................................................................ 6
- Other Sources of Revenue .................................................................................................................... 8
- Factors that Drive Expenses ................................................................................................................. 9
- Considerations ...................................................................................................................................... 16

**III. Funding for Community Colleges Across the Nation** .................................................................... 18

- Comparison States .............................................................................................................................. 19
- Support for Innovative State Policies .................................................................................................. 23
- Considerations ...................................................................................................................................... 26

**IV. Conclusion: Policy Implications and Issues to Consider** ............................................................... 29

- Additional Information for Actionable Decisions .............................................................................. 30

**V. Works Cited** ................................................................................................................................... 32

**VI. Appendix A. Description of Study** ............................................................................................... 37

- Methods ............................................................................................................................................... 37
- Limitations and Implications for Further Research ............................................................................. 40

**VII. Appendix B. Supplemental Material** .......................................................................................... 41

- Community College Profiles ................................................................................................................ 41

**VIII. Appendix C. Glossary** .................................................................................................................. 51
LIST OF TABLES

Table 1. Data Sources for Investing in Community Colleges of the Commonwealth: A Review of Funding Streams ................................................................. 3
Table 2. State Appropriation of Funds for Massachusetts Community Colleges in Fiscal Years 2008, 2009, and 2010 ......................................................................................... 7
Table 3. Full-Time Equivalent (FTE) Students and Annual Headcount for Massachusetts Community Colleges in Fiscal Years 2009 and 2010 ......................................................... 10
Table 4. FTE Appropriations for Massachusetts Community Colleges in Fiscal Years 2009 and 2010 ......................................................................................... 12
Table 5. Comparison State Data for Community Colleges ................................................................................. 19
Table A1. Data Sources for Investing in Community Colleges of the Commonwealth: A Review of Funding Streams ......................................................................... 37
Table C1. Glossary for Investing in Community Colleges of the Commonwealth: A Review of Funding Streams ......................................................................... 51

LIST OF FIGURES

Figure A. Combined Sources of Revenue for Massachusetts Community Colleges in Fiscal Year 2010 ......................................................................................... iv
Figure B. Community College Funding Sources by State in Fiscal Year 2008 ......................................................... vi
Figure 1. State Appropriation of Funds for Massachusetts Community Colleges in Fiscal Years 2008, 2009, and 2010 ................................................................................. 8
Figure 2. Combined Sources of Revenue for Massachusetts Community Colleges in Fiscal Year 2010 ......................................................................................... 9
Figure 3. Full-Time Equivalent (FTE) Students and Annual Headcount for Massachusetts Community Colleges in Fiscal Years 2009 and 2010 ......................................................... 11
Figure 4. Full-Time Equivalent (FTE) Students, Headcount, and Appropriations per FTE for Massachusetts Community Colleges in Fiscal Years 2009 and 2010 ................................................................................. 13
Figure 5. Community College Funding Sources: National Averages ................................................................................. 18
Figure 6. Comparison State Data for Community Colleges ................................................................................. 20
Figure 7. Community College Funding Sources by State in Fiscal Year 2008 ......................................................... 21
EXECUTIVE SUMMARY

Community colleges play a pivotal role in Massachusetts’ higher education system. They award associate’s degrees, offer an affordable pathway to a bachelor’s degree, and provide access to higher education for underserved populations. Community colleges also offer workforce development and industry certification for those entering the world of work, those who are currently employed but need more training or retraining, and those who have been dislocated from their careers by the global economic crisis. To increase access to both college credits and improved work skills, community colleges provide remedial or developmental education to ensure all students can pursue a program of study (Dougherty & Townsend, 2006; Mullin, 2010b).

Given their unique, multifaceted role in higher education, the demand for community college services has increased in recent years (Lassen, 2007).

- Community colleges serve 52% of students in the public higher education system in Massachusetts (Massachusetts Department of Higher Education, 2009).
- Overall, there was a 12% increase in enrollment from 2009 to 2010 in the Massachusetts community college system (Massachusetts Department of Higher Education).
- Some colleges have experienced higher increases, such as Bunker Hill Community College which has seen its enrollment increase by 98% in the past 10 years (Bunker Hill Community College).

Although community colleges serve over half of the undergraduates in the public higher education system, they receive only 27% of the Commonwealth’s appropriations to higher education and this funding has remained flat despite dramatic increases in enrollment (Massachusetts Department of Higher Education).

The role and status of community colleges has been a topic of increased interest to the Massachusetts Legislature. With this in mind, Clark University’s Mosakowski Institute for Public Enterprise and Public Consulting Group investigated the following questions:

- What are the funding streams that support community colleges in Massachusetts? Specifically, what level of state support does each of the 15 colleges receive? What is the basis for the support that each college receives?
- How does this funding compare to other states? In particular, how does this compare to states where the community colleges have better outcomes for students (e.g., higher completion rates)?

The study was undertaken to investigate the hypothesis that while community colleges in Massachusetts provide valued services with a good return on investment, their place in the education system and the workforce development system may be often overlooked and under-supported.
Funding for Community Colleges in Massachusetts

Massachusetts has a highly decentralized community college system. Each of the 15 colleges has considerable autonomy, including its own line item in the Commonwealth’s budget and the ability to charge fees to augment the tuition rate set by the Board of Higher Education. The decentralized nature of the community college system is reflective of the extent to which the colleges are very different from one another:

- Colleges are located in urban, suburban, and rural areas.
- The size varies from a headcount of close to 3,000 students (Berkshire and Greenfield) to over 16,000 (Bunker Hill) (Massachusetts Department of Higher Education).
- State appropriations range from less than $10 million (Berkshire and Greenfield) to nearly $25 million (Springfield Technical Community College) (Massachusetts Department of Higher Education).

State appropriations represent a major source of funding for community college operating budgets, but also present a challenge:

- Massachusetts does not currently use a funding formula to determine allocations to each college. Appropriations are based on historical record and may adjust annually depending on the fiscal condition of the Commonwealth.
- Because a funding formula is not presently employed, it is difficult for community colleges to plan for and absorb cost increases as the colleges evolve to serve the changing needs of their communities. It is also difficult for taxpayers to understand their investment in the community college system.

Figure A. Combined Sources of Revenue for Massachusetts Community Colleges in Fiscal Year 2010

Source: Compiled by authors with data from the Massachusetts Department of Higher Education.
In addition to state appropriations, the other primary source of funding for community college operating budgets is **tuition and fees**. Community colleges have other revenue sources, but these are very small percentages of their budgets. **Grants and contracts** represent a significant proportion of revenues, but are not used to support operating expenses. This funding is used for innovation, for new programming, and to facilitate partnerships between the community college and business community.

Effective community colleges must evolve to meet the ever-changing demands of the communities they serve. Expenditures at community colleges are therefore dynamic and rising. Increases are driven by three factors:

1. **Increased enrollment**—Demand for more classes requires more instructors. Personnel costs, the largest portion of many organizations’ budgets, are increasing at community colleges.

2. **Staying responsive to the needs of a diverse student body**—Community colleges must find ways to continually upgrade programs to meet industry-standards, help students gain foundational skills necessary for success at the college level, and provide services for students with disabilities.

3. **Facilities costs**—The need for additional space has required creative solutions and increased wear and tear has degraded the physical campus and led to increased capital expenditures.

Despite the creative ways that community colleges are addressing the challenge of increasing enrollment, diverse populations, and facilities costs, and because the Commonwealth has limited resources for state appropriations, community colleges are increasingly **relying on tuition and fees to balance their budgets**. This is contrary to the system’s overall goal of providing equity in access to higher education, as increased costs are passed on to those who can least afford them. An administrator at a community college with dramatically expanding enrollment complained: “As my students pay the additional costs to attend, they are subsidizing the cost to attend [other campuses] who get the higher state appropriation.” Ultimately, **passing the financial burden to students may negatively impact the ability of the community college system to carry out its mission of being a gateway to stable employment and higher education**.

**Funding for Community Colleges Across the Nation**

Across the nation, community colleges rely on state appropriations. Thirty-two states have a funding formula to determine allocations, but less than half of those states have fully implemented their formula (Katsinas et al, 2008). **The Massachusetts Department of Higher Education has a formula, but it has not been enacted into law and is not fully funded.** Although community colleges rely heavily on state appropriations, funding for community colleges is a small percentage of any state’s expenditures. In 2010, across all 50 states, the average appropriations equaled 1.08% of total state expenditures. The
The lowest was Alaska (0.03%); the highest was Washington (2.2%); and Massachusetts spent 0.7% of its budget on community colleges (Choitz, 2010).

![Community College Funding Sources by State in Fiscal Year 2008](image)

Figure B. Community College Funding Sources by State in Fiscal Year 2008

Source: Compiled by authors with data from Choitz, 2010.

A review of states comparable to Massachusetts revealed many examples of how other states supported their community colleges in fiscal year 2008 (Choitz, 2010):

- In Connecticut, community colleges received 52% of revenues from state and local government. Connecticut does not have a funding formula.
- In New Jersey, community college received 32% of revenues from state appropriations. New Jersey has a partially funded formula.
- In Ohio, community colleges received 38% of revenues from state and local government. The state funds its community college system in a number of different ways—some are funded entirely through state appropriations and tuitions, while others are also in part locally funded. Ohio is implementing a performance funding system that bases its allocation on student progression toward completion and institutional goal attainment.
- In Virginia, community colleges received 46% of revenues from state and local government. Virginia has a partially funded formula.

* In order to draw comparisons among the six states, the FY 2008 data represented here were drawn from the federal IPEDs data rather than the data collected by the Massachusetts Department of Higher Education that are represented in Figure A. Funding categories as reported by IPEDS were different from those catalogued by the Department of Higher Education, which accounts for the divergence between State and Local Government (Figure B) and Appropriations from MA (Figure A).
• In Washington, community colleges received 41% of revenues from state and local government. The state has a low percentage of revenue generated from net tuition, which indicates that its community college system has effectively kept tuition rates down in order to maintain overall access to its system. To encourage institutions to improve student degree completion rates and time to earn a degree, Washington has implemented a performance incentive system.

Implications for Policymakers
This report highlights the existing funding system for community colleges in Massachusetts and offers examples of how other states fund their programs. Several prominent issues are discussed, but they all relate to equity and transparency of funding across the decentralized community college system.

In Massachusetts, appropriations are based on an historical artifact rather than current criteria related to the services provided and the students served. These annual appropriations do not take into account current costs or increases in enrollment, which has led to disparity in funding across the system. In particular, the Commonwealth may want to investigate the three factors that appear to drive up costs at community colleges: increased enrollments; meeting the needs of a diverse student population; and facilities costs.

There are a variety of ways to address funding transparency and equity, including:

1. Creating a funding formula.
2. Funding based on performance to encourage effective and innovative practices.
3. Creating a minimum foundation payment per FTE.

Each of these options has potential benefits. One community college president pointed out: “If you look at the campuses that are below $3,000 per FTE, it would cost the Commonwealth $13.7M to level the playing field if they added that to the state higher education budget this year.”

The Commonwealth can also consider other solutions that would have a negligible impact on cost. These include:

• Providing more local autonomy to community colleges (e.g., leasing authority).
• Continuing to support collaboration among the Commonwealth’s community colleges.
• Creating incentives for organizations to partner with their local community colleges.
• Joining cross-state efforts to share best practices.

By many measures, the Massachusetts community college system is a sound investment. State lawmakers have a vested interest in ensuring that it is protected through adequate funding, transparency around funding allocations, and creative strategies to promote the system’s ongoing success.
I. INTRODUCTION

Project Overview

Community colleges play a pivotal role in higher education. A major goal of the community college system is to provide equity in access to higher education, and across the country 40% of students at community colleges are the first generation in their families to attend college (National Center for Education Statistics, 2010). Community colleges award associate’s degrees and provide an affordable pathway to a bachelor’s degree. Equally important, they offer workforce development and industry certification for those entering the world of work, those who are currently employed but need more training or retraining, and those who have been dislocated from their careers by the global economic crisis. To increase access to both college credits and improved work skills, community colleges also provide remedial or developmental education to ensure all students can pursue a program of study (Dougherty & Townsend, 2006; Mullin, 2010b).

In Massachusetts, each community college is expected to provide all of these services, but because of the local autonomy in the system, each college translates this multifaceted mission slightly differently. Noting the specific mission of an individual community college is important because mission definitions influence programmatic decisions (Dougherty & Townsend, 2006). Community colleges in Massachusetts have a broad mission which translates into a wide array of programs.

The role and status of community colleges, as well as their capacity to improve access to education and to help build a skilled workforce in the Commonwealth, has been of increased interest to the Massachusetts Legislature. With this in mind, Clark University’s Mosakowski Institute for Public Enterprise and Public Consulting Group investigated the following questions:

- What are the funding streams that support community colleges in Massachusetts? Specifically, what level of state support does each of the 15 colleges receive? What is the basis for the support that each college receives?
- How does this funding compare to other states? In particular, how does this compare to states where the community colleges have better outcomes for students (e.g., higher completion rates)?

This report provides and analyzes data from each of the 15 community colleges in Massachusetts and five comparison states. In addition, the report also profiles three Massachusetts community colleges to fill in gaps in the data and to provide examples of how community colleges in the Commonwealth have found creative solutions to help them achieve their mission. While this report does not evaluate the quality or performance of any community college program, it does review the factors that impact revenue and costs.

The colleges profiled are Bunker Hill Community College, Middlesex Community College, and Quinsigamond Community College. The comparison states include: Connecticut, New Jersey, Ohio, Virginia, and Washington.
Project Context

Although rarely in the spotlight, community college services are in high demand. This may be due to the broad mission of Massachusetts’ community colleges. More students in the Commonwealth’s public higher education system attend one of the 15 community college campuses than the University of Massachusetts system or the State University system. During the 2009–2010 school year, 52% of all undergraduate students in Massachusetts who were enrolled at institutions of public higher education were attending community colleges (Massachusetts Board of Higher Education, 2009).

Perhaps because of both the steep cost of four-year degree programs and the need for laid-off workers to train for new careers, Massachusetts’ community colleges are increasingly popular (Lassen, 2007). In the words of the President of Quinsigamond Community College: “We have been growing through this tough economy. We are seeing more students coming to us because they are using us as a springboard to get to the baccalaureate more affordably. Also, they are looking for the job skills in order to become more employable in a tough economy” (Focus Group, March 8, 2011). In fact, there was a 10% increase in enrollment from 2008 to 2009 in the Massachusetts community college system and approximately 12% from 2009 to 2010 (Bradley, 2010; Massachusetts Board of Higher Education). The community college system’s increase in popularity is further confirmed by Bunker Hill Community College, which is holding classes at midnight to meet the nearly 100% increase in demand for their courses since 2000 (Brogadir, 2009). While initially two classes were held at midnight in the fall of 2009, continued enrollment growth induced Bunker Hill to offer five midnight classes in the fall of 2010 (Bunker Hill Community College, 2010). These numbers are echoed in reports from states across the nation where community college students make up nearly half of all undergraduates. These rates appear to be continuously increasing, as opposed to flattening out or declining (Bueschel, 2009).

Despite the increased demand for services at community colleges, nationally they receive less than one-third of total federal, state, and local funding for higher education (Mullin, 2010a). Of three sources of government funding, the largest percent comes from state appropriations.† On average, community colleges receive 20% of the total state appropriations to higher education (Massachusetts Board of Higher Education, 2009; Mullin, 2010a). In Massachusetts, the community colleges receive 27% of the Commonwealth’s appropriations to higher education (Massachusetts Board of Higher Education, 2009).

Given their role in workforce development and improving access to college for disadvantaged students, it may well be that the return on investment for community colleges is higher than for other types of higher education institutions, since they provide a pathway to more skilled work and greater earning potential than just a high school diploma does. Nationally, return on federal investments in community colleges is around $4.62 for each dollar spent (Eyster, 2010). Return on investment includes increased tax revenue for the federal government based on the higher earnings of community college graduates.

---

* Calculations of author using data included in this presentation for the Fall 2009 headcount (state universities, state colleges, community colleges). The Fall 2009 headcount for the entire system (state universities, state colleges, community colleges) was estimated to be 188,568. Of these students, 98,531 were enrolled in a community college. See: http://www.mass.edu/library/documents/2009EarlyEnrollmentReport.ppt.
† Refer to Appendix C. Glossary for a definition of state appropriations and other key terms.
The enhanced earning potential of community college students is demonstrated by the fact that 27% of people with post-secondary licenses or certificates—credentials short of an associate’s degree—earn more than the average bachelor’s degree recipient (Harvard Graduate School of Education, 2011).

Given this general context, this study was undertaken to investigate the hypothesis that while community colleges in Massachusetts provide valued services with a good return on investment, their place in the education system and the workforce development system may be often overlooked and under-supported.

**Description of Study**

As noted earlier, the study was guided by the following research questions:

- What are the funding streams that support community colleges in Massachusetts? Specifically, what level of state support does each of the 15 colleges receive? What is the basis for the support that each college receives?
- How does this funding compare to other states? In particular, how does this compare to states where the community colleges have better outcomes for students (e.g., higher completion rates)?

To answer these questions, the research team compiled data on community colleges in Massachusetts and the community college systems in other states, as well as collected reports and documentation from the three colleges profiled and state higher education officials. We also conducted focus groups with administrators at Bunker Hill Community College, Middlesex Community College, and Quinsigamond Community College. Focus group participants included the president of the college (or her designee in one case), the chief financial officer, a manager of the grants office, and, in some cases, included program administrators. Finally, we conducted interviews and held conversations with higher education officials at state agencies to clarify the sources of data and the reporting metrics. The data sources are summarized in Table 1.

<table>
<thead>
<tr>
<th>Table 1. Data Sources for Investing in Community Colleges of the Commonwealth: A Review of Funding Streams</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Quantitative data</strong></td>
</tr>
<tr>
<td>• Massachusetts Department of Higher Education data</td>
</tr>
<tr>
<td>• Integrated Postsecondary Education Data System (National Center for Education Statistics)</td>
</tr>
<tr>
<td><strong>Qualitative data</strong></td>
</tr>
<tr>
<td>• Focus groups with community college officials</td>
</tr>
<tr>
<td>• Interviews with officials at the Massachusetts Department of Higher Education</td>
</tr>
<tr>
<td>• Discussions with researchers at boards of higher education in comparison states (as necessary)</td>
</tr>
<tr>
<td><strong>Documents</strong></td>
</tr>
<tr>
<td>• Financial audit reports for each of the three community colleges</td>
</tr>
<tr>
<td>• Various reports on community college systems nationally and in other states</td>
</tr>
</tbody>
</table>

* A detailed description of the study methods may be found as part of Appendix A.  
† Profiles of the three community colleges are in Appendix B.
Parameters of the Study

This study offers a snapshot of funding information for community colleges in Massachusetts and examples of how similar states support their community colleges. It does not analyze or report performance measures for the individual colleges nor does it provide cost-benefit information about their programs. It is not intended to single out particular colleges except to provide further explication of issues through the use of illustrative data related to funding and budgeting decisions at community colleges in the Commonwealth. This report does not assess the performance of any of the Commonwealth’s community colleges.

This report is organized into four sections: this introduction; a description of the funding of the community college system in Massachusetts; comparisons to other states; and implications for policy. While this report is limited in its scope, we expect it will generate additional questions and topics for discussion to further understand how the Commonwealth of Massachusetts can support the important mission of its community college system.
II. FUNDING SYSTEM FOR COMMUNITY COLLEGES IN MASSACHUSETTS

What are the funding streams that support community colleges in Massachusetts? Specifically, what level of state support does each of the 15 colleges receive? What is the basis for the support that each college receives?

To answer these questions, we reviewed both federal and state data sources. In the case of three community colleges, we also reviewed audited financial statements. We validated this information through conversations with officials at those three colleges and with officials at the Massachusetts Department of Higher Education.

Massachusetts does not have a centralized community college system. Each of the 15 colleges has considerable autonomy. To illustrate, each college has a line item in the Commonwealth’s budget. Further, while the Board of Higher Education sets a state tuition level (presently $24 per credit) that must be remitted by the college to the Commonwealth’s General Fund,* each college has the ability to charge additional fees and retain fee revenues for operating expenses. For example, a student at Bunker Hill pays the state tuition level plus a fee established by the college, so that the total cost to a student is $131 per credit, plus any additional fees associated with certain courses or program areas (e.g., lab fees, technology fees).

In Massachusetts, community colleges’ appropriations from the Commonwealth are based on the funding level established when the college was incorporated. Each year appropriations increase or decrease by a percentage depending on the prevailing fiscal environment and political climate. Increases (or decreases) are not based on the enrollment at the community college, the needs of enrolled students, the age of facilities, or any other factors. The absence of any stated criteria for determining appropriations makes it difficult for the community colleges to plan for and absorb cost increases as the colleges evolve to serve the changing needs of their communities. It is also difficult for taxpayers to understand their investment in the community college system.

The primary sources of funding for core programs at community colleges are state appropriations and tuition and fees. Community colleges have other revenue sources including grants and contracts, auxiliary operations, and donations to their foundations, but these revenues do not cover operating costs. Auxiliary operations and donations are very small percentages of the overall revenue and foundation funding is often used for scholarships. Again, the operating budgets are dependent on state appropriations and tuition and fees. The state appropriations are legally unencumbered, but the Commonwealth expects the funds to cover the salaries of full-time, core staff and instructors. Tuition and fees refer to money paid by students, including any outside grants or scholarships that the student has received. For example, Pell Grants are awarded to students who rely upon this financial resource to pay their tuition and are usually classified as tuition and fees, since they are part of the payments by students.

* Community colleges are required to remit tuition for all day courses.
Although grants and contracts can represent a significant portion of revenues, these sources do not support operating expenses and are not an essential (or dependable) source of revenue. Administrators at several community colleges indicated that these funds are, “A dollar in, a dollar out.” At Quinsigamond, one administrator said: “It’s one-to-one. We get a dollar and it’s appropriately targeted. Really where we are struggling is how to balance the operating budget with unrestricted revenues” (Focus Group, March 8, 2011). Contracts and grants are often tied to specific initiatives or projects. Contracts are generally for specific services (paid either by a local employer or a workforce development agency) and not available to support the general student population. Instead, contracts can facilitate relationship-building between the community college and business community, as well as support the workforce needs of the state. Grants are similarly targeted, as their use has often been predetermined as a condition for securing the funding. Grant funding can provide incentives to implement a new program that aligns the colleges’ work with the policy goals of a federal or state agency or a private foundation’s mission. While contracts and grants support the goals of the college, business community, and state, they do not support operating expenses.

Community college administrators recognize that in some cases grants fund new strategies or leverage existing resources to meet broader college needs. In the words of community college administrators:

We pursue grants to fund projects that help promote the college’s mission and goals. (Bunker Hill Community College administrator, Focus Group, March 7, 2011).

The key word is leverage. The grants give us the opportunity to leverage services in a rich fabric that wouldn’t otherwise be available. This grant will let us do this, this, and that. And we can do this over there and this over there. The challenge is: how do we weave them together to build a stronger program for everyone? (Middlesex Community College administrator, Focus Group, March 3, 2011).

Community colleges rely on a variety of funding sources to implement their mission. This section of the report provides an overview of the level of funding and the funding sources available to each of the community colleges in Massachusetts. It also explores some of the issues that drive expenses.

**Appropriations from the Commonwealth**

Across the 15 community colleges in the Commonwealth, Massachusetts has appropriated about $243 million each year for fiscal years 2008 through 2010. There is considerable variation across the colleges, with Springfield Technical Community College receiving almost $25 million per year and Berkshire and Greenfield Community Colleges receiving less than $10 million each per year. The average annual appropriation to a community college for fiscal years 2008 through 2010 was approximately $16

---

* These statistics were adjusted by the Massachusetts Department of Higher Education to include any collective bargaining increases, 9C reductions (the governor’s across the board cuts), and the allocation of ARRA funds. A substantial amount of ARRA funding was made available to community colleges in FY 2010 so that funding levels were comparable to FY 2009 levels. Fringe benefits and tuition remitted are not reflected in these statistics. The fringe benefit rate changes on an annual basis; for FY 2010 the rate was 27.8% and for FY 2011 the rate is 33.73%.
million each year. Table 2 shows the state appropriations for each school in the past three years (the same data are shown in Figure 1, sorted by FY 2010 appropriations).

Table 2. State Appropriation of Funds for Massachusetts Community Colleges in Fiscal Years 2008, 2009, and 2010

<table>
<thead>
<tr>
<th>College</th>
<th>FY2008</th>
<th>FY2009</th>
<th>FY2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Berkshire Community College</td>
<td>$9,160,939</td>
<td>$9,383,215</td>
<td>$9,383,215</td>
</tr>
<tr>
<td>Bristol Community College</td>
<td>$15,836,831</td>
<td>$16,176,392</td>
<td>$16,176,392</td>
</tr>
<tr>
<td>Bunker Hill Community College</td>
<td>$20,522,309</td>
<td>$20,878,500</td>
<td>$20,878,500</td>
</tr>
<tr>
<td>Cape Cod Community College</td>
<td>$11,331,173</td>
<td>$11,570,597</td>
<td>$11,570,597</td>
</tr>
<tr>
<td>Greenfield Community College</td>
<td>$9,112,007</td>
<td>$9,221,641</td>
<td>$9,221,641</td>
</tr>
<tr>
<td>Holyoke Community College</td>
<td>$18,302,808</td>
<td>$18,751,285</td>
<td>$18,751,285</td>
</tr>
<tr>
<td>Massachusetts Bay Community College</td>
<td>$13,911,783</td>
<td>$14,043,486</td>
<td>$14,043,486</td>
</tr>
<tr>
<td>Massasoit Community College</td>
<td>$20,010,940</td>
<td>$20,345,926</td>
<td>$20,345,926</td>
</tr>
<tr>
<td>Middlesex Community College</td>
<td>$19,759,003</td>
<td>$20,078,979</td>
<td>$20,078,979</td>
</tr>
<tr>
<td>Mt. Wachusett Community College</td>
<td>$12,428,684</td>
<td>$12,834,946</td>
<td>$12,834,946</td>
</tr>
<tr>
<td>Northern Essex Community College</td>
<td>$18,825,660</td>
<td>$19,164,450</td>
<td>$19,164,450</td>
</tr>
<tr>
<td>North Shore Community College</td>
<td>$20,347,280</td>
<td>$20,602,945</td>
<td>$20,602,945</td>
</tr>
<tr>
<td>Quinsigamond Community College</td>
<td>$15,077,461</td>
<td>$15,234,960</td>
<td>$15,234,960</td>
</tr>
<tr>
<td>Roxbury Community College</td>
<td>$11,191,211</td>
<td>$11,371,250</td>
<td>$11,371,250</td>
</tr>
<tr>
<td>Springfield Technical Community College</td>
<td>$24,367,621</td>
<td>$24,696,595</td>
<td>$24,696,595</td>
</tr>
<tr>
<td><strong>Average Appropriation</strong></td>
<td><strong>$16,012,381</strong></td>
<td><strong>$16,290,344</strong></td>
<td><strong>$16,290,344</strong></td>
</tr>
<tr>
<td><strong>Annual Total</strong></td>
<td><strong>$240,185,710</strong></td>
<td><strong>$244,355,167</strong></td>
<td><strong>$244,355,167</strong></td>
</tr>
</tbody>
</table>

*Source: Compiled by authors with data from the Massachusetts Department of Higher Education.*

† After removing the outliers, the average is not much larger ($16.5 million).
Other Sources of Revenue

Although the focus of this report is on state support, it is important to note the other sources of funding used to support community colleges. Of these other sources, grants and contracts accounted for the largest components in fiscal year 2010, providing an average of $16.5 million in revenue for each college. Here, too, the amount each school received varied considerably, from a high of $28.2 million for Bristol Community College to a low of $5.8 million for Greenfield Community College. Net tuition and fee revenue* represented the next largest source of funds, averaging $12.8 million, with a high of $21.5 million at Middlesex to a low of $3.9 million at Roxbury. Understandably, the schools with the largest enrollments also generate the largest amount of funding through tuition and fees. Figure 2 shows the revenue that each community college received in state appropriations, tuition and fees, grants and contracts, and other operations.

* Net tuition and fee revenue includes gross tuition and fee revenues less scholarship allowances. Gross tuition and fee revenues include tuition revenues that the community college must remit (in accord with the tuition levels set by the Board of Higher Education) to the Commonwealth’s General Fund.
Factors that Drive Expenses

Several factors, determined primarily through interviews with officials at the three focus community colleges, appear to drive expenses at community colleges. These include enrollment, the needs of students, and capital expenses.

Community College Enrollment

Enrollment drives many of the costs at community colleges. When numbers of students increase, the college requires additional staff, which increases personnel costs. There are also pressures on facilities—both in terms of wear and tear and space needed for additional classes. Enrollment across Massachusetts’ community colleges varies dramatically. The smallest community college has about 1,500 full time students (FTEs or full-time equivalents). Of the three smallest colleges, two are rural and one is urban. The community college with the largest enrollment, Bunker Hill, has roughly eight times as many students as its smaller counterpart—and, according to administrators there, the enrollment expanded 98% between FY 2001 and FY 2011, from 6,386 to 12,658 (Bunker Hill Community College Student Information System). Across the Commonwealth, Annual FTE increased approximately 12% from 2009 to 2010.
Another measure of the size of the population served by a community college is the Annual Headcount, or the tally of all students (full-time and part-time). This can be a good measure of the utilization rate of the facility since many students sign up for just one or two courses per year. The Annual Headcount also shows steady increases in the numbers of students choosing to attend community colleges across the state. From 2009 to 2010, the overall Annual Headcount increased nearly 8%.

Table 3 illustrates the FTE students and Annual Headcount for Massachusetts community colleges in fiscal years 2009 and 2010—both of which increased across the community college system (the same data are shown in Figure 3, sorted by FY 2010 headcount).

<table>
<thead>
<tr>
<th>Table 3. Full-Time Equivalent (FTE) Students and Annual Headcount for Massachusetts Community Colleges in Fiscal Years 2009 and 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FY09 Enrollment</strong></td>
</tr>
<tr>
<td><strong>FTE</strong></td>
</tr>
<tr>
<td>Berkshire Community College</td>
</tr>
<tr>
<td>Bristol Community College</td>
</tr>
<tr>
<td>Bunker Hill Community College</td>
</tr>
<tr>
<td>Cape Cod Community College</td>
</tr>
<tr>
<td>Greenfield Community College</td>
</tr>
<tr>
<td>Holyoke Community College</td>
</tr>
<tr>
<td>Massachusetts Bay Community College</td>
</tr>
<tr>
<td>Massasoit Community College</td>
</tr>
<tr>
<td>Middlesex Community College</td>
</tr>
<tr>
<td>Mt. Wachusett Community College</td>
</tr>
<tr>
<td>North Shore Community College</td>
</tr>
<tr>
<td>Northern Essex Community College</td>
</tr>
<tr>
<td>Quinsigamond Community College</td>
</tr>
<tr>
<td>Roxbury Community College</td>
</tr>
<tr>
<td>Springfield Technical Community College</td>
</tr>
<tr>
<td><strong>Average</strong></td>
</tr>
<tr>
<td><strong>Total</strong></td>
</tr>
</tbody>
</table>

*Source: Compiled by authors with data from the Massachusetts Department of Higher Education.*
Figure 3. Full-Time Equivalent (FTE) Students and Annual Headcount for Massachusetts Community Colleges in Fiscal Years 2009 and 2010
(Sorted by FY10 Headcount)

Given the differences in size and in levels of funding for the colleges, state appropriations per FTE also vary widely, as evident in Table 4. Some of the variance is a result of having larger or smaller student enrollment. The smaller colleges appear to receive more state funding per student which is, in part, an artifact of having a smaller number of students by which to divide the funding. Still, the range for FY10 is considerable: from $2,678 to $6,192 per student. Across all Massachusetts community colleges, average state funding per FTE decreased from $4,639 in FY09 to $4,160 in FY10, representing an overall reduction of over 10%. One of the steepest reductions (16%) was at Bunker Hill Community College which is both the largest community college and the college with the largest increase in FTEs (19%). This decrease in funding is of concern because expanding enrollments require the addition of courses and course sections, as well as hiring new instructors.
Table 4. FTE Appropriations for Massachusetts Community Colleges in Fiscal Years 2009 and 2010

<table>
<thead>
<tr>
<th>College</th>
<th>FY 09</th>
<th>FY10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quinsigamond Community College</td>
<td>$3,113</td>
<td>$2,678</td>
</tr>
<tr>
<td>Bunker Hill Community College</td>
<td>$3,437</td>
<td>$2,883</td>
</tr>
<tr>
<td>Bristol Community College</td>
<td>$3,218</td>
<td>$2,933</td>
</tr>
<tr>
<td>Middlesex Community College</td>
<td>$3,730</td>
<td>$3,344</td>
</tr>
<tr>
<td>Holyoke Community College</td>
<td>$4,018</td>
<td>$3,578</td>
</tr>
<tr>
<td>Massachusetts Bay Community College</td>
<td>$4,146</td>
<td>$3,788</td>
</tr>
<tr>
<td>North Shore Community College</td>
<td>$4,325</td>
<td>$3,811</td>
</tr>
<tr>
<td>Massasoit Community College</td>
<td>$4,224</td>
<td>$3,933</td>
</tr>
<tr>
<td>Mt. Wachusett Community College</td>
<td>$4,552</td>
<td>$4,038</td>
</tr>
<tr>
<td>Cape Cod Community College</td>
<td>$4,334</td>
<td>$4,104</td>
</tr>
<tr>
<td>Northern Essex Community College</td>
<td>$4,433</td>
<td>$4,106</td>
</tr>
<tr>
<td>Springfield Technical Community College</td>
<td>$5,848</td>
<td>$5,370</td>
</tr>
<tr>
<td>Greenfield Community College</td>
<td>$6,658</td>
<td>$5,736</td>
</tr>
<tr>
<td>Berkshire Community College</td>
<td>$6,500</td>
<td>$5,899</td>
</tr>
<tr>
<td>Roxbury Community College</td>
<td>$7,050</td>
<td>$6,192</td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td><strong>$4,639</strong></td>
<td><strong>$4,160</strong></td>
</tr>
</tbody>
</table>

Source: Compiled by authors with data from the Massachusetts Department of Higher Education.

Figure 4 illustrates the relative differences among the Commonwealth’s community colleges in terms of their FY 2009 and FY 2010 FTE and headcount, as well as exhibits the relationship between FTE students and per FTE appropriation.
Serving the Needs of a Diverse Student Body

Community colleges have a responsibility to meet the needs of community employers and students. Community colleges that wish to support effective programming aligned with their mission must find ways to: 1) continually upgrade their programs to industry-standards and 2) help students gain the foundational skills needed to be successful at the college level. Both of these can contribute to costs.

Program upgrades to meet industry standards. The process of continually upgrading programs is a costly endeavor. The community colleges we visited were proud of their ability to provide a wide range of programs and supports, but were clear that these programs are expensive to operate:

Some of us teach high-cost programs and some of us do not. There are some campuses who do a lot of talk and chalk, lecture, liberal arts related stuff. We all teach nursing. We all teach business. We all do some computer technology. But Quinsigamond has 19 health programs. The dental program alone costs $15,000 per student per year to run. Each of those students pays a slight premium for a lab fee over and above the flat $150 per credit, but students enrolled in some courses are subsidizing the students in the
dental health program. (Quinsigamond Community College Focus Group, March 8, 2011).

**Meeting student support needs.** Community colleges must support students to improve their academic readiness for the demands of college. This can be divided into three broad categories: 1) developmental or remedial courses and tutoring; 2) adult basic education (e.g., GED courses, English as a Second Language courses); and 3) special education and services for students with disabilities. The research shows that community colleges with a strong support system for students who need remediation have improved course completion rates (Gerlaugh, Thompson, Boylan, & Davis, 2007; Yarbrough, Mabe, & Mcgruther, 2010). Although there may not be immediate gains in pass rates, there appear to be gains when the support services have been in place longer (Yarbrough, Mabe, & Mcgruther 2010).

Costs associated with workforce development and adult basic education are traditional expenditures and there is grant funding to offset those expenses. Alternately, special education and remediation do not have associated grant programs, but are increasingly in demand. Administrators at Quinsigamond noted that in the past year remediation alone cost $1.2 million.

Given the numbers of high school students who receive special education services, it makes sense that local community colleges are providing services for many of these students when they move on to the community college system. In the words of community college administrators:

> They could be on an Individualized Education Program (IEP) in high school and when they come here, there’s no support for them other than what we provide without any additional support from the state. (Middlesex Community College Focus Group, March 3, 2011).

When these individuals are in grade school there is a set aside appropriation that accompanies them. When they come to the community college they just come. We are obliged to provide deaf interpreters—all kinds of accommodations—but there is no special appropriation to support the needs of disabled students on community college campuses. (Quinsigamond Community College Focus Group, March 8, 2011).

These students require services above and beyond the remediation that has been traditionally offered at community colleges. Given the range of special needs, students that attended the K–12 system in Massachusetts are likely to stay in-state for postsecondary education, as they already have a network of service providers in place here. In the words of another administrator:
If you look at national data, of students who enroll in higher education...of the students who are disabled...more than 80% attend community colleges.* That makes sense because many are going to attend where their support system is... where they have their support structure in place, their families, their medical support systems. So it’s part of our mission. And yet it’s a high cost. (Quinsigamond Community College Focus Group, March 8, 2011).

At the three colleges profiled for this report, providing special education support has required re-tooling student support services and adding new programs. At Middlesex, staff appeared confident that they know what supports to provide, but they are not sure how to pay for those supports. They have a model that combines classroom instruction and supplemental support, which includes one-on-one tutoring, case management, metacognitive supports, self-advocacy training, as well as helping students develop interpersonal skills. Middlesex is fortunate to have a federal TRIO grant† to provide these services, but the model is very labor intensive and may not be sustainable if the grant funding is no longer available. Special education services are labor and budget intensive and represent a new expense for these colleges. In some cases, the student services cost much more than the students’ payments. The Americans with Disabilities Act requires that any student who enrolls at a community college must receive support and accommodations. With the current economic crisis, there is limited grant funding to support special education services at the community college level. Without TRIO funds, community colleges are challenged to meet the high cost of providing support for students with special needs.

Effective, responsive community colleges meet the challenge of continually adjusting their programs to meet the needs of their students. This responsiveness has implications for the cost of the programming, but is necessary if the college is to remain relevant in its community. Simply stated, meeting the needs of diverse students has driven up the cost of providing an education at community colleges.

Facilities Costs

The impact of facilities-use has direct implications for the budgets of community colleges in Massachusetts. In our conversations with education officials in Massachusetts, it is clear that community colleges make extraordinary use of their facilities in the face of dramatically expanding enrollments. Facilities impact the budget in several ways: the need for additional space has required creative solutions, and increased wear and tear has degraded the physical campus and led to increased capital expenditures.

---

* A survey conducted in 1990 (the most recent year of data for this available in IPEDS) indicates that public, two-year institutions reported that 21% of their students had a disability in comparison to 6% at private, four-year institutions and 6% at public, four-year institutions.

† “TRIO” refers to federal grants that help first-generation college attendees. It began in the 1960s with a trio of programs: Upward Bound, Talent Search, Student Support Services. It now includes eight programs to assist disadvantaged students. See: http://www2.ed.gov/about/offices/list/ope/trio/index.html
Quinsigamond and Bunker Hill have incurred some of the most dramatic increases in enrollment—not just in the Commonwealth, but in the nation. The increases have led them to seek a variety of ways to intensify their use of facilities. In the fall of 2009, Bunker Hill added 108 new class sections to the schedule. They accomplished this, in part, by adding a third shift of classes and there are now five classes offered at midnight. Quinsigamond has partnered with local organizations to trade classes or services for space. The college is trying to expand the number of partnerships because of the increasing costs to lease facilities across Central Massachusetts. Administrators at Quinsigamond were looking to lease space at a former auto dealership to expand their automotive program: “But when the lease request comes out from DCAM [the Commonwealth’s Division of Capital Assets Management], people think it’s the Commonwealth of Massachusetts with deep pockets that’s going to be paying the bill. Well it isn’t. It’s students at Quinsigamond community college that are going to pay the bills.” In the end, they kept the automotive program in loaned space at a local high school. The lack of local leasing authority is a recurring problem for community colleges. At Quinsigamond, they “are pushing up towards half a million in the budget for leases” (Focus Group, March 8, 2011). To maintain their facilities at industry standards, all three colleges noted that they rely on donated equipment and supplies from their partners in the business community. The colleges simply do not have the money for the upgrades.

Capital expenses are also increasing. Tight budgets have recently restricted funds for facilities maintenance: “We used to see at least $200,000 a year. So if a furnace went down or an electrical system failed we had help from the state. We don’t get anything now” (Focus Group, March 8, 2011). Delaying maintenance and repairs can lead to costly replacement of equipment—and increased expenses that community colleges have trouble bearing.

Maintaining, upgrading, and expanding access to the physical space available to community colleges has increased the cost of providing education and workforce development. With increased enrollment, community colleges need to add additional courses and have struggled to find the space for classes to meet. This has led to significant expenditures on leases and an increased need for maintenance and repairs on the facilities the college owns. Facilities must also be upgraded to provide industry-standard training to an expanding population. Each of these factors (the need for more space, the need for industry-standard training space, and the cost of deferred maintenance) has driven up the expenditures of community colleges in Massachusetts.

**Considerations**

Massachusetts has a diverse community college system. It includes very urban and very rural colleges. The largest college (Bunker Hill) is almost eight times larger than the smallest colleges (Berkshire, Greenfield). Community colleges also offer different programs, which have different costs associated with them. Each of these factors has an impact on the price of providing education and training.

In Massachusetts, community colleges rely on appropriations from the Commonwealth and tuition and fees to cover their operating expenses. With flat or diminished funding from the Commonwealth, given the revenue mix available, the only way community colleges can cover expenses is to increase fees. The budget shortfall ultimately negatively impacts community college students as their costs rise. With increased tuition and fees and inadequate financial aid, students work more hours and attend school on a more part-time basis—both of which are factors in low completion (Shulock, & Moore, 2007).
the dramatic differences across colleges (in enrollment, services, funding, and per FTE appropriations), this burden does not fall across all colleges in the Commonwealth evenly. An administrator at a community college with dramatically expanding enrollment complained: “As my students pay the additional costs to attend, they are subsidizing the cost to attend [other campuses] who get the higher state appropriation.” Passing on the costs to students may have negative effects in terms of enrollment and student completion of training and degrees, a stated goal of the governor and of policymakers. Ultimately, passing financial burden to students may negatively impact the ability of the community college system to carry out its mission of being a gateway to stable employment and higher education. This may be the case both across the state and in specific regions. If it is true that the community college investment is crucial to the state’s ongoing employment picture, the Commonwealth will need to consider if these inadvertent consequences of current funding methods make sense.

Despite challenges posed by the combined effects of increased enrollments, the requirement to upgrade to industry standards, and the lack of resources for capital expenditure, community colleges have found some creative ways to provide services to their students. These include partnerships with businesses to keep their certification programs aligned with industry standards. Colleges have also crafted agreements to trade access to space for services and have added additional shifts of classes to make use of the facilities around the clock. Further, in order to both achieve greater efficiencies and impact, community college administrators have been working in concert with one another to realize cost savings from shared vendors and to share best practices related to programming, financial aid, and common concerns.

Given that community colleges appear to act as entrepreneurial organizations within the public sector, the Commonwealth might consider providing additional incentives to encourage employers and other local organizations to partner with community colleges and work together to advance economic priorities. In addition, there may be ways to expand the autonomy of community colleges to enter into agreements and contracts that will further their mission. Moreover, the Commonwealth may capitalize on existing cooperatives within the community college system so as to better understand the needs of the system.
III. FUNDING FOR COMMUNITY COLLEGES ACROSS THE NATION

How do other states support their community colleges? What can Massachusetts learn from comparable, high-achieving states?

In order to answer these questions, we examined publicly available data to determine national averages and examined specific community college systems in other states. We identified a set of five comparison states that had comparatively high graduation rates for their community college students, a similar number of community college campuses, and innovative programming.

Across the United States, there are 1,165 open-enrollment community colleges. In 2007, these colleges served 12.4 million students, roughly 45% of all undergraduate students. The enrollment at community colleges keeps increasing: from 2005–2010, it increased 25% nationwide (American Association of Community Colleges, 2010). Community colleges provide opportunities for some of the hardest to serve students: 60% require some form of developmental education, 40% are the first generation in their family to attend college, and 65% receive financial assistance to pay tuition and fees (American Association of Community Colleges, 2010; National Center for Education Statistics, 2010). Over 3 million community college students receive Pell Grants* and they receive over one-third of the Pell funding (American Association of Community Colleges, 2010). To make these colleges accessible, tuitions remain low: in FY10 the national average for annual tuition and fees at community colleges was $2,544, compared with $7,020 at the country’s public, four-year universities. Across the nation, state and local funding accounts for roughly 50% of community colleges’ revenues. As displayed in Figure 5, an additional 21% percent comes from net student tuition, 14% from the federal government, 7% from grants and contracts, and 9% from other sources (Choitz, 2010). Funding for community colleges is approximately 27% of total federal, state, and local revenues for degree-granting institutions (American Association of Community Colleges, 2010). While serving nearly half of all undergraduate students, community colleges receive only 9% of federal funding for institutions of higher education. Despite increases in enrollment during the recession, these funding sources have

* These federal grants are primarily awarded to students with family incomes below $30,000, although families are eligible until their income reaches $60,000.
remained the same or been cut. Community colleges are increasingly dependent on tuition payments to cover their operating expenses and students, in turn, must rely on financial aid and grants.

Across the nation, funding for community colleges is a small percentage of total state expenditures. In 2008, appropriations to community colleges averaged 1.08% of state budget expenditures. The lowest percentage was 0.03% in Alaska and the highest was 2.2% in the State of Washington. Massachusetts spent 0.7% of its budget on community colleges (Choitz, 2010).

Comparison States

National averages include both high and low performing community colleges and mask state outliers. To get a finer grained comparison and to identify funding strategies that have been used effectively in other states, we identified states with similar numbers of campuses and high graduation rates for their community college students. We also looked for states that are gaining a reputation for pursuing innovative strategies (for example, those promoted by the Achieving the Dream Initiative). Finally, we looked at the list that Massachusetts has created of comparison campuses and found that many of the out-of-state community colleges on that list were concentrated in three northeastern states (Connecticut, New Jersey, and New York). Through this process, we selected the following comparison states for this report: Connecticut, New Jersey, Ohio, Virginia, and Washington. Table 5 shows summary data for each state’s community college system, as related to number of campuses and FTEs, graduation rates, funding as a percent of state appropriations, and state use and observance of a funding formula.

Table 5. Comparison State Data for Community Colleges

<table>
<thead>
<tr>
<th></th>
<th>MA</th>
<th>CT</th>
<th>NJ</th>
<th>OH</th>
<th>VA</th>
<th>WA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Campuses</td>
<td>15</td>
<td>12</td>
<td>19</td>
<td>23</td>
<td>23</td>
<td>34</td>
</tr>
<tr>
<td>Number of FTEs</td>
<td>57,490¹</td>
<td>60,178²</td>
<td>119,782³</td>
<td>123,112⁴</td>
<td>281,243⁵</td>
<td>198,927⁶</td>
</tr>
<tr>
<td>Graduation Rates²</td>
<td>18%</td>
<td>12%</td>
<td>16%</td>
<td>25%</td>
<td>26%</td>
<td>29%</td>
</tr>
<tr>
<td>Community College</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Funding as Percent of</td>
<td>0.7%</td>
<td>0.9%</td>
<td>0.4%</td>
<td>0.9%</td>
<td>1.1%</td>
<td>2.2%</td>
</tr>
<tr>
<td>State Appropriations</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Has formula/</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>partially funds</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Has formula/</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>partially funds</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Has formula/</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>partially funds</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1 FY 2009
2 http://www.commnet.edu/planning/Research/Enrollment/CreditEnrollment/EnrollmentCredit.html
3 http://www.njccc.org/
6 http://www.sbctc.ctc.edu/college/it/2009-10ayr/1intro_0910.pdf
7 Three-year graduation rate for Fall 2005 cohort, graduated by Summer 2008, IPEDS Data
8 http://www.clasp.org/postsecondary/publication?id=0829&list=publications
9 http://www.clasp.org/postsecondary/publication?id=0829&list=publications
10 Massachusetts has developed a funding formula, but it has not been enacted into law and is not used to allocate funds.
Figure 6 illustrates the relative differences between the comparison states in terms of their FTE count, graduation rates, and funding as a percentage of state appropriations.

![Comparison State Data for Community Colleges](chart.png)

**Figure 6. Comparison State Data for Community Colleges**
*Source: Compiled by authors with data from each state’s respective website and from Choitz, 2010.*

As described earlier in this report, community colleges receive revenue primarily from state and local governments, student tuition, the federal government, grants and contracts from state and local entities, and other sources (e.g., philanthropic donors). The extent to which any of these revenue sources contribute to the overall revenue varies by state. In 2008, the overall distribution of Massachusetts revenue to community colleges statewide was as follows: 43% from state government, 31% from net student tuition, 12% from the federal government, 7% from state and local grants and contracts, and 6% from other sources (Choitz, 2010).

*In order to draw comparisons among the six states, the FY 2008 data represented here were drawn from the federal IPEDs data rather than the data collected by the Massachusetts Department of Higher Education that are represented in Section II. Funding categories as reported by IPEDS were different from those catalogued by the Department of Higher Education, which accounts for the divergence between State and Local Government (Section III) and State Appropriations (Section II).*
The following is a brief description of the revenue sources in each comparison state* and the funding process in each of these states (e.g., if they have a funding formula). Figure 7 illustrates the differences in funding sources between these states.

Figure 7. Community College Funding Sources by State in Fiscal Year 2008
Source: Compiled by authors with data from Choitz, 2010.

**Connecticut**

In 2008, Connecticut community colleges received 52% of their revenues from state and local government, 26% from net student tuition, 10% from the federal government, 4% from state and local grants and contracts, and 8% from other sources. The state does not have a funding formula to support its community college system, although it should be noted that Connecticut is above the national average in terms of percent of total revenue generated from state and local government sources. The state had a performance incentive system that manifested itself as grant funding. In the first round of funding, community colleges set goals based on the community college system’s overall mission to try to bring the racial-ethnic composition of the student body in closer alignment with that of the state population. Renewal of the funding was predicated on meeting these goals (Dougherty & Reid, 2006).

---

While a state official expressed a desire to increase the size of the performance component of state financing of the community college system, Connecticut is not among the states that are currently pursuing performance funding (Smith, 2011).

**New Jersey**

In 2008, New Jersey community colleges received 32% of total revenues from state and local government, 39% from net student tuition, 15% from the federal government, 7% from state and local grants and contracts, and 8% from other sources. While New Jersey has a funding formula to determine community college allocations, it is only partially funded. In fact, the state’s community colleges receive among the lowest percentages of state and local support. New Jersey is among the 25 states with state-aided community colleges that receive local tax appropriations in addition to state appropriations. Choitz uses the terminology “state-aided community colleges” to describe the state community college systems in which local tax appropriations account for at least 10 percent of the total government funding for all community colleges in the state.

**Ohio**

In 2008, Ohio community colleges received 38% of their revenues from state and local government, 32% from net student tuition, 14% from the federal government, 5% from state and local grants and contracts, and 11% from other sources. The state has state-aided community colleges and funds its community colleges in a number of different ways. Some community colleges are funded entirely through state appropriations and tuition, while others are additionally funded through local tax dollars (similar to the public school funding). Still others are actually part of a 4-year school that offers a terminal AA/AS degree and receive their funding funneled through that institution. Further, Ohio is among the states that are pursuing performance funding. Currently, a set of identified success factors is one of the three components used to guide the allocation of state funding for community colleges. The other components include enrollment and institutional-specific goal attainment (Smith, 2011). A timeline has been established for phasing in a performance funding system to a greater degree, as currently 5% of its overall state appropriations are performance-based (Offenstein and Shulock, 2010). By FY 2015, these success factors will impact 20% of the total state appropriations to community colleges, with an opportunity to receive up to 10% additional funding if certain community college-specific goals are attained (Achieving the Dream, 2009).

**Virginia**

In 2008, Virginia community colleges received 46% of their revenues from state and local government, 33% from net student tuition, 14% from the federal government, 2% from state and local grants and contracts, and 5% from other sources. Virginia has a community college funding formula, but it is not fully funded. Based on its participation in the Achieving the Dream Initiative, the state is focused on engaging in data-informed decision making to drive its budgeting process, both at the system and campus level. This focus is articulated in the Virginia community college system’s strategic plan and highlights the system’s commitment to using data to guide its programs and processes (Mills, 2009). In fact, Virginia has figured prominently in the Community College Research Center studies currently being funded by the Gates Foundation, as the foundation seeks to select effective investments for its
Postsecondary Success (PS) Initiative (Community College Research Center, 2011). The Virginia community college system is participating in three of the eight overall studies to similarly ascertain the effectiveness of its investments in online learning, student success courses, and gatekeeper courses. The state has pledged to use the results of the studies to “develop system-wide policy changes focusing on at-risk students” and to support colleges in the implementation of successful strategies described in the studies (Mills, 2009).

Washington

In 2008, Washington community colleges received 41% of their revenues from state and local government, 20% from net student tuition, 9% from the federal government, 18% from state and local grants and contracts, and 11% from other sources. The state was below the national average in terms of percent of total revenue generated from net student tuition. This may indicate that the community college system has effectively kept tuition rates down in order to maintain overall access to its system. Instead, funding to maintain the system has been generated through other means, particularly through state support, as Washington allocated the highest percent of state expenditures to the community college system (2.2%). Funding has also been generated through state and local grants and contracts. It is notable that Washington had the highest percentage of grants and contracts as a percentage of its total revenue in 2008.

Further, Washington has engaged in several actions to shift the focus from enrollment to student outcomes. To encourage institutions to improve student degree completion rates and time to earn a degree, a change was made in base state funding from allocations based on enrolled students to allocations based on the number of degrees earned. Further, incentives for performance funding affect both the four-year universities and the community colleges. In the community college system, the Student Achievement Initiative is a research-based performance incentive system that provides financial rewards to individual colleges for increasing levels of student achievement. The performance incentive system was a culmination of the state’s piloting of the I-Best model and research related to the milestones, or tipping points, that are integral to eventual student degree or certificate completion. Previously, the program was funded with $3.5 million from the 2009–2011 state operating budget and $1.6 million in grant funding from the Gates Foundation and the Ford Foundation (Washington State Board for Community and Technical Colleges, 2010). The 2011–2013 budget includes $10.8 million to continue the initiative (Washington Office of Financial Management, 2011).

Support for Innovative State Policies

States fund community colleges primarily through a direct appropriation designed to cover operating expenditures. States also provide specific grants and contracts—often competitive—that are targeted for particular services (adult basic education, workforce development). Most states appropriate money in three ways: using a formula to calculate need; using performance measures to determine support for programs aligned with policies and best practices; or with flat, incremental increases or decreases to an established base of funding.
Achieving the Dream: Community Colleges Count

Achieving the Dream: Community Colleges Count was launched in 2004 in 26 community colleges across five states, including Virginia, and now includes 130 institutions in 24 states and the District of Columbia. Its aim is to improve success among students by changing the culture and operations of community colleges through a five-step process of institutional reform, including 1) securing commitment from the institution’s leadership; 2) using data to prioritize actions; 3) involving stakeholders; 4) implementing, evaluating, and improving intervention strategies; and 5) establishing a culture of continuous improvement (Rutschow et al, 2011).

Six states (including Connecticut, Ohio, and Virginia) chose to foster a culture of evidence through the formation of the Cross-State Data Work Group, which developed a set of indicators to facilitate more effective planning (Mills, 2009). By tracking student performance, assessing the effect of interventions, and learning from the best practices of other states, the participants of the Cross-State Data Work Group are well-positioned to fully implement the Achieving the Dream model, which shows promise in meeting the needs of community college students. In their analysis of the Round 1 colleges (first 26 colleges to join Achieving the Dream), Rutschow et al demonstrated that there has been improvement in two of the five levers on which Achieving the Dream participants are expected to make movement, including the completion of introductory college English courses and the completion of courses attempted within the first two years (2011). As much of the focus in the early years has been on fully implementing the model, the authors of the report expect that over time the initiative will reach a large proportion of students and staff and will yield additional improvements.

Funding Formula

Thirty-two states currently use a funding formula to determine allocations to community colleges. Funding formulas are typically based on a combination of factors such as the cost per FTE, the average faculty salary, or student-to-faculty ratios. Each factor is multiplied by the number of each corresponding unit (e.g., average faculty salary x number of faculty members), and the subtotals are added together. The existing funding formulae all include some estimate of the number of student units. Certain funding formulae give more weight to certain student units, depending on their program enrollment (e.g., for-credit or non-credit; high-priority or low-priority occupation program; high-cost or low-cost). Although most states use a formula to determine community college allocations, less than half of the formulae are fully funded at this time (Katsinas et al, 2008).

Performance Funding

Across the nation, performance reporting is increasingly required of community colleges, but only one-third of states include performance-measures in their funding decisions (Dougherty & Reid, 2007). These states are implementing some innovative policies to encourage community colleges to meet their missions and to

---

* Massachusetts has developed a funding formula, but it has not been enacted into law and has only been used once in 2002, when policymakers collaborated closely with the Department of Higher Education to develop the budgets for each community college. The formula is premised on benchmarks, Board of Higher Education targets, and by individual institutions’ profiles, including enrollment, course offerings, facilities and grounds (Interview at Department of Higher Education, March 16, 2011; Massachusetts Department of Higher Education, 2011a).

+ Commonly reported indicators include total enrollments; information on population served; tuition and fees; expenditures; information about faculty; programs offered; rates of remediation; completion rates; transfer rates; employment of graduates (Dougherty, Hare, & Natow, 2009).
support programs that are modeled on what the research indicates to be effective practice at community colleges.

Performance funding is being pursued in two of the comparison states: both Ohio and Washington use it to encourage their community college systems to institute practices that help increase the number of adults with postsecondary credits, rather than simply increase enrollments.

**Washington** launched the *Student Achievement Initiative* in 2007, which measures intermediate student outcomes that indicate whether or not students are on track toward a successful outcome and rewards colleges for the gains students make. Colleges earn points based on the number of students who reach the specified milestones in the following categories: improving preparation for college-level courses; building toward a year of college credit; completing college math; and completing certificates, degrees, and apprenticeships. Community colleges receive funding in addition to their regular state appropriations for increases in the number of achievement points they earn per year (Offenstein & Shulock, September 2010; Stephens, May 2009).

The *Student Achievement Initiative* not only provides performance funding, but ultimately supports the state in its implementation of the career pathways framework by tracking student progress on key milestones that they need to reach in order to advance to the next stage of their education (e.g., certification, degree, transfer to four-year institute). Milestones include an increase in basic skills through earning a GED/diploma or gains on the Comprehensive Adult System Assessment Test (CASAS); becoming college ready through passing pre-college English or math; completion of the first 15 college credits; completion of the first 30 college credits; and earning a degree, certificate (45 credits), or completing an apprenticeship.

Also supporting Washington’s career pathway framework and its performance funding system are its Opportunity Grants, which provide students with funding for tuition and support services to help them reach the credits necessary to receive a credential, and thereby allow them to progress to the next stage.
of education or employment. These grants have been shown to have a positive impact on student achievement. Specifically, “81% of students who began programs in Fall 2007 were retained through Spring 2008 or reached the completion threshold of 45 credits and a certificate. The retention rate during the pilot year (2006–2007) was 73” (Stephens, May 2009).

The I-Best program and the Opportunity Grants described above work in concert with one another to provide students with the necessary support to progress across the career pathway. The degree to which these programs are effective is measured by the Student Achievement Initiative and incentivized through the performance funding associated with the initiative. Community colleges are thereby encouraged to expand programs whose success is sustained by data, as well as assess which milestones are not being attained and intervene accordingly.

Ohio uses a set of intermediate measures similar to those in Washington. Ohio community colleges receive a portion of their basic allocation based on the success points earned. Colleges receive success points for each student who attains a given success measure, which include completion of first remedial course; completion of developmental math course and enrollment in a college-level math course in the same academic year; and completion of a developmental English course and enrollment in a college-level English course in the same academic year (Smith, 2011).

In addition to achievement of success points, progress related to institutional-specific goal attainment is considered as part of the overall performance funding. Consequently, colleges within the system are able to set goals that align with their priorities and pursuits, and be evaluated accordingly. Therefore, they can be rewarded as is appropriate or be encouraged to re-examine the steps they are taking to realize their goals, and thus use the performance system to engage in continuous improvement.

Rather than provide additional funding to its community colleges, Ohio ties part of its state appropriations to performance, with plans to increase that share from 5% at the program’s inception to 30% by FY 2015 (Offenstein & Shulock, September 2010; Achieving the Dream, 2009).

**Considerations**

Although several Massachusetts community colleges are implementing research-based best practices, the state does not have a centralized system to support this, and programming and funding vary considerably. Massachusetts does not use a funding formula linked to enrollment, workplace requirements, addressing student needs, or capital expenses. This has led to dramatic variation and potential risk across the Commonwealth in terms of program offerings and sustainability. It is important for policymakers to ask whether the level of state funding support for Massachusetts community colleges is adequate for their multifaceted mission and competitive with the support other states provide.

In addition, Massachusetts does not currently have a mechanism to fund community colleges that are implementing practices that have evidence of effectiveness. In the last year, however, the Commonwealth has demonstrated its commitment to improving the higher education system through the adoption of the Vision Project: A Public Agenda for Higher Education in Massachusetts. In an effort to promote the initiative, the Massachusetts Department of Higher Education is seeking the funds
necessary to incentivize practices and reward activities by individual campuses that advance the goals of the Vision Project (2011b). Tying funds to innovative practices will provide the Commonwealth with the opportunity to experiment with performance funding, specifically as it relates to furthering state goals.

Massachusetts has made an investment in its community college system which seems to be paying off in terms of providing an open, accessible gateway to higher education and workplace training. Through the Vision Project, the Commonwealth has reaffirmed the importance of the community college system in college participation, college completion, student learning, workforce development, and elimination of disparities. At the same time, current practices in terms of funding and oversight may be putting this investment at risk and compromising the ability of the system to optimally serve the needs of the Commonwealth.

Accordingly, Massachusetts lawmakers may want to consider the following strategies to improve and protect the state’s community college system.

Funding mechanisms. Massachusetts may want to investigate funding mechanisms used by other states as policymakers look for ways to better protect their current investment in the community college system. This includes investigating other funding mechanisms (both a funding formula and forms of performance funding) and participating (at the state-level) in cross-state initiatives that focus on best practices. A funding formula coupled with performance-based grants could help improve the services available at all community colleges in the Commonwealth.

As has been the case with the K–12 educational system, stakeholders of the community college system have called on community colleges to gather data, and consequently nearly every state has a performance reporting system (Dougherty & Reid, 2007). However, few states are supplementing performance reporting with performance funding for community colleges. Performance funding may encourage both states and community colleges to reflect more carefully upon their data and pursue policies that support student access and student success. Incentivizing performance can encourage the continued pursuit of innovative practices at the community college level and tracking the success of community college programs can provide policymakers with more information related to where funding should be directed. As demonstrated by past and current efforts to implement performance funding systems in higher education, the system’s utility and sustainability is dependent upon several factors, including ensuring that improved performance is rewarded in accord with what was pledged; designing the funding performance system in partnership with colleges; and generating support for the system across stakeholder groups, including policymakers, businesses, and college administrators (Dougherty & Natow, 2009). Overall, if the performance funding system can be developed with stakeholders of the system and serve as a tool in identifying what practices are having the desired effect, states can more readily look to the successes of the community colleges within their system to guide state policy, both at the programmatic and funding levels, and improve the system as a whole.

Sharing best practices with other states. Massachusetts’ community colleges work in concert with one another to share best practices. Some colleges are also participating in national initiatives to improve their practice. Increased engagement with other states holds promise for generating additional ideas that have the potential to improve the community college system. Participation in the Achieving the Dream Initiative has been one avenue for 24 states to confer about their community colleges,
specifically how they may institute a culture of evidence that encourages administrators, faculty, and student support services to act upon data in service of student achievement. Participating in the initiative provides community colleges with the opportunity to engage with other participating community colleges on their implementation of the initiative’s framework and share best practices. However, as participation in the initiative is site-based and not statewide, any programmatic changes occur at individual community colleges and do not consistently inform policy at the state level. Consequently, six participating states took it upon themselves to take this partnership to the next level by partaking in the Cross-State Data Work Group. Participation in this group has facilitated conversations that go beyond buildings and budgets, and speak about practices and innovation (Mills, 2009). Because the community college systems across the nation vary in the degree to which they implement the multifaceted mission of the community college system as a whole, each state has the potential to learn much from its peers and implement their lessons accordingly in their respective states. As one administrator said after attending at an Achieving the Dream cross-state meeting, “Inspired by (my) peers’ innovative idea – a regular occurrence at Achieving the Dream meetings – (I) decided to steal it. Now it’s a key area of concern to the presidents” (Mills, 2009). Massachusetts may want to consider participating in the conversations of the Cross-State Data Work Group.

**Overall state support of community colleges.** To reap the benefits of the community college system, Massachusetts should explore ways for more effectively supporting the multifaceted mission of the community college system. Fully supporting its 15 community colleges may necessitate re-examining the Commonwealth’s current funding practices so that they take into account the needs of its community colleges related to enrollment growth; facilities maintenance; and student needs related to continued access to the system and supports that encourage completion.

The focus groups demonstrated that community colleges across Massachusetts are engaging in discussions with one another to define best practices and are pursuing grant opportunities, business partnerships, and innovative practices to enhance their programs. To encourage continued innovation, Massachusetts may want to be more purposeful about its support of data-driven and creative practices across its community colleges by making performance funding a component of its overall funding mechanism, whether as part of the state appropriation or as supplementary grant funding. The Commonwealth may wish to leverage the work of the Vision Project to inform the development of a performance funding system.

Massachusetts’ community college system has worked to support and respond to the needs of the state’s economy by enhancing the skills and competencies of its students to enable them to enter the workforce and/or engage in additional post-secondary education. Similarly, the Commonwealth should explore ways to work in concert with its community colleges to respond to their needs and to effectively support its community college system. By more intentionally supporting its community colleges, the Commonwealth may capitalize on the capacity of the community college system to facilitate the advancement of state and regional economic priorities.
IV. CONCLUSION: POLICY IMPLICATIONS AND ISSUES TO CONSIDER

This report is intended to highlight the existing funding system for community colleges in Massachusetts and offer examples of how other states fund their programs. Several important issues were discussed, but they all relate to the adequacy, equity, and transparency of funding across the decentralized community college system that exists in the Commonwealth. There are categories of expenses that have experienced dramatic increases in recent years. The most prominent may be special education costs. The Americans with Disability Act requires that community colleges provide accommodations for all students with special needs. As an increasing number of students receive services from kindergarten through Grade 12, the community colleges are in the difficult position of being mandated to provide services to these same students with little funding available. While there are a few federal grants available to support the labor intensive programs, and there is state and federal funding to support special needs students in the elementary and secondary education system, there are few avenues of support for community colleges. These services are important if these students are to succeed in community college and be prepared either to transfer to a four-year program or to enter the workforce. Expenses are also rising because of the numbers of students being served, the expenses related to supporting industry standards, and the numbers of students who are relying on the lower tuitions found at community colleges to make access to higher education possible. Based on the data examined for this report, it is not clear that levels of funding by the Commonwealth are adequate for any of the community colleges to ensure that they can deliver on their multifaceted mission as delineated by the Commonwealth.

Appropriations for Massachusetts community colleges, which adjust annually depending on the fiscal condition of the Commonwealth, are based on an historical artifact rather than current criteria related to services provided and students served. The appropriations do not take into account current costs or increases in enrollment, which has created equity issues across the system. Failure to address these inequities will guarantee that disparities in quality and services will continue to widen and that costs may be passed disproportionately to students. Finally, inattention to capital expenses and infrastructure increases the risk to the already substantive investment that the Commonwealth has made in the community college system.

Other states have addressed issues of funding equity for community colleges by 1) creating a funding formula, 2) implementing performance funding to encourage effective practices, and 3) creating a minimum foundation payment per FTE. Each of these options has potential benefits. A funding formula would help community colleges better cover their operating expenses. Performance funding would target supports to effective practices. A foundation payment would provide a floor and create a more equitable distribution across the Commonwealth. One community college president pointed out that: “If you look at the campuses that are below $3,000 per FTE, it would cost the Commonwealth $13.7M to level the playing field if they added that to the state higher education budget this year.”

There are complementary solutions that could be revenue-neutral for the Commonwealth. Community colleges in Massachusetts have found creative ways to provide services to their students despite a variety of restrictions. Unlike the University of Massachusetts system, community colleges do not have local leasing authority. As these colleges scramble to locate space to offer additional classes to meet
their growing numbers of students, they are required to work through the Commonwealth’s Division of Capital Asset Management (DCAM). Community colleges have experienced price increases based on the impression that the Commonwealth will be paying the rent. Given that the Commonwealth does not pay the rent but only coordinates the process of finding space to lease, it might help local colleges if they, like the campuses of the University of Massachusetts system, could negotiate their own leasing agreements.

The Commonwealth may also continue to support the efforts of the Task Force on Collaboration and Efficiency, which has fostered greater cooperation across the system of higher education. In accord with the goals of the task force, the community colleges have been working together to achieve cost savings from shared vendors to support professional, operational, and administrative services. Similarly, college administrators meet regularly with their counterparts at the Commonwealth’s other community colleges to share best practices related to programming, discuss strategies for promoting financial aid, and confer about issues that they are universally concerned about. The Commonwealth may capitalize on these existing cooperatives to better understand the needs of the community college system and to systematically engage the various stakeholders as it seeks to advance its economic priorities, particularly in the domain of workforce development.

Another possibility for a low-cost strategy is finding incentives to promote partnerships between community colleges and organizations in their regions. As noted earlier, Quinsigamond has trade agreements with local high schools. All community colleges appear to receive in-kind contributions and donations of equipment from business partners to keep their programs aligned with industry standards. The Commonwealth could explore how to provide additional incentives to encourage a variety of organizations to partner with their local community colleges.

Finally, there is the issue that, at this time, Massachusetts has no mechanism for assessing the quality of the outcomes at each campus and attaching that to funding. It may be wise for lawmakers to examine some of the efforts across the nation to develop performance funding strategies and create incentives for improvements to community college programming and outcomes.

**Additional Information for Actionable Decisions**

It is important to keep in mind that this study is simply a snapshot of the system for funding community colleges in Massachusetts and examples of funding systems in other states. In the end, it may raise more questions than it answers. Even answering these research questions illustrates the dearth of comparable data across community colleges and between systems in different states. Given the need for current research and information to inform the budgeting and policymaking process, decision-makers should pay attention to the data that are collected from community colleges, their quality and comparability, and whether the Commonwealth is collecting the data it needs to examine the performance of its community colleges.

Higher education institutions frequently report on enrollment and graduation rates. However, enrollment rates do not reflect the degree to which students are being supported to complete a certificate or degree program. Further, graduation rates neither adequately reflect community colleges’ successes nor do they provide colleges with the information they need to intervene on behalf of their
students. For instance, graduation rates fail to adequately acknowledge students who may enroll in the community college for a single semester and then transfer to a four-year institution, as well as students who may only need to enroll in a select number of classes to augment their skill set, both of which are marked as failures in the current reporting system. Further, looking at graduation rates as a mark of success is not useful in helping colleges determine when to intervene on a student’s behalf. Some states have made a concerted effort to gather data that better capture student progression through the community college system, specifically when students reach a given milestone on the way to completing a certificate program or degree. By gathering data on the incremental advancement through the community college system, community colleges are better able to identify the factors that frustrate completion and intervene to help students overcome these challenges.

It would be helpful for the Commonwealth to explore establishing a database that would collect actionable data related to improving the community college system. These data should be used in conjunction with decisions about funding to truly ensure that all of the community colleges in Massachusetts are equitably supported to deliver on their multifaceted mission. This mission—improving higher education access and improving stable employment—is inextricably tied to the prosperity of the Commonwealth.

By many measures, the Massachusetts community college system is a sound investment. State lawmakers have a vested interest in ensuring that it is protected through adequate funding, transparency around funding allocations, and creative strategies to promote the system’s ongoing success.
V. WORKS CITED

http://www.achievingthedream.org/PUBLICPOLICY/POLICYUPDATESNEWS/default.tp


http://www.aacc.nche.edu/pages/ccfinder.aspx

http://www.aacc.nche.edu/AboutCC/whsummit/Documents/whsummit_briefs.pdf


Bunker Hill Community College (2010). “Bunker Hill Community College Fall Enrollment Breaks Another Record.”  
http://www.bhcc.mass.edu/inside/441?id=188


http://www.clasp.org/admin/site/publications/files/Getting-What-We-Pay-For.pdf

Community College Research Center (2011). Transforming Community Colleges to Accelerate Success for Low-Income Young Adults: A Multi-Study Research Project to Inform the Bill & Melinda Gates Foundation’s Postsecondary Success Initiative.  
http://ccrc.tc.columbia.edu/Collection.asp?cid=65

Connecticut Community Colleges (2011). Credit Enrollment Reports.  
http://www.commnet.edu/planning/Research/Enrollment/CreditEnrollment/EnrollmentCredit.html


http://www.masscc.org/pdfs/economicimpactreport.pdf

http://www.mass.edu/forinstitutions/fiscal/budgetformula.asp

http://www.mass.edu/currentinit/visionproject.asp

Presentation at the Board of Higher Education, October 6, 2009.  


http://www.aacc.nche.edu/Publications/Briefs/Documents/doingmore_09082010.pdf


http://www.njccc.org/


Leadership & Policy; Achieving the Dream; Time to Completion. 
http://www.csus.edu/ihelp/PDFs/R_TakingtheNextStep_091410.pdf


http://www2.ed.gov/about/offices/list/ope/trio/index.html


http://www.sbctc.ctc.edu/college/it/2009-10ayr/7expend_0910.pdf


http://www.sbctc.edu/college/education/student_achieve_summary_nov2010.pdf

VI. APPENDIX A. DESCRIPTION OF STUDY

As noted earlier, the study was guided by the following research questions:

- What are the funding streams that support community colleges in Massachusetts? Specifically, what level of state support does each of the 15 colleges receive? What is the basis for the support that each college receives?
- How does this funding compare to other states? In particular, how does this compare to states where the community colleges have better outcomes for students (e.g., higher completion rates)?

Methods

Before generating the research questions for this study, the research team reviewed current research on community colleges and compiled an annotated bibliography. This helped frame the questions and document community colleges’ strategies and policies. The research questions and this report are grounded in available evidence on community colleges.

In order to answer the questions, we used basic quantitative and qualitative analysis methods (summarized in Table A1). This included compiling statistics on the community colleges in Massachusetts and the community college systems in other states, and collecting qualitative data and program documentation from the three focus colleges. We then followed up with interviews and conversations with higher education officials at state agencies to clarify the sources of data and the reporting metrics.

Table A1. Data Sources for Investing in Community Colleges of the Commonwealth: A Review of Funding Streams

<table>
<thead>
<tr>
<th>Category</th>
<th>Data Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quantitative data</td>
<td>- Massachusetts Department of Higher Education data</td>
</tr>
<tr>
<td></td>
<td>- Integrated Postsecondary Education Data System (National Center for Education Statistics)</td>
</tr>
<tr>
<td>Qualitative data</td>
<td>- Focus groups with community college officials</td>
</tr>
<tr>
<td></td>
<td>- Interviews with officials at the Massachusetts Department of Higher Education</td>
</tr>
<tr>
<td></td>
<td>- Discussions with researchers at boards of higher education in comparison states (as necessary)</td>
</tr>
<tr>
<td>Documents</td>
<td>- Financial audit reports for each of the three community colleges</td>
</tr>
<tr>
<td></td>
<td>- Various reports on community college systems nationally and in other states</td>
</tr>
</tbody>
</table>

Sample Selection

Focus colleges. An initial review of the publicly available data for community college revealed that the Integrated Postsecondary Education Data System (IPEDS) data categories were broad. In order to gain additional details and a deeper understanding of the funding available to community colleges, the research team decided to profile three community colleges. These focus colleges provided more in-depth view of funding issues. After consultation with officials at the Massachusetts Department of Higher Education, we created a short-list of community colleges. The three selected colleges were
chosen in part because, as the largest three colleges in enrollment located in three distinct areas of the state, they service a substantial number of community college students in the Commonwealth. Also, these schools present relevant issues for community colleges as a whole. Middlesex was recommended for its strong partnerships with local employers. Bunker Hill participates in the Achieving the Dream Initiative, which fosters research-based best practices. Quinsigamond is taking the lead on activities for the consortium of community colleges in Massachusetts.

**Comparison states.** Comparison states were selected to answer the question: *How does this funding compare to other states, particularly in states with better student outcomes?* The following states were selected as comparison states:

- Connecticut
- New Jersey
- Ohio
- Virginia
- Washington

Several factors were considered in the selection of the aforementioned states, including size of the community college system, input from the Department of Higher Education, completion rates, and use of innovative practices.

Site visits revealed that each community college has performance measurement peer groups consisting of comparable community colleges that the Department of Higher Education uses to benchmark each college’s performance. Connecticut and New Jersey community colleges were most frequently listed as comparison colleges with 17 and 13 peer groups, respectively (Massachusetts Board of Higher Education, March 2010). Size also contributed to the selection process. Connecticut and New Jersey were comparable in size to Massachusetts, with 12 and 19 community colleges, respectively (American Association of Community Colleges, 2011). Additional comparison states also had schools listed as peer colleges: Washington (7), Ohio (5), and Virginia (1). The Department of Higher Education supported the selection of Washington and Virginia, as these states are frequently discussed within the department as exemplars. Further, Washington (29%), Virginia (26%), and Ohio (25%) had higher graduation rates than Massachusetts community colleges (18%).

States were also selected based on their pursuit of innovative strategies, including use of performance funding and participation in various grant opportunities. Both Ohio and Washington are currently pursuing performance funding. Washington launched the Student Achievement Initiative, which measures intermediate student outcomes that indicate whether or not students are on track toward a successful outcome and rewards colleges for gains made by students. Colleges earn points based on the number of students who reach specified milestones in the following categories: improving preparation for college-level courses; building toward a year of college credit; completing college math; and completing certificates, degrees, and apprenticeships. Community colleges receive funding in addition to

---

* Three year graduation rate for Fall 2005 cohort, graduated by Summer 2008, IPEDS Data
their regular state appropriations for increases in the number of achievement points they earn per year (Offenstein & Shulock, September 2010; Stephens, May 2009). Ohio uses a set of intermediate measures similar to those in Washington, and community colleges receive a portion of their basic allocation based on the success points earned. Rather than provide additional funding to its community colleges, Ohio ties part of its state appropriations to performance, with plans to increase that share from 5% to 30% over time (Offenstein & Shulock, September 2010).

All states selected as comparison states, with the exception of New Jersey, participate in the Achieving the Dream initiative. Virginia was one of the first states to participate and has been singularly praised for the degree to which its community college system has implemented the initiative’s recommendations: “By 2009, 75% of these policies had been adopted or were under consideration” (Mills, 2009). Further, Connecticut, Ohio, and Virginia are among the six states that participated in the Cross-State Data Work Group, which developed a set of indicators that states can use to plan more effectively through tracking student performance, assessing the effect of interventions, and learning about best practices across state community college systems. Given that four of Massachusetts’s community colleges (Bunker Hill Community College, Northern Essex Community College, Roxbury Community College, and Springfield Technical Community College) are Achieving the Dream grant recipients and that Bunker Hill expressed its intent to institutionalize the program, the research team considered effective participation in the program in selecting comparison states.

Further supporting Washington and Virginia’s selection as comparison states was that they have figured prominently in the Community College Research Center studies currently funded by the Gates Foundation, as the foundation seeks to select effective investments for its Postsecondary Success (PS) Initiative (Community College Research Center, 2011). Two of the eight Gates studies are focused on Washington, including Washington’s I-Best program, an instruction model in which adult basic skills/ESL and career-technical faculty partner to design and teach college-level courses for adult basic skills students. The I-Best program has already seen promising results: “a 2005 evaluation of I-Best found that participating students earned five times more college credits on average, and were 15 times more likely to complete workforce training, than traditional ABE/ESL students” (Mazzeo et al, 2006). The Gates Foundation’s second Washington-based study will focus on the degree to which more structured programs and proactive student supports have produced better outcomes in Washington. Three of the studies are focused on the Virginia Community College system, including its policies and practices related to online learning, student success courses, and gatekeeper courses. The Virginia Community College System has pledged to use the results of the studies to “develop system-wide policy changes focusing on at-risk students” and to support colleges in the implementation of successful strategies unearthed in the studies (Mills, 2009).

Data Collection

The qualitative data collection process included focus groups at each of the three focus colleges. The discussions were conducted by two Public Consulting Group staff at each location (a total of three interviewers across the three visits). Focus group participants included the president of the college (or a designee in one case), the chief financial officer, a manager of the grants office, and, in some cases, program administrators. A discussion protocol provided guidance for focus group discussions. We began by asking for participants’ input on their college’s IPEDS data. This sparked discussion about funding
streams, financial aid, and how the college financially supports its mission. Interviewers audio-recorded focus group discussions and took detailed notes.

Concurrent with the qualitative data collection process, the research team compiled data on the 15 community colleges in Massachusetts and the comparison states. This included data downloaded from the IPEDS at the federal National Center for Education Statistics, data provided by researchers at the Massachusetts Department of Higher Education, and data collected from national higher education associations. The research team reviewed data for accuracy with officials at the Department of Higher Education in Massachusetts.

**Data Analysis**

To analyze the qualitative data, interviewers reviewed their notes and the notes of their co-interviewer, documentation provided by both the college, and supplemental materials requested from the Massachusetts Department of Higher Education. Interviewers also referred to the audio-tapes to glean quotes or to clarify any issues not fully supported by both the notes and the documentation. Initial themes and findings were discussed with the larger team from the Mosakowski Institute and Public Consulting Group, and the refined list of themes was discussed with officials at the Massachusetts Department of Higher Education. The quantitative data were organized and displayed to document the themes developed through the qualitative data analysis.

**Limitations and Implications for Further Research**

This study offers a snapshot of funding information for community colleges in Massachusetts and examples of how similar states support their community colleges. It does not analyze or report performance measures for the individual colleges nor does it provide cost-benefit information about their programs. It is not intended to single out particular colleges except to provide details on funding and budgeting decisions at community colleges in the Commonwealth. This report does not assess the performance of any of the Commonwealth’s community colleges.

While this study discusses implications for policy regarding how to fund community colleges, it does not touch on a host of important issues. These issues – the quality of the community college programming, the impact on graduates, the cost-effectiveness of the current system, to name a few – are beyond the scope of the this study. The data collected and reported answer our research questions and cannot, at this time, answer other important questions. The report and findings will undoubtedly generate additional questions and topics of discussion as the Commonwealth of Massachusetts strives to understand how to best support the important mission of its community colleges.
VII. APPENDIX B. SUPPLEMENTAL MATERIAL

Community College Profiles

To better understand the nuances of funding and programming at community colleges in Massachusetts, we visited three colleges. These were selected to represent both a large percentage of students and also to highlight important trends in education at community colleges. We visited Bunker Hill, Middlesex, and Quinsigamond Community Colleges.

Bunker Hill Community College

Bunker Hill was selected because it is the largest community college within the Massachusetts community college system and because it is located in Boston. In addition to being the largest community college in Massachusetts, Community College Week named Bunker Hill one of the “top 50” fastest growing two-year colleges (Bradley, 2010). The publication ranked Bunker Hill as #27 in enrollment growth among colleges with 10,000 or more in enrollment. Further influencing its selection was the college’s participation in the Achieving the Dream Initiative, a national study aimed at improving success among community college students.

Funding Streams

According to data provided by the Massachusetts Department of Higher Education and discussions with focus group participants at Bunker Hill, total revenue for the college was roughly $65.8 million in FY 2010.

Tuition/fees

In FY 2010, tuition and fees constituted $30.7 million of the college’s revenue. Less scholarship allowances ($11.3 million), revenue from tuition and fees was $19.5 million, or 29% of total revenue. While the tuition and fees represented a substantial increase from FY 2009 ($25.4 million), scholarship allowance increased by a fairly comparable amount (from $6.2 million in FY 2009), thereby making the net tuition and fees increase less notable (from $19.2 million in FY 2009). The college does not differentiate between tuition paid through Pell Grants versus the tuition paid using students’ own funds or other scholarship funding. As noted by the vice president, money from Pell Grants is captured in the grants category and is not referenced explicitly in the tuition and fees category. The extent to which students are supported through Pell Grants is significant; in FY 2010, the amount was estimated to be $18 million. Bunker Hill’s tuition rate is currently $131 per credit, bringing costs for full-time students to $3,930. The director of financial aid stated that between “65% to 70% receive financial aid; of those students who receive financial aid, 85% receive a Federal Pell Grant and 70% of those receive the maximum amount” (Focus Group, March 7, 2011). These percentages have increased dramatically (some college administrators estimated it had been near 50%) over the last three years, which were attributed to enhanced outreach in the way of workshops, extended financial aid hours, online notifications, and greater awareness among staff.
State Appropriations

In FY 2010, state appropriations were roughly $20.9 million, or about 32% of the funding at the college. Bunker Hill Community College personnel noted that 100% of state appropriations are used to fund salaries for full-time staff, including fringe benefits.* However, the vice president stated that “in Bunker Hill and other community colleges, state appropriations are no longer sufficient to cover full time salaries” (Focus Group, March 7, 2011). This is reflective of the fact that growth is not considered in state appropriations or in facilities funding, which are based on historical amounts and across-the-board decreases or increases. Consequently, the vice president noted that Bunker Hill’s 98% increase in enrollments between FY 2001 and FY 2011 has had no impact on state appropriations, which have increased by approximately 3% (Bunker Hill Community College Student Information System).

At the same time, the totality of state support is not apparent by looking at state appropriations, for they don’t take into account either the fringe benefits or the grant funding provided by the state of Massachusetts, including the Adult Basic Education funding, Massachusetts Cash Grants, Massachusetts Grants, and Massachusetts Part-Time Grants. Therefore, the decreases in the Massachusetts Cash Grants (from $1.5 million in FY 2007 to $1.3 million in FY 2010) and Massachusetts Part-Time Grants (from $165,000 in FY 2007 to $123,000 in FY 2010) are not readily apparent by looking at the state appropriations across the years. Similarly, increases in other categories are less evident (e.g., increase in Massachusetts Grants, from $294,308 in FY 2007 to $560,476 in FY 2010).

Grants and Contracts

In FY 2010, grants and contracts amounted to $23.5 million, or 36% of total revenue. Grant funding has remained at a fairly constant level in Bunker Hill Community College—between $4.1 and $4.9 million over the last five fiscal years. The director of grants development stated: “The main point I’d make about grants is that we don’t rely on grants for operating costs like some private institutions do. We pursue grants to fund projects that help promote the college’s mission and goals” (Focus Group, March 7, 2011). This sentiment is reflective of the college’s focus on the goals that emerge from its planning process. Just as it insists that all of its internally developed action plans are reflective of these goals, Bunker Hill expects that the grant funding will similarly support their realization.

Contracts are largely in the domain of the Workforce Development Center staff, which provides businesses with information related to the services Bunker Hill Community College can provide. The vice president describes the information sharing as follows: “We help them look at where they want to go and what the skill set is of their incumbent employees, and what we (Bunker Hill) are able to offer to get them where they think they need their employees to be” (Focus Group, March 7, 2011). The Workforce Development Center’s outreach, along with the college’s development of relationships with businesses and nonprofits through recruitment for the Foundation Board of Trustees, Academic Advisory Committees, and participation in the planning process, work in tandem to enhance the college’s ability

---

* Fringe benefits are not included in the $20.9 million state appropriation. In FY 2010, the Commonwealth provided an additional $3.6 million in fringe benefits. Also, the state appropriation does not reflect the tuition remitted by Bunker Hill to the Commonwealth General Fund ($400,000).
to develop relations with area businesses and ultimately provide contractual services to their employees.

Other

Other revenue for FY 2010 was about $2 million, which includes auxiliary enterprises, all other operating revenue, and independent operations, or 3% of total revenue. Assistance from the Foundation was $297,057 in FY 2009, a significant enhancement in comparison to FY 2008 ($113,531) and FY 2007 ($67,424). The Bunker Hill Foundation provides some targeted support to the community college, namely through supporting scholarships, the college’s textbook assistance program, and the student’s emergency assistance fund for students with financial emergencies. A significant portion of Bunker Hill Community College Foundation’s funds are generated through fundraisers, specifically its annual event at Hampshire House. Alumni donations do not figure prominently in the net assets of the foundation.

Highlights from Bunker Hill

We selected Bunker Hill in part because it is the largest community college in the Commonwealth, but also because they participate in the Achieving the Dream project. During the visit, we learned that the college has a very intensive strategic planning process that brings together a large and diverse group of stakeholders every three years to revisit and revise the college’s goals. Both of these initiatives are described below.

Strategic Planning Process

Bunker Hill Community College detailed its strategic planning process and how the process engages business and civic leaders, faculty and staff, students and alumni, and college trustees in three-year intervals. Area businesses provide information related to what is happening in their respective industry and reflect on how this impacts Bunker Hill. College personnel then use their input to develop goals, objectives, and concrete action steps. The process is far-reaching, not only in its engagement of stakeholders, but also in the extent to which the resulting goals are integrated into the college’s programmatic and funding processes. A pamphlet reporting the 2010–2013 college goals and objectives stated: “Faculty and staff submit action plans, accompanied by budgets, to accomplish the goals. The college administration reviews the dozens of proposals that are submitted and selects those plans that most closely align with the new goals. The action plans then become components of the next fiscal year’s budgets.”

The college seeks out funding in accordance with the selected action plans, and makes the link between specific grant funding and goals apparent. In reporting its progress in achieving the 2006–2009 goals, Bunker Hill Community College detailed its accomplishments and associated funding streams (January 20, 2010). Further, the college seeks funding that reinforces existing support in order to stay focused in its efforts. For example, the Achieving the Dream funding aligned closely with “The Engaged Campus” competitive grant previously attained. The vice president stated: “Instead of going in a different direction, we just looked at how they could peacefully coexist. With those two initiatives focusing on the same thing, we were able to gain more ground” (Focus Group, March 7, 2011).
Achieving the Dream Initiative

In an effort to advance the college’s goal to “support each student’s goals for success,” Bunker Hill Community College sought participation in Achieving the Dream and was “selected as one of 84 out of 1,177 community colleges nationwide to participate” (January 20, 2010). Bunker Hill Community College’s focus has been on setting up learning communities that include learning community clusters, learning community seminars, and common interest communities, which are all focused on increasing student engagement and strengthening student supports. The effort has resulted in increased retention rates; “Fall-to-spring retention of the nearly 1,000 students enrolled in fall 2009 learning communities was 82%, compared to 73% for all students” (2009–2010). As the college has seen these results, the vice-president and director of grants development affirmed that the program will be institutionalized when the funding is exhausted. The degree to which the program is currently embedded in the fabric of the college is apparent in the college’s recent goal statements, specifically its call to “institute a culture of evidence and accountability” (2010). This goal statement is well-aligned with one of Achieving the Dream’s steps for institutional reform, namely the establishment of a culture of continuous improvement. In order to support an institutional culture of evidence and accountability and to continue the work of Achieving the Dream after the grant ends, the college has pledged to pay for the work out of its operational budget, thereby confirming the vice-president’s assertion that “our (the college’s) goals drive the expenditure of our funds.” (Focus Group, March 7, 2011).

Middlesex Community College

Selected because of its strong partnerships with local employers (see: http://www.middlesex.mass.edu/partnerships/Business.htm), Middlesex Community College also serves a large percentage of community college students in Massachusetts.

Funding Streams

According to the Massachusetts Department of Higher Education, an audit conducted by KPMG, and discussions with administrators at Middlesex, in FY 2010 total revenue for the college was roughly $62.8 million.

Tuition/fees

In FY 2010, tuition and fees brought in about $30.6 million. Less scholarship allowances ($9.1 million), total revenue from tuition and fees was roughly $21.5 million, or 34% of total revenue. At Middlesex, the tuition and fees are $160 per credit. The Commonwealth receives $24 per credit and the remainder stays with the college. In addition, students pay technology fees and additional fees for participation in some courses through things such as lab fees. For a full-time student, attending Middlesex costs $4,500 a year. The president of the college stated that there is increasing recognition that high fees make up for the low tuition rates. Tuition and fees make up one-third of the funding stream at Middlesex Community College.
State Appropriations

In FY 2010, state appropriations were $20 million*, or about 32% of the funding at Middlesex Community College. The state appropriations primarily cover salaries for full-time, core staff but with recent across-the-board reductions the college is spending other moneys to cover salaries and benefits.

Grants and Contracts

In FY 2010, grants and contracts amounted to roughly $19.3 million, or 31% of revenue. Many in the community college system do not consider grants and contracts to be an important source of funding, since every dollar is earmarked for a specific purpose and does not augment the operating budget. However, at Middlesex, administrators commented that these outside sources of funding help enhance the capacity of the college to provide workforce development programs. According to the college president:

They build the fabric of the institution. They allow us to be more workforce oriented. They allow us to be more connected to K through 12. We learn a lot. They leverage what we do. (Focus Group, March 3, 2011).

Outside contracts include industry certification programs provided directly to local employers (sometimes at the employers’ worksite). Additional grants are provided by professional associations to support certification in their profession; the federal Departments of Labor, Health and Human Services, and Education; and from local businesses. Local employers also make donations of equipment or space. Middlesex Community College also has a grant from the Nathaniel and Elizabeth P. Stevens Foundation to support the Lowell Middlesex Academy Charter School.

State grants and contracts are also an important part of the funding stream at Middlesex. The state appropriations noted above are not the only funding from the Commonwealth of Massachusetts. Several Massachusetts agencies disburse grants to Middlesex and other community colleges. These include Adult Basic Education funding from the Department of Elementary and Secondary Education, Massachusetts Cash Grants from the Department of Higher Education’s Office of Student Financial Aid, and the Massachusetts Grants. Much of the federal money for community colleges is appropriated to the Commonwealth and distributed to each school through a competitive process. The Commonwealth has also entered into contracts with Middlesex, for instance to run the regional one-stop job career center (Career Center of Lowell).

Other

For FY 2010, other revenue was $1.9 million, or 3% of revenue. Specifically, Middlesex Community College has relied on its foundation to augment financial aid resources as enrollment has increased and as more students are in need of assistance. During the 2010 school year, 40% of students were eligible

---

* Fringe benefits are not included in the $20 million state appropriation. In FY 2010, the Commonwealth provided an additional $4 million in fringe benefits. Also, the state appropriation does not reflect the tuition remitted by Middlesex to the Commonwealth General Fund ($458,937).
for financial aid. There are also grants available to students and faculty within specific programs. Foundation money is primarily generated from fundraisers, particularly through the Celebrity Benefit. Foundation assistance totaled $12,523 in 2008 and $3,442 in 2009.

**Highlights from Middlesex Community College**

Recommended for selection due to its partnerships with local employers, Middlesex also maintains a strong commitment to providing nearly every needy student with financial support so they can continue their education. These efforts provide examples of how community colleges can stay responsive to both students and the community.

**Scholarships to Help Middle Class Students**

Federal Pell Grants still cover full tuition and expenses at Middlesex Community College for the neediest students. To make college affordable to middle class students – those who can’t afford the $4,500 tuition but are not eligible for a full Pell Grant – Middlesex sets aside $600,000 from their operating budget into a scholarship fund. For fiscal year 2010, 92% of those who applied for financial assistance received enough aid to cover the costs of attendance. Administrators said they consistently provide aid to over 90% of financial aid applicants.

**Partnerships to Strengthen Workforce Development**

The Commonwealth is putting a lot of attention on the role of community colleges in workforce development. Middlesex was recommended as a strong model for partnering with local employers to promote workforce development. This includes providing training under a specific contract, having representatives from local businesses on the program advisory boards, and having faculty from Middlesex serve on local workforce development boards. Most support is in the form of in-kind contributions, tuition paid for employees to attend training, or donations of equipment and supplies.

Middlesex has proven responsive to local employers. For example, Leahy Clinic approached Middlesex Community College to provide nursing certification for their employees. Leahy employees were having trouble getting certification given the long waiting lists for nursing programs. Leahy pays tuition for their employees to attend courses at Middlesex and the clinic established a nursing lab at their own facility to support the training. Several years ago, the U-Mass Donohue Institute released a report highlighting a lack of jobs for community college graduates in biotechnology. In reaction to this report, Middlesex approached employers to determine why there was a perception that associate’s degree graduates could not find work in the life sciences and found that employers weren’t confident of the credentials of students coming from a variety of colleges. In response, Middlesex worked with other community colleges and employers to strengthen program requirements: “We do that with all our career programs. We adjust curriculum based on what the jobs are. We work hand-in-hand with the companies” (Focus Group, March 3, 2011). The college president noted that their reputation is built on the good work of Middlesex graduates at local businesses. The partnerships rest on three pillars: 1) relationships between executives at the community college and employers, 2) good relationships between employers and employees, and 3) the strong reputation of the workforce development programs themselves.
Quinsigamond Community College

Quinsigamond Community College was selected because of its size and central location, as well as the variety of offered programming.

Quinsigamond Community College was established in 1963 to provide access to higher education to residents of Central Massachusetts. Since the early 1960s, enrollment has grown from 300 to over 13,000 full and part-time day and evening students. Quinsigamond offers over 70 associate’s degree and certificate career options in business, health care, technology, liberal arts, and human services. The college also offers a wide variety of non-credit courses, workshops, and seminars through its Division of Continuing Education program.

Funding Streams

Discussions with administrators at Quinsigamond and the senior staff at the Massachusetts Department of Higher Education revealed that in FY 2010, total revenue for the college was about $59.8 million.

Tuition/fees

In FY 2010, tuition and fees totaled $31.7 million. Less scholarship allowances ($14.1 million), net tuition and fees was $17.5 million, or 29% of total revenue. Tuition and fees are $158 per credit, plus additional fees (e.g., technology fees, lab fees) depending on the students’ course of study. School administrators increasingly view these additional fees as a way to make up for low tuition rates.

State Appropriations

In FY 2010, state appropriations were roughly $15.2 million*, or about 25% of the total funding at Quinsigamond Community College. The state appropriations primarily cover salaries for full-time, core staff. Salary-related expenses for full-time staff at Quinsigamond exceed the total amount of state appropriation, so the school increasingly relies on tuition and fees to meet its annual operating budget. On a per FTE basis, Quinsigamond receives the lowest state appropriation in the Commonwealth. If enrollment continues to grow, this disparity is expected to become even greater.

Grants and Contracts

In FY 2010, grants and contracts amounted to $21.8 million, or 37% of total revenue. Federal grants accounted for $17.8 million, state grants were $3.2 million, and private grants were $683,000. Although the funding represents a significant amount of revenue for the school, it is earmarked for specific programs, students, and services. Administrators were very clear that these funds do not support the overall operating budget and they do not consider them a stable or essential source of revenue: “We get

* Fringe benefits are not included in the $15.2 million state appropriation. In FY 2010, the Commonwealth provided an additional $3.2 million in fringe benefits. Also, the state appropriation does not reflect the tuition remitted by Quinsigamond to the Commonwealth General Fund ($547,174).
the occasional unrestricted grant, but I don’t spend a lot of time [on grants and contracts]. It’s “dollar in, dollar out” (Focus Group, March 8, 2011).

**Other Revenues**

Other operating revenue accounted for $5.3 million, or 9% in total revenue at Quinsigamond in FY 2010. Quinsigamond has several auxiliary operations, a bookstore, and a cafeteria that provide additional operating revenue. In addition, a foundation supports students with scholarship aid.

**Highlights from Quinsigamond**

Quinsigamond Community College takes great pride in its entrepreneurial spirit to strongly push its mission of serving students. The issue of funding and the funding formula (or lack thereof) for the state appropriation to community colleges is a critical one. With its growing population and increased facility demands, Quinsigamond continues to have to explore creative ways to meet the demands of its students and balance the budget. The college is proud of its ability to adapt to its environment and develop new programs, to build on existing relationships to create workforce partnerships to support that work, and to identify creative and resourceful funding solutions. As one administrator shared: “We operate very entrepreneurially. We have had to be as creative as we can be in terms of revenue generation” (Focus Group, March 8, 2011).

**Creative Solutions**

Finding facilities has been a particular challenge for Quinsigamond Community College and the issue has garnered particularly creative solutions. Quinsigamond has entered into agreements with local organizations to share space. For instance, the hospitality and restaurant management program runs a diner at a local senior center. Quinsigamond offers GED and English as a Second Language classes at a nearby Boys and Girls Club to reach the parents of club members. They are also working to secure space at local high schools with high tech facilities:

> We have tried to establish relationships that allow us to deliver more college level courses to high school students during the school day at Worcester Vocational Technical High school. We’ve come up with agreements with them where there is no cash exchanged. It’s a trade agreement. We deliver five college level courses during the school year for high school students. In return, we operate courses at their facilities in the evening hours. We have found a way to have access to a high tech space that we could never afford ourselves to deliver 12 credit courses and non-credit training in their spaces. (Focus Group, March 8, 2011).

These partnerships have been so successful that Quinsigamond is now looking to replicate this type of agreement with other organizations.

**Meeting Student Needs**

Administrators at Quinsigamond Community College spoke quite eloquently and passionately about the scope and breadth of its service offerings to students. Quinsigamond offers 70 specializations, including 19 health services programs, liberal arts credits that transfer to four-year programs, and support services to help all students succeed. They also have a full-service disability support office with roughly
10 disability specialists who work directly with students. The supports can include allowing a student more time for tests, teaching test-taking strategies, providing Dragon Dictate software, and creating individual service plans to support their educational needs. The American with Disabilities Act requires serving all students, even non-credit students. At Quinsigamond, students are provided services and access to programming regardless of their financial situation. The college has expanded its financial aid to financially support increasing numbers of students: “Our financial aid budget has increased from 2006 at about $8.5 million to over $25 million. We are serving a significantly needy population” (Focus Group, March 8, 2011).
## VIII. APPENDIX C. GLOSSARY

<table>
<thead>
<tr>
<th>Table C1. Glossary for Investing in Community Colleges of the Commonwealth: A Review of Funding Streams</th>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Academic Advisory Committee</strong></td>
<td>A group of community members who advise a community college on matters of curriculum planning, workforce needs, and program effectiveness for a given area of study (e.g., criminal justice, radiologic technology).</td>
</tr>
<tr>
<td></td>
<td><strong>Achieving the Dream: Community Colleges Count</strong></td>
<td>A national initiative launched in 2004 in 26 community colleges across five states. The intent of the initiative is to improve student success in community colleges by changing the culture and operations of community colleges.</td>
</tr>
<tr>
<td></td>
<td><strong>Adult Basic Education (ABE) Funding</strong></td>
<td>Funding provided by the Department of Elementary and Secondary Education for adult basic education. Adult basic education can include a range of educational services for adults from basic literacy (including English for non-native speakers of English), numeracy, and high school equivalency (GED)/adult diploma programs.</td>
</tr>
<tr>
<td></td>
<td><strong>Americans with Disabilities Act</strong></td>
<td>Prohibits discrimination against people with disabilities in employment, transportation, public accommodation, communications, and governmental activities. In the community college context, the law requires that any student who enrolls at a community college receive necessary support and accommodations.</td>
</tr>
<tr>
<td></td>
<td><strong>Annual Headcount</strong></td>
<td>Tally of all students (full-time and part-time). A measure of the utilization rate of the facility.</td>
</tr>
<tr>
<td></td>
<td><strong>Appropriation per FTE</strong></td>
<td>Amount of the state appropriation per each full time equivalency student.</td>
</tr>
<tr>
<td></td>
<td><strong>Auxiliary Enterprises</strong></td>
<td>Revenue generating activities that provide non-instructional support in the form of goods or services (e.g., bookstores, concessions)</td>
</tr>
<tr>
<td></td>
<td><strong>Career Center of Lowell</strong></td>
<td>Part of the Massachusetts One-Stop Career Center system. The career center operates under the direction of the City of Lowell and is chartered by the Greater Lowell Workforce Investment Board. On various occasions, the Commonwealth has contracted with Middlesex Community College to provide local employment</td>
</tr>
<tr>
<td>Term</td>
<td>Definition</td>
<td></td>
</tr>
<tr>
<td>--------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>and training services through the one-stop career center.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Career Pathways</td>
<td>A framework that positions connected education, training, and support services as the means by which to enter and progress within the educational system and within a specific sector.</td>
<td></td>
</tr>
<tr>
<td>Common Interest Communities</td>
<td>One of the three levels of learning communities at Bunker Hill Community College. Brings together students with common interests, academic goals, and/or career aspirations for structured activities outside of the classroom.</td>
<td></td>
</tr>
<tr>
<td>Completion Rates</td>
<td>For the purpose of this study, completion rates are reported as the percentage of students entering the institution as full-time, first-time, degree/certificate-seeking undergraduate students in a particular year (cohort) who complete their program within 3 years (150% of normal time to complete).</td>
<td></td>
</tr>
<tr>
<td>Comprehensive Adult Student Assessment System (CASAS)</td>
<td>An assessment instrument used for academic basic skills assessment in reading, writing, and arithmetic. The instrument is used by ABE/ESOL Basic Skills Programs in Washington for program assessment. Further, Washington requires all programs under its WorkSource System to use CASAS Employability Competency Series (ECS) Appraisal Test 130 as a first step in determining basic skills deficiency.</td>
<td></td>
</tr>
<tr>
<td>Cross-State Data Work Group</td>
<td>Connecticut, Florida, North Carolina, Ohio, Texas, and Virginia joined together to develop a set of alternate indicators that can provide information related to whether students are on track toward completion.</td>
<td></td>
</tr>
<tr>
<td>Developmental Education</td>
<td>Post-secondary remedial education that students enroll in so as to acquire the skills necessary to enroll in college-level courses. Enrollment is based upon scores attained on a placement test (Accuplacer) that provides information related to a student’s skills in English, reading, and mathematics. Accuplacer is used in conjunction with a student’s academic background, goals, and interests by academic advisors and college counselors to determine a student’s course selection.</td>
<td></td>
</tr>
<tr>
<td>Division of Capital Assets</td>
<td>State agency responsible for major public building construction and real estate services for the Commonwealth of Massachusetts.</td>
<td></td>
</tr>
<tr>
<td>Term</td>
<td>Definition</td>
<td></td>
</tr>
<tr>
<td>-------------------------------------------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Management (DCAM)</td>
<td>DCAM manages capital construction projects and active leases.</td>
<td></td>
</tr>
<tr>
<td>“The Engaged Campus” Grant</td>
<td>The intent of the Engaged Campus Initiative is to increase student engagement, persistence, and program completion through the establishment of learning communities. In October of 2006, Bunker Hill Community College was awarded a five-year grant of nearly $1.9 million from the U.S. Department of Education, Title IIIA Strengthening Institutions Program.</td>
<td></td>
</tr>
<tr>
<td>“Federal Government” [as used by Choitz (2010)]</td>
<td>Revenue received from the federal government. Used by Choitz to draw comparisons across states.</td>
<td></td>
</tr>
<tr>
<td>Federal Pell Grant Program</td>
<td>Provides need-based grants to low-income undergraduates and certain post-baccalaureate students to promote access to postsecondary education. Grant amounts vary and are dependent on the student’s proven need, the student’s expected family contribution, the cost of attendance at the institution, the student’s enrollment status, and whether the student attends for a full academic year or less. These federal grants are primarily awarded to students with family incomes below $30,000, although families are eligible until their income reaches $60,000.</td>
<td></td>
</tr>
<tr>
<td>Full Time Equivalency (FTE)</td>
<td>A student enrolled in 12 credits or equivalent per semester. A measure of the mix of full-time and part-time students at the institution’s peak entry time.</td>
<td></td>
</tr>
<tr>
<td>Funding Formula</td>
<td>Formula used to determine allocations to community colleges, typically based on a combination of factors such as enrollment, the cost per full time equivalent, the average faculty salary, and student-to-faculty ratio.</td>
<td></td>
</tr>
<tr>
<td>Gatekeeper Courses</td>
<td>College-level pre-requisite courses that students must complete before enrolling in more advanced classes or for degree/certificate completion.</td>
<td></td>
</tr>
<tr>
<td>Grants and Contracts</td>
<td>Include federal grants and contracts, state grants and contracts, private grants and contracts, and all other grants and contracts.</td>
<td></td>
</tr>
<tr>
<td>I-Best Model</td>
<td>After successfully piloting (2004) at 10 community and technical colleges, I-Best was officially launched across the Washington State Board for Community and Technical Colleges system in</td>
<td></td>
</tr>
<tr>
<td>Term</td>
<td>Definition</td>
<td></td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>2006. The intent of the model is to facilitate work across community college departments by having adult basic skills/ESL and career-technical faculty partner to design and teach college-level courses for adult basic skills students, and consequently increase successful transition from skills classes to college level vocational programs.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Individualized Education Program (IEP)</td>
<td>A written statement for each child (PK–12) with a disability that is developed, reviewed, and revised in a meeting in accordance the Americans with Disabilities Act. The IEP details the student’s current level of functional performance, sets annual goals, and details the child’s supplementary aids, services, modifications, and accommodations.</td>
<td></td>
</tr>
<tr>
<td>Integrated Postsecondary Education Data System (IPEDS)</td>
<td>Core data collection center for the National Center for Education Statistics and the primary source for data on colleges, universities, and technical and vocational postsecondary institutions in the United States. As state departments of education do not engage in standardized data collection of the variables reported in the IPEDS data system, each community college self-reports its data, which creates variability across the data.</td>
<td></td>
</tr>
<tr>
<td>Learning Communities</td>
<td>Learning environments focused on increasing student engagement and strengthening student support to improve retention. Includes learning community clusters, learning community seminars, and common interest communities.</td>
<td></td>
</tr>
<tr>
<td>Learning Community Clusters</td>
<td>One of the three levels of learning communities at Bunker Hill Community College. Learning community clusters enable students to take two or more courses organized around academic themes that faculty members develop collaboratively after successful submittal of a proposal. Students in learning community clusters learn and study with the same group of students and engage in interdisciplinary learning.</td>
<td></td>
</tr>
<tr>
<td>Learning Community Seminar</td>
<td>One of the three levels of learning communities at Bunker Hill Community College. The seminar is a three-credit course orienting new students to the college and equipping them with the skills and supports necessary for success within the system.</td>
<td></td>
</tr>
<tr>
<td>Term</td>
<td>Definition</td>
<td></td>
</tr>
<tr>
<td>-------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Lowell Middlesex Academy Charter School</td>
<td>Charter school founded in 1994 to combat the substantial high school dropout rate in Lowell. The school caters to students (16–21) who have left school prior to graduation and those at risk of dropping out by providing them with a supportive, skills-based program with high standards for both attendance and behavior. Currently, Middlesex Community College operates the charter school and allows the school to use its cafeteria, science facilities, and library, as well as allows the school’s high achieving students to take classes at the college free of charge.</td>
<td></td>
</tr>
<tr>
<td>Massachusetts Cash Grants</td>
<td>Need-based funding for in-state students to support them in payment toward mandatory fees and non-state supported tuition; provided by the Department of Higher Education’s Office of Student Financial Assistance to public institutions to distribute as supplemental grants in campus-based financial aid packaging strategies.</td>
<td></td>
</tr>
<tr>
<td>Massachusetts Department of Higher Education</td>
<td>An entity responsible for executing the Massachusetts Board of Higher Education’s policies and day-to-day operations related to the Commonwealth’s system of public higher education. The system of public higher education consists of 29 campuses divided into three types: 15 community colleges, nine state universities, and the five campuses that are part of the University of Massachusetts system.</td>
<td></td>
</tr>
<tr>
<td>Massachusetts Grants</td>
<td>Need-based financial assistance provided directly to in-state part-time or full-time undergraduate students who are enrolled in and pursuing a program of higher education (certificate, associates, or baccalaureate program) in any approved public or independent college, university, school of nursing, or any other approved higher education institution (in the Commonwealth and in states that have reciprocity agreements with the Commonwealth); funded by appropriations from the Massachusetts Legislature and distributed by the Department of Higher Education’s Office of Financial Assistance.</td>
<td></td>
</tr>
<tr>
<td>Massachusetts Part-Time Grants</td>
<td>Need-based funding provided by the Department of Higher Education’s Office of Student Financial Assistance to support in-</td>
<td></td>
</tr>
<tr>
<td>Term</td>
<td>Definition</td>
<td></td>
</tr>
<tr>
<td>----------------------------------------------------</td>
<td>------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>state, part-time students who are enrolled in an</td>
<td>state, part-time students who are enrolled in an undergraduate degree program or eligible certificate program in meeting their financial obligations.</td>
<td></td>
</tr>
<tr>
<td>undergraduate degree program or eligible certificate program in meeting their financial obligations.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nathaniel and Elizabeth P. Foundation</td>
<td>Provides Middlesex Community College with grant funding to support the Lowell Middlesex Academy Charter School. Generally, the foundation provides support for conservation, housing, social services, historic preservation, and the arts. Grants are distributed for general purposes, program-related investments, seed money, emergency funds, building funds, equipment, land acquisition, matching funds, and special projects.</td>
<td></td>
</tr>
<tr>
<td>Net Tuition and Fee Revenue</td>
<td>Money paid by students, inclusive of any outside grants or scholarships that the student has received and exclusive of institutional scholarship allowances.</td>
<td></td>
</tr>
<tr>
<td>“Net Student Tuition” [as used by Choitz (2010)]</td>
<td>The amount of tuition revenue after factoring in institutional aid and tuition waivers. Used by Choitz to draw comparisons across states.</td>
<td></td>
</tr>
<tr>
<td>Opportunity Grants</td>
<td>A grant provided by the Washington State Board for Community and Technical Colleges for low-income adults training for high-wage, high-demand careers. An opportunity grant pays for funding for up to 45 credits to be used within three years, books and supplies up to a given amount, and additional support services.</td>
<td></td>
</tr>
<tr>
<td>Other Operating Revenue</td>
<td>Includes auxiliary enterprises, all other operations revenue, and independent operations.</td>
<td></td>
</tr>
<tr>
<td>“Other Sources” [as used by Choitz (2010)]</td>
<td>Includes philanthropic donations and auxiliary enterprises. Used by Choitz to draw comparisons across states.</td>
<td></td>
</tr>
<tr>
<td>Performance Funding System</td>
<td>Funding system that allocates all or a portion of its funding based on an institution’s performance on certain predefined outcomes.</td>
<td></td>
</tr>
<tr>
<td>Postsecondary Success (PS) Initiative</td>
<td>Launched by the Bill and Melinda Gates Foundation in 2008 with the goal of doubling the number of low-income students who earn a postsecondary degree or credential by age 26.</td>
<td></td>
</tr>
</tbody>
</table>
| Qualitative Methods                                 | A research method primarily focused on engaging with relevant
Table C1. Glossary for Investing in Community Colleges of the Commonwealth: A Review of Funding Streams

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>program stakeholders to obtain more in-depth analysis of a given program. For the purpose of this study, qualitative methods included focus groups and interviews.</td>
<td></td>
</tr>
<tr>
<td>Quantitative Methods</td>
<td>A research method that is primarily focused on the analysis of quantifiable data. For the purpose of this study, quantitative research included the analysis of data from IPEDS and the Massachusetts Department of Higher Education.</td>
</tr>
<tr>
<td>State-Aided Community Colleges</td>
<td>State community college systems in which local tax appropriations account for at least 10 percent of the total government funding for all community colleges in the state.</td>
</tr>
<tr>
<td>State Appropriations</td>
<td>Funds set aside by the Massachusetts Legislature for each respective community college. State appropriations (as reported in this study) were adjusted by the Massachusetts Department of Higher Education to include any collective bargaining increases, 9C reduction (the governor’s across-the-board cuts), and the allocation of federal ARRA funds. Fringe benefits and tuition remitted are not included in these statistics.</td>
</tr>
<tr>
<td>“State and Local Government” [as used by Choitz (2010)]</td>
<td>A combination of state allocations and local tax revenues. Used by Choitz to draw comparisons across states.</td>
</tr>
<tr>
<td>“State and Local Grants and Contracts” [as used by Choitz (2010)]</td>
<td>State and local grants and contracts. Used by Choitz to draw comparisons across states.</td>
</tr>
<tr>
<td>Student Achievement Initiative (SAI)</td>
<td>Launched in Washington in 2007; this research-based performance incentive system provides financial rewards to individual colleges for increasing levels of student achievement.</td>
</tr>
<tr>
<td>Task Force on Collaboration and Efficiency</td>
<td>Launched in 2009; the group is chaired by the Bridgewater State University president and includes college presidents, chief academic and financial officers, and representation from the Board of Higher Education and local, institutional boards. The group has explored many aspects of community colleges and state universities to locate ways in which cooperation in various domains (e.g., purchasing and contracting for professional services, management of student information systems, operations, and administrative activities) can generate cost reductions.</td>
</tr>
</tbody>
</table>
Table C1. Glossary for Investing in Community Colleges of the Commonwealth: A Review of Funding Streams

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRIO grant</td>
<td>A federal grant that helps first-generation college attendees. It began in the 1960s with a trio of programs: Upward Bound, Talent Search, and Student Support Services. It now includes eight programs to assist disadvantaged students.</td>
</tr>
<tr>
<td>Tuition Rate</td>
<td>Rate set by the Massachusetts Board of Higher Education; must be remitted by the college to the Massachusetts Department of Higher Education. At present, the tuition rate is $24 per credit. Community colleges augment the tuition rate with fees.</td>
</tr>
<tr>
<td>Vision Project: A Public Agenda for Higher Education in Massachusetts</td>
<td>Adopted by the Massachusetts Board of Higher Education in May 2010; a partnership among the community colleges, the state universities, and UMass to advance the system’s performance in five key areas: college participation; college completion; student learning; workforce alignment; and elimination of disparities. In order to advance the desired outcomes, the Department of Higher Education has sought funding to incentivize and reward activities by individual campuses that advance project’s goals.</td>
</tr>
<tr>
<td>Workforce Development Center</td>
<td>Tasked with providing businesses with information related to the services Bunker Hill Community College can provide.</td>
</tr>
</tbody>
</table>
Investing in Community Colleges of the Commonwealth: A Review of Funding Streams (June 2011)

This report reflects all final changes that were made following the review of the Massachusetts Department of Higher Education and community colleges participating in the focus groups, and replaces all prior versions of the report. The official publication date is June 2011.

This report was submitted to the Massachusetts Legislature; June 2011; by Public Consulting Group and the Mosakowski Institute for Public Enterprise. This report was prepared by Michelle LaPointe, Ph.D. and Elizabeth Chmielewski; in collaboration with Stacie Beland, Kevin Cherry, James Gomes, Erin MacIntire, Julie Meltzer, and David Ronka.