Report Regarding
A Funding Formula for the Massachusetts Community Colleges

Submitted to
House and Senate Committees on Ways and Means
Joint Committee on Higher Education
Secretary of Administration and Finance

By
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December 28, 2012

Summary:

This FY13 General Appropriations Act (GAA) charged the Commissioner of Higher Education to recommend a new formula for allocating state-appropriated dollars to the community colleges. In directing the Commissioner to undertake this task, the Legislature sought to address several issues that have arisen in recent years with respect to community college funding. In particular:

- the large inequities in per-student funding that have developed among the colleges as their annual allocations have risen by identical percentages while their growth rates have varied significantly;
- the importance of reflecting institutional performance with respect to statewide goals in allocating dollars to the colleges; and
- the importance of strengthening the role of the community colleges in preparing students for jobs in the state's rapidly evolving economy.

This report, which was developed in consultation with the presidents of the community colleges, the leadership of the Massachusetts Community College Council/Massachusetts Teachers Association, and the secretariats of Education, Labor and Workforce Development, and Housing and Economic Development, recommends a formula that addresses all of these issues and contains the following elements:

- components that reflect the enrollment of each college and therefore address the issue of inequity while also protecting small institutions;
- components that reward institutional performance with respect to critical statewide goals, especially degree and certificate completion;
- elements linking funding levels to performance in the area of workforce development, including producing students with degrees or certificates in fields of

high employer need and providing non-credit training opportunities that serve the needs of both workers and employers;

- elements linking funding levels to successful efforts to reduce and ultimately close achievement gaps associated with minority and low-income students; and
- a plan for implementation that avoids reductions in the budget of any individual college in the first year and protects colleges from excessive budget reductions as the formula is phased in.

It is important to note that the recommended formula is addressed solely to the issue of allocating state dollars. It provides a means to distribute whatever appropriation the state provides. It is not, therefore, intended to address the question of the overall level of funding needed by the community colleges, as is the existing formula, which has not been used in making allocations to the community colleges for several years.

Background:

Section 171 of the FY13 GAA included the following provision:

> "*The commissioner of higher education, in consultation with the presidents of the community colleges and representatives of the Massachusetts Teachers Association, shall develop a funding formula for the community colleges which incorporates the allocation of appropriations to the individual community colleges based, in part, on performance. In developing the system of allocations, the commissioner and community college presidents shall consider: (1) accurate enrollment data for each college and the operational goals and needs for each college; (2) institutional performance with respect to clearly defined goals and metrics; and (3) the relationship of the allocation formula to state initiatives relative to innovation and institutional action in support of workforce development, partnerships with commonwealth businesses and industry, collaboration with state universities and vocational-technical schools, and overall revenue available to each institution.*
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> *The commissioner of higher education, in consultation with the presidents of the community colleges, shall establish the goals and metrics for measuring community college performance. The goals and metrics shall include, but not be limited to: the educational goals and metrics included in the Vision Project, including those related to the improvement of graduation and student success rates and the closing of the achievement gaps for low income and moderate income students, adult students, and students requiring remediation upon entry; and alignment of degree and certificate programs with existing and emerging business and industry sectors in the commonwealth. In addition, a portion of performance funding may be utilized by the board of higher education to provide grants to community colleges based on, but not limited to, the following: coordinated procurement of goods and services among the community colleges and other public higher education institutions, including, but not limited to, consolidation of information technology platforms and services; undertaking innovative methods for delivering quality higher education that increase capacity, reduce costs, and promote student completion; engaging in statewide and regional collaborations with other public higher education institutions that reduce costs, increase efficiency, and promote quality, including, but not limited to, in the areas of academic programming and campus management; and improving student learning outcomes*

assessments set forth by the board of higher education under its Vision Project. The commissioner of higher education shall submit a report including, but not limited to, the funding formula, clearly defined goals and metrics for the performance-based portion of the formula and other recommendations relative to the promotion of stable, equitable funding of the institutions including efforts to contain the growth in student costs and borrowing. Said report shall be filed with the house and senate committees on ways and means, the joint committee on higher education, and the secretary of administration and finance on or before December 1, 2012.

Process for Developing the Formula:

Immediately following the passage of the FY13 budget, Higher Education Commissioner Richard Freeland established a Task Force on the Community College Funding Formula to advise him on the development of the budget formula. This Task Force was formed in consultation with the presidents of the community colleges and included seven presidents as well as representation from the Massachusetts Community College Council/Massachusetts Teachers Association. The Task Force also included three representatives of the Department of Higher Education. Deputy Commissioner Steven Lenhardt served as convener. The full membership of the Task Force is listed in Appendix A.

An early step was retaining the services of Dennis Jones, the president of the National Center for Higher Education Management Systems (NCHEMS), who is a highly regarded expert on higher education budgeting and has worked with several states on budget formulas. Jones was the first choice of both the Commissioner and the presidents for this role. Jones added an associate from NCHEMS to help with the project.

The Task Force held four meetings between July and December 2012. At the first meeting, the Jones team was briefed on the major issues that the formula needed to address, per the legislative mandate. Subsequent meetings were devoted to Task Force discussions of successive iterations of a model for the formula developed by Jones and his colleague. By the final meeting, the group had coalesced behind a model that, in its view, responded to both the concerns of the institutions and the goals identified in Section 171 of the FY13 GAA. A report summarizing the Task Force's recommendations was prepared by Deputy Commissioner Lenhardt and circulated to all Task Force members for comment and correction before being forwarded to Commissioner Freeland. The report of the Task Force is attached to this report as Appendix B.

Immediately upon receiving the Task Force Report, Commissioner Freeland transmitted it to all community college presidents with a request for comment. He also shared it with members of the Administration, including the Governor's staff and the Executive Offices of Education, Labor and Workforce Development, and Housing and Economic Development. In addition, he briefed the chairs of Senate and House Committees on Ways and Means and the co-chairs of the Joint Committee on Higher Education. In all cases he requested feedback and comment that could inform this final report to the Legislature and the Administration.

In the course of his consultations, the Commissioner found that the Task Force recommendations were generally well received and found to constitute a thoughtful and professional response to the charge contained in Section 171. The consultations also generated a number of ideas regarding how the formula might be strengthened, especially with respect to the goal of reinforcing the workforce development mission of the community colleges. (A document describing the relationship of the formula to the colleges' workforce mission is attached as Appendix D.) In addition, the consultations produced important ideas about the implementation of the model.

This report follows very closely the initial recommendations of the Task Force but also includes enhancements emanating from the subsequent consultative process. The approach to the formula contained in this report was reviewed by the Board of Higher Education at its meeting on December 11, 2012, and is incorporated in the Board's FY14 budget request.

The final version of the formula is contained on the spreadsheet attached as Appendix C. The spreadsheet uses data from FY12, which was the most recent fiscal year for which complete data on institutional performance was available.

The Basic Elements of the Proposed Formula:

Consistent with the language of Section 171, the formula recommended by the Task Force would distribute dollars to the community colleges in three fundamental ways:

1. a "base funding" allocation intended to reflect basic costs of operations and overall enrollments;

2. a "performance funding" allocation based on institutional performance with respect to clearly defined goals and metrics; and

3. an incentive pool, akin to the current Performance Management Set Aside line item, through which the Board of Higher Education could award dollars through competitive grants to incentivize colleges to undertake specific activities that would advance state-wide priorities in a given budget cycle.

Each component of the formula is described in more detail below.

Central Issues in Crafting the Formula:

Issues of Equity and Scale: Section 171 specifically provides that there be a component of the formula that addresses the basic operating needs of the colleges and takes into account the differential scale of their operations as reflected in their enrollments. This aspect of the Task Force discussion was of particular importance to the presidents for two reasons. First there is a compelling need to correct inequities that have developed among the colleges in recent years in terms of per-student state funding. These inequities have been caused by the use of an incremental approach to funding the colleges in crafting the state budget during years when individual colleges have grown at highly variable rates. An important goal for the presidents in the formula discussions, therefore, was to design an approach that would achieve a more equitable distribution of state dollars among the institutions than currently exists.

A second goal in determining basic operating needs, especially important for the presidents of small institutions, was to recognize minimal operating costs incurred by all institutions independent of scale. These presidents worried that a formula driven entirely by enrollments would place small institutions at a severe disadvantage.

[The following sections of the report describe the formula in detail and are best read in conjunction with the schematic summary of the formula in the chart in Appendix C.]

The "Cost of Operation Subsidy": To find a fair balance between the issues of scale important to the rapidly growing institutions and issues of basic costs that were significant to smaller institutions, the Task Force recommended a two-part approach to establishing base budgets. First, it recommended that every institution receive a "cost of operation subsidy" reflective of the minimal requirements for operating a community college without regard to scale.

Using data developed by the Jones team, the Task Force recommended that the cost of operation subsidy be set at $4.5 million. The total cost of this subsidy for FY13 for all fifteen community colleges would have been $67,500,000 of the $208,154,311 appropriated for the community colleges in that year. The Task Force recommended that the cost of operation subsidy be the first claim on the total appropriation in any given fiscal year. This aspect of the formula is illustrated on the spreadsheet in Appendix C in the Section titled "New Funding Allocations FY14" (the columns under the green bar) under the column headed "cost of operation subsidy."

Division Between "Base Funding" and "Performance Funding": Once the basic "cost of operation" was acknowledged, the next question addressed by the Task Force was how to divide the remaining dollars between allocations driven by enrollments and allocations driven by performance. The Task Force recommended an equal division between these two aspects of the formula. The Commissioner endorses this recommendation, which constitutes a major recognition by the presidents of the legitimacy of performance-based budgeting. Other states have allocated smaller percentages of their funding to performance in creating similar budget models. In FY13, as the section of Appendix C titled "Stage One: Set Funding Allocations" makes clear, this approach would have allocated $70,327,156 for base funding and an equal amount for performance funding.

Allocating Base Funding Dollars: The Task Force's central recommendation regarding the allocation of "base funding" dollars is that these dollars be distributed based on student credit hours completed in the most recent academic year for which data are available. Student credit hours are, of course, a direct reflection of enrollments and are, therefore, an ideal way of acknowledging institutional scale. The major calculation for this aspect of the formula would involve totaling all student credit hours completed by all community colleges in a given academic year and then allocating the total base funding pool ($70,327,156 in FY13) to the colleges based on their percentage of total credit hours completed. The base funding component of the formula is illustrated schematically in Appendix C in the section titled "Stage Two: Define Weight and Multiplier for Performance Allocations" in the column headed "College

Enrollment Variables." The blue boxes in this column provide a place to record student credit hours completed in each discipline or field offered by the community colleges.

It is notable that the metric here is student credit hours *completed* and not credit hours *taken*; this means that colleges would get credit—and dollars--only for those credit hours associated with completed course work. In this way the "base funding" dollars actually involve a large element of performance. Colleges will have a strong incentive to support students to complete the courses in which they enroll, which in turn will have a positive impact on certificate and degree completion. This is a bold approach to base funding that the Commissioner is pleased to endorse and support.

Refinements to the Base Funding Calculation: Beyond the central base funding calculation driven by student credit hours completed, there would be two refinements to this fundamental mechanism.

First, the credit hours for each institution would be assigned weights based on the cost of instruction in the course or program associated with each credit hour. These weights are shown in Appendix C in the yellow boxes next to the various disciplines/fields under "College Enrollment Variables" and reflect data collected by NCHEMS on the cost of instruction in different fields in community colleges.

Second, the total student credit hours completed for each college would be augmented by a calculation representing headcount enrollments in non-credit workforce training programs. This is one of the recommended enhancements that came out of the Commissioner's consultations with the secretariats of Labor and Workforce Development and Housing and Economic Development. Non-credit coursework is an important aspect of the community colleges' activity in the workforce development arena. Its inclusion adds strength to the workforce theme in the formula. The box for non-credit coursework under "College Enrollment Variables" reflects the inclusion of this number in the overall calculation.

Allocating Performance Funding Dollars: Section 171 of the FY13 budget calls for the performance-oriented component of the formula to be driven by specific goals and metrics. The goals and metrics reflected in the formula recommended by the Task Force are fundamentally those embedded in the Board of Higher Education's Vision Project. The Vision Project is a strategic plan for public higher education based on the pursuit of national leadership in six educational areas: (1) college participation; (2) college completion; (3) student learning; (4) workforce alignment; (5) closing achievement gaps; and (6) preparing citizens. A complete report on the Vision Project describing these goals and metrics can be found at: www.mass.edu/vpreport. These goals are reflected in the spreadsheet in Appendix C in the section titled "Stage Two" in the columns headed "College Completion Variables" and "Alignment Variables."

College Completion Variables: These include a number of measures of the effectiveness of colleges in supporting their students to achieve successful outcomes. This aspect of the formula rewards institutions for the following outcomes as indicated in the blue boxes in the column headed “College Completion Variables:” (1) numbers of students who graduate or complete certificates; (2) numbers of students who transfer having completed 24 credits and numbers who complete 30 credits in any given year; (3) numbers of students who complete the first credit-bearing course in math or English having begun college in remediation; (4) total degrees and certificates per 100 full-time equivalent (FTE) students; (5) graduation rate (based on the Achieving The Dream “Success Rate”). Each of these variables counts for a specific proportion of the total performance-based allocation as indicated by the percentage figure shown in the yellow box next to each variable.

It should be noted that 50 percent of the allocation within this aspect of the formula is driven by *numbers* of successful outcomes (i.e., the number of degrees, the number of certificates) and 50 percent is driven by the *rate* at which a college achieves success with its students (i.e., the graduation rate or awards per 100 FTE students).

Alignment Variables: The alignment variables include measures of a college’s record in achieving successful student outcomes in particular categories. Consistent with the Vision Project and the Governor’s educational goals, the categories include measures of workforce alignment and measures related to closing achievement gaps. Thus the formula gives extra weight for awards of certificates and degrees in fields of high employer demand such as STEM fields, health care, life sciences and IT. It also gives extra weight to successful outcomes by African-American and Latino students and low-income students, for whom achievements gaps are currently the most severe. This aspect of the formula is displayed on the spreadsheet in Appendix C in the section titled “Stage Two,” in the column headed “Alignment Variables.” The numbers in the yellow boxes to the right of the blue boxes listing the various weighted categories represent the amount of added weight to be awarded in each case.

Stop-Loss Provision: The preceding sections summarize the manner in which the proposed formula would allocate state-appropriated dollars to the community colleges. The section of Appendix C titled “New Funding Allocation FY12,” in the subsection headed “New Funding Level-No Stop Loss” (the first four columns under the green-shaded bar), displays the allocations that would occur in FY14 if the formula is fully applied in that fiscal year. The fifth column, labeled “% difference in funding FY13,” displays the percentage change that each college would have experienced between FY13 and FY14 if the formula were fully implemented.

These percentages make it clear that a full implementation of the formula in one year would result in major financial disruptions for several of the colleges, with Quinsigamond experiencing a 32% increase while Massasoit experiences a 14% decline. These numbers are not surprising given the degree of inequity that has crept into the allocations to the community colleges during recent years.

In the view of the Task Force as well as the Commissioner, the amount of dislocation that a full implementation of the formula would produce in one year would not be in the best interests of the community college system or our students. The Task Force therefore recommended the inclusion of a “stop-loss” provision in the formula in the first year of operations. This provision, which, according to Jones, is a common feature of state budget formulas, would limit the dollar loss that any one institution could experience in Year One to 5% of their previous year's budget. Such a loss is still significant and would require major cost-saving steps on the part of institutions that experienced it. The final three columns under the green bar in Appendix C headed "New Funding Level-With Stop Loss" display the pattern of allocations that would occur in FY14 with the stop loss provision included in the formula. The total amount that would be redistributed among the colleges based on the stop loss provision would be $5.2 million.

[The preceding section ends the detailed discussion of the formula as depicted schematically in Appendix C.]

Hold Harmless

A major concern of all the presidents on the Task Force throughout the development process involved the possibility that some colleges would lose dollars with the move to a formula-driven budget. They wrestled in each meeting with the irreconcilable goals of reducing funding inequities while avoiding funding losses to any campuses in an environment of constrained state resources. While the stop-loss provision was put in place to minimize the loss of resources in any one year, the hope throughout the development process was that this feature would not have to be invoked—that institutions would be held harmless from reductions in state funding.

At the end of the process, it was the strong recommendation of the Task Force, should the Administration and Legislature choose to implement the formula in FY14, that this step be taken in a manner that would not reduce the current budgets of any of the colleges. Thus the Task Force recommended that $5.2 million be added to the total community college appropriation to make it possible to allocate additional dollars to those institutions that would gain in funding without taking dollars away from those that would lose.

This approach to Year One implementation is one that the Commissioner and the Board of Higher Education endorse; it has been incorporated in the BHE's FY14 budget request. The primary rationale for this approach from the perspective of the Task Force is that our community college system is currently funded at a modest level in comparison with community colleges nationally, and that none of the colleges can reasonably be asked to incur a significant budget cut in association with implementing the formula. This approach would also have the benefit of granting the system a year in which to live with the new formula without experiencing major dislocations, thus providing some space for the colleges to make adjustments to an entirely new budget context.

The Incentive Pool: As noted above, in addition to the formula itself, the Task Force recommended that a portion of the total state budget for community colleges be set aside in an Incentive Pool to be distributed by the Department of Higher Education. The Pool would provide a continuing capacity on the part of the Department to incentivize colleges to undertake new initiatives and program development activities in areas of particular importance to the state. This idea builds on the successful work done over the past two years with the Performance Incentive Fund (PIF).

The FY13 budget language, both in the language initially proposed in House 1 and in its final version, placed particular importance on promoting activities that would advance the community colleges' workforce development mission. Our experience with the Performance Incentive Fund over the past two years suggests that the Incentive Pool could become a powerful tool in promoting—and potentially scaling--these kinds of activities among the colleges. (See Appendix D for more detail.) But the Pool would also be a flexible tool that could be useful in promoting a range of state-wide priorities as the needs of the state evolve.

Collective Bargaining: With respect to dollars added to the community college appropriation to fund collective bargaining agreements, the Task Force recommended a straightforward addition to each college's base because these funds are essentially a pass-through from the state to individual staff and faculty and do not represent new dollars available to support academic and operational activities**.**

Operationalizing and Refining the Proposed Formula.

The formula as proposed is a bold and aggressive step forward in the state's approach to community college funding. It will place Massachusetts in a position of national leadership with respect to linking state appropriations for community colleges to institutional performance while addressing major inequities in current funding patterns.

But the formula should also be viewed as an organic document, to be refined and enhanced over time. We will learn things as we live with this approach to state funding. The consultative process in which the Commissioner engaged in preparing this report has already produced a number of useful ideas beyond those generated by the Task Force. One of these—the inclusion of reference to non-credit instruction—has already been incorporated into the formula. Additional suggestions are candidates for inclusion at a later stage, as discussed below, but will require additional work prior to incorporation.

In addition, much will be learned from initial cycles of implementation. For example, experience may suggest adjustments to some of the weightings recommended in the Task Force report. It is also important to acknowledge, as the Task Force Report notes, that the DHE has work to do in strengthening the data systems that provide the foundation for the formula.

For a variety of reasons, therefore, we should plan to phase in the model over at least two budget cycles, and we should establish a process, including multiple stakeholders, to review and monitor the operations of the formula over time and recommend modifications. If the basic approach to the formula summarized in this report is acceptable to the Administration and the Legislature, the Commissioner should be charged to recommend a structure and process to carry this work forward.

Two ideas that merit further attention during the phase-in process relate to the portion of the formula intended to reinforce the colleges' activities in the area of workforce development. One of these ideas involves the value of including in the formula a variable reflecting actual employment outcomes for graduates of community colleges. This addition would clearly add value, but unfortunately, the necessary data to reflect employment outcomes with a high level of accuracy is not currently available. However recent data-sharing agreements between the Department of Higher Education and the Executive Office of Labor and Workforce Development may make this type of analysis possible in the future.

A second useful idea to emerge from the Commissioner's consultations involved the regionalization of weightings for high-need fields in the "alignment variables" portion of the formula. This approach, which the Commissioner supports, would allow the weights assigned to high-need fields to vary among the colleges based on the particular employment characteristics and needs of the regions in which the different colleges are located. To achieve this kind of regionalization, the colleges will need to participate in a regional strategic planning process with employers and workforce investment boards in order to identify fields of high employer demand. Using the data and outcomes identified via regional planning, campuses can recommend adjusted weights for the enrollment and alignment variables associated with high-need fields and continually assess weights through the proposed annual process. DHE will work in coordination with the Executive Offices of Education, Labor and Workforce Development, and Housing and Economic Development to operationalize this aspect of the formula and create a seamless and annual process for aligning regional planning outcomes with the annual budget development process.

There are also policy issues that need to be considered in association with the implementation of the formula. For example, consideration must be given to the relationship between formula outcomes in any given budget year and the fee-setting practices of individual campuses. It would clearly be problematic for formula-driven budget losses to be simply offset by fee increases, so the DHE will need to develop appropriate policy in this area.

Conclusion:

This report, and the Task Force Report on which it is based, point toward a major change and major improvement in the way state dollars are allocated to our community colleges. Implementation of the recommendations contained in this report would place Massachusetts among the leading states in the country in recognizing institutional performance as a major driver of budget allocations. Implementation would also address longstanding issues of inequity in state support for the colleges. It is therefore the hope of the Commissioner, and the Board of Higher Education, that these recommendations will be favorably received by the Administration and the Legislature and that a first step toward phasing in the formula will occur in conjunction with the adoption of the FY14 budget. The Commissioner, the DHE and the Board look forward to undertaking the additional work associated with implementing, refining and monitoring the formula in the months and years ahead.