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PERFORMANCE-BASED FUNDING: A MODEL FOR EMBEDDING PERFORMANCE INTO FORMULA ALLOCATIONS

REPORTED TO THE JOINT LEGISLATIVE EDUCATION OVERSIGHT COMMITTEE

MARCH 1, 2013

Performance Funding Committee Chairs:
Mr. K. Ray Bailey, Chair, State Board, Finance & Capital Needs Committee
Dr. Garrett Hinshaw, President, Catawba Valley Community College

System Office:
Dr. Scott Ralls, System President
Ms. Jennifer Haygood, Chief Financial Officer
Mr. Bill Schneider, Associate Vice President for Research and Performance Management

Executive Summary

This report is submitted in response to the General Assembly's directive to develop a plan to merge revised accountability measures and performance standards into the regular funding formula used to allocate funds to community colleges. The State Board of Community Colleges recommends that **over the next four years the General Assembly restore $30 million in recurring funds, which would be allocated among community colleges based on institutional performance.** The performance-based allocation model would have two components:

1. **Rewarding Quality:** The amount of funding that a college would receive through the quality component for each performance measure would depend on the ***percentage of students succeeding*** on each measure compared to an established baseline and goal. Based on three years of data (if available) for each measure, the baseline would initially be set two standard deviations below the system mean, and the goal would initially be set one standard deviation above the system mean. The same baseline and goal would apply to all colleges. The baselines and goals would be revisited every three years. A college's performance-based funding allocation for quality would be determined based on the following rules:
   - If a college does not meet the baseline, it receives no performance-based funding through the quality component for that measure;
   - If a college exceeds the baseline, but does not meet the goal, it receives a portion of the performance-based funding for which it would be eligible;
   - If a college meets the goal, it receives 100% of the performance-based funding for which it would be eligible; and,
   - If a college exceeds the goal, it would receive more than 100% of the performance-based funding for which it would be eligible.

2. **Rewarding Impact:** Funds that are not allocated through the quality component would be distributed through the impact component. This component focuses on the ***number of students succeeding*** on each measure. Each college would receive a portion of the remaining funds based on its pro-rata share of students succeeding on each measure systemwide. This component complements the quality component by recognizing that our State not only needs students succeeding at higher rates, but needs more students succeeding in absolute terms.

Implementing this recommendation would marry two key goals: it would provide additional recurring funds that are badly needed to increase student success at community colleges, while also ensuring accountability by allocating the funds based on performance. This performance-based funding model reflects key principles: it recognizes student progress and completion, values progress and continuous improvement, and rewards programs for quality and impact on the State's workforce. While all colleges have the opportunity to benefit, the graduated approach recognizes differences in performance and programmatic emphases. Finally, this model has significant buy-in within the community college family. This is in large part because the model is relatively easy to understand and transparent. Based on these considerations, the State Board recommends that the General Assembly appropriate recurring funds and enact the proposed legislation found in Appendix B to enable this model.

Background

Dating back to the late 1980s, the North Carolina Community College System ("System") was one of the first higher education systems to establish, collect data, report, and publish a "Critical Success Factors Report".[1] This report was the forerunner of what would evolve into a performance-based system of accountability. For over a decade, the System has captured and reported on as many as 12 and as few as eight performance measures. The existing accountability system authorizes the carryforward of certain funds from the prior fiscal year and the allocation of those funds to colleges based on performance. Since 2001, over $60 million has been approved for carryforward and allocated to colleges through this performance funding model.

Cognizant of the need to revisit and revise a performance measurement system that had been developed in the late 1990s and put into place since early last decade, the State Board of Community Colleges and System President began conversations at their fall 2009 Planning Meeting. The conversations included the North Carolina Association of Community College Trustees and the North Carolina Association of Community College Presidents. Collectively, the State Board, System President, Trustees, and Presidents endorsed a significant planning initiative to foster guiding goals that would positively impact student success, which has been branded "SuccessNC." Two critically important features of SuccessNC are 1) to increase both student access and program quality (excellence), ultimately leading to student success, and 2) to research, develop, and establish performance measures that attempt to monitor and track student progress toward completion.

Phase 1 – Development of Revised Performance Measures: A representative committee of academic, finance, research, and student service expertise in the System, referred to as the Performance Measures Committee, was appointed in 2010 to develop new measures. During the timeframe of this committee's work, the 2011 Session of the General Assembly directed the State Board of Community Colleges to report on a revised set of accountability measures and performance standards.[2] The General Assembly also directed that the report include a plan to merge revised accountability measures and performance standards into the regular "State Aid Allocation Formula." This 2011 legislative directive was timely, as it reflected the direction established by the State Board, System Office, and leaders of the community college associations in 2009 and 2010.

After approximately one year of work, including the examination of multiple national initiatives focused on developing credible measures of accountability, the Performance Measures Committee, chaired by two community college presidents, brought forward eight new performance measures for consideration. Those measures, as listed in Exhibit 1, were adopted by the State Board of Community Colleges in November 2011, reported to the Joint Legislative Education Oversight Committee in March 2012[3], and enacted into law by the General Assembly in June 2012[4]. Appendix A provides additional description for each measure.

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[1] Section 80 of S.L.1989-752
[2] Section 8.14 of Session Law 2011-145
[3] "Measuring Student Progress and Success", a report presented to the Joint Legislative Education Oversight Committee, March 1, 2012
[4] Section 8.5 of S.L. 2012-142

Exhibit 1: Community College Performance Measures (G.S. 115D-31.3)
Basic Skills Student Progress
GED Diploma Attainment
Developmental Student Success in College-Level English Courses
Developmental Student Success in College-Level Math Courses
First Year Progression
Curriculum Completion
Licensure and Certification Attainment
College Transfer Performance

Phase 2 – Development of Revised Performance-Based Funding Model: As the revised performance measures were being finalized, the System began to turn its attention to the second phase of this initiative: developing recommendations for incorporating performance into colleges' regular formula budget allocations. During the State Board's annual planning meeting in October 2011, Dr. Kevin Dougherty, a nationally renowned expert from Columbia University, presented research on performance-based funding in higher education. This presentation served as a springboard for initial conversations about a new approach to performance-based funding. The outcome of the State Board's planning meeting was a list of ideas that should guide the development of such a system.

In May 2012, President Scott Ralls appointed a team of college presidents to develop recommendations for incorporating performance measures into colleges' regular formula budget allocations (see Exhibit 2). This team, referred to as the Performance Funding Committee, included the following members:

- Chairman Mr. K. Ray Bailey, State Board
- Chairman Dr. Garret Hinshaw, Catawba Valley Community College
- Dr. Kay Albertson, President, Wayne Community College
- Mrs. Lynn Austin, Chair, Johnston Community College Board of Trustees
- Dr. Gordon Burns, President, Wilkes Community College
- Dr. Ervin Griffin, President, Halifax Community College
- Dr. Thomas Houlihan, State Board
- Dr. Dennis Massey, President, Pitt Community College
- Dr. Dale McInnis, President, Richmond Community College
- Dr. Randy Parker, President, Guilford Technical Community College
- Dr. Molly Parkhill, President, Blue Ridge Community College
- Dr. Lawrence Rouse, President, James Sprunt Community College
- Dr. Robert Shackleford, President, Randolph Community College
- Dr. Patricia Skinner, President, Gaston College

Staff to the committee included the following System Office staff:

- Kennon Briggs, Executive Vice President

- Jennifer Haygood, Chief Financial Officer
- Bill Schneider, Associate Vice President of Research and Performance Management

The Performance Funding Committee met five times between May and November 2012. The Committee began by reviewing the ideas identified at the 2011 State Board Planning Meeting and recent research on performance-based funding. During the course of its work, the Committee shared its progress with both the NC Association of Community College Presidents and the State Board for review and comment.

Guiding Principles

To ensure the conceptual integrity of the performance-based funding system under development, the committee initially focused on developing a set of principles that would guide the committee's work. The committee felt that the performance-based funding system should accomplish the following goals:

- **Reward both student progress and completion.** Research suggests that rewarding progress, in addition to completion, creates incentives for identifying what kinds of supports, interventions, and new strategies can help students persist, move faster, and increase their odds of completing.[5] This principle is reflected in the eight performance measures already adopted into law.
- **Provide opportunities for all colleges to benefit and not be exclusive**. Since the objective is to embed performance into colleges' regular formula budget allocations, the system needs to be inclusive of all colleges. The Committee felt like a "winner take all" type of system would undermine college buy-in and, ultimately, the effectiveness of the system.
- **Value progress and improvement in college performance.** The System's existing performance funding system rewards colleges on an "all or nothing" basis. If colleges meet the established standard, the college is eligible to be rewarded. That reward is the same regardless of whether the college simply met the standard or greatly exceeded it. The committee desired a more graduated approach that rewards continuous improvement.
- **Accommodate the fact that colleges are different.** While all colleges share a common workforce mission, college program offerings reflect the particular needs and demands of their local communities. The performance-based funding system should account for such variation.
- **Reward both quality and impact.** The rate of students succeeding on multiple performance measures has historically been used to evaluate college quality. However, increasing this percentage by focusing on a small proportion of mostly college-ready students, or "creaming" students, is contrary to the System's educational mission, our

[5] *Tying Funding to Community College Outcomes: Models, Tools, and Recommendations for States*, "Design Principles for an Effective Performance-Based Funding System", Richard Kazis, Jobs for the Future Foundation, April 2012.

commitment to access, and the State's workforce needs. To mitigate such unintended consequences, the committee pursued an approach that considers both program quality, the rate at which students succeed on performance measures, and program impact, the number of students that succeed.

- **Be implemented predictably, gradually, transparently, and as simplistically as possible.** Research suggests that getting broad buy-in among institutions and other stakeholders is important to the successful implementation of any performance-based funding system.[6] The Committee felt that to foster support the system needed to be easy to explain and understand. It is also important to clearly define the performance goals for which colleges they are striving.
- **Be supported with new, recurring funds.** The System's existing performance funding model relies on carryforward funds. Such funds may not be available and/or authorized in any given year. This instability undermines the effectiveness of the existing system to incentivize change. Furthermore, General Fund expenditures per full-time-equivalent (FTE) student at community colleges have decreased by 20% since 2007-08 in constant dollars. Also, FY 2011-12 State expenditures per student at UNC institutions were over three times higher than at community colleges; public schools expended approximately 30% more in State funds per student.[7] The cuts colleges have sustained have undermined their ability to implement the supports and student success strategies necessary to improve performance. Providing new, recurring funds equal to approximately 2-3% would provide colleges needed support, while incentivizing improvement and ensuring accountability by allocating additional funds based on performance.

The committee was extremely committed to these principles and continually reviewed whether elements of the performance-based funding model being developed stayed true to these maxims.

Recommended Performance-Based Funding Model

We recommend that over the next four years the General Assembly restore $30 million in recurring funds, which would be allocated among community colleges based on institutional performance.[8] The performance-based allocation model would have two components: 1) quality component and 2) impact component. Between the two components, an equal amount of funding would be allocated through the model for each performance measure, with a goal of allocating $5 million per measure.

1. **Rewarding Quality:** The quality component of the performance-based funding model would allocate funds based on the **percentage** of students who succeed on each measure as compared to an established baseline and goal. To better understand how this component would work, it is helpful to break the calculation down into three steps:

[6] Ibid.
[7] "State-Funded Education Expenditures in North Carolina", Fiscal Research Division, November 2012.
[8] A portion of the funding currently available for Basic Skills instruction is already allocated on a performance basis, specifically the number of GEDs and adult high school diplomas awarded each year. Up to $10 million of these funds would be repurposed to support this recommended performance-based funding model in future years once Basic Skills data has been validated.

a) **Establish system-wide baseline and goal for each measure.** Based on three years of data (if available) for each measure, the baseline would initially be set two standard deviations below the system mean, and the goal would initially be set one standard deviation above the system mean. The same baseline and goal would apply to all colleges. Consistent with its guiding principles, the committee recommended using consistent, statistically-defined baselines and goals to promote transparency, simplicity, and objectivity. The baselines and goals would be revisited every three years.

b) **Determine a college's potential performance-based funding for quality.** For each measure, a college would be eligible to receive a certain amount of performance-based funding if it meets the established goal. This amount is referred to as the college's "potential performance-based funding". An individual college's potential performance-based funding amount would be based on its pro-rata share of the total number of students included in the performance measure.

For example, one of the performance measures focuses on licensure and certification exams. If $5 million in performance-based funding was available for this measure and 10,000 students were first time test-takers, then a college would be eligible to receive $500 per student ($5 million divided by 10,000 students) if it met the established performance goal. In other words, if College X had 200 students take the exam, it would be eligible to receive $100,000 if it met the performance goal.[9] (See Exhibit B.)

Exhibit B: Potential Performance-Based Funding Calculation Example

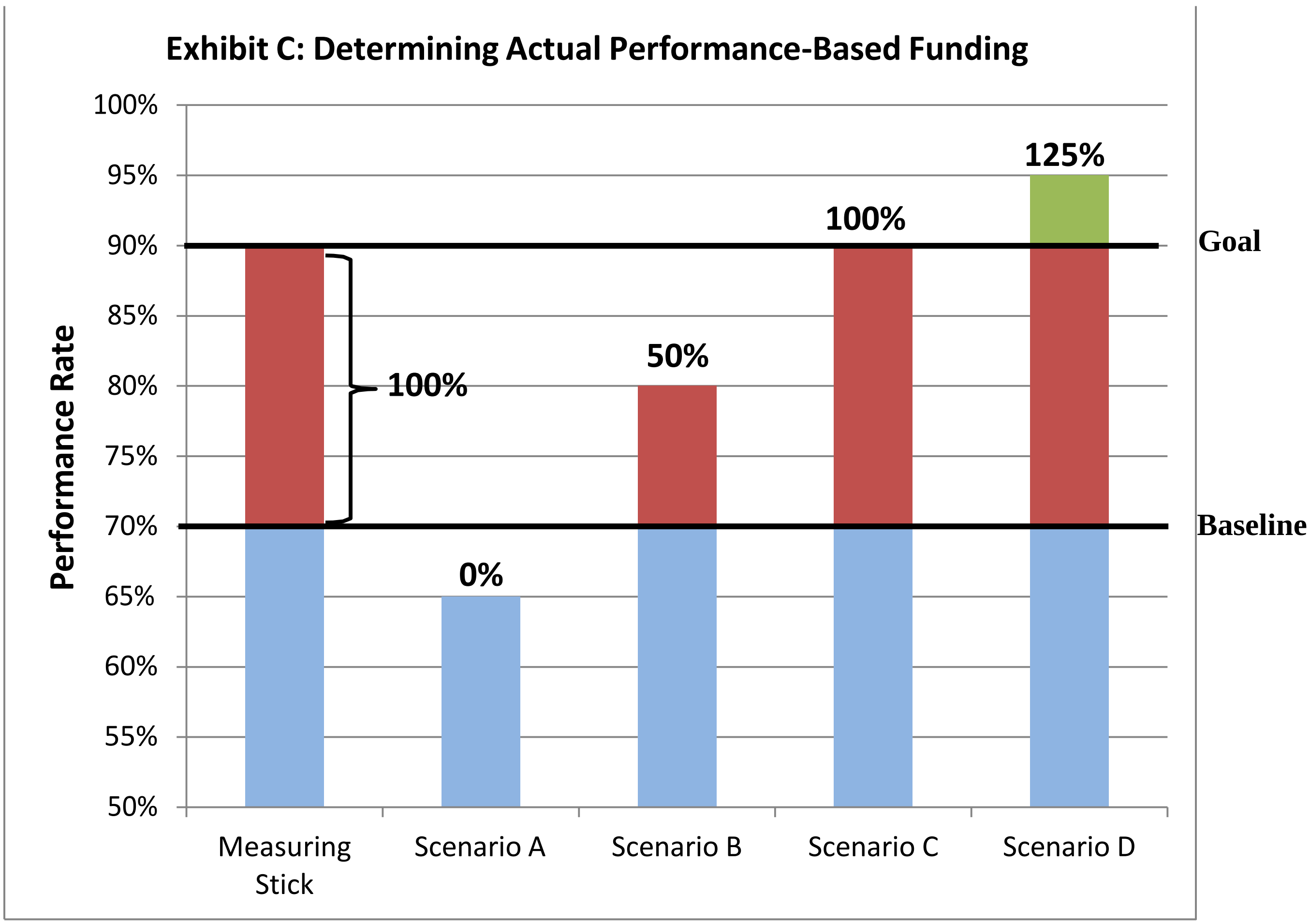
$5 million	Total amount of performance-based funding available
÷10,000 students	Total # of students taking licensure & certification exams
= $500 per student	**Potential quality performance-based funding per student**
$500 per student	Potential quality performance-based funding per student
x 200 students	# of students taking licensure & certification exams at College X
= $100,000	**College X's potential quality performance-based funding for this measure**

There are two key reasons for basing a college's potential performance-based funding on the number of students included in the measure. First, it helps recognize that colleges may have different programmatic emphases, one of the committee's guiding principles. For example, a college that focuses on preparing students for careers that require them to be licensed would be eligible to receive more funding than a college that focused less on this area. Secondly, it lessens the incentive to artificially increase the performance rate by restricting access. If a college limits the number of students taking licensure exams, it would also limit the amount of funding for which it would be eligible.

[9] Numbers used in the examples have been simplified and are for illustration purposes only.

c) **Determine a college's actual performance-based funding for quality.** The amount of funding that a college would actually receive through the quality component for each measure would depend on its performance as compared to an established baseline and goal. A college's actual performance-based funding amount for quality would be determined based on the following rules (see Exhibit C):

- If a college does not meet the baseline, it receives no performance-based funding through the quality component for that measure;
- If a college exceeds the baseline, but does not meet the goal, it receives a portion of the performance-based funding for which it would be eligible;
- If a college meets the goal, it receives 100% of the performance-based funding for which it would be eligible; and,
- If a college exceeds the goal, it would receive more than 100% of the performance-based funding for which it would be eligible.



To continue the example above, assume that the performance baseline for the licensure and certification passing rate measure is 70% and the goal is 90%. If the percentage of students at College X passing the licensure exam is less than 70%, the college would not receive any performance-based funding for quality on this measure. If 90% of students at College X passed their licensure tests, the college would receive 100% of its potential performance-based funding amount, or $100,000 in this example. If the college's performance was 80%, then the college would get $50,000, or 50% of its potential performance-based funding amount, because the percentage of students passing their licensure exams was 50% between the baseline and the goal. If 95% of the college's students passed their licensure exams, then the college would exceed the goal and receive $125,000, or 125% of its potential performance-based funding amount.

This graduated approach is consistent with many of the committee's guiding principles. While not every college is guaranteed to receive performance-based funding for quality, this model is not exclusive, as most colleges will benefit from earning some level of funding. Since funding increases as performance increases, there is incentive to continually improve and progress.

2. **Rewarding Impact:** Funds that are not allocated through the quality component would be distributed through the impact component. This component focuses on the ***number*** of students succeeding on each measure. Each college would receive a portion of the remaining funds based on its pro-rata share of students succeeding on each measure.

   For example, assume $2 million is available for allocation through the impact component for the licensure and certification passing rate performance measure and 8,000 students system-wide pass their exam on the first try. Colleges would be allocated $250 ($2 million divided by 8,000) for each student that passes his/her licensure exam. Therefore, in our example, if College X has 160 students pass their licensure exams, they would receive an additional $40,000 (160 * $250) through the impact component. (See Exhibit D.)

Exhibit D: Impact Performance-Based Funding Calculation Example

$5 million	Total amount of performance-based funding (PBF) available
-$3 million	Amount of PBF allocated through quality component
= $2 million	**PBF available for allocation through the impact component**
$2 million	PBF available for allocation through the impact component
x 8,000 students	# of students passing licensure & certification exams system-wide
= $250	**Amount of impact performance-based funding per student**
$250	Amount of impact performance-based funding per student
160 students	# of students passing licensure & certification exams at College X
$40,000	**College X's impact performance-based funding on this measure**

Model in Summary: The sum of the quality and impact components would determine the amount of performance-based funding a college would receive for a given measure. Exhibit D provides a simplified summary of the combination of the component for one sample measure: licensure and certification exam passing rates. This same methodology would be applied to each performance measure to determine a college's total performance-based allocation. An analysis of

2010-2011 college performance across the measures indicates that initially approximately two-thirds of available funds will likely be earned through quality component, leaving about one-third of available funds to be allocated through this second impact component. As formula funds, colleges would be authorized to use these funds flexibly consistent with the purposes for which formula funds are already approved.

Exhibit C: Putting the Components Together	System-wide	College X
Rewarding Quality		
# of Students Taking Licensure Exams	10,000	200
Potential PB Funding per Student	$500	$500
Potential Performance-Based Funding	$5,000,000	$100,000
% of Potential PBF Earned	60%	50%
Quality Allocation	**$3,000,000**	**$50,000**
Rewarding Impact		
# of students passing exam	8,000	160
$ per Passing Student	$250	$250
Impact Allocation	**$2,000,000**	**$40,000**
Quality + Impact Components	**$5,000,000**	**$90,000**

Implementing this recommendation would marry two key goals: it would provide additional recurring funds that are badly needed to increase student success at community colleges, while also ensuring accountability by allocating the funds based on performance. This performance-based funding model reflects key guiding principles, by recognizing student progress and completion, valuing progress and continuous improvement, and rewarding programs for quality and impact on the State's workforce. While all colleges have the opportunity to benefit, the graduated approach recognizes differences in performance and programmatic emphases. Finally, this model has significant buy-in within the community college family. This is in large part because the model is relatively easy to understand and transparent. Based on these considerations, the State Board recommends that the General Assembly appropriate recurring funds and enact the proposed legislation found in Appendix B to enable this model.

Appendix A: Performance Measures

Measure	Description
Developmental Student Success Rate in College-Level English Courses	Percentage of previous developmental English and/or reading students who successfully complete a credit English course with a “C” or better upon the first attempt (within one year of developmental completion). The denominator will include all grades earned except transfer or credit for prior learning.
Developmental Student Success Rate in College-Level Math Courses	Percentage of previous developmental math students who successfully complete a credit math course with a “C” or better upon the first attempt (within one year of developmental completion). The denominator will include all grades earned except transfer or credit for prior learning.
First Year Progression	Percentage of first-time fall credential-seeking students attempting at least twelve hours within their first academic year who successfully complete (“C” or better) at least twelve 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 for which candidates must pass before becoming active practitioners. Passing rates for individual exams will be provided for informational purposes only.
College Transfer Performance	Percentage of community college associate degree completers and those who have completed 30 or more credit hours with a GPA of 2.00 or better at a North Carolina four-year college or university after two consecutive semesters within the academic year.
Curriculum Completion	Percentage of first-time fall credential-seeking students who graduate, transfer, or are still enrolled with 36 hours after six years
Basic Skills Student Progress	Revision of description pending State Board approval
GED Diploma Passing Rate	Revision of description pending State Board approval

Appendix B: Draft Legislation

SECTION 1. G.S. 115D-31.3 reads as rewritten:

§ 115D-31.3. Institutional performance accountability.

(a) Creation of Accountability Measures and Performance Standards. – The State Board of Community Colleges shall ~~create new~~ implement a system of accountability measures and performance standards for the Community College System. The State Board of Community Colleges shall review and adopt ~~annually~~ the accountability measures and performance standards at least once every three years to ensure that they are appropriate for use in recognition of successful institutional performance.

(b) through (d) Repealed by Session Laws 2000-67, s. 9.7, effective July 1, 2000.

(e) Mandatory Performance Measures. – The State Board of Community Colleges shall evaluate each college on the following eight performance measures:

(1) Progress of basic skills students.
(2) ~~Passing rate for~~ General Educational Development (GED) diploma ~~examinations~~ attainment.
(3) Performance of students who transfer to a four-year institution.
(4) Success ~~rates~~ of developmental students in subsequent college-level English courses.
(5) Success ~~rates~~ of developmental students in subsequent college-level math courses.
(5a) Progress of first-year curriculum students.
(6) Repealed by Session Laws 2012-142, s. 8.5, effective July 1, 2012.
(7) Curriculum student retention and graduation.
(8) Repealed by Session Laws 2012-142, s. 8.5, effective July 1, 2012.
(9) ~~Passing rate for licensure~~ Licensure and certification ~~examinations~~ attainment.

The State Board may also evaluate each college on additional performance measures.

(f) Publication of Performance Ratings. – Each college shall publish its performance on the eight measures set out in subsection (e) of this section (i) annually in its electronic catalog or on the Internet and (ii) in its printed catalog each time the catalog is reprinted.

The Community Colleges System Office shall publish the performance of all colleges on all eight measures.

(g) Recognition ~~for~~ of Successful Institutional Performance. – For the purpose of recognition ~~for~~ of successful institutional performance, the State Board of Community Colleges shall evaluate each college on the eight performance measures. This evaluation shall include two components: 1) program quality shall be evaluated based on a college's rate of student success on each measure as compared to a systemwide performance baseline and goal; and 2) program impact shall be evaluated based on the number of students succeeding on each measure. Subject to funds availability, the State Board shall allocate funds among colleges based on this evaluation. Furthermore, a college may retain and carry forward into the next fiscal year an amount up to its performance-based funding allocation. ~~For each of these eight performance measures on which a college performs successfully, the college may retain and carry forward into the next fiscal year one-fourth of one percent (1/4 of 1%) of its final fiscal year General Fund appropriations.~~

~~(h) Recognition for Exceptional Institutional Performance. – Funds not allocated to colleges in accordance with subsection (g) of this section shall be used to reward exceptional institutional performance. A college is deemed to have achieved exceptional institutional performance if it succeeds on all eight performance measures. After all State aid budget obligations have been met,~~

~~the State Board of Community Colleges shall distribute the remainder of these funds to colleges that achieve exceptional institutional performance status based on the pro rata share of total full time equivalent (FTE) students served at each college. The State Board may withhold the portion of funds for which a college may qualify as an exceptional institution while the college is under investigation by a State or federal agency or if its performance does not meet the standards established by the Southern Association of Colleges and Schools, the State Auditor's Office, or the State Board of Community Colleges. The State Board may release the funds at such time as the investigations are complete and the issues are resolved.~~

~~(i) Permissible Uses of Funds. – Funds retained by colleges or distributed to colleges pursuant to this section shall be used for the purchase of equipment, initial program start-up costs including faculty salaries for the first year of a program, and one-time faculty and staff bonuses. These funds shall not be used for continuing salary increases or for other obligations beyond the fiscal year into which they were carried forward. These funds shall be encumbered within 12 months of the fiscal year into which they were carried forward.~~

~~(j) Use of funds in low-wealth counties. – Funds retained by colleges or distributed to colleges pursuant to this section may be used to supplement local funding for maintenance of plant if the college does not receive maintenance of plant funds pursuant to G.S. 115D-31.2, and if the county in which the main campus of the community college is located meets all of the following:~~

~~(1) Is designated as a Tier 1 county in accordance with G.S. 143B-437.08.~~
~~(2) Had an unemployment rate of at least two percent (2%) above the State average or greater than seven percent (7%), whichever is higher, in the prior calendar year.~~
~~(3) Is a county whose wealth, as calculated under the formula for distributing supplemental funding for schools in low-wealth counties, is eighty percent (80%) or less of the State average.~~

~~Funds may be used for this purpose only after all local funds appropriated for maintenance of plant have been expended.~~ (1999-237, s. 9.2(a); 2000-67, s. 9.7; 2001-186, s. 1; 2006-66, s. 8.9(a); 2007-230, s. 1; 2007-484, s. 29.5(a); 2007-527, s. 19; 2012-142, s. 8.5.)

SECTION 2. Section 9.2(b) of S.L. 1999-237 is repealed.