

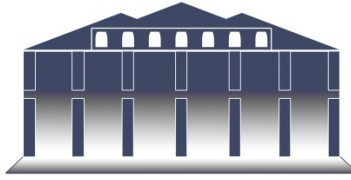
**Funding for North Carolina's Community Colleges:
A Description of the Current Formula and Potential
Methods to Improve Efficiency and Effectiveness**



**Final Report to the Joint Legislative
Program Evaluation Oversight Committee**

Report Number 2016-09

October 10, 2016



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John W. Turcotte
Director

October 10, 2016

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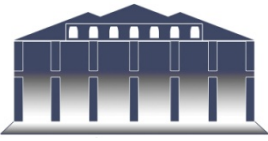
The Joint Legislative Program Evaluation Oversight Committee's 2015–17 Work Plan directed the Program Evaluation Division to examine the funding formula and timing for allocating state appropriations to community colleges and consider whether the funding formula is effective or needs to be changed.

I am pleased to report that the North Carolina Community Colleges System Office cooperated with us fully and was at all times courteous to our evaluators during the evaluation.

Sincerely,

A handwritten signature in black ink, appearing to read "John W. Turcotte".

John W. Turcotte
Director



PROGRAM EVALUATION DIVISION

NORTH CAROLINA GENERAL ASSEMBLY

October 2016

Report No. 2016-09

Funding for North Carolina's Community Colleges: A Description of the Current Formula and Potential Methods to Improve Efficiency and Effectiveness

Summary

The Joint Legislative Program Evaluation Oversight Committee's 2015–17 Work Plan directed the Program Evaluation Division to examine the funding formula and timing for allocating state appropriations to community colleges.

As the lead agency for delivering workforce development training, adult literacy training, and adult education programs, North Carolina's community college system consists of 58 colleges located around the state. In Fiscal Year 2014–15, 733,855 individuals, or 7% of the state's residents, attended at least one class at a community college.

The General Assembly appropriated \$1.1 billion to the community college system in Fiscal Year 2016–17. As most states do, North Carolina distributes the majority of this funding to colleges via a funding formula based on student enrollment.

The system's funding formula is functional and generally acceptable to institutions and the State Board of Community Colleges. North Carolina's funding formula is more sophisticated than those used in some other states because it uses a tier system to classify and account for distinct differences in programs and levels of study. A survey of college presidents revealed the majority do not object to the funding formula itself but expressed concerns about the amount of funding in general.

If the General Assembly wishes to change the current funding formula to improve efficiency and effectiveness, changes should be driven by specific legislative objectives. For instance, the General Assembly could consider initiatives to

- increase the equitable distribution of institutional and academic support funds;
- improve funding stability through the use of a stop-loss provision and by funding the Enrollment Growth Reserve;
- align tier funding with course costs;
- refine the existing performance-based funding system; and
- add needs-based funding to the enrollment portion of the formula.

Some of these changes would require increased state investment, whereas others could be done using existing resources.

Purpose and Scope

As directed by the Joint Legislative Program Evaluation Oversight Committee's 2015–17 Work Plan, this report examines the funding formula and timing for allocating state appropriations to individual community colleges and considers whether the funding formula is effective. The scope of this report is limited to discussion and consideration of the amount of state appropriations distributed to community colleges via a funding formula. In Fiscal Year 2016–17, the total operating budget for the North Carolina Community College System was \$1.5 billion, with approximately \$1.3 billion distributed by a funding formula.

Specifically, this report addresses the following questions:

1. How does North Carolina fund community colleges and what is the distribution of funding among colleges?
2. Since the North Carolina Community College System was formed, how has enrollment been used to determine community college funding?
3. How does North Carolina identify and fund priority instructional programs?
4. How does North Carolina use performance-based funding for community colleges?
5. What options could the General Assembly pursue if it wishes to consider changes to the current funding formula to improve efficiency and effectiveness?

For this evaluation, the Program Evaluation Division collected and analyzed information from

- a survey of the 58 community college presidents;
- a review of General Statutes and Session Laws;
- interviews and data from the Community Colleges System Office;
- a query of select states;
- a literature review of community college funding methods;
- interviews of representatives from the National Conference of State Legislatures and the Community College Research Center at Columbia University.

Background

North Carolina's community college system consists of 58 colleges.

Twenty-three of these colleges operate multiple campuses, and there are more than 70 additional community college centers around the state.¹ There is a community college located within 30 miles of 99% of North Carolinians. Each county is assigned to a specific community college's service area, but county residents may take classes at any institution of their choice. In Fiscal Year 2014–15, 733,855 individuals, or 7% of the state's residents, attended at least one class at a community college.²

¹ The General Assembly approved three new multi-campus centers in 2016. For more detail on the composition and growth of North Carolina's community college system, see the Program Evaluation Division's 2011 report entitled "Purchasing Consortia and Merging Community Colleges Could Save \$26.2 Million Over Seven Years."

² Headcount is based on the North Carolina Community College System's annual reporting period, which is the summer, fall, and spring terms for curriculum classes and the entire calendar year for continuing education classes.

The North Carolina Community College System (NCCCS) offers several types of instruction and programming to achieve its mission. State law designates NCCCS as the lead agency for delivering workforce development training, adult literacy training, and adult education programs. The mission of NCCCS is to open the door to high-quality, accessible educational opportunities that minimize barriers to post-secondary education, maximize student success, develop a globally and multi-culturally competent workforce, and improve the lives and well-being of individuals. NCCCS accomplishes this mission by offering the following types of programs.

- **Curriculum programs.** These programs consist of credit courses leading to certificates, diplomas, or associate degrees and range in length from one semester to two years. Curriculum programs are designed to prepare individuals for entry-level technical positions in business and industry or for transfer at the junior level into a four-year college or university. Curriculum programs also may contain developmental education courses and support services such as diagnostic assessment and placement, tutoring, advising, and writing assistance that improve a student's academic readiness. Qualified high school students are able to take curriculum courses, tuition-free, through the Career and College Promise program.
- **Continuing education.** These programs consist of non-credit courses that may be occupational, academic, or recreational in nature. Colleges offer free training for qualified public safety workers such as rescue squad workers and firefighters through continuing education.
- **Basic skills.** Each of the colleges offers instruction in basic academic skills, which include Adult Basic Education (K–8 basic literacy skills), Adult High School and General Educational Development programs (grade 9–12 academic preparation), and English as a Second Language.

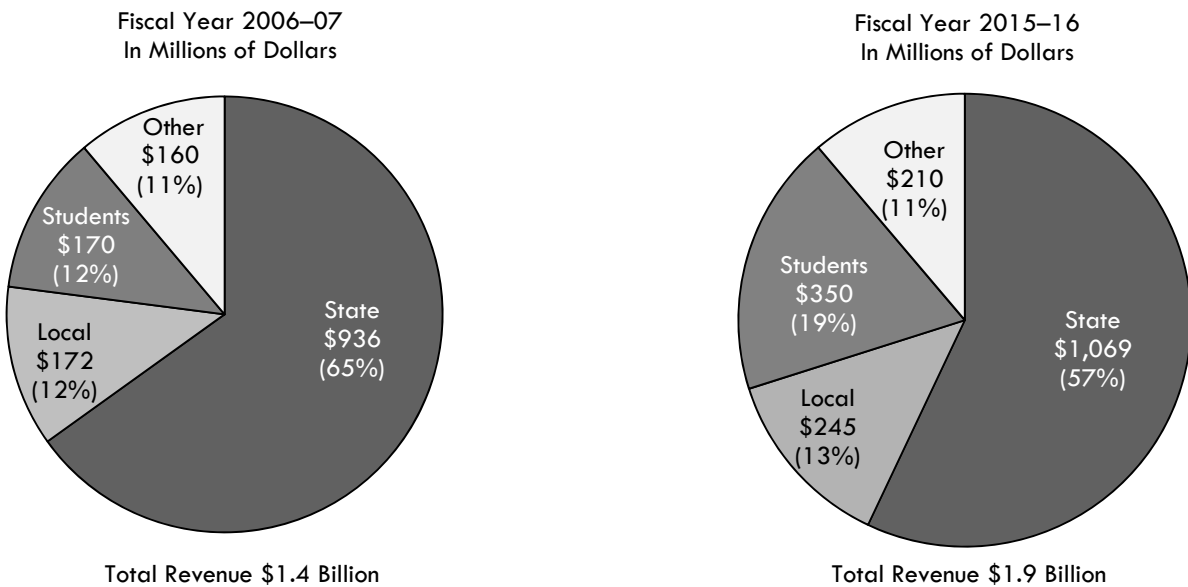
In addition to these programs, NCCCS operates 58 small business centers to support the development of new and existing businesses and offers customized industry training to fill specific workforce needs. NCCCS is responsible for licensing for-profit proprietary schools operating in the state and ensuring that these schools meet minimum standards of quality. Community colleges also engage in numerous community service activities such as providing meeting space for community functions and offering classes for personal enrichment that are supported by user fees.

Spending on community colleges accounted for \$1.1 billion, or 8.6% of North Carolina's \$12.3 billion total General Fund appropriation for education in Fiscal Year 2015–16. The public K-12 education system received \$8.5 billion of the State's total education budget (69%) and the University system received \$2.7 billion (22%). On a per capita basis, the average level of state support from all fund sources for a student in the public K-12 system was \$5,638, and the average level of state support for a student full-time equivalent (FTE) at a four-year public university was

\$13,101 in Fiscal Year 2014–15. In comparison, the State spent \$4,608 per student FTE in the community college system.

Funding for community colleges is generated from state, local, student, and other sources. In Fiscal Year 2015–16, 57% of total revenue, \$1.1 billion, came from the State General Fund, whereas 13% came from counties, 19% from student tuition and fees, and 11% from other sources including the federal government. As depicted in Exhibit 1, NCCCS's revenue from local governments and other sources has remained relatively stable during the last 10 years, whereas the system has received a lower percentage of state appropriations and a higher percentage of revenue from tuition and fees. Ten years of total community college funding by source is provided in Appendix A.

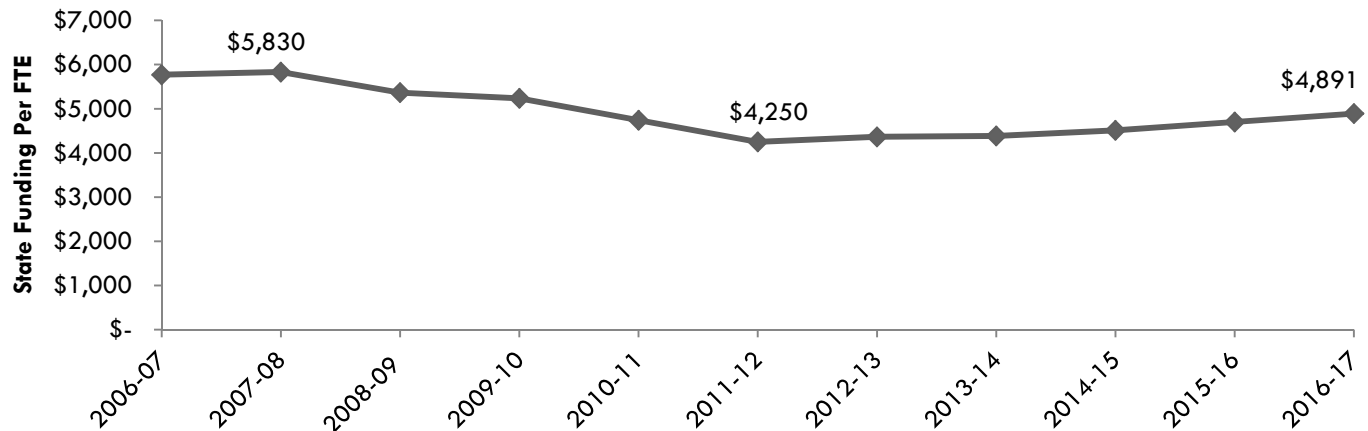
Exhibit 1: Composition of Community College Revenue, Fiscal Years 2006–07 and 2015–16



Source: Program Evaluation Division based on information from the Community Colleges System Office.

During the last recession, state support for community colleges decreased in North Carolina as well as regionally and nationally. According to the Southern Regional Education Board, state appropriations for community colleges decreased 14% regionally and 11% nationally between Fiscal Years 2007–08 and 2012–13. Funding has stabilized and rebounded in recent years, as seen in Exhibit 2.

Exhibit 2: State Support for Community Colleges Declined During the Recession But Has Since Stabilized



Note: Figures were adjusted for inflation using the Consumer Price Index from the Bureau of Labor Statistics.

Source: Program Evaluation Division based on information from the Community Colleges System Office.

In North Carolina, the State provides a larger percentage of total funding to educate students in the community college system than most other states.³ Although total percentage of revenue from tuition and fees has increased in recent years, North Carolina still charges one of the lowest levels of community college tuition and fees in the country. According to the Southern Regional Education Board, a full-time, in-state student paid approximately \$2,366 to attend a community college in North Carolina in Academic Year 2013–14. This figure is less than both the national (\$3,312) and regional (\$3,137) medians.

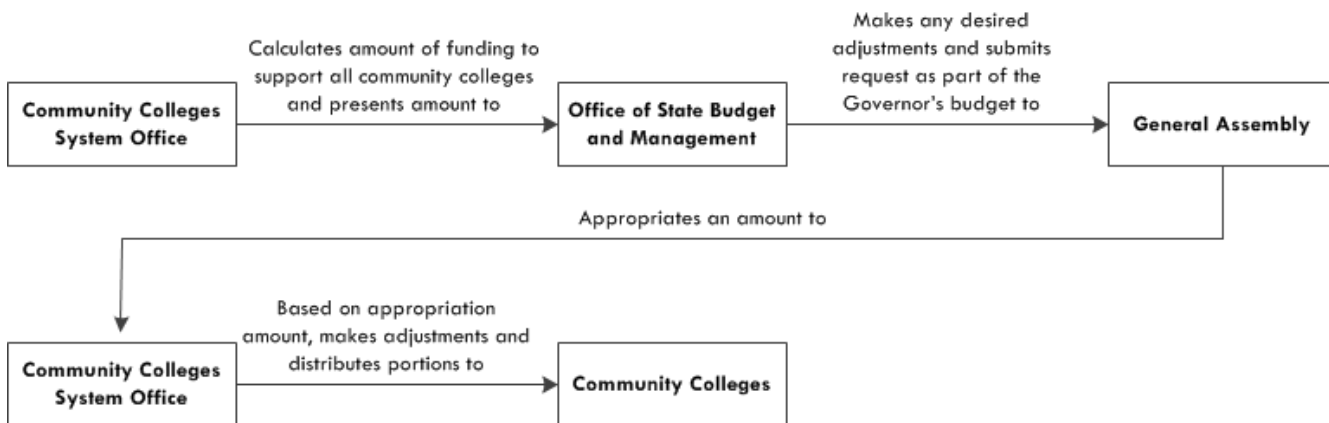
Research consistently demonstrates that state investment in community colleges is highly efficient and yields economic and social returns to both the individual and society. By keeping community college tuition and fees low, North Carolina has made higher education accessible to citizens who may otherwise be unable to afford college. Achievement of a certificate or degree generally leads to greater incomes, providing more tax revenue for local governments and the State and less expense associated with unemployment and social services. One national study found that every tax dollar invested in community colleges returned more than \$2.50 to the state.⁴ Students who attend community colleges also are more likely than graduates of four-year colleges to remain in the community after graduation, allowing the local government and State to retain a greater proportion of the benefits associated with higher education.

³ The Southern Regional Education Board used data from the National Center for Education Statistics finance surveys to calculate these percentages, which account for state appropriations differently than the numbers reported directly by the community colleges. The Community Colleges System Office counts pass-through federal monies as state funds since they are distributed via the State. For this reason, data from the System Office attributes a higher proportion of total revenue to state sources.

⁴ A recent economic impact study performed for the North Carolina Community College System estimated taxpayer benefits from investment in community colleges to be \$4.10 for every \$1 invested.

The State Board of Community Colleges is responsible for allocating funds, from sources available to it, to the community colleges.⁵ The Community Colleges System Office serves as a resource agency and an administrative arm of the State Board. As shown in Exhibit 3, the Community Colleges System Office calculates the amount of funding needed to support allocations to community colleges based on established formulas and funding levels. This amount is presented to the State Board and submitted to the Office of State Budget and Management to be incorporated into the Governor's budget, which is submitted to the General Assembly. The General Assembly independently determines increases or reductions to community colleges' budgets. Reductions are typically achieved through management flexibility cuts, which allow colleges to determine where budgets will be reduced. Although neither the state Constitution nor General Statutes require the General Assembly to fund enrollment growth, the General Assembly has traditionally fully funded it.

Exhibit 3: System Office Calculates Funding and Distributes Appropriated Amounts



Source: Program Evaluation Division based on information from the Community Colleges System Office.

Several efforts have been made in the last 30 years to examine funding and management issues and to recommend improvements to the NCCCS. In 1986, the Research Triangle Institute examined enrollment, staffing patterns, funding procedures, and administration of community colleges. This report was followed by a 1992 Government Performance Audit Committee report prepared by the national consulting group KPMG LLP, which identified some system weaknesses and recommended a series of changes. From 1997 through 2003, MGT of America, Inc., a national consulting firm, produced a series of six reports for NCCCS, examining a variety of concerns with the funding model and providing recommendations for change. In 2011, the Program Evaluation Division examined the system and presented ways to consolidate college functions to become more efficient, but this report did not specifically review the funding formula. In 2015, the Joint Legislative Program Evaluation Oversight Committee directed the Program Evaluation Division to examine the funding formula for community colleges as part of its 2015–17 Work Plan.

⁵ N.C. Gen Stat. §115D-31.

Questions and Answers

Question 1. How does North Carolina fund community colleges and what is the distribution among colleges?

Most states, including North Carolina, distribute funding for their community colleges via one or more formulas. States distribute funds to community colleges in a variety of ways. In 2012, the consulting group SRI International grouped state funding mechanisms for community colleges into three categories.

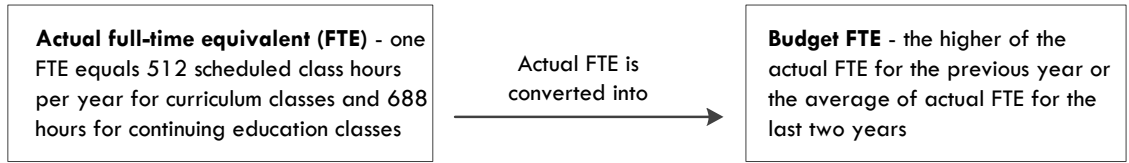
- **Base +/- funding.** This method utilizes the previous year's appropriation (the base) along with some addition or reduction, often based on changes in college enrollment. Fifteen states used the base +/- funding method in 2012.
- **Legislative priorities.** This funding mechanism uses state leaders' priorities for education or existing policies, which could be based on the amount of funding available or on peer equity with other states, to determine funding amounts. In 2012, eight states used legislative priorities to guide community college funding.
- **Funding formulas.** Funding formulas vary in complexity and in the number of supported school functions. Most community college funding formulas rely on either student full-time equivalents (FTEs) or successfully completed student credit hours in the allocation of funds. In general, most formulas contain a subset of the following budgetary areas: instruction, remedial instruction, academic support, library support, operations and maintenance, student services, institutional support, public service, research, and scholarships. Twenty-seven states, including North Carolina, funded their community colleges by formulas in 2012. All of the states that used funding formulas also had specific state or categorical appropriations for some functions such as operations and maintenance or special programs.

According to state law, the State Board of Community Colleges is charged with equitably distributing state funds to the 58 community colleges. Exhibit 4 describes the steps used to determine how much funding each community college receives based on the formula budget. As shown in Step 1, budget FTE is derived from actual enrollment and the number of instructional hours. One actual FTE is equal to 512 scheduled class or laboratory hours per year.⁶ Budget FTE is based on the higher of the actual FTE for the previous year or the average of the actual FTE for the last two years. For this reason, budget FTE may be higher than actual FTE from the prior year. In Fiscal Year 2016–17, colleges received state appropriations to serve 224,092 budget FTE.

⁶ This figure is based on 16 hours multiplied by 16 weeks (equals 256 hours), and then 256 multiplied by two semesters (equals 512 hours).

Exhibit 4: Method for Determining Allotments to Community Colleges for FY 2016–17

Step 1. Calculate budget FTE for each college



Step 2. Calculate base allocation for each college

- a. Allot \$470,986, which represents the cost to support 7 full-time faculty members
- b. Allot salary and related fringe benefits for college president based on the table below

Number of Budget FTE	0-2,499	2,500-6,499	6,500+
President Salary	\$138,254	\$147,659	\$157,718

- c. Allot \$2,259,591 for institutional and academic support, which represents the cost to support 9 administrative positions and 21 instructional support positions
- d. For colleges serving more than 750 budget FTE, allot \$1,736 per budget FTE above 750 for institutional and academic support
- e. For colleges operating multiple campuses, allot \$526,119 for each location that serves less than 1,200 budget FTE and \$880,926 for each location that serves more than 1,200 budget FTE

Step 3. Calculate enrollment allocation for each college

- a. Allot \$4,270 per budget FTE for Tier 1A courses:
 - Curriculum courses in health care and technical education that train North Carolinians for immediate employment in priority occupations that have documented skills gaps and pay higher wages
 - Occupational extension courses that train students for the same third-party certification as curriculum courses in Tier 1A
- b. Allot \$3,777 per budget FTE for Tier 1B courses:
 - Curriculum courses in other high-cost areas of health care, technical education, and lab-based science
 - College-level math courses
 - Occupational extension courses that help prepare students for jobs in priority occupations and lead to competency-based industry credentials
- c. Allot \$3,284 per budget FTE for Tier 2 courses:
 - All other curriculum courses
 - All basic skills courses
 - Other occupational extension courses that are scheduled for 96 hours or more and lead to a third-party credential, certification, or industry-designed curriculum
- d. Allot \$2,792 per budget FTE for Tier 3 courses:
 - All other occupational extension courses

Step 4. Calculate performance-based allocation for each college

- a. For each of the 8 performance measures below, determine college's proportion of \$3 million in available funding based on the number of its students subject to the performance measures relative to the systemwide number of students subject to the performance measure

1. Success of students in credit-bearing English courses	5. Performance after transfer to 4-year college
2. Success of students in credit-bearing math courses	6. Curriculum completion
3. First-year curriculum student progress	7. Basic skills student progress
4. Licensure and certification passing rate	8. High school equivalency completion (awarded via impact component only)
- b. For each measure, allot the quality component based on the college's performance relative to the baseline (two standard deviations below the statewide mean) and goal (one standard deviation above the mean) based on the following rules:
 - If a college does not meet the baseline, it receives no performance-based funding
 - If a college exceeds the baseline but does not meet the goal, it receives a proportionate amount of eligible performance-based funding
 - If a college meets the goal, it receives 100% of eligible performance-based funding
 - If a college exceeds the goal, it receives a proportionate amount above 100% of eligible performance-based funding
- c. For each measure, allot any remaining funds through an impact component based on the number of students meeting the measure's goal at the college relative to the number of students meeting the goal systemwide

Notes: Local boards of trustees may provide college presidents with additional benefits and salary using non-state resources. In addition to the \$24 million distributed through performance-based funding, \$4.8 million is distributed to colleges for their basic skills programs based on the number of high school equivalency degrees they award. The community college system is still collecting data to establish baseline and excellence levels for high school equivalency attainment and does not report on this measure at this time.

Source: Program Evaluation Division based on information from the Community Colleges System Office.

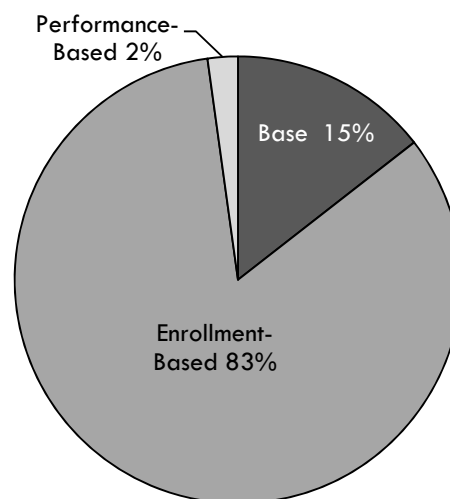
As shown in steps 2 through 4, funds are allocated to individual colleges using three methodologies:

- Base allocations provide a standard amount of support regardless of college size.
- Enrollment allocations vary based on a college's budget FTE and are discussed in detail in Questions 2 and 3.
- Performance-based allocations are determined based on student outcomes and are discussed in detail in Question 4.

The majority of state funding for community colleges is based on enrollment. As shown in Exhibit 5, the State Board distributed 83% of the community college system's formula allotment for Fiscal Year 2016–17 based on enrollment allocations. Fifteen percent of funding was distributed to colleges as a base allotment, and 2% was tied to performance measures.

Exhibit 5

Enrollment Drives the Majority of the Community College System's Formula Allotments, Fiscal Year 2016–17

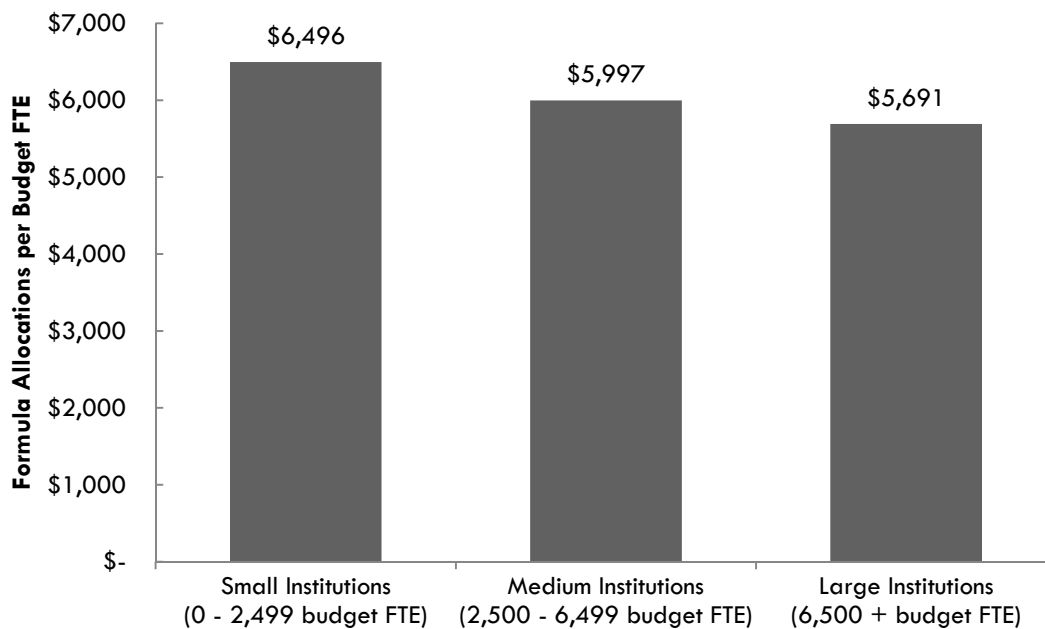


Note: These figures do not include the one-time compensation bonus and retirement allotment offered in Fiscal Year 2016–17 or categorical allocations such as equipment and instructional resources.

Source: Program Evaluation Division based on information from the Community Colleges System Office.

Funding for individual colleges varies based on a college's enrollment, whether it operates multiple campuses, and the specific courses of study offered by the college. Formula allotments per budget FTE range from a high of \$8,253 at Pamlico Community College to a low of \$5,651 at Wake Technical Community College. Colleges with higher enrollments spread the base operating allotment over a larger number of students, resulting in lower average formula allotments per budget FTE. The distribution formula implements policy that presumes smaller colleges should have higher formula allotments per budget FTE because they are unable to achieve the economies of scale gained by larger schools. All colleges receive a base level of funding for the first 750 budget FTE. Exhibit 6 depicts average formula allotment per budget FTE by size of institution.

Exhibit 6: Average Formula Allotment per Budget Full-Time Equivalent (FTE) Enrollment by College Size, Fiscal Year 2016–17



Source: Program Evaluation Division based on information from the Community Colleges System Office.

In addition to formula allotments, community colleges receive categorical allocations for equipment and instructional resources, small business centers and industry services, and special programs. Appendix B presents the operating budget for each community college in Fiscal Year 2016–17. The operating budget does not include the funding provided by local governments, which pay for the construction of college buildings, facility maintenance, and all utilities.

Question 2. Since the North Carolina Community College System was formed, how has enrollment been used to distribute community college funding?

Enrollment is the primary driver of distribution for funding each community college and is operationalized in terms of budget full-time equivalent (FTE). As shown in Exhibit 7, from 1967 through 1988, the State Board of Community Colleges calculated budget FTE based on projections. State funding formulas for the K-12 and University systems continue to use enrollment projections to this day.⁷ Beginning in 1989, the General Assembly switched from calculating budget FTE based on

⁷ The General Assembly allots K-12 funds to local education agencies based on the higher of actual average daily membership for the first or second month of the current school year or projected average daily membership for the next school year. See the Program Evaluation Division's upcoming report on K-12 allotments (expected in November 2016) for more detail. The General Assembly uses two formulas to fund enrollment change in the UNC system: one based on projected changes in student credit hours and the other based on projected changes in FTE. See the Program Evaluation Division's report entitled UNC Enrollment Change Funding Formula Needs Documentation and a Performance Component (November 2010) for more detail.

projections to funding community colleges based on actual enrollment in prior years, which is known as funding in arrears.

Since switching to funding community colleges in arrears, the State has contended with how to provide funding stability without consensus about the best method. Historically, the General Assembly has used either one or the other of the following two mechanisms to ensure stability in funding and to reduce the impact of short-term enrollment fluctuations.

- **Growth and Decline Rule.** From 1994 to 1998, the General Assembly directed the State Board of Community Colleges to implement a growth and decline rule, meaning enrollment had to increase by more than a certain percentage or decline by more than a certain percentage for funding to be adjusted accordingly. The growth/decline percentages went from 4/4 to 3/5 to 2/3 during this period. The growth and decline rules fell out of favor because they were perceived to punish colleges experiencing enrollment growth more than they helped colleges experiencing enrollment decline.⁸
- **Rolling Average Rule.** From 1989 to 1993 and again from 1999 to the present, the General Assembly directed the State Board to calculate budget FTE based on the higher of the actual FTE for the previous year or the average actual FTE for a certain number of years. The rule went from a two-year to a three-year and then back to a two-year rolling average.

⁸ According to MGT of America, Inc., the growth requirement served to discourage development of new programs, especially programs which would not increase enrollment. The decline requirement was seen as overly generous and diluted the amount available for state funding per FTE.

Exhibit 7: Timeline of Methods for Calculating Budget FTE

1967	State Board of Community Colleges adopts a full-time equivalent (FTE) funding formula. The formula projects budget FTE for the next year based on adding 60% to actual FTE for the fall quarter of the preceding year.	} Projections
1979	State Board projects budget FTE, program by program, using a linear regression (straight-line) model based on five years of actual FTE.	
1986	State Bureau of Investigation (SBI) and President of Cape Fear Technical Institute uncover \$1.3 million in fraudulent use of state funds at that institution. Over a six-year time period, funds were paid to phony teachers for several hundred non-existent classes. SBI expands its investigation to three other colleges.	
1987	An ongoing state audit prompted by the Cape Fear case uncovers several problems with state appropriations based on the FTE formula. Verification of 300 class rolls at a dozen other institutions discloses possible "padding" in 10% of off-campus offerings. State Auditor's office requests SBI include four more schools in an expanding probe.	
1988	The community college enrollment projections for the previous fiscal year are inaccurate, leading to \$11.9 million in excess appropriations, which the community college system is allowed to retain.	
1989	General Assembly switches from calculating budget FTE based on projections to funding in arrears. To ensure stability in funding and to reduce the impact of short-term enrollment fluctuations, the 1989 Appropriations Act directs the State Board to calculate budget FTE based on the higher of the average actual FTE for the prior two fiscal years or the actual FTE for the previous fiscal year. However, no college can receive less than 90% of its average actual FTE for the prior two fiscal years.	} Rolling Average Rule
1992	Government Performance Audit Committee recommends changing the community college funding formula to one that is a combination of a base funding source with an FTE component.	
1994	To ensure more stability in funding, the 1994 Appropriations Act directs the State Board to implement a 4/4 growth and decline rule instead of the two-year rolling average. Colleges that experience an increase in enrollment do not experience an increase in FTE funding until their enrollment increases by more than 4%, and any increase in FTE funding is only equal to the amount above 4%. Colleges that experience a decline in enrollment do not receive a decrease in FTE funding until their enrollment declines by more than 4%, and any decrease in FTE funding is only equal to the amount above 4%.	} Growth and Decline Rule
1995	1995 Appropriations Act directs the State Board to implement a 3/5 growth and decline rule, patterned after the previous year's rule only with different percentage thresholds (increased funding triggered with a 3% increase in enrollment, decreased funding triggered with a 5% decrease in enrollment).	
1998	As part of a six-report series, MGT of America, Inc., recommends, in the short term, changing from the 3/5 rule to a 2/3 rule and, in the long term, moving to a three-year rolling average, whereby budget FTE would be based on the higher of the average actual FTE for the prior three fiscal years or the actual FTE for the prior fiscal year.	
1998	1998 Appropriations Act directs the State Board to implement a 2/3 growth and decline rule for the current fiscal year. For subsequent fiscal years, the State Board must calculate budget FTE based on the higher of the average actual FTE for the prior three fiscal years or the actual FTE for the prior fiscal year.	} Rolling Average Rule
2013	2013 Appropriations Act directs the State Board to calculate budget FTE based on the higher of the average actual FTE for the prior two academic years or the actual FTE for the prior academic year. General Assembly reduces formula funding by \$21.1 million but allocates \$4 million in non-recurring funds to phase in the reduction for those colleges most affected by the change.	

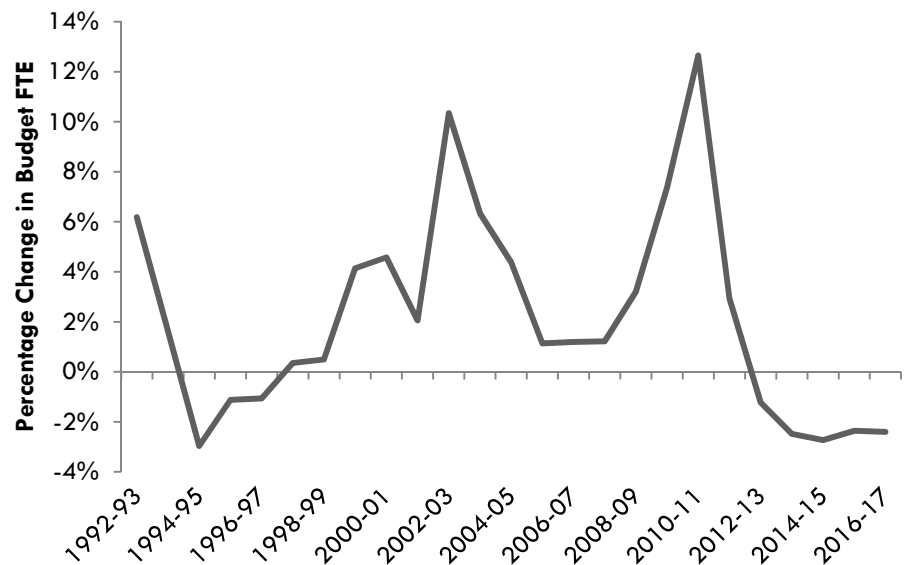
Source: Program Evaluation Division based on legislation, administrative code, Jon Wiggs's The Community College System in North Carolina: A Silver Anniversary History, 1963-1988, 1992 GPAC report, and 1998 MGT of America, Inc., report.

Having some degree of funding stability in light of fluctuating enrollment is important for community college planning. As shown in Exhibit 8, budget FTE fluctuates from year to year, increasing by as much as 13% between Fiscal Years 2009–10 and 2010–11 and decreasing by as much as 3% between Fiscal Years 2013–14 and 2014–15. Regional and local circumstances may precipitate much greater enrollment changes at specific institutions.⁹

According to MGT of America, Inc., colleges face multi-year spending commitments and cannot readily increase or decrease their budgets without serious repercussions because they have a small margin of error in budget planning. Budget stability is important to colleges for retaining quality faculty, decreasing reliance on part-time faculty, and providing students with instructor and program continuity.

Exhibit 8

Budget FTE Fluctuates
Year to Year, Fiscal Years
1992–93 to 2016–17

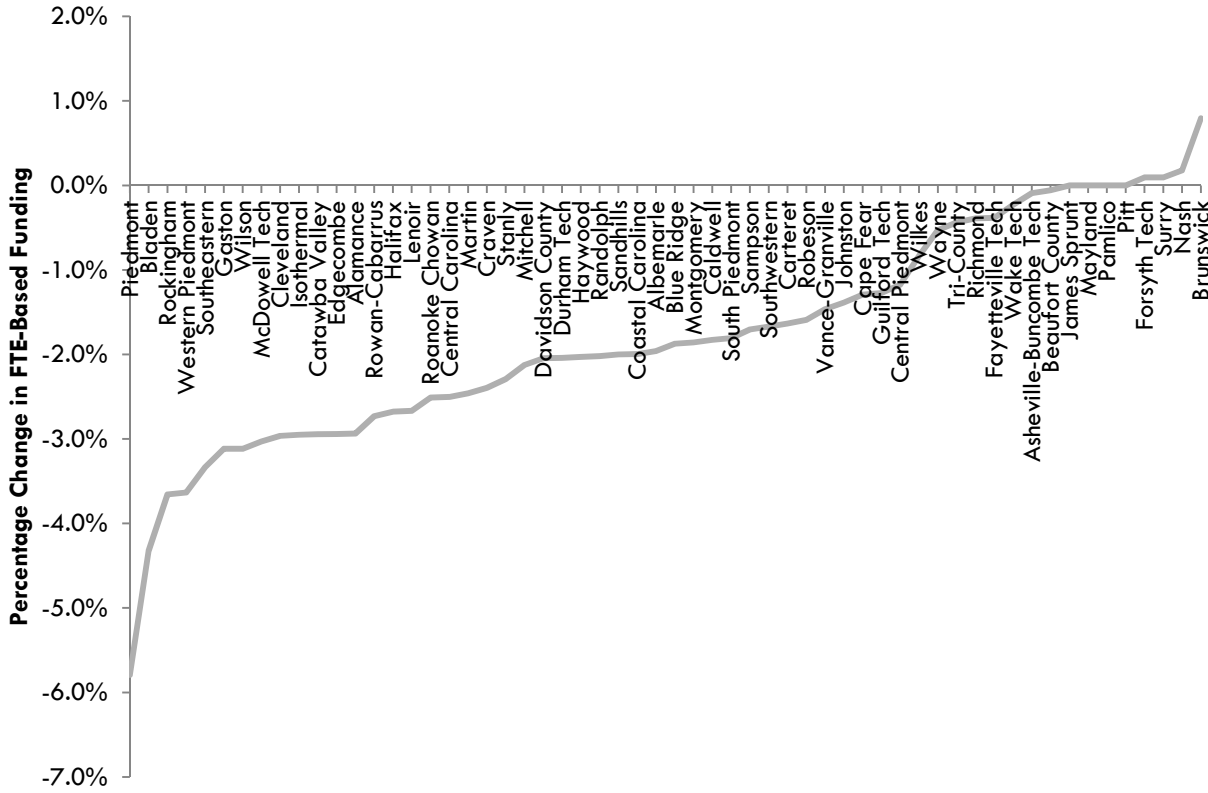


Source: Program Evaluation Division based on information from the Community Colleges System Office.

Because enrollment has declined, the change in 2013 from using a three-year to using a two-year rolling average resulted in less funding for community colleges. The statutory change reduced funding for community colleges by \$21.1 million that year, which was equivalent to a systemwide average decrease in budget FTE funding of 1.8%. To help smooth the transition, the General Assembly appropriated \$4 million on a non-recurring basis to assist those colleges most affected by the change. Exhibit 9 shows the percentage change in budget FTE funding for each community college in Fiscal Year 2013–14 as a result of moving from a three- to two-year rolling average.

⁹ Three colleges experienced declines in enrollment that were 25% or greater between Fiscal Years 2012–13 and 2015–16, while the community college system as a whole experienced a 7% decline in enrollment.

Exhibit 9: Because Enrollment was Declining, Most Colleges Received Less Funding in Fiscal Year 2013–14 Due to the Change from a Three-Year to a Two-Year Rolling Average

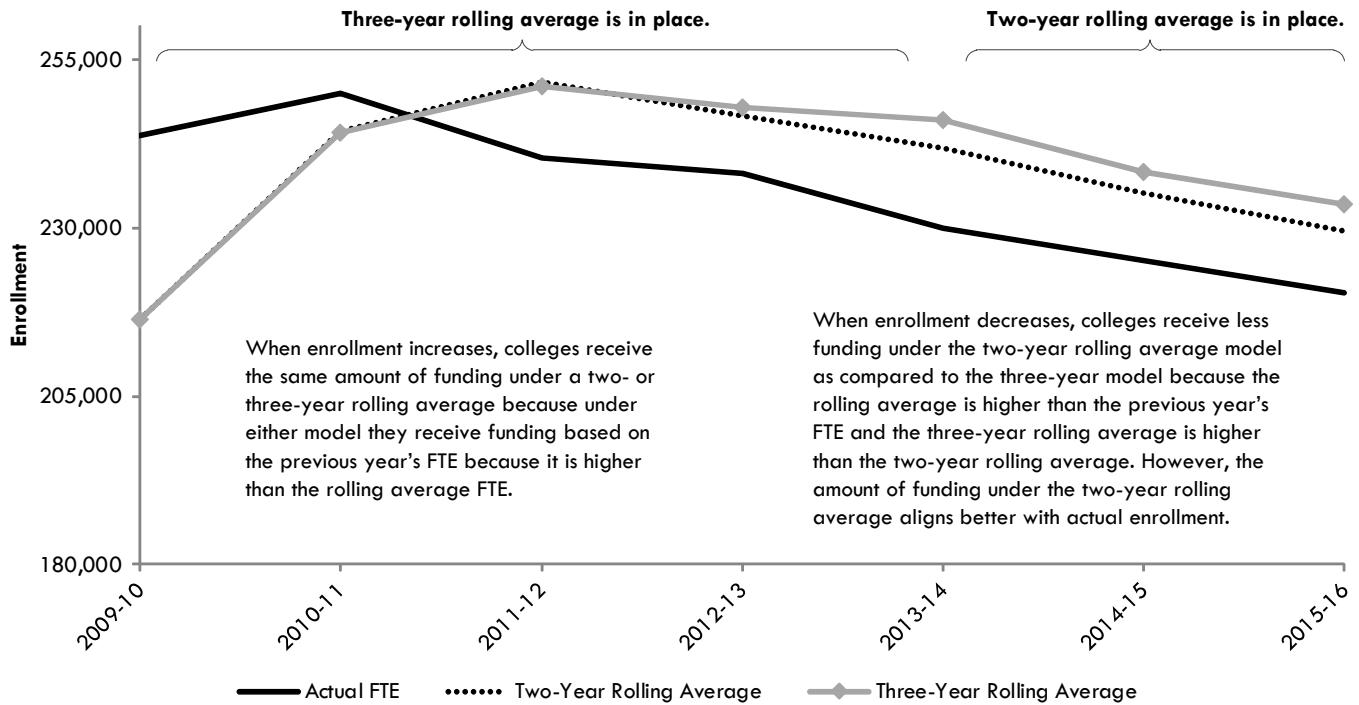


Notes: Percentage change is based on the difference between what colleges would have received in Fiscal Year 2013–14 if the three-year rolling average was still in place versus what they actually received in Fiscal Year 2013–14 with the new two-year rolling average in place. The figures include the non-recurring \$4 million in transition funds.

Source: Program Evaluation Division based on information from the Community Colleges System Office.

Because community colleges are funded in arrears, or based on past enrollment, changes in funding lag behind changes in enrollment. The Program Evaluation Division modeled actual FTE against budget FTE based on two- and three-year rolling averages. As illustrated by Exhibit 10, when enrollment increases, colleges receive the same amount of funding under a two- or three-year rolling average model. The reason funding is the same is because, during periods of increasing enrollment, actual FTE for the previous year will always be higher than any rolling average. In contrast, when enrollment declines, colleges receive less funding under the two-year model as compared to the three-year model, though the two-year rolling average is more closely aligned to actual FTE.

Exhibit 10: As Enrollment Declines, a Two-Year as Compared to a Three-Year Rolling Average Results in Less Funding for Community Colleges, But More Closely Aligns with Actual Enrollment



Source: Program Evaluation Division based on information from the Community Colleges System Office.

North Carolina's two-year rolling average is not out of line with how other southeastern states calculate budget FTE. The Program Evaluation Division queried the 11 other southeastern states to determine how they fund their community colleges.¹⁰ Of responding states, only two (Alabama and South Carolina) base funding on three years of enrollment data, whereas five (Arkansas, Georgia, Louisiana, Mississippi, and Virginia) base funding on one year of enrollment data.¹¹

In general, community colleges oppose the change from a three- to two-year rolling average. The Program Evaluation Division surveyed the 58 community college presidents on a variety of issues.¹² Regarding the change from a three- to a two-year rolling average, 86% of presidents opposed the change. The majority of opposing presidents stated the two-year rolling average is more volatile and does not give them sufficient reserves to adequately prepare for potential, sudden enrollment changes.

¹⁰ The 11 other southeastern states are Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, South Carolina, Tennessee, Virginia, and West Virginia.

¹¹ Tennessee does not base its community college funding formula on enrollment. West Virginia does not base community college funding on a formula. Florida and Kentucky did not respond to the Program Evaluation Division query.

¹² Presidents from 49 colleges responded for a response rate of 84%.

One president commented,

“The three-year average gives a softer landing as enrollment diminishes following the high demand during the recession. Furthermore, with a changing economy, we need flexibility and funds to institute new programs that address the new and changing skills that are needed. The two-year average is penal and doesn’t recognize how nimble we must be, and it actually limits our capacity to address the needs of the workforce and the economy. The two-year average forces the college to absorb additional costs and unfunded mandates.”

Some colleges are in favor of going back to basing budget FTE on projections, but few other states use projections and experts say projections are time consuming and too complex. In open-ended responses to the Program Evaluation Division’s survey, 33% of presidents recommended basing funding on projected enrollment rather than funding colleges in arrears. For example, one respondent stated, “The General Assembly has to once and for all fund the [Community College] System as the UNC and public school systems. The current funding in [arrears] is unfair and insufficient.”

According to a 50-state survey of community college systems conducted in 2000, four states based their funding formula on enrollment projections.¹³ Of the four states, only Montana and Pennsylvania are still using enrollment projections.

- **Montana.** The university system receives the projected enrollment figures from the legislature. The variable cost of education per student is then multiplied by projected FTE and added to the fixed cost to determine a community college’s total allocation.
- **Pennsylvania.** The Pennsylvania Department of Education projects future enrollment through a calculation that relies on yearly actual enrollment in courses and programs. Actual enrollment for each community college is certified by an independent auditor every year on January 1.

Because of the open admissions policy, enrollment for community colleges is less predictable and subject to factors beyond college control. Unlike the K-12 system, which can rely on birth records for relatively accurate counts of rising kindergartners, and the university system, which can control enrollment through the admissions process, the Community College System has an open-door admissions policy and enrollment fluctuates with the local and state economy. The State Board has taken no position on projecting enrollments, and the Community Colleges System Office questions its practicality given there is no proven methodology for making reliable projections and no System Office resources to develop such a methodology.

¹³ The four states were Montana, Nevada, Pennsylvania, and South Carolina. Center for Community College Policy, Education Commission of the States. (2000). *State funding for community colleges: A 50-state survey*. Denver, CO.

A theme in the two-year versus three-year rolling average and funding in arrears debates is that of funding adequacy. As the above quotes and the following statement demonstrate, funding methods and level are difficult to consider separately. It may be that budgets are so tight that any change to the funding formula is controversial.

“The NC Community Colleges are underfunded. Local board members are amazed at how we utilize intensively all resources provided for instruction and services. Being funded in arrears is a major handicap in developing responses to program and services needs and initiatives, but the three year average at least provide[d] a ‘cushion’ of support. The bottom line is that we are asked to do many things and our ability to deliver in economic and workforce development needs greater financial support.”

One repercussion of enrollment-based formulas is that colleges may lose funding when they attempt to improve student outcomes. In recent years, the North Carolina Community College System (NCCCS) has undertaken initiatives to improve efficiency and student outcomes.

- In 2012, the community colleges redesigned the Career and College Promise early college program for high school students with clear pathways for either college transfer or a skilled career.
- Started in 2012, the Development Education Initiative improved diagnostic testing for new students and created basic math and English learning modules to reduce the amount of time students spent in developmental education.
- A 2014 revision of the 1997 Comprehensive Articulation Agreement improved the transfer of credits from community colleges to universities and established better-defined four-year degree pathways.
- At this time, the community colleges are actively working towards offering Competency-Based Education programs, which assess learning by mastery of the material and not the amount of time spent in class, thereby allowing students to focus on new material.

All of these efforts are aimed at improving student outcomes and graduation rates at community colleges. Basing community college resources for student success initiatives on budget FTE may be a disincentive to improve outcomes. Research has found that efforts to increase degree completion at community colleges are efficient, but these efforts cost more money for colleges to implement than they return to the college in revenue. For instance, North Carolina’s efforts to accelerate remedial education through modular education have cost the community college system financial support because these changes have resulted in a decline in budget FTE enrollment.¹⁴ Between Annual Reporting Period 2010–11 and 2015-16, developmental education FTE declined by 75%.

¹⁴ In 2011, the community college system streamlined and replaced Math 060, 070, and 080 with a new modular curriculum. Each of the eight math modules can be delivered in a four-week term and represents one semester hour credit. This curriculum allows students to earn up to four semester hour credits in a traditional 16-week semester. Students only take the modules needed, as indicated by diagnostic testing, as opposed to an entire class.

Question 3. How does North Carolina identify and fund priority instructional programs?

The 2011 Appropriations Act directed the State Board of Community Colleges to allocate formula funding on a weighted, budget full-time equivalent (FTE) basis for curriculum and continuing education occupational extension courses. The General Assembly specified that in determining the appropriate weighting, the State Board needed to weigh curriculum courses in high-cost areas of health care, technical education, and lab-based science courses more heavily than other curriculum courses and to weigh occupational extension courses that lead to a third-party credential or certification and courses providing an industry-designed curriculum more heavily than other occupational extension courses.

In response, the State Board implemented a tiered funding model, which has continued to evolve from year to year. Exhibit 11 shows a timeline of adjustments made to the tiers to date. Whereas the initial motivation to implement a tiered funding model stemmed from the desire to defray some of the cost of offering expensive courses, changes to the tiers in 2014 encouraged community colleges to offer courses that train students for jobs that have documented skills gaps in North Carolina and pay higher wages.

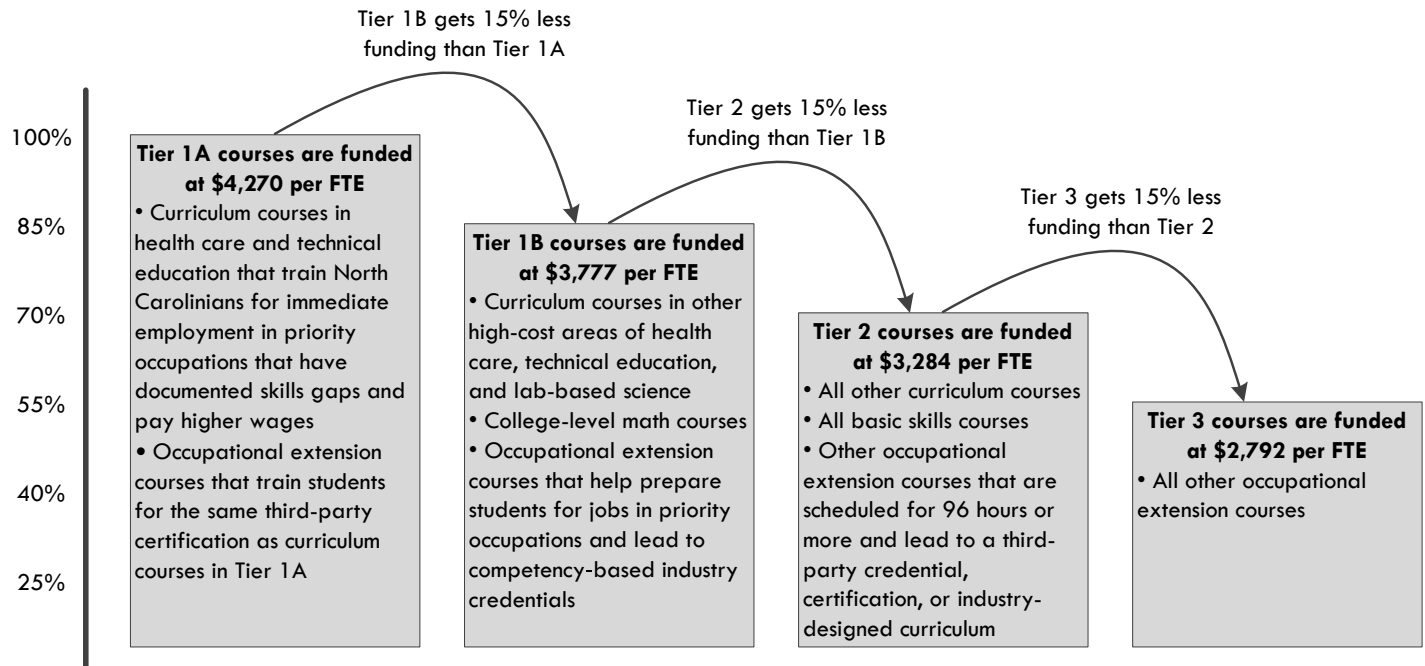
Exhibit 11: Timeline of Tiered Funding Model

2011	<p>2011 Appropriations Act directs the State Board of Community Colleges to allocate formula funding on a weighted FTE basis for curriculum and continuing education occupational extension courses while reducing formula funding for curriculum instruction by \$22.7 million.</p> <hr/> <p>State Board adopts an initial tiered funding model. All existing curriculum and occupational extension course prefixes are assigned to one of three funding levels, with a 15% funding differential between each tier:</p> <ul style="list-style-type: none"> • Tier 1 includes curriculum courses in high cost areas of health care, technical education, and lab-based science courses. • Tier 2 includes all other curriculum courses and occupational extension courses that are scheduled for 96 hours or more and lead to a third-party credential, certification, or industry-designed curriculum. • Tier 3 includes all other occupational extension courses.
2012	<p>General Assembly appropriates \$4.2 million to redesignate college-level math courses from Tier 2 to Tier 1.</p> <hr/> <p>State Board designates basic skills courses as Tier 2.</p>
2013	<p>2013 Appropriations Act directs the State Board to develop a plan for implementing a new top tier to fund curriculum programs leading to immediate employment at the highest available funding level.</p>
2014	<p>General Assembly appropriates \$15.1 million (generated from savings in the developmental education area) to create Tier 1A, which includes health care and technical educational programs that train North Carolinians for jobs that have documented skills gaps and that pay higher wages.</p>

Source: Program Evaluation Division based on legislation and information from the Community Colleges System Office.

Exhibit 12 depicts the current funding amounts and course designations for the tiered funding model. As shown, each tier is funded at a rate 15% higher than the tier beneath it.

Exhibit 12: Current Tier Funding Amounts and Course Designations, Fiscal Year 2016–17



Notes: Occupational extension courses are one type of continuing education course. The dollar amount per budget FTE for Tier 2 courses is based on typical instructor salaries, class ratios, and other costs for those courses. The dollar amount per budget FTE for the other tiers is based on the Tier 2 figure, with Tier 1A being 30% higher, Tier 1B being 15% higher, and Tier 3 being 15% lower.

Source: Program Evaluation Division based on information from the Community Colleges System Office.

The Community Colleges System Office periodically revises course tier designations. The 2014 Appropriations Act directed the State Board of Community Colleges to develop a process for periodically reviewing and revising how courses and programs are classified into tiers. Every four years,¹⁵ the Community Colleges System Office convenes a Tier Designation Review Committee to review the current tier designations and make recommendations to the State Board on any potential changes.¹⁶ The review involves three steps:

- The committee reviews existing curriculum and occupational extension course prefixes to determine if they are properly categorized.
- The committee reviews the occupational sectors that have been identified as top state workforce priorities by the State's workforce community. Using labor market data for those sectors, the committee identifies priority occupations for which community colleges train students and maps those priority occupations to curriculum programs. The committee recommends the curriculum

¹⁵ The first review will be conducted in 2016, and the next review will be in 2020.

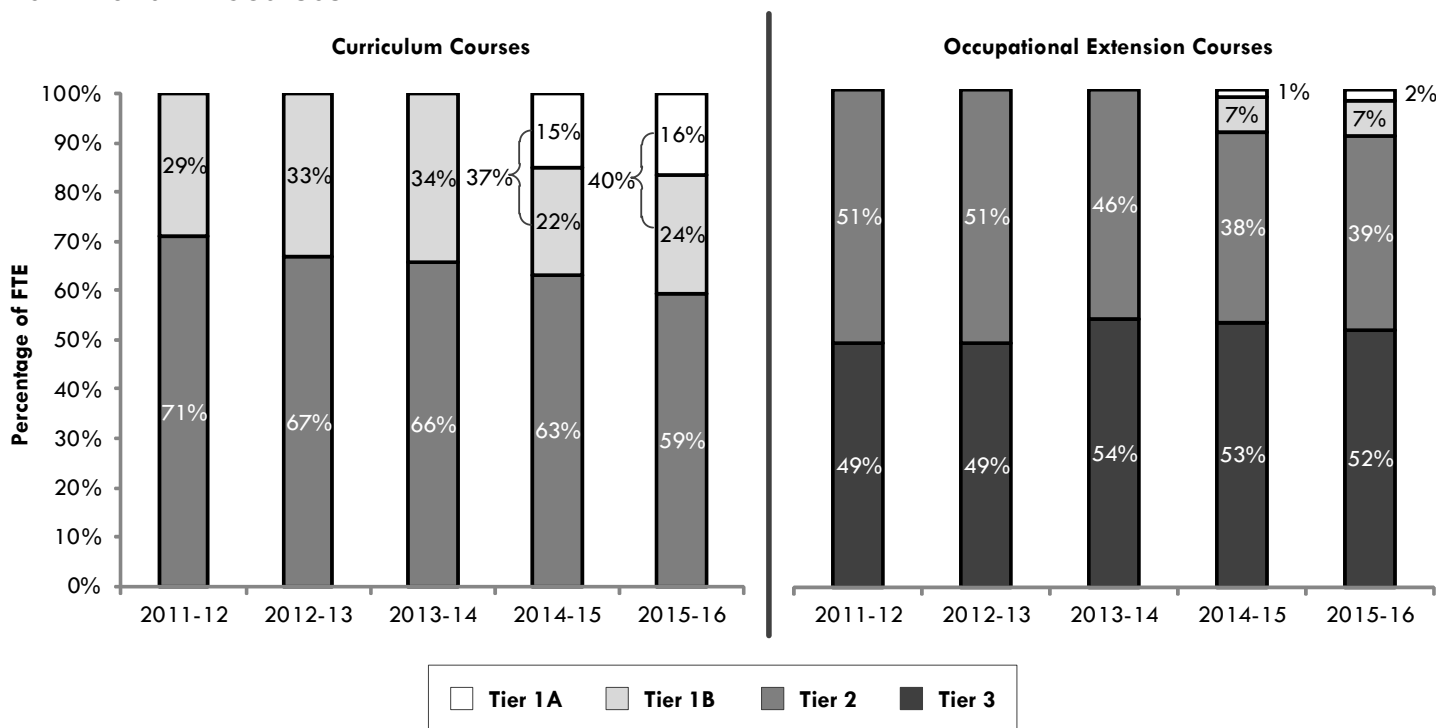
¹⁶ The committee includes the following or their designees: System Office Chief Financial Officer as the chair, System Office Chief Academic Officer, Finance Committee Chair and Program Committee Chair of the North Carolina Association of Community College Presidents, President of the North Carolina Community College Association of Instructional Administrators, and the President of the North Carolina Community College Adult Educators Association.

course prefixes for those programs and related occupational extension courses be upgraded to the next highest tier level.

- The System Office estimates the fiscal impact to the formula budget of the committee’s recommendations. The State Board considers the fiscal impact as it develops its budget priorities for the subsequent long session of the General Assembly and includes prioritized revisions to the model as part of its budget request.

Enrollment shifted upward from Tier 2 to higher tier courses after implementation of the tiered funding model. In terms of curriculum courses, the percentage of students taking the higher Tier 1A and 1B courses has increased since Annual Reporting Period 2011–12 while enrollment in the lower Tier 2 courses has declined (see Exhibit 13). In terms of occupational extension courses, the percentage of students taking Tier 1A and 1B courses has increased since Annual Reporting Period 2014–15 when certain courses were designated Tier 1A or 1B; enrollment in Tier 2 courses has declined, whereas enrollment in Tier 3 courses has remained steady.

Exhibit 13: Percentage of Students Taking Tier 2 Courses Has Declined with the Introduction of Tier 1A and 1B Courses



Notes: Years correspond to annual reporting periods. For curriculum courses, Tier 3 designations do not exist, and Tier 1B courses were split into Tier 1A and 1B in 2014–15. For occupational extension courses, Tier 1A and 1B designations did not exist until 2014–15.

Source: Program Evaluation Division based on information from the Community Colleges System Office.

Community colleges have adjusted their course offerings due to the prioritization of Tier 1A. As shown in Exhibit 14, many community college presidents reported their colleges have increased the number of Tier 1A classes offered and have established priority instructional programs in order to offer Tier 1A classes. In contrast, nearly a third of respondent colleges have taken no action since the implementation of Tier 1A.

Exhibit 14

Community Colleges Have Increased Tier 1A Classes and Established Priority Instructional Programs in Response to Implementation of Tier 1A

Actions Colleges Have Taken Since Implementation of Tier 1A	Percentage of Colleges
Increased the number of Tier 1A classes offered	49%
Taken steps to establish a priority instructional program in order to offer Tier 1A classes	35%
No action has been taken	29%
Advised more students to consider careers in priority instructional programs	29%
Increased the number of students who have enrolled in Tier 1A classes	29%
Increased the number of students who have enrolled in priority instructional programs	16%
Reduced the number of classes without a Tier 1A designation	4%

Source: Program Evaluation Division based on survey of community college presidents.

In general, community colleges support the recent changes made to the tiered funding model. The Program Evaluation Division's survey of community college presidents revealed the following:

- 80% of college presidents support the change to a tiered funding model for courses,
- 84% of college presidents support the addition of Tier 1A, and
- 82% of college presidents believe the currently designated priority instructional programs accurately reflect the workforce needs in their region.

One respondent stated, "The tiered funding formula works because it provides funds to pay for the more expensive, and usually technical, classes. I would advocate increasing the amount for the higher tiers as the current formula, though it helps, still does not provide all the funds needed." Another noted a concern: "Tier 1A classes can be a moving target based on the demands of certain jobs in the state. Jobs in demand today may not be in demand in three years, and the college has geared up programmatically over several years for classes/programs of study in Tier 1A that may not be sustainable."

Question 4. How does North Carolina use performance-based funding for community colleges?

In recent years, states have more frequently used performance-based funding models to allocate funds for higher education. Performance-based funding models distribute appropriations based on the outcomes (e.g., number of degrees) each institution produces rather than on inputs (e.g., enrollment) or the previous year's allocation. States that implement performance-based funding establish clearly defined goals and then develop metrics to evaluate institutions' progress toward meeting those state goals. Performance-based funding may be used in addition to or to entirely replace the community college funding methods described in Question 1. In addition to allocating state funds, some states allow community colleges that do well on performance measures to charge higher levels of tuition.

As of 2015, 26 states had a funding formula or policy in place to allocate a portion or all of their state funding for community colleges based on performance measures. Five additional states—Connecticut, Georgia, Iowa, South Dakota, and Vermont—may transition to some type of performance-based funding in the near future. Nationally, performance-based funding comprises anywhere from less than 1% to 100% of state budgets for community colleges. Appendix C shows the performance-based funding amounts as a percentage of state community college allocations for each state. In Fiscal Year 2015–16, North Carolina allotted \$24 million, or 2% of the state appropriation for community colleges, toward performance-based funding.

North Carolina has used some form of performance-based funding for community colleges since 1999. Exhibit 15 shows a timeline of performance-based funding in North Carolina. In 1999, the General Assembly directed the State Board of Community Colleges to implement performance-based funding for community colleges. N.C. Gen. Stat. § 115D-31.3 created performance measures that were used to allocate carryforward funds at the end of each fiscal year.

The performance measures and allocation methods have been amended several times. A significant change occurred in 2013, shifting the way performance funds were allocated. Prior to 2013, if a college performed successfully on a measure, the institution was able to retain $\frac{1}{4}$ of 1% of its previous fiscal year's appropriation. After 2013, all colleges began receiving their funds from the State Board based on a formula that calculates quality and impact scores for each performance measure.

Exhibit 15: Timeline of Performance-Based Funding

1998	Session Law 1998-212 directs the State Board to study performance measures and recommend options for allocating funds to community colleges on the basis of performance.
1999	N.C. Gen. Stat. § 115D-31.3 creates five performance measures based on input from a task force of community college stakeholders. Community colleges that meet the performance standards are able to carry forward remaining funds from the previous fiscal year in an amount that does not exceed 2%.
2000	N.C. Gen. Stat. § 115D-31.3 is amended, adding 7 performance measures for a total of 12. Five measures are mandatory, and colleges choose one from the remaining seven. Language also is added that sets the amount that colleges can receive to 1/3 of 1% of its remaining funds from the previous fiscal year and sets up an equitably distributed superior performance fund for community colleges that perform well on at least five of the six measures. The statute also creates an additional fund where colleges can be awarded for exceptional institutional performance.
2001	N.C. Gen. Stat. § 115D-31.3 is amended by altering one performance measure.
2007	N.C. Gen. Stat. § 115D-31.3 is amended, eliminating 4 of the 12 measures and modifying 3 others. Language amends how much funding colleges receive for successful performance on each measure. This amount is 1/4 of 1% of remaining funds from the previous fiscal year.
2009	The System Office begins a strategic planning initiative called Success NC, which includes developing metrics for measuring success.
2010	The System Office creates a Performance Measures Committee to create performance measures that are more focused on student success.
2011	The State Board approves eight performance measures recommended by the Performance Measures Committee and submits them to the General Assembly for consideration.
2012	N.C. Gen. Stat. § 115D-31.3 is amended to create eight new performance measures.
2013	N.C. Gen. Stat. § 115D-31.3 is amended, awarding \$9 million in funding based on program quality and impact for Fiscal Year 2013-14.
2014	The General Assembly appropriates \$24 million for performance funding in Fiscal Year 2014-15.
2016	N.C. Gen. Stat. § 115D-31.3 is amended, modifying two of the eight performance measures. The System Office temporarily removes the high school equivalency attainment measure from the Performance Measures report since it is not yet able to establish reliable and valid baseline and excellence levels.

Source: Program Evaluation Division based on legislation and information provided by the Community Colleges System Office.

Currently, a college's performance-based funding is determined by its performance relative to other colleges on eight measures. Performance measures vary widely by state. Appendix D lists the number and types of performance measures used for community colleges by state. In North Carolina, the General Assembly recently changed the performance measures used to assess community colleges as part of the 2016 Appropriations Act. Exhibit 16 lists the eight current performance measures and describes how the State Board defines them.

Exhibit 16

North Carolina Community Colleges' 2016 Performance Measures

Statutory Performance Measure	State Board's Description of Performance Measure
Success of students in college-level English courses	Percentage of first-time Associate Degree-seeking and transfer pathway students passing a credit-bearing English course with a "C" or better within their first two academic years.
Success of students in college-level math courses	Percentage of first-time Associate Degree-seeking and transfer pathway students passing a credit-bearing math course with a "C" or better within their first two academic years.
First year progression	Percentage of first-time fall curriculum students attempting at least 12 hours within their first academic year who successfully complete ("C"/"P" or better) at least 12 of those hours.
Licensure and certification passing rate	Aggregate institutional passing rate of first time test-takers on licensure and certification exams. Exams included in this measure are state-mandated exams which candidates must pass before becoming active practitioners.
College transfer performance	Among community college Associate Degree completers and those who have completed 30 or more credit hours who transfer to a four-year university or college, the percentage who earned a grade point average of 2.25 or better after two consecutive semesters within the academic year at the transfer institution.
Curriculum completion	Percentage of first-time fall credential-seeking students who graduate, transfer, or are still enrolled with 36 hours after 6 years.
Basic skills student progress	Percentage of students who progress as defined by an educational functioning level.
High School Equivalency (HSE) Diploma Attainment	Pro-rata share of HSE/AHS diplomas awarded to each college with a two-year phase-in to mitigate the impact of this change.

Notes: The Community Colleges System Office does not yet report on the eighth measure, high school equivalency attainment, because it is still collecting data to establish reliable and valid baseline and excellence levels. Funds for this measure are allocated only through the impact component of the funding formula.

Source: Program Evaluation Division based on information from the 2016 Appropriations Act and Community Colleges System Office.

Each community college is eligible for performance funding. The amount a college could potentially receive is based on a college’s pro-rata share, or proportion, of the total number of students who have undertaken an activity assessed by a specific performance measure. A college is eligible to receive the entire potential performance-based funding amount if it meets the excellence level established for each measure. Exhibit 17 depicts an example of a potential performance-based funding calculation for a single measure.

Exhibit 17

Example of Determining Potential Funding of the Performance Measure for Licensure and Certification Passing Rate

\$3 million	Total amount of performance-based funding (PBF) available for measure
÷ 10,000	Total number of students taking licensure exam for the first time
\$300	Potential PBF per student
\$300	Total amount of PBF available
x 200	Number of students taking licensure exam for the first time at College X
\$60,000	College X’s potential PBF for this measure

Source: Program Evaluation Division based on information from the Community Colleges System Office.

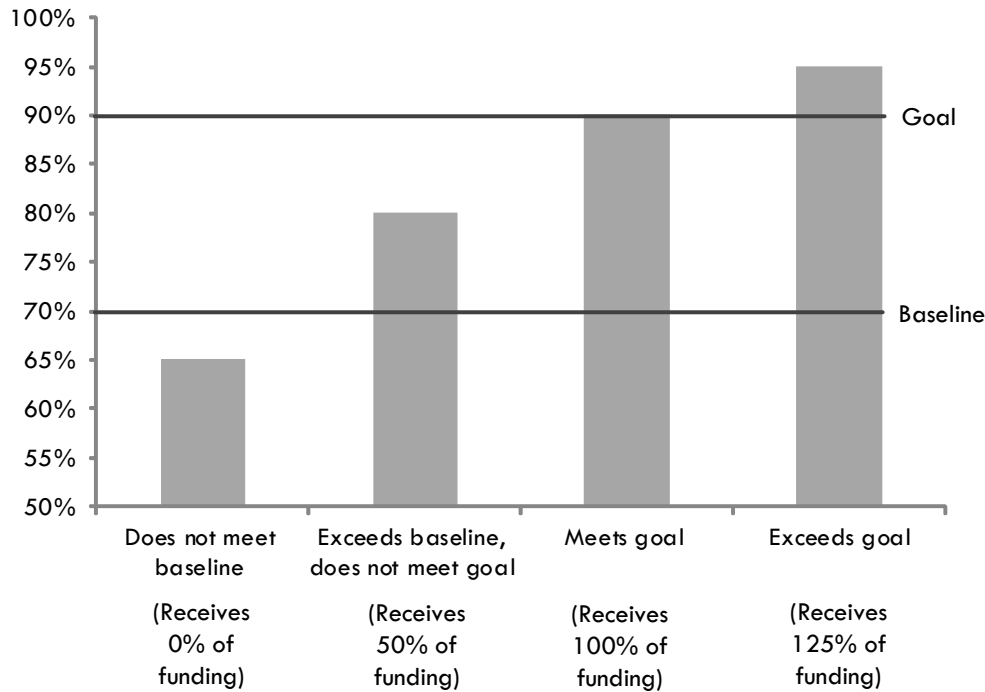
The sum of quality and impact components determines the total amount of performance-based funding a college receives. The quality component allocation depends on a college’s performance as compared to a baseline and goal. For each performance measure, the Community Colleges System Office determines the statewide mean based on three years of data (if available). For each measure, the baseline is two standard deviations below the mean, and the goal is one standard deviation above the mean.¹⁷ Colleges receive funding for quality based on the following rules:

- If a college does not meet the baseline, it receives no performance-based funding.
- If a college exceeds the baseline, but does not meet the goal, it receives a proportionate amount of eligible performance-based funding.
- If a college meets the goal, it receives 100% of the eligible performance-based funding.
- If a college exceeds the goal, it receives a proportionate amount above eligible performance-based funding.

Exhibit 18 shows an example of determining the quality component of performance-based funding for a single measure.

¹⁷ The baseline is revisited every three years.

Exhibit 18: Rules for Determining Funding for the Quality Component of a Performance Measure



Source: Program Evaluation Division based on information from the Community Colleges System Office.

After quality allocations have been made, remaining funds are distributed through the impact component, which focuses on the number of students succeeding on each measure. Each college receives a portion of the remaining funds based on a pro-rata share of students succeeding on each measure. Exhibit 19 depicts an example of an impact performance-based funding calculation for a single measure.

Exhibit 19

Example of Determining Funding for the Impact Component of the Performance Measure for Licensure and Certification Passing Rate

\$3 million	Total amount of performance-based funding (PBF) available for measure
- 2 million	Amount of PBF allocated through quality component
\$1 million	PBF available for allocation through the impact component
\$1 million	PBF available for allocation through the impact component
÷ 8,000	Number of students passing licensure exams the first time systemwide
\$125	Amount of PBF per student based on impact component
\$125	Amount of PBF per student based on impact component
x 160	Number of students passing licensure exams the first time at College X
\$20,000	College X's PBF based on impact component on this measure

Source: Program Evaluation Division based on information from the Community Colleges System Office.

Nearly all community colleges receive some amount of performance-based funding for each measure. In Fiscal Year 2014–15, only three colleges failed to meet the baseline for the measure with the worst overall performance by community colleges (first time licensure passing rate). For each measure, the majority of community colleges are able to meet the

baseline, which is set at two standard deviations below the statewide average, making them eligible for a portion of funding. To receive full funding, a community college must meet the goal, which is set at one standard deviation above the statewide average. When the percentage of successful students is above the goal, colleges get additional funding. As shown in Exhibit 20, at least five colleges met or surpassed each performance goal in Fiscal Year 2014–15.

Exhibit 20: Community College Performance on Measures for Fiscal Year 2014–15

	Success of Students in College-Level English Courses	Success of Students in College-Level Math Courses	First-Year Progression	Curriculum Completion	First-Time Licensure Passing Rate	College Transfer Performance	Basic Skills Progress
Baseline	23.76%	10.08%	54.09%	35.93%	69.92%	65.06%	34.45%
Statewide average	48.4%	27.6%	67.7%	43.7%	84.4%	82.4%	55.7%
Goal	55.85%	32.45%	74.99%	51.85%	90.91%	87.65%	68.32%
Number of colleges lower than baseline	0	2	1	2	3	1	0
Number of colleges meeting the baseline	45	43	52	50	50	42	51
Number of colleges meeting or exceeding goal	13	13	5	6	5	15	7

Notes: The data displayed is the most recent available. Two of the seven reportable performance measures in Fiscal Year 2014–15 differ from the performance measures in Fiscal Year 2016–17.

Source: Program Evaluation Division based on information from the Community Colleges System Office.

According to community college presidents, performance-based funding has made them more accountable, but respondents do not think enough resources are being allocated toward it. According to the Program Evaluation Division’s survey, many college presidents stated that performance measures have made them more accountable for student performance and success. One respondent commented that performance funding “provides funding based on concrete goals, provides a baseline for improvement, and allows colleges to learn and share with one another.” For each performance measure, the majority of presidents rated its effectiveness at capturing successful institutional performance as average or better. Some presidents reported that performance-based funding has been used to drive resource allocation for programs. For example, one respondent said, “We currently pay attention to those programs that are most likely to increase our performance scores and, though we do not ignore programs that need funds to be successful, we are more prone to move funds toward those programs that are part of the performance measures.”

Currently, the State allocates \$24 million to performance-based funding. According to the Program Evaluation Division's survey, 53% of responding college presidents think this amount is insufficient. One respondent stated, "At present, performance funding makes up only (2%) of state curriculum allocations. It needs to be increased, not just to add to the labor market outcomes measure but to make more of an impact overall [on] performance." On average, respondents believe 9% of funding should be performance-based, with 30% stemming from base allocations and 61% stemming from enrollment.

Although performance-based funding is widely used and acknowledged as an accountability incentive, it may be too early to know if it improves college outcomes. Most modern community college performance-based funding systems have only been in place since 2010 and it may be too early to measure program efficacy. Newer programs in Texas and Washington have produced some goal achievement, but evidence from 12 quantitative evaluations of past performance-based funding programs (1990–2012) suggest that states using performance-based funding do not outperform states using other funding methods.

In addition, performance-based funding can have unintended consequences if there is insufficient consideration of potential negative side effects during the design of the performance measures. For example, Washington community colleges increased short-term certificates instead of producing more graduates with associate's degrees as intended. Texas community colleges that predominately served disadvantaged students earned less funding after the implementation of performance-based funding. Researchers from the Community College Research Center at Columbia University surveyed performance-based funding stakeholders in three states in 2015 and found that the unintended impacts most commonly mentioned were restrictions in admissions to college and weakening of academic standards. Others included compliance costs, less institutional cooperation, decrease in staff morale, reduced emphasis on missions not rewarded by performance funding, and weaker faculty voice in academic governance.

Proponents of performance-based funding believe that experience and lessons learned from early state programs can better inform current efforts. Early performance-based funding programs at community colleges were hampered by poor program design, unstable funding, crude data measurement, and misalignment between state goals and measures. Organizations such as the Lumina Foundation, Bill and Melinda Gates Foundation, and Education Commission of the States have promoted performance-based funding as a policy option for improving campus productivity and boosting college completion. These organizations think that newer performance-based funding programs can avoid some of the past program challenges through better student data systems and making policy refinements. Some of the best design and implementation practices suggested for community college performance-based funding programs are summarized in Exhibit 21.

Exhibit 21: Best Design and Implementation Practices for Performance-Based Funding

Best Practice	Method	Example
Develop goal consensus before implementing program	Get broad bipartisan acceptance around a public agenda before developing measures.	Involve education leaders, legislators, and other stakeholders to set public agenda and provide input for program design and implementation. Incorporate performance-based funding (PBF) into the higher education plan for the state.
Focus on state needs and priorities	Use a limited number of explicit metrics centered on student completion and other specific state priorities.	Metrics focus on state priorities such as course completion, degrees awarded, or number of transfers to four-year universities.
Use measures with clear definitions	Use metrics that are unambiguous, easy to understand, and difficult to game.	Number of graduates is a clear measure (a student either graduated or he/she did not). Graduation rates, however, may be manipulated by graduating fewer, better-prepared students.
Reward success of under-served populations	Give extra weight to achievements for at-risk students.	Ohio gives additional weights to students who are Pell Grant eligible, Native American, African American, Hispanic, or are 25 years of age or older when they first enroll.
Maintain funding stability	To function properly, incentives must remain in place and remain predictable.	Stability can be improved through the use of a stop-loss provision which establishes the maximum reduction that can be imposed on a college in a single year. Phase in PBF slowly so that colleges have time to adjust.
Make incentives large enough to matter	Make the incentive amounts large enough to influence college behavior.	There is no consensus on the appropriate level of funding. The Complete College America nonprofit suggests that a state allocation of 10% is a reasonable target for PBF.
Reward continuous improvement, not attainment of a specific goal	PBF programs that reward institutions only if they reach a predetermined level of performance can be unproductive.	Each institution's current performance can be established as the baseline and funds can be allocated on the basis of year-over-year improvements from the baseline.
Measure outcomes	PBF systems require ongoing and extensive evaluation.	Community colleges must have enough institutional capacity to collect and analyze data on student outcomes, determine effective ways to improve them, pay the cost of those interventions, and evaluate their effectiveness.

Source: Program Evaluation Division based on information from Complete College America, American Association of State Colleges and Universities, and National Conference of State Legislatures.

One organization, HCM Strategists, has categorized states' performance-based funding programs by the level of design sophistication. Both Ohio and Tennessee have been identified as having the most sophisticated performance-based funding systems, designated Type IV systems. Type IV systems include significant and stable funding, full institutional participation, differentiation by metrics and institutional sector, prioritization of degree/credential completion, and outcomes for under-represented students. Each of these states utilizes some of the best practices detailed above.

- Ohio.** Prior to 2012, Ohio primarily relied on enrollment-based funding formulas to determine higher education allocations. The Governor, along with an appointed higher education commission, proposed a three-year plan to improve college funding. The current funding formula allocates 50% for completion of classes; 25% based on success points such as finishing a developmental math or English class; and 25% on degree completion or transfer access. The formula applies science, technology, engineering, and math

weights to courses; removes the stop-loss provision that limits the amount of funding colleges can lose from the previous year; and implements weights for at-risk students.

- **Tennessee.** Similar to Ohio, Tennessee previously funded community colleges based on enrollment. The Complete College Tennessee Act of 2010 stipulates higher education must be funded based on outcomes. The Tennessee Higher Education Commission Formula Review Committee, which consisted of institutional, system, and government stakeholders, provided counsel on the creation of an outcome-based formula and solicited advice from all university and community college presidents and chancellors. Community college performance measures include credit hour achievements, graduation rates, job placement, and remedial success.

HCM Strategists rate North Carolina's performance-based funding program as a rudimentary Type I system. Type I systems may be pilot efforts that do not have significant levels of funding, are likely to share features with earlier performance-based funding models, and minimally link the state's finance policy with completion and attainment of goals.

Question 5. What options could the General Assembly pursue if it wishes to consider changes to the current funding formula to improve efficiency and effectiveness?

Any changes to North Carolina's existing funding formula for the North Carolina Community College System (NCCCS) should be driven by specific legislative objectives. Legislative objectives to increase effectiveness and efficiency of the community college system may lead to specific actions such as

- increasing the equitable distribution of institutional and academic service funds;
- providing greater funding stability through the use of a stop-loss provision and the Enrollment Growth Reserve;
- aligning tier reimbursement with course costs;
- refining the existing performance-based funding system; and
- adding needs-based funding to the enrollment portion of the funding formula.

Some of these efforts would require greater state investment in the community college system whereas others could be done using existing resources.

If the General Assembly wishes to address equity in funding for institutional and academic services, it could use a weighted average of unduplicated headcount and budget FTE as the basis for institutional and academic support. The community college system's institutional and academic support funds are used primarily for salaries, fringe benefits, and other costs related to management and administration, student support, and academic program support. Presently, colleges receive \$2.3

million in base funding and an additional \$1,736 for institutional and academic support funds for every budget FTE above 750.

One major change since the founding of the community college system has been a large increase in the number of part-time students. In Annual Reporting Period 2014–15, the community college system as a whole served 3.1 students for every one budget FTE. Because the funding formula for institutional and academic support uses the number of budget FTE to calculate college allotments, fewer resources per student are allocated to colleges with more part-time students.

Each student, whether full-time or part-time, requires services such as academic counseling, job placement services, and academic support such as tutoring and mentoring. These services may reduce the time to degree completion and the number of students who leave school without a degree by

- providing students with clear expectations for college;
- reducing the amount of time needed to complete remedial education;
- lowering the number of classes that either do not count toward a certificate or degree or transfer to a four-year institution; and
- identifying and assisting students who are experiencing challenges.

As one college president noted, “Student success is more than course/program completion and showing improvement in numbers. The foundation for the classroom experience is at a much greater cost than the classroom experience itself. Without a way to increase funding for student services, we will be having this conversation forever.”

In 1986, the Research Triangle Institute examined this issue for the State Board of Community Colleges and asserted that unduplicated headcount, rather than budget FTE, was the most suitable measure to determine the need for non-instructional positions. Changing the academic and institutional support formula to include unduplicated headcount would acknowledge and account for the need for both full-time and part-time students to have access to academic and student support services. MGT of America, Inc. reexamined the issue in 2003 and recommended that North Carolina use a weighted average of headcount and budget FTE to allocate institutional and academic support functions, noting that headcount and budget FTE can change at different rates and that some administrative functions are more affected by budget FTE and others by headcount.

Implementing a blended headcount for institutional and academic support could be done in different ways with wide variation in cost. At one end, the headcount numbers could be averaged with budget FTE counts and the total amount per count could be scaled downward resulting in no overall cost increase in the first year of implementation. At the other extreme, the numbers could be averaged and the current amount of funding per budget FTE above 750 (\$1,736) could be used as the value per unit. This method would require an estimated \$360 million in additional appropriations for institutional and academic support services.¹⁸

¹⁸ This estimate is based on budget FTE for Fiscal Year 2015–16 and is based only on budget FTE and headcount in excess of 750.

If the General Assembly wishes to stabilize year-to-year funding for the community college system, it could do so by offering a limited stop-loss provision for colleges that experience significant declines in enrollment and fund the Enrollment Growth Reserve in order to assist colleges with spikes in enrollment. As noted in Question 2, community colleges are vulnerable to large changes in enrollment. The stability offered by the two-year rolling average could be enhanced if special protection were provided to a small number of colleges when they experience significant enrollment loss.

To assist colleges that experience rapid enrollment declines, the General Assembly could create a stop-loss provision that would stipulate colleges could only lose up to a certain level of funding from the previous year. Any losses above this threshold would be paid for either by a non-recurring appropriation or from a reserve fund designated for this purpose. Unlike the growth and decline rules used in the past, the stop-loss provision would not limit community colleges from receiving more funding when their enrollments increased, but it would limit the amount of funding reduction that could be experienced in a single year. The stop-loss provision would only apply to the current year's decline; it would not have a cumulative effect.

Based on Fiscal Year 2015–16 figures, a stop-loss provision with threshold set at 5% would have cost approximately \$10.6 million, and 20 colleges would have been eligible for funding.¹⁹ In this scenario, a stop-loss provision would have stipulated that colleges take budget cuts for the first 5% decline in enrollment in any given year but that funding losses due to enrollment declines exceeding 5% would be offset through the funding mechanism chosen by the General Assembly.

Large spikes in enrollment are also challenging for community colleges. The community college system already has a mechanism to support enrollment growth but it lacks funding. In 2011, the General Assembly established an Enrollment Growth Reserve to assist colleges that experience unusually large enrollment growth. This fund is intended to consist of any over-realized tuition and fee receipts and may be allocated by the State Board to colleges experiencing an enrollment increase greater than 5% of budgeted enrollment levels. However, the community college system has not had any over-realized tuition and fee receipts since the Enrollment Growth Reserve was established and therefore has no way to provide funding stability to colleges with growing enrollment. If the General Assembly wishes to provide greater funding stability to growing community colleges, it should earmark a small portion of tuition and fee receipts for the Enrollment Growth Reserve each year.

If the General Assembly wishes to compensate colleges for offering priority instructional programs, it could verify that the tiered amounts that colleges are reimbursed for classes fully cover the cost. Overall, the tier system has been a successful way for the community college system to

¹⁹ This estimate is based on enrollment change between Fiscal Years 2014–15 and 2015–16. Sensitivity analysis was performed for a stop-loss provision that covers all allocation losses due to enrollment declines of 5 or 7%. Covering allocation losses for enrollment declines of 5% would have cost \$10.6 million and covering allocation losses for enrollment declines of 7% would cost \$6.5 million.

differentiate courses by cost and for the General Assembly to encourage priority instructional programs and courses. However, little is known about how well the tier system reimbursement per class corresponds to the actual cost of providing a specific class. A combination of factors, such as smaller class sizes, higher faculty salaries, and specialized equipment needs, make technical classes more expensive for community colleges to provide than other courses.

In 2013, the Office of State Budget and Management (OSBM) began a study to see if it was possible to tease out the costs of a particular academic program. The study proved to be a larger undertaking than OSBM's resources could handle and appeared to require greater and more detailed information than the colleges were collecting. Specifically, colleges had difficulty determining how to allocate particular costs to particular programs.

Presently, reimbursement for community college classes is accomplished by calculating the cost to educate one budget FTE taking Tier 2 courses and then adding or subtracting a percentage of this amount for Tier 1 and Tier 3 courses. Because this methodology does not take specific faculty, facility, or other costs into account, the current levels of state support for budget FTE by tier may either over- or under-compensate community colleges relative to the cost of providing instruction. System office staff could create a methodology to incorporate cost differences in the tier funding formula and estimate appropriate tier funding levels. The community college system would be responsible for maintaining these calculations and verifying that tier levels aligned with tier course costs as time passes. This way, North Carolina could ensure that community colleges will receive enough funds to fully cover the cost of even the most expensive technical classes.

If the General Assembly wishes to refine the existing performance-based funding program, it could consider several modifications. As discussed in Question 4, it is too early to know if newer performance-based funding programs improve college outcomes. The General Assembly could continue the existing performance-based funding program as a means to clearly communicate its goals to the community college system. The amount of resources devoted toward performance-based funding could remain small or change year-to-year with different legislative priorities. Nevertheless, some general changes could be considered for the program.

- 1. Have colleges compete against both their historic performance and against other colleges in the system.** North Carolina's current system of performance-based budgeting makes colleges compete against each other for funding. A potential drawback of this method is it could discourage colleges from sharing information with each other about successful initiatives to improve student outcomes. In addition, this competition may create an unintended incentive for colleges to lower academic standards, discourage admission of less-prepared students, or find other ways to game the measurement system. Additionally, having colleges compete against each other provides the Community Colleges System Office with an incentive to set the baseline thresholds low so that most colleges will meet goals. Indeed, as demonstrated in

Question 4, all colleges received some amount of performance-based funding in Fiscal Year 2014–15.

Instead, North Carolina could measure and reward continuous improvement at all institutions by having half of performance-based funding be tied to how colleges compare to their own historic performance. Allowing colleges to compete against their historic performance does not disadvantage colleges that enroll and educate more at-risk students. This approach could be implemented by using the average of the last two years' outcomes as the baseline for each college and allocating half of all future funds based on year-to-year changes from the baseline. There is no cost increase associated with this proposal.

- 2. Incent the achievement of state goals.** Well-designed performance-funding models should prioritize and incent state goals for higher education. For this reason, the General Assembly may wish to direct the community college system to make changes to existing measures to emphasize goals such as degree completion in priority instructional programs. The Community Colleges System Office has already completed the process of identifying priority instructional programs, and the State reimburses colleges at a higher rate for Tier 1 courses to promote creation and maintenance of these classes. Yet the State is not holding community colleges accountable for the number of degrees or certificates awarded in priority instructional programs. This situation could be remedied by adding this measure to the existing list of performance measures. Adding another performance measure to the existing system would cost \$3 million annually. Alternatively, the measure could replace an existing measure or funding for each measure could be reduced to ensure no additional cost.

Another state goal that could be prioritized through performance-based funding is increasing educational attainment of underrepresented or at-risk populations. Educational attainment in North Carolina is not spread evenly across the state and populace. Specific groups of citizens are less likely to attain a college degree or certificate. Most states that have instituted performance-based funding give extra weight for successful outcomes achieved by at-risk populations. The weights vary from 40% in Tennessee to 100% in Texas. Definitions of “at-risk” differ from state to state but some common definitions include Pell Grant-eligible students, adult students, students that score poorly on national college exams, and students from underrepresented groups.

An advantage of weighting performance-based funding measures is that it gives policymakers flexibility both to change the weights attached to specific measures and to adjust the characteristics of students prioritized for extra attention. Weighting performance measures could be funded either by redistributing existing funding or with additional state resources.

- 3. Improve institutional capacity.** For performance-based funding methods to work effectively, there must be enough institutional capacity

dedicated to successful implementation and ongoing evaluation. Currently, there is no audit or evaluation system in place to ensure performance-based funding data integrity and collection procedures. The System Office estimates approximately 700 staff hours are needed to maintain the performance-based funding initiative each year and more staff hours are needed every three years when the measures are re-evaluated.

One way to potentially improve the system would be to add, or reallocate from another activity, one position in the Research and Performance Management Unit at the Community Colleges System Office. This position could facilitate data validation processes, identify areas of data integrity concerns, and assist in assessment and evaluation efforts related to student success, finances, operations, and institutional effectiveness. The Program Evaluation Division estimates this proposal would cost \$98,200 annually.²⁰

If the General Assembly wishes to achieve greater student success and educational effectiveness, it could consider incorporating needs-based funding into the enrollment portion of the funding formula.

Incorporating funding for at-risk students directly into the enrollment funding formula would provide substantially more financial resources to community colleges to improve student success.

The State Board is required to equitably distribute resources to community colleges. North Carolina's historical attempts at equity, which reflect the way most community colleges across the country operate, have emphasized access to community colleges and providing equal resources to each community college and student. This mission to provide equity is reflected in the system's open enrollment policy, low tuition and fees, the number of community colleges, and equal FTE funding. Each of these efforts provides equal opportunity to residents to enroll and obtain an education.

Needs-based funding could be an important extension of current equity policies. This approach would distribute funds in a way that is responsive to the varying needs of students. If a student with fewer resources and greater educational needs requires more funding to successfully complete his or her education, per capita expenditures should be rationed according to these needs. An argument in favor of implementing needs-based funding is that North Carolina's community colleges are responsible for educating students who are the most at-risk, are the least prepared for college, and have limited access to funds.²¹ The disproportionate amount of at-risk students that community colleges serve in the higher education system is stark compared to four-year institutions. In four-year institutions, high-socioeconomic status (SES) students outnumber low-SES students 14 to 1, whereas low-SES students outnumber high-SES students 2 to 1 in community colleges. Research suggests that enrollment-based funding formulas can lead to severe inequities in community college systems when they do not address funding for students with the greatest needs.

²⁰ This estimate is based on a salary of \$75,387 plus benefits for one position.

²¹ At-risk students are often defined as students whose family income falls below 130%-185% of the federal income poverty line, who are members of an under-represented group, or who are educationally disadvantaged in some way.

Although no community college system in the United States currently uses this method, needs-based funding is already incorporated into federal and state K-12 funding formulas, which provide funds to local educational agencies and public charter schools based on individual student characteristics.²² Dating back to the 1965 Elementary and Secondary Education Act, federal policy has recognized that children in higher poverty schools need extra resources, and the federal government has devoted hundreds of billions of dollars in Title I funds to higher poverty schools. Some state allotments based on student characteristics include funding for students with disabilities, at-risk students, disadvantaged students, and students with limited English proficiency. In Fiscal Year 2014–15, allotments based on student characteristics represented 14% of resources allotted to local educational agencies and public charter schools in North Carolina.

To implement this initiative, the General Assembly could direct the State Board to create a definition of at-risk students for community colleges and to determine how best to incorporate this information into the existing funding system. For example, the State Board may recommend maintaining instructional FTE funding based on the tier levels and request additional state appropriations for student institutional and academic support services based on the number of at-risk students at each college. Differentiating college funding based on the student characteristics at each institution would provide additional resources to students most in need of additional assistance in the community college system.

Appendices

Appendix A: Total Community College Funding by Source, 2006–2016

Appendix B: Total Operating Budget by College for Fiscal Year 2016–17

Appendix C: Performance-Based Funding Amounts as a Percentage of State Allocation

Appendix D: Performance Measures by State

Agency Response

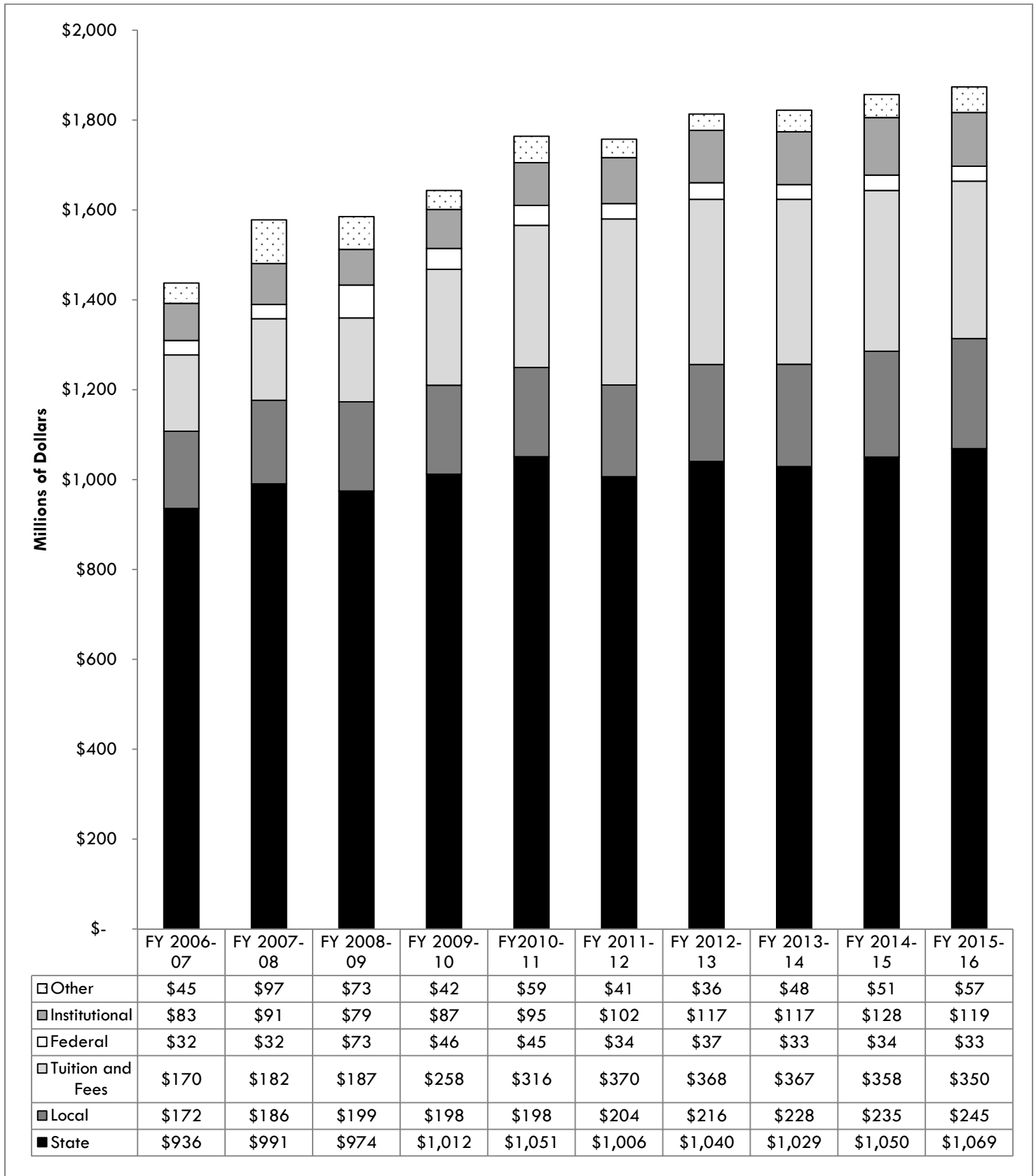
A draft of this report was submitted to the North Carolina Community Colleges System Office to review and respond. Its response is provided following the appendices.

Program Evaluation Division Contact and Acknowledgments

For more information on this report, please contact the lead evaluator, Sara Nienow, at sara.nienow@ncleg.net. Staff members who made key contributions to this report include Kiernan McGorty and Janice Hillanbrand. John W. Turcotte is the director of the Program Evaluation Division.

²² A major difference between K-12 and community college funding is that all children in North Carolina have a constitutional right to the opportunity to receive a sound basic education whereas attendance at a community college is not a protected right.

Appendix A: Total Community College Funding by Source, 2006–2016



Source: Program Evaluation Division based on information from the Community Colleges System Office.

Appendix B: Total Operating Budget by College for Fiscal Year 2016–17

Community College	Total Budget FTE	Total Formula Allotments	Career & Technical Education	State Child Care	Small Business Center	Customized Industry Training	Equipment & Instructional Resources	Program Specific Category	Management Flexibility Reduction	Net Allotment
Alamance CC	4,332	25,109,228	188,417	33,582	106,427	60,000	1,101,423		-862,477	26,838,023
Asheville-Buncombe TCC	6,723	39,100,682	251,282	41,489	114,836	60,000	1,776,029		-1,341,002	41,779,345
Beaufort County CC	1,724	11,070,724	106,443	25,129	104,679	47,500	465,685		-397,313	11,888,532
Bladen CC	1,374	9,103,460	72,866	24,087	99,559	50,000	425,062		-330,939	9,869,157
Blue Ridge CC	2,080	13,543,312	99,120	26,256	115,377	50,000	610,977		-486,306	14,569,713
Brunswick CC	1,848	11,628,469	51,078	24,906	103,389	47,500	508,515		-428,095	12,444,277
Caldwell CC & TI	3,830	23,230,016	143,232	31,440	104,429	50,000	945,713	150,000	-822,604	24,777,939
Cape Fear CC	8,610	49,816,353	264,319	48,172	113,795	60,000	1,890,201	713,573	-1,697,219	53,099,394
Carteret CC	1,682	10,755,746	77,510	24,749	107,801	47,500	526,306		-390,385	11,675,533
Catawba Valley CC	4,374	25,457,017	177,702	33,549	111,339	60,000	1,085,762	881,481	-879,390	28,013,222
Central Carolina CC	5,413	32,186,016	234,137	35,635	116,126	60,000	1,425,123		-1,138,979	34,343,181
Central Piedmont CC	16,058	92,543,123	492,206	73,701	116,168	60,000	3,659,338		-3,128,564	97,475,310
Cleveland CC	2,912	17,600,654	150,376	28,699	105,512	50,000	777,460		-621,042	18,869,119
Coastal Carolina CC	4,743	27,488,853	121,980	35,115	116,084	47,500	1,061,103		-944,415	28,987,323
College of The Albemarle	2,266	14,575,229	59,114	27,037	110,881	47,500	594,606		-521,576	15,487,397
Craven CC	2,951	18,316,762	151,269	28,941	110,507	50,000	748,483		-649,838	19,504,607
Davidson County CC	3,806	23,159,046	215,563	31,604	102,140	60,000	1,019,824		-811,377	24,796,624
Durham TCC	4,503	26,743,485	142,339	33,880	111,422	60,000	1,053,990		-933,569	28,265,537
Edgecombe CC	2,482	15,680,499	190,560	27,650	104,346	47,500	689,564		-553,650	16,876,033
Fayetteville TCC	11,834	65,752,821	613,829	54,004	112,713	60,000	2,839,217	1,348,137	-2,265,991	71,353,947
Forsyth TCC	8,210	46,929,189	423,804	46,019	112,838	60,000	2,112,700	300,000	-1,595,814	50,501,436
Gaston College	4,972	29,971,138	256,461	36,729	110,923	60,000	1,234,612	667,425	-1,024,621	32,547,279
Guilford TCC	11,324	64,389,226	635,974	56,083	115,460	60,000	2,716,194		-2,185,017	68,504,114
Halifax CC	1,393	9,177,595	121,266	23,976	105,886	47,500	448,055		-333,058	10,039,275
Haywood CC	1,744	11,105,964	130,731	25,556	110,840	47,500	539,006		-390,957	12,107,646
Isothermal CC	1,957	12,395,540	106,620	26,170	106,927	47,500	587,316		-437,463	13,419,926
James Sprunt CC	1,180	7,999,617	64,473	23,600	105,845	50,000	417,154		-291,996	8,785,847
Johnston CC	4,045	24,032,231	158,056	32,534	110,465	50,000	1,068,006		-836,413	25,682,885
Lenoir CC	4,162	23,791,454	161,985	28,692	105,845	50,000	1,051,823		-882,503	25,359,119
Martin CC	887	6,427,093	0	22,168	100,712	47,500	327,212		-249,278	7,002,619
Mayland CC	1,546	10,003,517	60,901	23,050	107,385	47,500	466,481		-384,457	10,790,858
McDowell TCC	1,277	8,639,910	57,507	23,463	102,348	50,000	416,782		-321,621	9,385,171
Mitchell CC	2,558	16,144,524	101,798	28,011	110,423	60,000	618,562		-570,941	17,110,939

Community College	Total Budget FTE	Total Formula Allotments	Career & Technical Education	State Child Care	Small Business Center	Customized Industry Training	Equipment & Instructional Resources	Program Specific Categoricals	Management Flexibility Reduction	Net Allotment
Montgomery CC	947	6,760,826	0	22,618	103,430	47,500	350,932		-256,740	7,379,498
Nash CC	3,179	18,895,428	216,099	29,852	103,972	60,000	870,015		-654,664	20,390,717
Pamlico CC	645	5,323,289	0	21,674	102,098	*	287,185		-211,397	5,810,034
Piedmont CC	1,748	11,669,464	96,262	24,262	100,100	47,500	539,910		-438,484	12,578,924
Pitt CC	8,190	46,019,704	520,245	47,079	115,502	50,000	2,025,940		-1,534,472	49,269,938
Randolph CC	2,933	17,566,257	206,455	28,770	103,805	60,000	806,596		-614,662	18,963,817
Richmond CC	2,834	17,028,847	150,020	27,502	106,094	50,000	749,823		-612,334	18,249,775
Roanoke-Chowan CC	877	6,342,730	64,651	22,365	103,514	47,500	321,282		-239,793	6,983,531
Robeson CC	2,778	16,613,042	137,161	26,471	112,047	50,000	736,495		-611,950	17,799,761
Rockingham CC	1,743	11,255,778	73,224	25,489	105,595	50,000	519,760		-400,605	12,149,001
Rowan-Cabarrus CC	5,888	35,413,441	340,758	38,094	112,005	60,000	1,334,252	3,406,161	-1,236,141	40,802,822
Sampson CC	1,762	11,270,231	73,045	24,191	104,804	47,500	502,319		-420,706	12,103,703
Sandhills CC	3,804	22,326,522	140,197	31,898	106,469	50,000	999,202		-773,424	23,880,066
South Piedmont CC	2,461	15,521,649	83,046	26,114	101,432	60,000	653,652		-574,376	16,525,169
Southeastern CC	2,179	13,199,828	58,221	24,522	110,548	47,500	584,530		-499,142	14,110,537
Southwestern CC	2,682	16,842,752	138,768	27,821	104,221	47,500	769,315		-603,531	18,096,161
Stanly CC	2,785	17,253,069	162,342	28,245	102,764	47,500	803,496		-613,301	18,587,611
Surry CC	3,187	19,029,006	137,161	29,633	103,930	50,000	848,680		-667,246	20,379,844
Tri-County CC	1,239	8,407,573	81,439	23,697	103,514	47,500	417,117		-307,204	9,190,753
Vance-Granville CC	3,177	20,064,269	181,631	29,402	104,221	60,000	819,536		-713,759	21,364,836
Wake TCC	19,481	110,098,855	671,872	81,091	118,041	60,000	4,379,066		-3,749,149	116,038,842
Wayne CC	3,647	21,764,974	175,558	31,325	107,968	50,000	977,964		-754,217	23,331,536
Western Piedmont CC	2,307	14,240,578	112,336	26,404	112,213	50,000	608,241		-511,992	15,246,021
Wilkes CC	2,964	18,489,709	141,983	28,673	104,138	50,000	803,353		-661,468	19,759,741
Wilson CC	1,855	11,575,825	111,624	25,347	113,298	50,000	545,817		-416,138	12,551,590
TOTAL	224,092	\$1,336,842,117	\$10,157,016	\$1,838,215	\$6,259,150	\$2,992,500	\$57,462,762	\$7,466,777	-\$46,785,765	\$1,433,695,534

Note: Pamlico Community College did not receive funds for Business and Industry Support because these services are provided through a consortium with Craven Community College and are represented in Craven's line item.

Source: Program Evaluation Division based on information from the Community Colleges System Office.

Appendix C: Performance-Based Funding as a Percentage of State Allocation for Community Colleges

State	Percentage of State Appropriation			Notes
	FY 2015	FY 2016	FY 2017	
Arkansas	10%	15%	20%	Spending goal is to increase performance-based funding to 25% of the state appropriation by Fiscal Year 2018.
Colorado		13%		\$19.5 million for Fiscal Year 2016
Connecticut			½ of 1%	\$1.7 million will be allocated to the Connecticut State University and Tech College system for Fiscal Year 2017.
Florida			6%	In Fiscal Year 2015, \$200 million was allocated according to the performance formula. In Fiscal Year 2017, \$60 million will be allocated through the performance funding system.
Hawaii		<1%		\$6.4 million was allocated for community colleges in Fiscal Year 2016.
Illinois		< 1%	<1%	\$9.5 million will be allocated to community colleges using performance-based funding in Fiscal Year 2017.
Indiana	6%	4%	6.5%	
Louisiana		15%	15%	Percent is calculated on base appropriations. Institutions also can receive permission to raise tuition by 10% without legislative approval.
Massachusetts		<50%	<50%	An amount is set aside for operational support. With the remaining funds, 50% is allocated based on semester credit hours and 50% is awarded based on performance.
Michigan			1.4%	In Fiscal Year 2015, \$8.9 million in new appropriations for community colleges was based on performance. In Fiscal Year 2017, \$4.4 million in new appropriations for community colleges will be allocated based on performance.
Minnesota		5%	5%	5% of Fiscal Year 2017 appropriations will be reserved until institutions meet 3 out of 5 performance goals.
Montana	5%		8%	Fiscal Year 2015 was a trial period. \$15 million will be allocated to performance funding for Fiscal Year 2017.
Nevada	5%	10%	15%	The amount of performance funding has been increasing by 5% increments to reach 20% by Fiscal Year 2018.
New Mexico	5%	5%		For Fiscal Year 2017, New Mexico did not increase funding for higher education institutions; therefore no funding was allocated through the performance-based funding system.
New York		<1%	<1%	Community colleges will receive \$2 million through the Next Generation NY Job Linkage Program for Fiscal Year 2016 and Fiscal Year 2017.
North Carolina	< 2%	< 2%		In Fiscal Year 2015, \$24 million was allocated to community colleges based on performance measures.
Ohio		100%		50% is based on course completion, 25% based on success points, and 25% on degree completion or transfer access.
Tennessee		100%	100%	100% of the state appropriation is allocated on performance after a base appropriation is provided.
Texas	10%	10%	10%	
Utah			1.5%	For Fiscal Year 2015, \$1.5 million in one-time funding was allocated based on performance. \$5 million was approved as a one-time performance allotment for Fiscal Year 2017.
Washington		<1%	<1%	\$5.3 million a year will be allocated in Fiscal Years 2016 and 2017.
Wisconsin	10%	20%	30%	The amount of performance funding will increase by 10% increments until reaching 30% in Fiscal Year 2017.

Note: The percentage of total community college funding provided by states varies greatly. In Fiscal Year 2012–13, state appropriations as a percent of community college revenue ranged from 1.8% in Colorado to 41.8% in Wyoming.

Source: Program Evaluation Division based on information from the National Conference of State Legislatures and the Southern Regional Education Board.

Appendix D: Performance Measures for Community Colleges by State

State	Number of Measures	Performance Measures	
Arkansas	11	<ul style="list-style-type: none"> • Course completion • Progression • Credential completion • At-risk students relative to enrollment • Science, technology, engineering, and math (STEM) credentials 	<ul style="list-style-type: none"> • High demand credentials • Workforce training • Transfer • Adult credentials • Minority credentials • Employment
Colorado	2	<ul style="list-style-type: none"> • Retention 	<ul style="list-style-type: none"> • Completion (additional weights added for type of credit earned)
Hawaii	6	<ul style="list-style-type: none"> • Degrees and certificates awarded • Degrees and certificates awarded to Native Hawaiian students • Degrees and certificates awarded to students in STEM fields 	<ul style="list-style-type: none"> • Number of low-income students participating in the Federal Pell Grant program • Number of transfers from community colleges to baccalaureate campuses • 150% graduation and success rates
Illinois	6	<ul style="list-style-type: none"> • Degree and certificate completion • Degree and certificate completion of at-risk students • Transfer to a four-year institution <p>Additional weight is provided for graduates who are low-income, adult, Hispanic, African American, or majored in a STEM or health care field.</p>	<ul style="list-style-type: none"> • Transfer to a community college • Remedial and adult education advancement • Momentum points
Indiana	6	<ul style="list-style-type: none"> • Degree completion • At-risk degree completion • High-impact degree completion 	<ul style="list-style-type: none"> • Persistence • Remediation success • On-time graduation
Kansas	8	<ul style="list-style-type: none"> • First- to second-year retention rates of college ready cohort • Three-year graduation rates of college ready cohort • Number of certificates and degrees awarded • Student success index 	<ul style="list-style-type: none"> • Performance of students on institutional quality measures • Percentage of students employed or transferred • Wages of students hired • Third party technical credentials and WorkKeys, if applicable
Louisiana	7	<ul style="list-style-type: none"> • Change in retention • Degree and certificate completion • Increase in passage rates on licensure and certification exams 	<ul style="list-style-type: none"> • Employment of degree and certificate earners • Research productivity • Institutional efficiency and accountability • Articulation and transfer
Massachusetts	7	<ul style="list-style-type: none"> • Certificate completions • Associate completions • Transfers who have completed 24 credits • 30 credits achieved <p>Degrees and certificates awarded to Pell Grant recipients and in high-demand fields are weighed more.</p>	<ul style="list-style-type: none"> • Degrees and certificates per 100 Full Time Equivalent (FTE) students • First full math course completed • First full English course completed
Michigan	4	<ul style="list-style-type: none"> • Weighted degree completion • Local strategic value 	<ul style="list-style-type: none"> • Contact-hour equated students weighted toward science and technology • Completion improvement
Minnesota	4	<ul style="list-style-type: none"> • Increase degrees, diplomas, and certificates by at least 4% • Increase employment rate for graduates by at least 5% 	<ul style="list-style-type: none"> • Increase degrees awarded to students who took no more than 68 credits by 5% • Lower by 10% the number of students in remedial education

State	Number of Measures	Performance Measures	
Missouri	5	<ul style="list-style-type: none"> • Three-year completion rate for first-time, full-time entering students (includes students who complete a certificate or degree of at least one year or longer or successfully transfer to a four-year institution) • Percentage of developmental students who successfully complete their last developmental English course then successfully complete their first college-level English course • Percentage of developmental students who successfully complete their last developmental math course then successfully complete their first college-level math course 	<ul style="list-style-type: none"> • Percentage of career/technical graduates who pass required licensure/certification examination • Financial responsibility and efficiency measure chosen by each institution. Measures include number of credit hours completed per \$100,000 of state appropriations, education and general expenditures per credit hour completed, instructional expense per credit hour, and persistence rates for incoming first-time, full-time students.
Montana	5	<ul style="list-style-type: none"> • Number of undergraduate certificates awarded • Dual enrollment • Remedial success • Credit accumulation 	<ul style="list-style-type: none"> • Retention defined as the percentage of first-time, full-time freshmen returning for a second year of enrollment in the Montana University System
Nevada	8	<ul style="list-style-type: none"> • Number of certificates, associate's degrees, bachelor's degrees, master's degrees, and doctoral degrees • Number of students who transfer to a four-year institution with an associate's degree • Number of students who transfer to a four-year institution with at least 24 credits • Number of degrees or certificates awarded per 100 FTE 	<ul style="list-style-type: none"> • Total amount expended on sponsored programs/projects of research and other scholarly activities for fiscal year • Number of students who successfully complete a college level English or math course • Number of STEM and allied health degrees and certificates • Total number of certificates and degrees awarded in an institutional selected discipline which aligns with the state's economic development plan
New Mexico	6	<ul style="list-style-type: none"> • Course completion rate • Number of certificates and degrees awarded • Number of certificates and degrees awarded in state workforce priority areas 	<ul style="list-style-type: none"> • Number of certificates and degrees earned by financially at-risk students • 30 credit momentum points • Completed dual credit courses
New York	6	<ul style="list-style-type: none"> • Number of students who are employed following degree or certificate completion and their wage gains • Number of degree completions, certificate completions, and student transfers to other institutions • Number of degree and certificate completions by students considered academically at-risk due to an economic disadvantage or other factor of under-representation within the field of study, veterans, and students with disabilities 	<ul style="list-style-type: none"> • Number of students who make adequate progress towards completion of a degree or certificate • Number of degree completions in innovative programs designed to enable students to balance school, work, and other personal responsibilities • Number of students engaged in career and employment opportunities including apprenticeships, cooperative education programs, or other paid work experience that is an integral part of their academic program

State	Number of Measures	Performance Measures	
North Carolina	8	<ul style="list-style-type: none"> • Success of students in credit-bearing English courses • Success of students in credit-bearing math courses • First-year curriculum student progress 	<ul style="list-style-type: none"> • Licensure and certification passing rate • College transfer performance • Curriculum completion • Basic skills student progress • High School Equivalency (HSE) Diploma Attainment
North Dakota	1	<ul style="list-style-type: none"> • Credit hours successfully completed by students 	
Ohio	7	<ul style="list-style-type: none"> • Course completion • Transfer with 15 credit hours to a college in the University of Ohio system • Degree completion • Students earning their first 12 credit hours • Students earning their first 24 credit hours 	<ul style="list-style-type: none"> • Students completing any developmental English in the previous year and attempting any college English in the remainder of the previous year or any term the following year • Students completing any developmental math in the previous year and attempting any college math in the remainder of the previous year or any term the following year
Oklahoma	6	<ul style="list-style-type: none"> • First-year retention • First-year retention for Pell Grant recipients • 24 credits in the first academic year 	<ul style="list-style-type: none"> • Cohort graduation rates anywhere in the system • Degree completion • Program accreditation
Tennessee	8	<ul style="list-style-type: none"> • Students accumulating 12, 24, and 36 hours • Dual-enrolled students • Associate degrees • Graduates placed in jobs 	<ul style="list-style-type: none"> • Less than 1 year certificates • Transfers out with 12 credit hours • Workforce training contact hours • Degrees awarded per 100 FTE
		<p>Adults older than 25 and low-income students completing any of the metrics are more heavily weighted. Additional weights are applied to each outcome depending on the priority and institutional mission.</p>	
Texas	6	<ul style="list-style-type: none"> • Number of students who successfully complete developmental education in math, reading, and writing • Number of students who complete first college-level course in math, reading intensive, and writing intensive courses • Number of students who successfully complete 15 credit hours 	<ul style="list-style-type: none"> • Number of students who successfully complete 30 credit hours • Number of students transferring to a general academic institution after successfully completing at least 15 semester credit hours • Number of degrees and certificates awarded
		<p>Additional points are awarded for degrees in STEM or Allied Health fields.</p>	
Utah	4	<ul style="list-style-type: none"> • Degrees and certificates awarded • Services provided to traditionally under-served populations 	<ul style="list-style-type: none"> • Graduation efficiency • Responsiveness to workforce needs
Washington	12	<ul style="list-style-type: none"> • Significant increases in basic skills • Earning a high school diploma • Completing developmental education sequence • Transitioning to college level • Earning first 15 college level credits • Earning first 30 college level credits 	<ul style="list-style-type: none"> • Completing college math • Returning and increasing achievement • Completing 45 credits toward degrees • Completion of certificate • Completion of associate degree • Apprenticeship training

State	Number of Measures	Performance Measures	
Wisconsin	10	<ul style="list-style-type: none"> • Placement rate of students in jobs related to students program of study • Number of degrees and certificates awarded in high-demand fields • Number of programs or courses with industry-validated curricula • Transition of adult students from basic education to skills training • Credit for prior learning • Training or other services provided to special populations or demographic groups that can be considered to be unique to the district 	<ul style="list-style-type: none"> • Number of adults served by basic education courses, adult high school, or English language learning courses; number of adults served by courses that combine basic skills and occupational training; and success rate of adults completing such courses • Participation in dual enrollment courses • Workforce training provided to businesses and individuals • Participation in statewide or regional collaboration or efficiency initiatives

Notes: Arkansas and Vermont are transitioning towards performance-based funding and do not yet have measures in place. Wyoming's Appropriations Committee is working on a new funding model for community colleges which will be presented by October 1, 2016.

Source: Program Evaluation Division based on information from the National Conference of State Legislatures.

NORTH CAROLINA COMMUNITY COLLEGE SYSTEM

James C. Williamson, Ph.D.

President

September 23, 2016

ALAMANCE COMMUNITY COLLEGE
ASHEVILLE-BUNCOMBE TECHNICAL
COMMUNITY COLLEGE
BEAUFORT COUNTY COMMUNITY COLLEGE
BLADEN COMMUNITY COLLEGE
BLUE RIDGE COMMUNITY COLLEGE
BRUNSWICK COMMUNITY COLLEGE
CALDWELL COMMUNITY COLLEGE
& TECHNICAL INSTITUTE
CAPE FEAR COMMUNITY COLLEGE
CARTERET COMMUNITY COLLEGE
CATAWBA VALLEY COMMUNITY COLLEGE
CENTRAL CAROLINA COMMUNITY COLLEGE
CENTRAL PIEDMONT COMMUNITY COLLEGE
CLEVELAND COMMUNITY COLLEGE
COASTAL CAROLINA COMMUNITY COLLEGE
COLLEGE OF THE ALBEMARLE
CRAVEN COMMUNITY COLLEGE
DAVIDSON COUNTY COMMUNITY COLLEGE
DURHAM TECHNICAL COMMUNITY COLLEGE
EDGECOMBE COMMUNITY COLLEGE
FAYETTEVILLE TECHNICAL COMMUNITY COLLEGE
FORSYTH TECHNICAL COMMUNITY COLLEGE
GASTON COLLEGE
GUILFORD TECHNICAL COMMUNITY COLLEGE
HALIFAX COMMUNITY COLLEGE
HAYWOOD COMMUNITY COLLEGE
ISOTHERMAL COMMUNITY COLLEGE
JAMES SPRUNT COMMUNITY COLLEGE
JOHNSTON COMMUNITY COLLEGE
LENOIR COMMUNITY COLLEGE
MARTIN COMMUNITY COLLEGE
MAYLAND COMMUNITY COLLEGE
MCDOWELL TECHNICAL COMMUNITY COLLEGE
MITCHELL COMMUNITY COLLEGE
MONTGOMERY COMMUNITY COLLEGE
NASH COMMUNITY COLLEGE
PAMLICO COMMUNITY COLLEGE
PIEDMONT COMMUNITY COLLEGE
PITT COMMUNITY COLLEGE
RANDOLPH COMMUNITY COLLEGE
RICHMOND COMMUNITY COLLEGE
ROANOKE-CHOWAN COMMUNITY COLLEGE
ROBESON COMMUNITY COLLEGE
ROCKINGHAM COMMUNITY COLLEGE
ROWAN-CABARRUS COMMUNITY COLLEGE
SAMPSON COMMUNITY COLLEGE
SANDHILLS COMMUNITY COLLEGE
SOUTH PIEDMONT COMMUNITY COLLEGE
SOUTHEASTERN COMMUNITY COLLEGE
SOUTHWESTERN COMMUNITY COLLEGE
STANLY COMMUNITY COLLEGE
SURRY COMMUNITY COLLEGE
TRI-COUNTY COMMUNITY COLLEGE
VANCE-GRANVILLE COMMUNITY COLLEGE
WAKE TECHNICAL COMMUNITY COLLEGE
WAYNE COMMUNITY COLLEGE
WESTERN PIEDMONT COMMUNITY COLLEGE
WILKES COMMUNITY COLLEGE
WILSON COMMUNITY COLLEGE

Mr. John Turcotte, Director
Program Evaluation Division
North Carolina General Assembly
Legislative Office Building, Suite 100
300 North Salisbury Street
Raleigh, NC 27603

Dear Mr. Turcotte:

Thank you for the opportunity to respond to the Program Evaluation Division's (PED) Report on North Carolina's Community College Funding. We would also like to commend your staff on their professionalism and cooperation in working with the Community College System Office staff in the preparation of this report. In addition, we would like to express our appreciation to the Joint Legislative Program Evaluation Oversight Committee for including this project in the 2015-17 Work Plan.

GENERAL RESPONSE

After reviewing the final report, we concur with the finding that the community college's funding formula is functional and generally acceptable. However, we do strongly echo the concerns expressed by several community college presidents about the overall adequacy of funding for community colleges. In particular, we would point out the large disparity noted in the report between funding in other education sectors. For example, in 2015-16 spending on community colleges accounts for only 8.6% of North Carolina's total education budget, contrasted with K-12 and UNC, which received 69% and 22% respectively. This funding disparity is further noted in looking at actual per student expenditures with support for K-12 students at \$5,638 and the average State support for a FTE at a UNC institution at \$13,101. Contrast these amounts with \$4,608 for a community college FTE.

North Carolina's community colleges are the lead workforce engine of the State. The recent EMSI study found that every taxpayer dollar spent on

community colleges yields a return of \$4.10.¹ These returns enhance North Carolina's economy in the form of increased tax revenue from higher earnings, increased business outputs, as well as savings due to a reduced demand for government-funded services. Our community colleges are the cornerstone of workforce development but cannot continue to try to fulfill this critical mission with the current funding levels.

RESPONSES TO & ADDITIONAL RECOMMENDATIONS FOR CHANGING THE CURRENT FUNDING FORMULA

- A. Using a weighted average of unduplicated headcount and budget full-time equivalent student (FTE) as the basis for institutional and academic support.** We concur with the finding that there is a strong correlation between institutional and academic support costs and student headcount. Student support services lead to more informed decision-making by students, enable students to enter into structured pathways, and provide needed academic supports. These supports increase the chances of student retention, success, and completion. Students, both full-time and part-time, require support services. However, as noted in the PED report, community colleges serve 3.2 students for every one FTE. Given that institutional and academic support services are funded on a budget FTE basis, colleges must stretch their funding allotments to provide these services to all students, especially those colleges experiencing a large increase in part-time students. Therefore, we believe that using an unduplicated headcount and budget FTE as the basis for institutional and academic supports merits further exploration by community college presidents, college trustees and the State Board of Community Colleges.
- B. Improving funding stability through a stop-loss prevention and an enrollment growth reserve.** We concur with the finding of the need for greater funding stability and appreciate the recognition that such stability is a major concern for all 58 community colleges. Since our enrollment numbers follow unemployment trends, many NC community colleges, like those across the nation, have experienced significant enrollment declines resulting from the recent economic recovery, as well as our developmental education revisions, part of our System's SuccessNC strategic plan. While we have not explored the concept of a stop-loss provision, we agree that there is value in providing such a measure. A similar effort was introduced by the General Assembly in 2013 when \$4 million in non-recurring funds were set aside to phase in the budget reductions stemming from moving from a three-year to a two-year rolling average (Exhibit 7). Furthermore, as was evidenced with our 22% enrollment increase over two years during the recession, colleges who experience significant enrollment increases also face

¹ "Demonstrating the Collective Impact of North Carolina's Community Colleges", EMSI, February 2015.

challenges as they stretch dollars for more students. Therefore, as a way to respond to the immediate needs of colleges who are experiencing either a steep enrollment decline or increase, we recommend that the General Assembly consider appropriating funds into non-reverting enrollment reserve that could be used to provide one-time support to colleges experiencing greater than a 5% change in current enrollment.

- C. Verify that the tiered amounts that colleges are reimbursed for classes cover the cost and consider a program start-up fund.** We believe funding tiers should be refined to more appropriately capture variations in programming costs. However, greater differentiation among tiers cannot come at the cost of the lower tier values, i.e., we cannot just “re-divide the pie”. Making significant changes without additional funding will further undermine budget stability. In addition, effectively aligning tier funding with course costs requires a sophisticated methodology that must also be balanced with simplicity. Therefore, we would need additional time to gather data to perform a meaningful, detailed analysis. Specifically, this analysis would focus on faculty costs since 95% of instructional current expenditures is related to personnel.² We recommend the consideration of a non-recurring appropriation to perform this analysis. Although not included in this report, we would also recommend that the General Assembly consider creating a program start-up fund to help colleges establish programs with high start-up costs. Our System has multiple examples of colleges being forced to choose between reducing support for an existing program and starting another in-demand offering. A start-up fund could address this ongoing budgetary dilemma.
- D. Modifying performance-based funding (PBF).** As noted in the report, performance-based funding was significantly modified in 2013. Prior to recommending the PBF modifications to the State Board of Community Colleges and ultimately to the General Assembly, Community College System Office staff and the NC Association of Community College Presidents held numerous discussions to reach a broad consensus on both proposed and final PBF modifications. In addition, system-wide discourse was also the foundation for a new performance measure, approved by the State Board of Community Colleges in 2016, focused on assessing the wage gains of our students in career and technical fields. During the 2017 legislative session, we will request that the General Assembly amend our performance measures to include the wage gain measure.

² Note: Equipment costs are already weighted with high equipment intensity programs, such as technical and vocational programs and occupational programs, receiving greater funding than low equipment intensity programs, such as college transfer and general education.

Therefore, prior to instituting any additional changes to PBF, we would need time to analyze proposals and build a broad consensus among our stakeholders.

1. Have colleges compete against both historic performance and against other colleges.
We disagree that competition created by the performance-based funding model creates an unintended incentive for colleges to reduce academic standards, discourage admission of less-prepared students, or find other ways to “game” the system. The PBF model intentionally includes both a quality and an impact component to mitigate against these unintended incentives, and our open-door admissions policy allows for the admittance of all students into some level of learning. We also disagree that the current PBF model discourages colleges from sharing information with each other. On the contrary, collaboration among colleges has actually increased. For example, the Performance Partnership Program, which is college driven, has expanded the sharing of best practices via web-based meetings, bi-annual conferences, as well as inter-college relationships that regularly engage 90% or more of our colleges. Also, awarding funding based on colleges’ historic performance may unintentionally reward low-performing colleges since they would have a much greater margin for improvement than the high-performing colleges. A potential option would be to look at the gap between historical performance and optimal outcomes. For example, moving from 90 to 95% in a performance metric is likely much harder than moving from 50 to 55%. Awarding PBF based on the percentage that the gap between actual performance and top performance has been reduced during an academic year could address this concern without penalizing higher performing colleges.
2. Incent the achievement of State goals. We agree that increasing degree or certificate attainment in priority instruction areas and increasing educational attainment of under-represented or at-risk populations are both laudable State goals. However, additional analysis would be necessary to determine how such incentives would practically work. For example, current PBF measures are complex, and we would not want to add additional complexity at the same time we are encouraging a straightforward assessment of metrics. Furthermore, we strongly believe that incentives for increases in degree or certificate attainment in priority instructional areas, and increases in educational attainment for under-represented or at-risk populations should be separate components for evaluation rather than an additional performance measure. Therefore, we recommend further discussion among community college stakeholders, including the State Board of Community Colleges, college presidents, and college trustees, as well as data analysis before considering these incentives.
3. Improve institutional capacity. Data-driven decisions related to PBF demand strong institutional capacity at all levels; however, we believe the greater need is to develop

college institutional research and institutional effectiveness capacity. Currently, System Office staff is working across the 58 colleges to begin an institutional effectiveness professional development program, but more work and competitive salaries are needed. We do not believe there is a great deal of risk associated with the integrity of the PBF data submitted by colleges. A standardized data collection methodology already exists, and our Data Governance Committee is working on standardizing data entry. In addition, we communicate data trends and performance by sub-populations through our partnership with SAS on [dashboards](#). (<http://www.nccommunitycolleges.edu/analytics/state-and-federal-performance-measures>) We do agree that improvements could be made by creating and funding an additional position in Performance Management Unit at the System Office. This position would facilitate data validation processes, identify areas of data integrity concerns, and assist in assessment and evaluation efforts related to student success, finances, operations, and institutional effectiveness. However, reallocating existing resources to establish this position is not practical and would detrimentally impact other functions within the System Office.

- E. Incorporate needs-based funding into the enrollment portion of the funding formula.** We appreciate the recognition that community colleges serve a large number of at-risk students. Ensuring that these students have access to a quality and affordable education is one of the missions of the community colleges. While the concept of needs-based funding has merit, our current data systems do not support the identification of students by such student characteristics. We are in the process of planning and designing a modernized enterprise resource planning (ERP) system for the community colleges. The ERP system will include a student information system that may assist in capturing student characteristics. However, the ERP system is still in the beginning planning stages.³

CONCLUSION

Again, we greatly appreciate the time spent and effort undertaken by the PED staff in researching and producing this report. We believe it not only highlights the funding challenges faced by community colleges but also puts forth several ways in which to address our funding needs. We will need additional analysis and in-depth discussions with all stakeholders, including the State

³ Section 7.10A of S.L. 2016-94 requires the request for proposal for a replacement ERP system implementation to be prepared for release no later than October 1, 2017.

Mr. John Turcotte, Director
September 23, 2016
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Board of Community Colleges, the NC Association of Community College Presidents, and the NC Association of Community College Trustees, before making any specific requests for legislative changes. However, based on the outcome of those discussions, there may be several, short-term recommendations that could be addressed during the 2017 Session of the General Assembly, including:

- Using a weighted average of unduplicated headcount and budget FTE as the basis for institutional and academic support.
- Establishing a stop-loss prevention and an enrollment growth reserve.
- Securing non-recurring funds to conduct an analysis to determine the cost of instruction for priority instructional programs.
- Creating a start-up fund for high-cost programs.
- Funding a Statistician III in the Research and Performance Management unit of the System Office to increase institutional effectiveness capacity.

The following, longer-term recommendations will need additional analysis and discussion before any legislative changes are proposed:

- Changes to Performance-Based Funding.
- Needs-based funding.

Should you or any members of the Joint Legislative Program Evaluation Oversight Committee have any questions, please do not hesitate to contact me.

Sincerely,

A handwritten signature in blue ink that reads "James C. Williamson". The signature is fluid and cursive, with a long horizontal flourish extending to the right.

James C. Williamson, Ph.D.
President, North Carolina Community College System