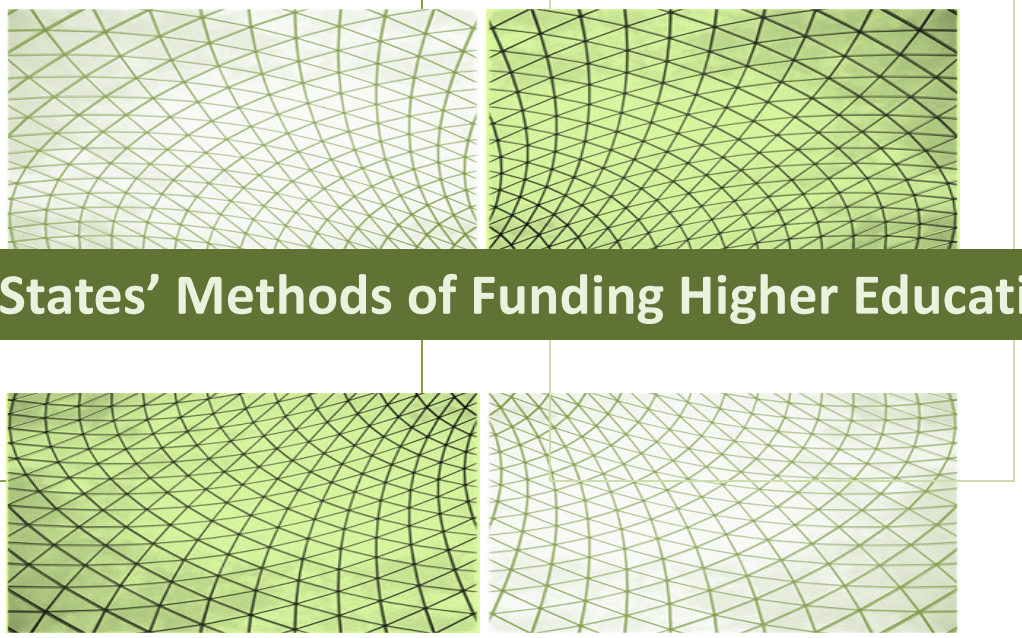

States' Methods of Funding Higher Education

REVISED

August 21,2012

Report for the Nevada Legislature's Committee to Study the Funding of Higher Education

SRI International®

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Revised Report

This document is a revised version of a final report submitted to the Committee on June 8, 2012. The content supersedes all earlier versions of the material contain within.

Disclaimer

The findings and observations contained in this report are those of the authors and do not necessarily reflect the views of the Nevada State Legislature, its members or staff, or the Nevada System of Higher Education, its members or staff.

Introduction

About this study

During the 2011 session the Nevada Legislature enacted Senate Bill 374 (S.B. 374), which created an Interim Committee to Study the Funding of Higher Education. Acting on behalf of the Committee, the Legislative Counsel Bureau contracted with the Center for Science, Technology, and Economic Development, SRI International, to provide the Committee with reports on the following: a) States' budgeting practices pertaining to student derived revenues, b) States' use of student enrollments as a basis of higher education formula funding, c) States' inclusion of performance related components in higher education funding formula and, d) States' methods of funding higher education.

These reports compare practice in other states with the existing but suspended formula now in place in Nevada (referred to as the current formula through this report), and with an alternative formula proposed by the Nevada System of Higher Education. These reports also identify, where possible, standard practice and best practice among the states.

This document combines all four reports into a best and final version, for consideration by the Committee and for entry into the record of its proceedings at the committee meeting on August 29, 2012.

Background about higher education funding in Nevada

The Nevada System of Higher Education (NSHE) provides higher education to both Nevada residents and nonresidents through the following institutions:

- University of Nevada, Reno (UNR)
- University of Nevada, Las Vegas (UNLV)
- Nevada State College at Henderson (NSC)
- College of Southern Nevada (CSN)
- Western Nevada College (WNC)
- Great Basin College (GBC)
- Truckee Meadows Community College (TMCC)
- UNR School of Medicine
- UNLV Law School
- UNLV Dental School
- Desert Research Institute (DRI)

A 13-member Board of Regents governs the system, representing the 13 districts that comprise the state. The system is headed by the Chancellor's Office.

The bulk of state support for NSHE institutions is based on a set of formulas (which many, including this report, refer to as a single, higher education funding formula). The design of this formula is currently the subject of statewide debate and is a major focus of a new funding proposal by the Chancellor. Previous debate on the funding formula occurred in the late 1990s, when the legislature decided that the 1986 methodologies used to fund the University and Community College System of Nevada (UCCSN) "did not

adapt well to the explosive growth experienced on several of the UCCSN campuses."[1] The 2001 Legislature revised the higher education funding formula as a result of a 1999 Committee to Study the Funding of Higher Education report. The resulting Committee recommendations kept the basic funding formula that had been in use since the 1960s, but revised it in an attempt to "focus on the equitable distribution of available funding."[2]

The revised funding formula is comprised of formulas that independently calculate funding levels for Instruction, Academic Support, Institutional Support, Student Support, Library Acquisitions and Operation and Maintenance of Physical Plant. Each formula has many complex elements; however, each major formula is driven by a few main components:

- The formula for Instruction is driven by FTE student counts. This counts both in-state and out-of-state students. From 2001-2009 the FTE counts were based on a three-year rolling average; however, for the 2009-2011 biennium, the Legislature approved utilizing campuses' FY fall 2008 actual and spring 2009 preliminary enrollments for each year of the 2009-2011 biennium for purposes of allocating formula funding.[3]
- The formula for Academic Support is based partly on the number of FTE faculty members and staff members, number of library volumes, and the instruction budget.
- The formula for library acquisitions is based on FTE enrollment, faculty, and programs offered.
- The formula for Student Services is based on combined headcount and FTE enrollment.
- The formula for Institutional Support is based on total operating budgets.
- The formula for Operations and Maintenance of Physical Plant is based on maintained square feet calculation.

In addition to the revised formulas, the 1999 Committee recommended a performance pool to be distributed to institutions that achieved specific performance goals. In 2001, the Governor recommended an allocation of $3 million for the FY 2002-03 performance pool; however, the 2001 Legislature denied the request because "a comprehensive plan was not provided that specified how the proposed funding would be allocated."[4] The pool has not been funded since then.

The Nevada 2011 Legislature created the Committee to Study the Funding of Higher Education in Nevada to examine certain funding issues related to the Nevada System of Higher Education. The members of the committees are required to:

1. Compare the existing method of funding higher education in Nevada with the methods used in other states;
2. Determine whether the other methods would be appropriate and useful in Nevada, whereby different missions of universities, state college, colleges and research institutes are appropriately considered in the funding of public higher education in Nevada;
3. Review the funding of remediation in the context of instructional delivery methods;
4. Consider the retention of resident registration fees and nonresident tuition outside of the state-supported operating budget;

[1] Nevada Committee to Study the Funding of Higher Education. *Legislative Counsel Bureau Bulletin No. 01-4.* January 2001.
[2] Ibid. p. 2
[3] Fiscal Analysis Division, Nevada Legislative Counsel Bureau. Education. *2009 Appropriations Report.* P. 147-148.
[4] Fiscal Analysis Division, Nevada Legislative Counsel Bureau. Education. *2001 Appropriations Report.* P. 20.

5. Consider funding in the context of completed courses in contrast to the current method of funding enrollments;
6. Consider rewarding institutions within higher education for achieving defined goals for graduating students; and,
7. Submit to the Legislative Commission a report of its findings and recommendations for legislation before the commencement of the 77th Session of the Nevada Legislature in February 2013.

To achieve these goals, the Legislative Committee has contracted with SRI International to assist them in their work. This report reviews other states' mechanisms of funding higher education systems and existing best practices.

Methodology and structure of this report

In many cases, higher education funding policies are a historic mash-up of different priorities and strategic decisions. Though SRI was initially under the impression that large inventories of state funding methods existed, upon review, we found such inventories were spotty and/or outdated. Therefore, SRI undertook a review of all states' funding methods. This report utilizes an extensive review of state legislation, publications, and reports as well as telephone and email interviews with state officials performed over a ten-week period by SRI from March-May 2012. Additional revisions were made over June-July 2012 in the course of the revision process for the committee.

This report is divided into two parts:

Part 1: Higher Education Funding Best Practices and Recommendations for Nevada. *Part 1* provides brief summary analysis of SRI's state-level research on key topics of interest in Nevada and distills best practices that can inform Nevada's review of its own method of funding higher education funding. This section then focuses on the context and drivers shaping higher education funding in Nevada and provides SRI's recommendations on key principles and approaches for reforming Nevada's funding method.

Part 2: States' Methods for Funding Higher Education. *Part 2* presents the detailed results and data from SRI's in-depth state-level research on higher education funding, focusing on several key topics: use of funding formulas, use of enrollment-driven funding, use of performance-based criteria, and treatment of student-derived revenues. For each key topic, current and proposed Nevada funding approaches are summarized and compared to other states' practices.

Appendices A, B, and C provide very detailed, state-level narratives and case studies for 48 states regarding their existing approaches for higher education funding (both formula- and non-formula-based). These detailed examples provide additional support and background for the state analysis and findings presented in *Part 1* and *Part 2* of the report.

PART 1:

Higher Education Funding Best Practices and Recommendations for Nevada

I. Diversification and Innovation: State Economic Context and Goals Shaping Higher Education Funding in Nevada

In the wake of the recent recession, Nevada's leaders have defined a new state economic development strategy with two goals: diversification and innovation.

It is impossible to design or evaluate a funding model for higher education in Nevada without first sifting and defining the announced policy goals of the state. Fortunately, Nevada's leaders and principal stakeholders have engaged in a series of important deliberations on the future direction of the state that have yielded a series of clear goals. These goals are stated in the following strategy documents:

> *Envisioning Nevada's Future: Goals and Strategies for Advancing our Quality of Life,* The Nevada Vision Stakeholder Group (September, 2010).
>
> *Moving Nevada Forward: A Plan for Excellence in Economic Development,* Nevada Board of Economic Development (February, 2012).
>
> *Unify|Regionlize|Diversify: An Economic Development Agenda for Nevada,* The Brookings Institution and SRI International (October, 2011).

The motivation for the above studies needs little elaboration for anyone who has lived in Nevada over the last five years. After an exhilarating boom in the years immediately prior to the crash, Nevada was one of the states hardest hit by the subsequent recession. The state's economy grew 40% in seven years preceding the collapse, and shrank 10% in the following three years, with unemployment hitting a national low of 13% in the summer of 2011.

This crisis resulted in a determination by Nevada leaders and stakeholders to focus much more systematically on the state's economic development strategy. The goal of this renewed focus is the diversification of the state's economy. **Diversification** is to be achieved by a shift towards targeted economic sectors beyond the state's core activities of tourism, gaming, and retail, and by fostering a climate of **innovation** favorable to small- and medium-sized businesses and start-ups.

The Nevada System of Higher Education (NSHE) is a linchpin for achieving the state's goal of economic renewal through diversification and innovation.

The Nevada System of Higher Education (NSHE) is a principal player in achieving the state's shift toward diversification and innovation; its central role is called out in all three of the strategy documents identified above. Education was one of six critical areas identified in *Envisioning Nevada's Future*, which includes two specific objectives related to higher educational performance: increased graduation rates and increased levels of university research (p. 47). In *Moving Nevada Forward*, the educational system as a whole is identified as underperforming, and a key objective to address this challenge is an increase in students receiving certificates, associate degrees, and baccalaureate degrees (p. 58). In the area of innovation, a key objective is increased industry sponsored research, to be supported with matching funds from the state (p. 50). Finally, in *Unify|Regionalize|Diversify*, the critical role of higher education is discussed at length in Section VII (pp. 128-139), including a repeated emphasis on progress metrics.

The people of Nevada and their leaders take a highly utilitarian view of their institutions of higher education. While it remains true that higher education prepares students broadly, to be good citizens and to lead lives of personal fulfillment, the most important priority at present is the contribution of NSHE to the renewal of the state's economy.

Declining funding levels and challenging student demographics are critical constraints on NSHE's contribution to the state's economic goals.

The recession had a powerful impact on state revenues in Nevada, resulting in a 20% decline in state funding for NSHE over the last two biennial budget cycles. It is hoped that this decline is at an end, with the possibility that some salary and benefits cuts will be restored. But it is very likely that state funding levels will continue to be a constraint into the future. This means that state leaders and NSHE must be willing to make hard choices. Differentiation and division of labor among institutions should be embedded in the funding model. Furthermore, this funding constraint means that funding a performance pool as an element of the funding formula will most likely be achieved by carving it out of the existing state appropriation.

A more intractable constraint is the quality of students entering NSHE. Nevada has one of the lowest high school graduation rates in the country. Over 40% of students entering two-year colleges require remediation, and almost 30% of students entering four-year institutions require it. These numbers reflect, in part, underlying characteristics of the population. Many students are the first in their family to go to college; many are "at-risk" due to their socio-economic backgrounds. There also exists in Nevada a significant pool of adult learners who have some college credits, but who need remedial and other services if they are to successfully return to the classroom.

In many ways the demographics of Nevada's incoming higher education students are representative of the future for the whole of the United States. For that reason, Nevada's situation also represents an opportunity – success in this area will place Nevada ahead of those other states that have not yet come to terms with the country's changing demographics. It must be a central priority of the higher education system to meet the needs of these "non-traditional" students. Unless NSHE succeeds in this area, it cannot meet the attainment goals the state has set for itself – that is, an increase in the percentage of adults with a higher education certificate or a two- or four-year degree – and it cannot contribute successfully to the state's goals of economic renewal, diversification, and innovation.

Two significant challenges must be addressed if NSHE is to contribute effectively. It must closely align its programs and research around the economic development goals of the state, and it must dramatically improve its performance.

NSHE has been funded over the years through an existing mechanism that rewards enrollment. There has been too little consideration of the alignment of degrees and other programs around the economic needs of the state. This is already changing; many NSHE institutions have developed new initiatives in support of economic development goals. But alignment needs to be thoroughly embedded in a new funding model.

In addition, NSHE's current funding mechanism hasn't rewarded performance at all. NSHE's proposed alternative funding mechanism does include a performance pool, which is badly needed to incentive outputs because output performance in NSHE institutions has been weak. Compared to the 22 research-intensive institutions selected by NSHE as peers, UNR and UNLV had graduation rates in 2010 that place

them close to the bottom of the group. Based on 6-year graduation rates, the two institutions are, respectively, 7 and 15 percentage points below the group average of 56%. Both institutions share a 4-year graduation rate of only 14%.[5] These numbers have remained largely unchanged for a decade. Of those students who enroll full-time in 2-year colleges in Nevada, only 25% graduate at all. This low level of performance is costly to the state and to students and their families. Nevada needs to produce more graduates in less time.

[5] Integrated Postsecondary Education Data System (IPEDS). 2010 data. Data elements: [drvgr2010.gba4rtt:VL-Graduation rate - Bachelor degree within 4 years- total] and [drvgr2010.gba6rtt:VL-Graduation rate - Bachelor degree within 6 years- total].

II. Guidance and Best Practices: Summary of States' Higher Education Funding Methods

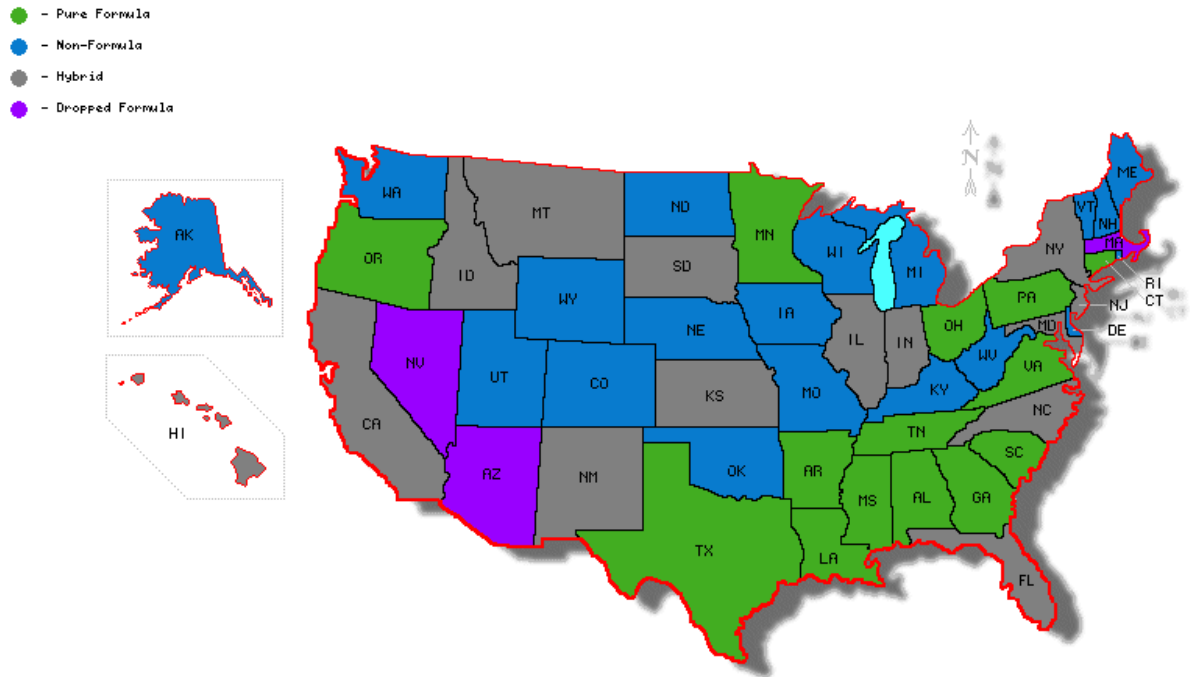
State approaches for funding higher education vary considerably from state to state in several major ways: whether formulas or non-formula approaches are used for determining funding levels; whether funding is tied to enrollment levels; whether performance-based criteria are applied; and how student-derived revenues are treated. The following section summarizes state approaches across these areas and distills best practices, which are then used by SRI to evaluate Nevada's current and proposed higher education funding models.

A. Use of funding formulas and enrollment-driven funding

1. Summary of formula and non-formula states

According to SRI's research, seventeen states currently use a formula to calculate funding levels for higher education institutions in some fashion. Nineteen states use non-formula-based funding methods, while an additional fourteen states have hybrid models (typically using formulas to fund two-year institutions and non-formula methods for four-year institutions or using a base plus approach where the plus is calculated by a formula). Generally, as we review below, both formula- and non-formula funding tends to be driven by student enrollment – formally in the case of formulas and informally in non-formula funding. Recently, higher education funding formulas have not been fully funded in many states, and so state appropriations are only a fraction of what the funding formula recommends. States that do not use formula-based methods tend to fund based on legislative priorities/policies or based on a "base plus/minus" method. Five states have dropped formulas in the very recent past (indicated in purple in Figure 1.1).

Figure 1.1. State methods for higher education funding: formula and non-formula.



Formula-based funding methods

As indicated above, seventeen states determine or recently determined funding through a formula, and fourteen states apply a formula for some (but not all) types of institutions/funding. Additionally, five states (Arizona, Nevada, Florida for 4-years institutions, Massachusetts, and New York for 4-years institutions) have used funding formulas in the past, but have abandoned the formulas for some or all institutions during fiscal downturns. The complexity of funding formulas varies widely from state to state. Recently, higher education funding formulas have not been fully funded in many states, and so state appropriations are often only a fraction of what the funding formula recommends. Every state that uses a formula also utilizes non-formula appropriations to fund everything from operations and maintenance to special programs to entire schools. These off formula appropriations can be significant.

State funding formulas typically consist of a subset of ten budgetary functional areas, as described in *Table 1.1*. While there are variations in how each state specifically defines each funding component, this list reflects the most commonly used general definitions. Most state formulas only contain a fraction of the items listed below. A few common elements are prevalent across all states that use formulas:

- Every state with a formula funds **instructional activities** though the formula, and almost every state has a specific instructional support formula that accounts for the vast majority of the calculated funding levels. There are many methodologies used by states for calculating instructional support funding levels, but all methods are typically tied to *enrolled* or *competed* student credit hours.
- Most of the states using a formula include a component for **operations and maintenance of physical plant** in the funding formula.
- Most of the other funding components included in state formulas are typically calculated based on a percentage of the instructional support funding level, and are therefore indirectly tied to enrollment levels.

Table 1.1. Typical components of state higher education funding formulas.

Components of State Funding Formulas	Includes	Typical Models for Calculating Funding Levels
Instruction	• Activities associated with an institution's instructional program	• Convert student enrollment credit hours into FTE faculty positions using a ratio, then establish a set amount of funding per faculty position (using various methods) • Calculate *enrolled* or *completed* student credit hours, then use a per credit hour cost matrix to establish funding level
Remedial Instruction	• Funding specifically as a function of remedial instruction	• Calculate funding levels based on student enrollment, enrolled credit hours, or completed credit hours in remedial instruction
Operation & Maintenance of Physical Plant	• Physical plant administration, utilities, building maintenance, custodial services, landscape & grounds maintenance, and repairs and renovations	• Calculate funding based on actual building square footage • Calculate funding based on an estimate of square feet needed based on enrollment levels

Components of State Funding Formulas	Includes	Typical Models for Calculating Funding Levels
Academic Support	• Support of the institution's primary academic mission such as computer labs, academic administration, and curriculum development and support	• Usually calculated as a specific percentage of the instructional support funding level (and therefore tied to enrollment levels)
Library Support	• Library services	• Calculate funding based on student headcount • Calculate funding based on a percentage of the instructional support funding level (and therefore tied to enrollment levels) • Many states provide library support through the academic support funding category, rather than as a separate component
Student Services	• Offices of admissions and registrars • Student services & activities outside the formal instruction program (e.g., student activities, cultural events, student newspaper, intramural athletics, etc.)	• Calculate funding based on a percentage of the instructional support funding level (and therefore tied to enrollment levels) • Calculate funding based on student headcount or enrollment
Institutional Support	• Central, executive-level activities related to management and long-range planning for the entire institution (e.g., president's office, fiscal operations, community and alumni relations, etc.)	• Calculate funding based on a percentage of the instructional support funding level (and therefore tied to enrollment levels)
Public Service	• Foster the continuation and expansion of public service activities	• Calculate funding based on a percentage of the instructional support funding level (and therefore tied to enrollment levels)
Research	• Support for institutional research activities	• Calculate funding based on a percentage of the instructional support funding level (and therefore tied to enrollment levels)
Scholarships	• A formula component that fund scholarships.	*No states include a component in their funding formula for determining funding levels for scholarships*

Non-formula-based funding methods

As indicated above, nineteen states determine funding through a formula, and ten states apply a formula for some (but not all) types of institutions/funding (typically, formulas are applied for two-year institutions but not for four-year institutions). Non-formula funding determination methods vary widely from state to state, but the two most common methodologies are the following:

- **"Base Plus" Method:** This is the most popular non-formula funding method. The higher education appropriation or funding request is based on the previous year's appropriation (the

base), plus some enhancement or cut – which may be formally or informally based on enrollment (or other performance factors). In New Mexico, for example, any new money under the "base plus" calculation (the "enhancement") is allocated via a performance-based formula (along with 5% of the base).

- **Funding Based on Legislative Priorities:** Some states based simply on legislative priorities or policies, which could be on the amount of funding available or on peer equity with other states for higher education funding.

State systems of higher education were appropriated more money to pay for the ever increasing student enrollment when higher education budgets were increasing. Sometimes that increase was informally tied to enrollment – i.e., "we have more students, we need more money". Other times the increase was based on a general increase in the state budget or legislative priorities. However, in recent times, higher education appropriations have declined despite enrollment increasing.

2. Best practices in states' use of funding formulas

Best practice in funding higher education depends on policy goals; in this sense "best practice" means simply the right incentive given some specific policy objective. If access to higher education is the goal, then a funding formula based on *enrolled* student credit hours is a best practice. Access has dominated all other policy goals in higher education for many decades, and any policy that encouraged institutions to enroll more students was good policy seen from that point of view. Indeed, even non-formula states implicitly reward higher education institutions with new money based on the need to fund enrollment growth through a cost-plus approach.

But is perfectly possible to create incentives for other goals. If a higher graduation rate is the goal, then a funding formula based on *completed* student credit hours is a best practice. Having other performance metrics folded into the formula, for example graduation rates, is also a good practice for encouraging shorter time to degrees (see below for a substantial discussion of performance funding). If the goal is to maintain state-to-state peer equity in higher education funding, then a formula based on the cost of full-time faculty positions using peer average salaries is a best practice. If the goal is to incentivize the growth of specific disciplines or programs, then a formula weighted according to policy goals is a best practice. *In short, the design of any formula requires explicit acknowledgement of the policy goals the formula is intended to further*.

Because of the commitment to access noted above, in most formula funding states and most non-formula states the calculation of funding levels is more or less directly tied to student enrollment or credit hours. In many states, like Nevada, the funding calculation is based upon *enrolled* student credit hours rather than *completed* student credit hours, under the theory that the cost of providing services in any given term does not change when students withdraw. However, if funding is based on enrollment, institutions may be incentivized to enroll students regardless of their ability to succeed. The opportunity cost to an individual student is large, in terms of both time and money, if the student does not complete a course. In addition, higher education institutions and states waste money paying for a student who will not complete the course and/or the degree.

One way to mitigate low completion rates is to incentivize higher education institutions to support students in completing courses/degrees by allocating funding based on successful course completion

(rather than course enrollment). This policy may encourage institutions to provide more academic support, such as tutoring and teaching assistants. On the other hand, if course completion is the driving factor behind state general fund appropriations, institutions may then be incentivized to lower the standards required for course completion. Faculty members may feel pressure to give higher grades so students do not get discouraged and quit.[6] Alternatively or concurrently, institutions may become overly stringent in admission standards, which could reduce access for students.

An alternative funding approach uses enrollment numbers taken at the end of the term or course completion *including failing grades*, which may incentivize institutions to provide academic support for students to help them stay in the class, while tempering the pressure to pass students so that the institution gets paid for the time invested in the student. The NSHE alternative funding proposal for Nevada falls into this category, since the proposal allocates money to credit hours completed with any grade (except a withdrawal).

Before deciding if course enrollment (or completion) should drive funding, the Committee should consider what they want to incentivize. Historically, funding based on enrollment has incentivized getting students into class, sometimes to the detriment of both the school and the student. In the past, Nevada's current but suspended funding method appears to have resulted in all institutions embracing an access mission because it was financially advantageous, rather than each institution embracing a differentiated mission. The Committee should take care to consider the incentives created by different kinds of enrollment-based funding formulas and by performance criteria such as successful course completion.

3. Use of the funding formula and enrollment-based funding in Nevada: current and proposed practices

The current Nevada funding formula is comprised of formulas that independently calculate funding levels mainly for Instruction, Academic Support, Library Acquisitions, Institutional Support, Student Services and Operation and Maintenance of Physical Plant. Each formula has many complex elements; however, each major formula is driven by a few main components:

- The formula for instruction is mainly based on student-to-faculty ratios using full-time equivalent (FTE) student counts based on enrolled student credit hours. Notably, this counts both in-state and out-of-state students. From 2001-2009 the FTE counts were based on a three-year rolling average; however, for the 2009-2011 biennium, the Legislature approved utilizing campuses' FY fall 2008 actual and spring 2009 preliminary enrollments for each year of the 2009-2011 biennium for purposes of allocating formula funding.[7]
- The formula for academic support is based partly on the number of full-time equivalent faculty members and staff members, number of library volumes, and the instruction budget.
- The formula for library acquisitions is based on FTE enrollment, faculty, and programs offered.
- The formula for student services is based on combined headcount and FTE enrollment.
- The formula for institutional support is based on total operating budgets.
- The formula for operations and maintenance of physical plant is based on maintained square feet calculation.

[6] Jacobs, Joanne. "More States Utilize Performance Funding for Higher Education." *US News and World Report*. February 24, 2012.
[7] Fiscal Analysis Division, Nevada Legislative Counsel Bureau. Education. *2009 Appropriations Report.* p. 147-148.

The Nevada System of Higher Education Office of the Chancellor proposed a new funding formula in 2012. This funding formula uses only credit hours for resident students who complete courses where a grade had been posted, including a failing grade. These credit hours are multiplied by a program and level-based weighting matrix, and multiplied by a state appropriations-based price, to calculate instructional support and operation and maintenance support, as well as determining the application of a small institution factor. In addition, the proposed formula provides additional weighting of the student credit hours for research support and a separate O&M formula for university research facilities. The proposed formula also includes a performance pool that will fund institutions on output measures such as degrees and credit completed.

The major shift from the present formula to the proposed alternative is the inclusion of O & M in the instructional formula, which is consistent with practice in most other formula states. The additional research weighting and the research O & M "carve out", included in the proposed formula appears to be unique when compared to other states, and careful consideration is recommended of the policy goals behind this proposed practice.

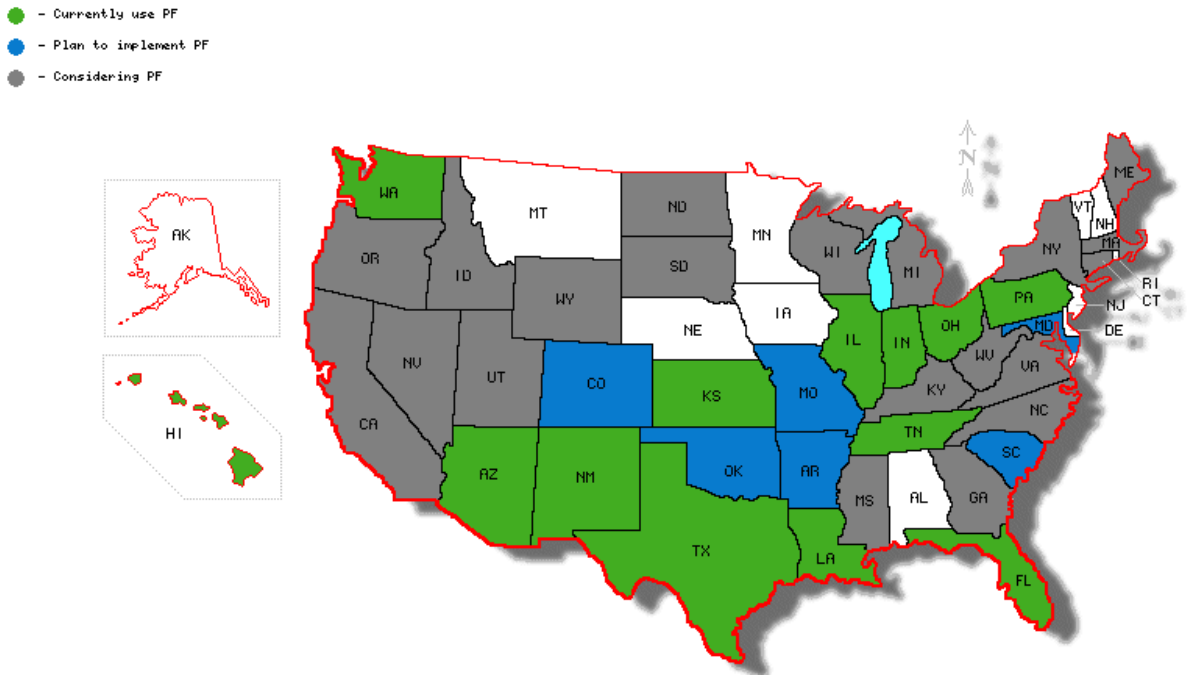
In summary, the NSHE proposed alternative formula is effectively based on enrollments, except to the degree that successful completion is established as criteria for completed credit hours. This dependence on enrollments remains overwhelmingly the established practice among formula states, with just two exceptions, although a wider shift towards performance as part of a formula is likely in the years ahead (see discussion below).

B. Use of performance-based funding criteria

1. Summary of states' use of performance-based funding

SRI research indicates that thirteen states currently use performance-based funding methods (and approximately five states have definite plans to implement performance funding, while at least fourteen others are considering doing so). Use of performance criteria tends to be most common in formula-based states, although a couple of non-formula states also apply performance criteria. Figure 1.2 shows states that currently include a performance-based funding mechanism in green. States with plans of implementing performance-based funding mechanism are indicated in blue. States that are discussing performance-based funding mechanism are indicated in grey.

Figure 1.2. States that have adopted, or plan to adopt, or have discussed performance related funding.



The most typical performance metrics incentivize completion by measuring degrees or certificates awarded, but many other metrics can potentially be used, such as those described in *Table 1.2*, below. These metrics are consistent with the national Governor's Association's work on performance based funding (to be discussed below).

Table 1.2. Types of performance metrics used in higher education funding.

Category	Types of Metrics Used
Output Metrics	Degrees awarded; Graduation rates (or "time to degree"); Research incentives (e.g., amount of federal R&D monies)
Progress Metrics	Transfer rates from 2-year to 4-year institutions; Successful course completion; Length of time to earn degree; Student progression (or "credit accumulation"); Advancement through remedial and adult education; Job placements
Economic Development Metrics	Earned research dollars; Degrees linked to workforce development goals (e.g., high demand areas such as STEM or health)

Performance-based funding mechanisms have been used by states for at least three decades, with mixed results, and a number of states have cut their programs due to lack of alignment with state politics, complexity, lack of available data, or lack of funding. Key determinants of success for performance-based funding are the size of the performance pool (i.e., are performance-based funds a large enough share of institutional funding to incentivize behavior?) and also whether performance funding is allocated as a "bonus" or whether it is tied to baseline institutional support.

2. Best practices in states' use of performance-based funding

Since the Second World War, higher education in the United States has been the engine of economic growth and social mobility. The U.S. higher education system is accustomed to worldwide recognition and emulation, and this success was built on an ethic of access, first embodied in the G.I. Bill and then sustained by the expansion of low-cost state institutions, federal financial aid, and other student loan programs. This ethic was also furthered by a conviction among middle class families that college was the best path to economic security.

Although getting students into college (increasing the participation rate) is still a crucial issue, especially among low-income and underserved population groups, it is fair to say that an inflection point has been reached. Access is no longer the only, or even the primary challenge facing states and institutions of higher education. In Nevada, roughly 40% of students who enroll full-time in a four-year college fail to graduate – the numbers are worse for part-time and two-year programs. It is a serious waste of public resources to admit students to college who then drop out without a qualification, and grossly unfair to the students themselves who are left with dashed hopes and (often) painful burdens of debt. Nevada, along with all other states, needs performance criteria that will change this dynamic.

As noted above, most states to some degree have tied their support for higher education with the number of students enrolled and taking classes. This practice has the effect of biasing decisions by campus leaders towards greater access (i.e., higher enrollments). More students in seats mean more money. If *access* is the goal, then enrollment is an appropriate performance criterion. But once the focus shifts toward other goals, as it has in many states, then paying for enrollment is a deficient practice in a variety of ways. It encourages the admission of students unprepared to succeed, it provides no incentive to help those students or to ensure quality, and it generally fails to align programs and curricula with workforce and other economic development goals. (While many states' funding formulae recognize differences in costs associated with different programs, these costs are paid without evaluating the purpose or success of a program.)

Performance criteria that go beyond access, and that address the deficiencies noted above, typically fall into three broad categories:

- **Alignment:** It is striking how often funding models for higher education are not clearly aligned with state policy goals. Yet, how money is spent is policy (whether acknowledged or not). Any higher education funding model should reflect the expressed policy goals and foundational values of the state and its institutions. For example, land-grant universities – a distinctively American institution – were established with the explicit purpose of promoting "useful learning." The alignment of higher education's teaching, research, and engagement with the needs of society, including a state's social and economic goals, is a basic performance test for all policymakers.

- **Attainment:** Educational attainment – the percentage of the adult population with a college degree – is such a strong predictor of a region's economic success that it represents a goal in its own right, apart from broader questions of alignment. In Nevada only 22% of the adult population has a bachelor's degree, which ranks the state 46th among all states and the District of Columbia (although Nevada's 7.5% attainment rate for associate's degrees is close to the national average). Raising the number of graduates produced is a straightforward way to raise attainment and so constitutes a key metric, in one form or another, for many performance criteria.

- **Quality:** This issue is not often addressed by the performance criteria actually in use in various states, but it has been the subject of a great deal of discussion, for example, in the *Spellings Commission Report of 2006*.[8] As the focus on attainment and on graduates grows, there will inevitably be a concern with quality control. In the long run it is unwise to provide significant incentives for the production of degrees without, at the same time, providing incentives for maintaining quality.

  Degrees and GPAs are proxy measures of the skills and competencies students acquire through their education. As students and their families pay more, and as employers become more demanding of new entrants to the workforce, they will all want to know if the degree means what it says. Various independent measures of learning have already been developed and tested, for example, the Collegiate Learning Assessment[9], and their use as performance criteria in one form or another is inevitable.

Many specific metrics are subsumed into these three broad categories, and some may be especially important in Nevada's case. For example, criteria that reward institutions for remediation – i.e., efforts to accelerate and ensure the graduation of students who are under-prepared – contribute to the overall goals of graduation and attainment. In Nevada's case, remediation is especially important, with almost 30% of freshman at 4-year institutions and over 41% of freshman at two-year institutions requiring it. Another example is using time to degree, or some other measure of academic progress, as a criterion. Progress is a strong predictor of eventual success (although what is an appropriate measure will vary by program and institution and must be chosen with care). As noted above, at present it takes too long to get a degree in Nevada.

[8] http://www2.ed.gov/about/bdscomm/list/hiedfuture/index.html
[9] http://www.collegiatelearningassessment.org/

Three other issues matter in the design and adoption of performance criteria. They are operational rather than substantive.

- **Clarity:** It is very easy to design a complicated set of performance criteria that answer to every felt need. However, a complicated formula is hard to implement; more likely to yield unintended consequences; and, most important perhaps, difficult to explain to policymakers, stakeholders, and citizens. Complex formulas have doomed past performance-based initiatives in a number of states.

- **Differentiation:** Any set of performance criteria will be applied to a highly differentiated set of higher education institutions. The way the criteria operate, along with the incentives created, should have the effect of maintaining and even enhancing differentiation and the division of labor. This will encourage efficiencies in the use of resources. Performance funding that does not account for the different missions of institutions has also been attributed to performance funding failures.

- **Scale:** The resources subject to performance criteria should be significant enough in scale to shape institutional behavior. This means that even if tuition and fee revenues are properly separated from public monies, the overall income of an institution or system should be considered in determining what percentage of public funding is tied to performance. Furthermore, these funds should be drawn from the overall budget for higher education (part of the "base" funding) and not budgeted separately (as "bonus" funding). Otherwise, as seen in the past, the monies set aside will disappear whenever the state budget is under stress.

The three substantive categories discussed above, along with the three operational considerations also identified, provide a simple framework for evaluating any existing or proposed system of performance criteria – and in particular provide a framework designed to go beyond access and enrollment as a primary driver. Indeed, the three substantive categories of performance criteria can be ranked in the order presented. *Alignment* should be the starting point for any understanding or evaluation of a higher education funding model. Failure to design a system of funding without careful reference to policy goals and foundational principles may yield unexpected and undesirable practices and outcomes. Second, no other purpose is more important than a laser-like focus on the production of graduates (*Attainment*). Various metrics may capture different aspects of success in this area, but such success is, and should be, at the heart of any set of performance criteria. Finally, *Quality* control is also important, but may require more deliberate adoption given the need to collect new kinds of data. If these categories are systematically addressed, then operational questions—especially timing—become important.

3. Use of performance criteria in Nevada: current and proposed practices

Evaluating the existing NSHE funding formula with regards to performance criteria

The "current" Nevada higher education funding formula has not been directly employed to calculate state funding levels for the last two biennia. It is very complicated (one of the most complicated among all states), but its several elements are driven directly or indirectly by student enrollment. In short, it reflects the principle of *access*, in which institutions are rewarded for enrolling students in classes. It is sensitive to the mission and size of institutions, but otherwise it is not "outcome-based." As a recent report notes:

> *The current funding model does not have a performance component, or an incentive funding component, and could be improved by additions and changes to incorporate performance. There is no linkage to the goals for the colleges and universities, nor any measure of accomplishment, and no link to performance standards.*[10]

The current formula raises serious concerns from the point of view of the first and second criteria discussed above (*Alignment* and *Attainment*). The formula was never tightly linked to larger policy goals or explicit principles. This deficiency is revealed in several areas of the formula unrelated to students. For example, Research is not funded based on a formula or any guiding set of principles, but based on incremental payments. No economic development goal is attached to it. Operations and Maintenance is based on the size of existing buildings, as if heating and cooling buildings is an important policy goal of the state. As noted elsewhere, the performance criteria originally included in the formula were never adopted, and the formula gives no consideration at all to *Quality*, in the form of skills, competencies, or anything else.

Serious claims exist concerning the lack of equity in the way Nevada's formula has worked. In SRI's view the objections to this formula are more fundamental. It is a model without a guiding rationale or policy objective. It operates chiefly as an incentive for more access, and is deficient in its support for remediation and student success. It is also combined with a large number of out-of-formula payments that lack any clear rationale.

Evaluating the NSHE-proposed alternative model with regards to performance criteria

In January 2012, the Nevada Board of Regents adopted *Strategic Directions for the Nevada System of Higher Education*, in response to the NGA's *Complete to Compete* Initiative. The Board of Regents stated as its primary goal to "graduate more students with meaningful degrees and certificates, thus positioning the graduates for fulfilling and productive careers and positioning the State with an educated citizenry required for supporting and maintaining economic development and diversification." The Board of Regents spells out four initiatives under this program, and the second initiative speaks to performance-related funding criteria, stating the goals of "reward[ing] institutions for progress in achieving performance standards, including goals agreed upon through the National Governors Association Policy Academy and the CCA completion metrics"[11] and "establish[ing] performance metrics to set budget parameters, determine system priorities, and allocate performance funding dollars."

Nevada's *Strategic Directions* initiative aligns with many of the performance criteria used by other states. Course and degree completion by low-income and under-represented students are performance criteria that align with *Strategic Directions* Initiative #2.1: "Adopt…goals for enrolling and graduating students from diverse backgrounds." Performance criteria based on workforce needs align with *Strategic Directions* Initiative #2.3: "Establish institutional protocols for reviewing student performance and determining the extent to which they are pursuing and completing educational programs and acquiring the skills demanded of Nevada employers."

The NSHE work on an alternative higher education funding formula is grounded in the strategic planning process that yielded the *Strategic Directions* strategy document. Having clearly articulated goals as a

[10] MGT of America. *Evaluation of the NSHE Funding Formula*. May 2011. P. ES-2.
[11] http://www.completecollege.org/path_forward/commonmetrics/

point of departure helps meet the test of *Alignment* described above, although the incentives created by the formula should, of course, align with these goals.

In addition to emphasizing the increased production of meaningful degrees and certificates as a critical metric of success, *Strategic Directions* is distinguished by the fact that it also identifies numerous initiatives and practices that will contribute to success, but are not directly related to state funding. This underscores an important point: while the higher education funding formula is very important, it is far from the only element required to produce more degrees in less time (and with fewer resources). We note, for example, the focus on new and improved data systems as one area that will make an indispensible contribution to measuring success or designing interventions to avert failure. (While Nevada has made progress in data collection centered on student unit records, a P-20 State Longitudinal Data System is not yet mandated or funded.[12])

The NSHE leadership has worked closely with the National Governor's Association (NGA) in devising the performance criteria or pool for its new proposed alternative formula. A particular virtue of the way NGA approaches metrics, which is especially important in the case of Nevada, is that it has focused on metrics that apply to all kinds of students – traditional students in a residential, four-year college; transfer students; part-time students; and students requiring remediation. This last kind of student presents a tremendous challenge for the NSHE, where over 40% of two-year college freshmen and almost 30% of four-year college freshman require remediation. But current remediation efforts in Nevada are not working, with less than 10% who get help in two-year colleges, and less than 40% who get help in four-year colleges, completing their degrees in a timely manner. Nevada cannot achieve its goal of increased graduates unless it is successful in remediation.

While everyone recognizes that the proposed NSHE performance pool is a work in process, the commitment to a performance pool as part of a new funding formula is an important and valuable improvement over the present formula, and is a change consistent with developments in many other states.

As noted elsewhere, the *outcome* metrics identified by NGA provide information about current performance, while the *progress* metrics help flag the direction of future performance, and also (when based on individual student records) can provide administrators with the tools for targeting where exactly individuals go off track.[13] When used in combination these metrics allow for measurement of progress and for understanding of how that progress was achieved.

The metrics proposed by NSHE focus largely on one *outcome*: degrees awarded. This particular outcome metric has the virtue of being a simple number, directly related to the goal being pursued, easy to collect, difficult to manipulate, and intuitive – therefore easy to explain to citizens, students, stakeholders, and policymakers. It meets the operational test of *clarity* described above. However, this approach is subject to some shortcomings. Nevada needs more graduates, but it also needs to produce them more efficiently – in other words by patching leaks in the pipeline – and with no loss in quality.

[12] http://www.DataQualityCampaign.org/DFA2011.
[13] A more conventional way to describe the *outcome* metrics chosen by the NGA could be as *output* metrics. An *outcome* might be thought of as a graduate having the skills and competencies for which the possession of a degree is a proxy measure.

Rewarding raw numbers of degrees produced may create incentives to admit even more unqualified students, hoping some stick, or to lower standards to get students out the door.

Progress metrics (and what NGA refers to as "context" metrics) can serve as a check on this potential problem. For example, retention rates (the number of students who enroll consecutively from fall-to-spring and fall-to-fall) will indicate pipeline problems, as will the completion ratio (the ratio of degrees granted to full-time enrolled undergraduates). However, NSHE's proposed performance criteria include *progress* metrics for the community colleges only. Without *progress* metrics, the sole emphasis on degrees awarded is at odds with the requirement for *quality* identified above.

In that spirit, another metric that we believe should now be seriously considered by Nevada (as well as by other systems of higher education) – as identified in the discussion above on *quality* – is the independent assessment of learning outcomes. This is the best kind of quality control. We do not specifically recommend the Collegiate Learning Assessment, but it has been shown to be an independent, valid measure for student skills across time and across groups of students. Any metric chosen should be equally valid and should allow Nevada to compare its students' skills against national scores. No such measure is in the NSHE-proposed performance pool. It will require some years to accumulate the necessary data for implementation, but the future adoption of such a metric should be allowed for in the design of the pool.

Rewards for achievement in research are also included in the NSHE-proposed performance pool. The way in which research funding is incentivized in the proposed alternate funding formula seems to lack simplicity, in part because three different paths are identified: 1) In the "base" formula, higher costs are assigned to the two research universities for upper division and graduate level classes by applying a 10% increase in the weight of these classes; 2) In addition, the two research institutions are granted a "carve out" from the state appropriation before the formula is applied, calculated based on non-instructional research space, 3) Finally, in the performance pool, research is rewarded based on a very broad definition of dollars received for sponsored and external research expenditures (for example, it includes dollars received for student services). None of these approaches addresses directly the economic development goals of the state. "Dollars earned through sponsored research" (which is appropriately defined) should be rewarded (and are rewarded in other state formulas), but perhaps not almost any kind of external grant, at least not under the rubric of "research." In the NSHE-proposed performance pool, this important area is not clearly aligned in ways consistent with stated goals.

Remediation is another important issue. In the NSHE-proposed formula, the "base" formula provides no extra support for remedial courses at the colleges, even though successful remediation is a relatively costly activity, and it does not support remedial courses at the universities at all (at present the universities provide remedial courses without using state support, a situation that would remain unchanged under the new system). There is a premium weight applied to "basic skills" classes, and there is a progress metric with a modest weight included in the performance pool that rewards successful remediation at the college level. Remediation is an area in which a new formula should accentuate differentiation. It is not clear that the NSHE-proposed formula achieves this.

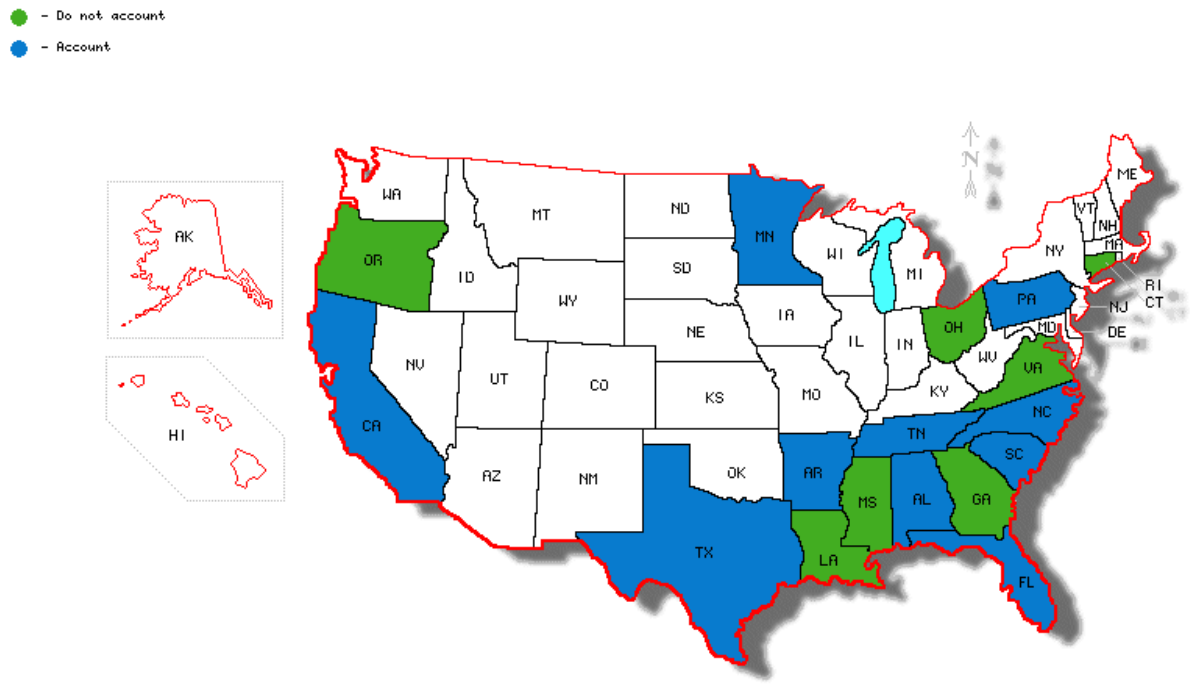
C. Treatment of student-derived revenues

1. Summary of states' treatment of student-derived revenues

The most common model nationwide is for student-derived revenues (i.e., tuition and fees) to be controlled and retained by individual higher education institutions, and approximately 42 states follow this model. In these states, the legislature generally does not formally budget or appropriate student-derived revenues in the budget setting process. In twelve states, however, student-derived revenues must be appropriated by the state legislature (and in three of these states, student-derived revenues are used to offset general fund appropriations). Most of the twelve states that appropriate student-derived revenues through the legislature require the revenues to be deposited into separate state tuition accounts. A number of states (including Nevada) actually use hybrid models, in which some student-derived revenues are retained and another portion is appropriated through the state legislature, or in which some types of institutions retain/control their own revenues and other types of institutions do not.

Further research beyond the State Higher Education Executive Officers survey that informed the previous paragraph found that Alabama, Arkansas, Minnesota, Pennsylvania, Tennessee, Florida, California, Texas, South Carolina, and North Carolina subtract student-derived revenues from their formula's calculated need was also the practice in Nevada, as shown in Figure 1.3, which show of the 15 states that current use a funding formula, ten states subtracted at least a portion of student-derived revenues from the formula's calculated need.

Figure 1.3. State treatment of student-derived revenues.



The dominant model of institutions retaining and controlling their student-derived revenues may be attributed to the fact that tuition and fees have historically represented a very small percentage of higher education budgets; however, this trend is changing (tuition revenues are going up, while state

appropriations are going down). Many states are reviewing their policies as student-derived revenues move toward becoming the majority of public institutions' revenue streams. Additionally, some states are now requiring performance-based measures to be met for schools to gain increased autonomy over student-derived revenues.

2. Best practices in states' treatment of student-derived revenues

The discussion that follows will evaluate practices in this area by judging their impact on six policy areas that have important consequences for any system of higher education: efficiency, access, sufficiency, quality, accountability, equity and alignment.

As mentioned above, the vast majority of states allow their institutions and campuses to keep and control any student-derived revenues. This kind of arrangement could be described as "distributed," in which fees are managed where they are collected. By contrast, Nevada's current budget policy (together with that of a few other states) counts nonresident tuition and student fees "first" in the budgeting process. An institution's tuition and fees stay on campus, but – it is argued – have an impact on monies available from the general fund because they are counted as part of the overall level of state support. This kind of system can be described as "integrated," in which fees at each campus are managed as part of a single, state-supported budget.

These are not two clearly distinct systems, as we note in the discussion above there are mixed cases. Furthermore, in many cases state boards or state legislatures set tuition and fee rates. As the discussion below will suggest, the incentive structure associated with either a distributed or integrated system is shaped in important ways by the level of tuition and fees, and also the degree to which institutions can influence the process by which they are set. For example, rates may be set at such a low level that they limit the incentive to increase enrollment in particular programs, or to compete for out-of-state students.

While at first glance it may seem that a distributed system has many obvious benefits, and an integrated system several drawbacks, evaluating the impact of each kind of arrangement is complicated, and the balance of benefits will depend upon the broader set of policies and goals embodied in any particular system of public support for higher education.

- **Efficiency:** The impact on efficiency of either approach is unclear. On the one hand, it may be argued that under a distributed system an institution is meeting an important market test – the institution has an incentive to grow its own source of revenues by graduating satisfied customers at a competitive price. On the other hand, if an institution is, in its region of the state, an effective monopolist, the only provider of a certain kind of education, it may grow revenues without much improvement in quality or efficiency.

- **Access:** Under a distributed system, an institution has an incentive to lobby the relevant authority for higher tuition and fee rates, which could have an impact on access. Furthermore, if out-of-state tuition rates are high, and if there are out-of-state students available to pay them, then there may be a crowding out effect felt by in-state students. In some cases public institutions with international reputations have become largely privatized because of their ability to draw in customers from outside state lines. This relieves the state of a financial obligation, but unless substantial provision is made for financial aid this development may limit

access for in-state residents unable to pay the high rates. On the other hand, having control over revenues that do not automatically count against other sources of support could encourage an institution to enroll more students to increase access.

- **Sufficiency:** Many suspect that a distributed system tends to make available more resources as a whole to higher education. Individual institutions have an incentive to earn more revenues by enrolling students, and the level of state funding, because it is treated separately, is subject to greater transparency. It has been observed all across the country that declines in general fund support are almost always offset by an increase in tuition and fees. Such declines are more obvious where each source of funds is treated separately. However, the level of state general fund support may be determined by factors having nothing to do with the amount of student-derived revenues available, and how those revenues are treated may have no implications for the level of general fund support.

- **Quality:** A distributed system that provides incentives to compete for new students should have a beneficial effect on quality, but, as noted above, there may be a temptation to raise rates rather than manage costs where students come from a more captive pool. Increased recruitment of out-of-state students does have the effect of making the student body more diverse, enhancing the educational environment. If, in fact, a distributed system has the effect of mobilizing more revenues for higher education, that too could lead to quality improvements.

- **Accountability:** As states' shares of higher education funding have declined, and tuition and fees have increased, more accountability will be required for the ways in which these revenues are spent. The practice in Nevada, where the fees in the self-supported budget are applied to dedicated purposes, represents a good level of transparency. In principle, it is easy in a distributed system for tuition and fees to be accounted for in a transparent way. The need for accountability explains the practice in those states where tuition and fees are retained and controlled by institutions, but are treated formally as part of the state budget and subject to state appropriation before they can be disbursed.

- **Equity:** Students themselves are private beneficiaries of higher education, but the benefits of their education also extend to society as a whole. The mix of student tuition/fees and state support that sustains public higher education should reflect society's judgment on the appropriate balance between these two sources of funds. In a distributed system, careful accounting is required to make that balance transparent, whereas the balance is more clear-cut in an integrated system.

- **Alignment:** The case for a distributed system is strongest when it comes to aligning curricula and programs with the economic structure of a regional economy. Each institution has good information about local needs, and a distributed system is best able to provide an incentive structure that rewards local initiatives and innovative programs that meet workforce needs.

If the goal is to incentivize alignment and entrepreneurship, then the best practice may be for higher education institutions to retain control over their own student-derived revenues. Different institutions have different missions, which results in different costs for the delivery of instruction and services. The average cost may be higher at institutions that have a residential mission and/or a research college mission and may be lower at institutions with a commuter population. Taxpayers should (and do)

question why they should pay different prices for equivalent classes delivered at different institutions. The students who choose to attend a higher average cost university should pay for the difference in cost, and those tuition and fee revenues should go toward the price differential in the cost of delivery.

However, the implications identified for each policy area suggest that there is no simple answer to the way tuition and fees should be treated.

3. Treatment of student-derived revenues in Nevada: current and proposed practices

Student-derived revenues under the current NSHE funding model

Student tuition and fees are revenue sources for Nevada higher education institutions that are collected by each institution. The Nevada constitution does not allow residents to pay tuition; however, residents are assessed a registration fee. The registration fee is a per-credit charge that is set at a different amount for each institution by the Board of Regents. The fee is based on the recommendation of the Tuition and Fee Committee (which is comprised of campus presidents and student representatives). Every student is assessed the registration fee. In addition, nonresident students are assessed an out-of-state tuition charge. These fees and tuition (together with a less significant source of revenue, termed "miscellaneous student fees") are what this report refers to as "student-derived revenues" in Nevada.

All nonresident tuition is budgeted as revenue in the NSHE state-supported operating budget. However, only a portion of student registration fees is budgeted through the state-supported operating budget. Historically, 60%-76% of student registration fees were budgeted in that way.[14] Although the NSHE Board of Regents sets tuition and fee levels, the Legislature requests that student-derived revenues be budgeted through the state-supported budget, in order for "the money committees, students, and the public to more clearly understand how each institution intends to expend additional revenues."[15] The decision of how much of the student registration fees are budgeted through the state-supported budget is an important one since, as mentioned before, legislative budget policy towards the state supported budget has been to *account* for student-derived tuition/fees first and then fill the balance with state general funds, although student fees and nonresident tuition dollars remain on campuses.[16] In other words, the share of student-derived revenues that are in state-supported operating budgets is the "first dollar counted" for each individual institution before general funds are appropriated.

The Board of Regents can also direct portions of any increase in student fees to the NSHE capital and general improvement funds, which are part of an institution's self-supported budget – meaning that this portion of the fees is not budgeted via the state-supported budget. Over the years, this practice has resulted in a declining percentage of total student fees being budgeted through the state-supported budget. In 2005, the Legislature sent a letter of intent to NSHE requesting that this decline in the percentage of student fees included in the state-supported budget be reversed, saying "decreasing percentages of student fee allocations to the state-supported budget results in higher General Fund

[14] Fiscal Analysis Division, Nevada Legislative Counsel Bureau. *Education. 2011 Appropriations Report.* http://www.leg.state.nv.us/Division/fiscal/Appropriation%20Reports/2011AppropriationsReport/2011AppropriationsReport.cfm.

[15] Morse Arberry, et al. Letter to Daniel Klaich, Chancellor, NSHE. Sept. 8, 2009. *2010-2011 Nevada System of Higher Education Operation Budget.* p. 14.

[16] Fiscal Analysis Division, Nevada Legislative Counsel Bureau. *Education. 2011 Appropriations Report.* http://www.leg.state.nv.us/Division/fiscal/Appropriation%20Reports/2011AppropriationsReport/2011AppropriationsReport.cfm. P. 148.

operating appropriations than would otherwise occur. As a result, the money committees wish to communicate that any future Regent-approved fee allocations to the state-supported budget that are below current cumulative percentages may not be supported by the Legislature in corresponding General Fund appropriations."

Student-derived revenues under the NSHE-proposed alternative funding model

The NSHE alternative funding model proposes to remove all student-derived revenues from the state-supported budget. As stated in their document quoted below, this would result in the higher education funding formula being used to allocate general fund dollars only:

> *The proposed model allocates General Fund dollars only without the inclusion of student tuition and fees. The funding model then provides that each institution will retain 100 percent of student registration fee and nonresident tuition revenues generated at that institution. The level of student fee revenues generated by an institution does NOT impact the amount of General Fund support generated by the new funding model.*[17]

The separation of own-source revenues from the state supported budget, as proposed by NSHE, may be desirable. However, careful consideration should be given to those additional steps necessary to ensure that such a change leads to increases in *access*, *quality*, and *efficiency*. These might include conditions that require increased student aid, new cost controls, and the adoption of new performance criteria (which are, in any event, being contemplated by NSHE). Such a change would also have to be accompanied by clear accountability.

[17] . Nevada System of Higher Education. *A New Model for Funding Higher Education*.

III. Alignment and Performance: Recommended Principles for Higher Education Funding Reform in Nevada

To achieve economic renewal, innovation, and diversification in Nevada, NSHE's new funding model needs to: 1) drive NSHE institutions to align their activities around state goals, and 2) to significantly improve their performance.

In light of the issues reviewed above, the following sections outlines some key strategies for embedding **alignment** and **performance** in Nevada's new funding model, and recommends institutional arrangements necessary to support these strategies.

A. Alignment

Alignment	**Alignment of Nevada's higher education with the state's economic goals will help grow those sectors targeted for economic development and diversification, and will foster the innovation systems needed by small and medium enterprises.**

1. Higher education funding should support and reward institutions that graduate students with the mid-level skills essential for growing Nevada's new target industry sectors.

The sectors identified in *Unify|Regionalize|Diversify* represent opportunities for Nevada to shift towards more skill-intensive and technology-intensive economic activities. That shift will begin with the growth of businesses that require mid-level skills – i.e., certificates, two-year, and four-year degrees. For example, the report notes that disaggregation of work into discrete tasks in the health and medical services field (one of the seven broad sectors targeted in the report) has created opportunities for middle skill, middle-income jobs. Nevada's colleges (CSN, WNC, GBC, TMCC) and Nevada State College are likely to provide the overwhelming number of graduates in these areas.

Therefore, a central feature of a new higher education funding model should be to provide the incentives and the support necessary for Nevada's access institutions to admit and train a relatively poorly prepared student pool for a clearly defined set of workforce opportunities characterized by mid-level skills.

This will require adequate funds and deep engagement with the local economy. Here we see that the institutional framework is as important as the funding model. To align workforce needs with curricula requires regionally specific analysis at a high level of granularity. The first requirement is an estimate of the existing qualifications, skills, and abilities of each region's workforce based on current employment patterns. Then the skills associated with key occupations in targeted industry clusters must be estimated. Together, these two pieces can be used to perform a gap analysis, allowing workforce boards, higher education, and other stakeholders to identify the programs needed to develop the qualifications, skills, and abilities that may be in short supply. The higher education funding formula should then reward institutions for the graduation of students that fill these gaps in the workforce.

2. Institutional autonomy and alignment to workforce needs should be encouraged through three mechanisms: 1) establishing a separate governance structure and funding channels for community colleges; 2) retaining fees and out-of-state tuition by individual institutions; and 3) establishing differential fees for high-demand programs.

The current governance structure for community colleges in Nevada is poorly adapted to achieve local and regional workforce alignment of the kind described above. We recommend that community colleges in Nevada, as in most other states, become part of a separate governance structure – one perhaps still subject to the overall control of the Board of Regents. This structure should allow for the creation of local boards to direct and support each institution, a key mechanism for achieving local alignment. Furthermore, if appropriate legislation can be designed, we recommend that local revenues be mobilized in support of each community college. These could be revenues raised through county government, based on a menu of possible mechanisms (e.g., property tax, vehicle registration fees, transfer taxes, etc.) and subject to local voter approval. (We note, however, that any additional revenues to community colleges via such mechanisms should not count against their share of general fund revenues.)

As additional support for institutional alignment with workforce needs, we recommend two additional practices: the retention of fees and out-of-state tuition by higher education institutions, and the autonomy to set differential fees for programs in demand (note that the principle of differential fees has already been accepted by NSHE). For example, some classes in high-demand allied health fields cannot be offered frequently enough because of the high costs of running such courses. More generally, this kind of institutional autonomy will foster an entrepreneurial approach to the development of new curricula and new courses (an entrepreneurial attitude that would be magnified by altering the governance structure for the community colleges, as discussed above).

3. Higher education funding should reward institutions for graduating more students with degrees in higher-demand fields (e.g., STEM, allied health, etc.).

The workforce and economic development goals of the State of Nevada should be more generally supported in the higher education funding formula by giving all institutions added credit for students who graduate in STEM and other key fields. NSHE's alternative funding proposal supports credit hours in many STEM fields at a higher level due to the cost of operating these programs. But institutions should also be rewarded because of the desirability of STEM graduates. Additional weight for STEM and allied health graduates (above and beyond the costs associated with their education) would create incentives for the production of degrees in demand.

4. The state's higher education funding formula should be focused wholly on instruction, with research activities funded through the newly-created Knowledge Fund.

After careful consideration, we recommend that general fund support for NSHE though the higher education funding formula should be focused wholly on instruction. There is an appropriate and critical role for state support of research aligned around economic development goals, but that support should be provided through a separate, parallel mechanism. The state's newly-established Knowledge Fund offers such a mechanism:

> *Money in the Knowledge Fund may be used by the universities and the Desert Research Institute to provide funding for: (1) the recruitment, hiring and retention of faculty and teams to conduct*

research in science and technology; (2) research laboratories and related equipment; (3) the construction of research clinics, institutes and facilities and related buildings; and (4) matching funds for federal and private grants that further economic development. In addition, money in the Knowledge Fund will be used to establish a technology outreach program at strategic locations throughout Nevada. Further, the bill authorizes the University of Nevada, Las Vegas, the University of Nevada, Reno and the Desert Research Institute to enter into agreements for the allocation of commercialization revenue generated from programs receiving money from the Knowledge Fund. (Assembly Bill 449, Chapter 507, Statutes of Nevada 2011).

The aims of the Knowledge Fund should be more specifically aligned around the economic development goals of the state. Research excellence at UNR and UNLV is part of their mission, but, like other states, the State of Nevada is not in a financial position to treat all research initiatives equally. Faculty should be recruited, labs and centers constructed, and research grants matched in areas that directly map onto the economic development targets and sectors in the state's economic development plan.

The *Unify|Regionalize|Diversify* report notes, in particular, three important channels for supporting research at NSHE institutions: support for university-industry collaboration, recruitment of star faculty, and matches for competitive public and private grants (p. 110-113). We see industry-university collaboration as most valuable because of the likelihood of the near-term payoffs to business: increased innovation, new investment, and jobs. Such proposals should be heavily weighted when awarding money. The other two approaches should be less heavily weighted as having a more long-term payoff.

The Knowledge Fund is not yet funded, although we understand that it is a high priority for the state's leadership. Looking for revenue from the state's general fund will be a challenge. Furthermore, in order to ensure the longevity of the fund, a separate, dedicated funding source ideally should be identified. Although it is beyond the scope of this study, we note here one possible solution that represents an appropriate match between revenue source and spending purpose: the Knowledge Fund could be funded through a state severance tax, set at a very low level. The tax would be dedicated to the Knowledge Fund alone, not to the general fund. The majority of the funds raised would be used to fund research subject to the criteria identified above. A small part of the funds raised could provide additional support to two institutions of direct importance to state's natural resource industries (*see further specifics below about these two institutions*).

5. Institutions of special importance because of their role in a region or area of research should be granted a baseline level of institutional support.

The Desert Research Institute (DRI) is part of the existing funding formula, but not part of the alternative proposed formula.[18] This may be a cause for concern in the future. Yet, many of DRI's activities are easily aligned with the state's economic development assets, especially in the area of natural resources. While we would expect DRI to compete for funds from the Knowledge Fund alongside UNR and UNLV, we recommend in addition that it be granted a baseline level of general institutional support.

One other source of support for DRI could be tuition. In one or two areas – e.g., atmospheric sciences, hydrological sciences – DRI provides distinguished faculty to teach classes at UNR. These classes attract out-of-state students. This arrangement is based on a year-to-year memorandum of understanding

[18] DRI may be included in the performance pool in the future.

between the two institutions. One improvement that would help establish DRI's revenues on a more reliable basis would be for it to share in the out-of-state tuition generated by the classes its faculty members teach at UNR.

Great Basin Community College (GBCC) also delivers workforce services of direct benefit to the natural resource sector. Because of its extremely large service area, it is impossible for GBCC to deliver its services as cost-effectively as other institutions. The state should also provide GBCC with a baseline level of general institutional support in light of these special circumstances and its specialized mission.

B. Performance

Performance	**Nevada expects a relentless overall increase in the production of well-prepared college graduates from its institutions of higher education, with the goal of long-term improvement in educational attainment level of the population.**

1. The state's higher education funding formula should continue to provide significant support for remedial courses and counseling, as remedial services are critical for the success of Nevada's higher education student population.

Successful remedial education will be critical for the future of Nevada's higher education and economic goals, given the characteristics of the state's student population (as described above). The failures of remedial education across the country, as well as in Nevada, are widely recognized.[19] The recent report *Fresh Look at Nevada's Community Colleges Task Force* (August 2011) has recommended that remedial education be revamped in Nevada, proposing that funds for remediation at community colleges be directed away from remedial classes and towards other, wrap-around services (counseling, etc.) needed to help these population groups succeed. It proposes that adult learners find private providers for remedial courses. It also notes that the K-12 system represents part of the solution by more effectively discharging its responsibility to graduate prepared students. But improvements in this area will take a long time, and elimination of critical remedial services would likely have significant negative impacts in the short-term that would impede the state's progress toward its economic goals.

For this reason, we have significant reservations with the idea that community colleges should no longer offer remedial classes. Intensive student services are needed, and students that can take classes for credit with appropriate assistance should be directed away from remedial offerings. But success in this area is so critical that the higher education funding model should give extra weight to the need for both remedial classes and hands-on counseling. There is uncertainty at present over best practices in remedial education – NSHE is working diligently on improvement in this area – but we can be sure that it will be relatively resource intensive.[20]

[19] http://www.completecollege.org/docs/CCA-Remediation-final.pdf

[20] Faculty from NSHE institutions have been working with leadership provided by Complete College America, Education Commission of the States, and the Western Interstate Commission on Higher Education to redesign remedial course content, instructional design, and placement methods.

2. Nevada's higher education institutions need to establish seamless articulation agreements and clear practices on transfer credits, to help increase graduation rates.

It is important to ensure that students who transfer between institutions within the State of Nevada, or who bring credits with them from out of state, are able to easily apply these credits to their degree. In addition, in the future, enrolled students who choose to take high-quality online courses consistent with their degree requirements should also be able to easily apply them to their degrees. Credits however acquired should not be wasted, and administrative practices and possibly other incentives encouraging the transfer and acceptance of credits can help increase graduation rates. Articulation agreements and other practices are the mechanisms that allow true institutional differentiation to function properly.[21]

3. Nevada's funding formula should encourage differentiation across the state's higher education institutions.

The main way to increase Nevada's graduation rates and educational attainment levels is to incorporate incentives into the higher education funding formula that reward institutions for graduating more students in less time. Here Nevada's leadership should emphasize different paths for different institutions. UNR and UNLV continue to identify themselves as access institutions. We recommend instead that these institutions should become more selective over time, focusing on specialized undergraduate offerings outside the common core of classes at the lower level, blending these students with transfers from elsewhere at the upper division level. The base formula should reward UNR and UNLV for focusing on upper division preparation for four-year degrees, graduate degrees, and research. In this spirit, the 10% for research added to the formula for UNR and UNLV should be added, instead, to the formula weights for higher-level classes.

Some may argue that transfer students at present are not prepared to the same level as students who enter as freshman. The solution lies with the access institutions themselves. For example, students on a path at a two-year college towards transfer to a four-year degree could take honors classes specifically designed for an academic track. In addition, we recommend that the two-year institutions and NSC be rewarded for offering remedial classes and wrap-around services to students that require extra support, specializing in service to this critical population group.

4. Performance-based incentives included in the funding formula should emphasize progress metrics and graduation rates for all types of institutions, and should consider NSC as a separate type of institution from the state's other two-year and four-year schools.

For all levels and types of institutions, there should also be appropriate performance incentives written into the funding formula. The proposed alternative includes rewards for total number of graduates produced, and rewards for progress. We believe that significant attention needs to be paid to progress metrics for all types of institutions and to the graduation rate (i.e., time to degree). While a simple metric such as graduates per FTE captures this aspect of performance, we also recommend that the six year graduation rate, as measured by IPEDs, subject to the amendments recommended by Complete College America, should be carefully considered, being the actual outcome policy makers care about.

[21] It may be argued that the imperative for seamless articulation across institutions is at odds with the recommendation for a separate governance structure for two-year/community colleges. But it is by no means clear that is harder to negotiate and implement MOUs and shared practices across institutions just because they belong to different but not fundamentally dissimilar systems of governance.

5. NSHE should monitor quality of higher education using an independent, valid assessment tool that can track skills across time and across groups of students.

One other element of performance discussed above needs to be reiterated and, eventually, included in the performance pool. Since producing more graduates more quickly could potentially impact quality, NSHE must make an immediate commitment to tracking quality. Independent assessment of learning outcomes is an important and accepted form of quality control for higher education. This should be accomplished through the use of an independent, valid measure of skills across time and across groups of students. As noted above, we believe that the Collegiate Learning Assessment is a useful tool for this kind of assessment, but several comparable measures exist, NSHE should identify an appropriate measure and begin data collection immediately.

IV. Recommended Higher Education Funding Model for Nevada

The vision embodied in the funding principles and approach outlined above is utilitarian. It should be, given the goals and constraints faced by the State of Nevada. It is aimed at achieving the goals of increased alignment and improved performance in the state's higher education system. These goals will be achieved through both financial incentives and institutional changes. The principal elements of the recommended funding approach are summarized in *Table 1.3* below.

Table 1.3. Recommended elements of a new higher education funding model for Nevada.

Alignment	• Access institutions should produce graduates with mid-level skills in targeted sectors. • Two-year colleges should be granted significant autonomy, local control, and retain own-source revenues • All NSHE institutions should retain their own fees and tuition, and have the autonomy to charge differential tuition for high cost and/or high demand fields. • All NSHE institutions should be rewarded for producing STEM and allied health graduates. • Research support should be aligned around targeted sectors and innovation. • Research should be funded from a separate, dedicated source. • Specialized institutions with specific missions should receive baseline financial support.
Performance	• Remedial success should receive significant financial support. • Articulation should be seamless across institutions. • Differentiation among institutions should be accepted and encouraged. • Institutions should be rewarded for producing more graduates in less time. • Independent measures of quality should be adopted.

The components of the performance pool and metrics necessary to realize this approach are reported in *Table 1.4* below, weighted and organized into three separate institutional categories.

Table 1.4. Recommended performance metrics for a new higher education funding model for Nevada.

UNR and UNLV
• Metric for the production of Bachelor's, Master's and Doctoral degrees (medium weight)[22].
• Metric for the production of graduates in STEM and allied health fields (additional medium weight).
• Metric that captures improvement in graduation rates (heavy weight), for example year-to-year improvement in 6-year graduation rate as defined by IPEDS, as amended by CCA.
• Metric that captures student progress (light weight). For example year-to-year improvement in the completion ratio, defined as the ratio of degrees granted to full-time enrolled undergraduates.
• Metric that captures at risk student progress (light weight). For example Total unduplicated number of minority or Pell grant eligible students who graduated during an academic year with a bachelor's degree.
NSC
• Metric for the production of Associate's and Bachelor's degrees (medium weight).[23]
• Metric for the production of graduates in STEM and allied health fields (additional medium weight).
• Metric for the production of Associate's and Bachelor's degrees in targeted workforce development sectors (additional medium weight, but no double counting of STEM and allied health graduates).
• Metric that captures improvement in graduation rates for Associate's and Bachelor's degrees (heavy weight), for example year-to-year improvement in 3- and 6-year graduation rates as defined by IPEDS.
• Metric that captures at-risk student progression (medium weight). For example, total number of Pell-eligible freshman that achieve 30 cumulative college-level credit hours in the reporting year.
• Metric that captures progress of remedial students (medium weight).[24]
2-Year Colleges
• Metric for the production of Associate's degrees (medium weight).[25]
• Metric for the production of Certificates (light weight).
• Metric for the production of transfer students with 24 student credit hours (medium weight).[26]
• Metric for the production of Associate's degrees in STEM and allied health fields (additional medium weight).
• Metric for the production of Certificates and Associate's degrees in targeted workforce development sectors (additional medium weight, but no double counting of STEM and allied health graduates).
• Metric that captures improvement in graduation rates for Associate's degrees (heavy weight), for example year-to-year improvement in 3-year graduation rates as defined by IPEDS.
• Metric that captures at-risk student progression (medium weight). For example, total number of Pell-eligible freshman that achieve 30 cumulative college-level credit hours in the reporting year.
• Metric that captures progress of remedial students (medium weight).[27]

The implementation and scale of a performance pool is certain to be sensitive. It should be implemented in stages, perhaps over a five-year period. Institutions cannot be held harmless; the purpose of a performance pool is to expose them to penalties in the event of performance shortcomings. However, extra resources may be made temporarily available if the negative impact on an

[22] As defined in the NSHE alternative proposed model, although an alternative approach could measure annual percentage growth in degrees granted.
[23] As defined in the NSHE alternative proposed model, although an alternative approach could measure annual percentage growth in degrees granted.
[24] As defined in the NSHE alternative proposed model.
[25] As defined in the NSHE alternative proposed model, although an alternative approach could measure annual percentage growth in degrees granted.
[26] As defined in the NSHE alternative proposed model.
[27] As defined in the NSHE alternative proposed model, at-risk students defined by Pell eligibility.

institution's budget exceeds some pre-determined threshold. The surest path to smooth implementation is the engagement of all institutions in developing the details of the plan.

The scale of the performance pool is the most sensitive question of all. As reported in *Part 2* of this report, many states have very limited performance pools, while Tennessee has turned 100% of its state formula support into a performance pool. The key question is the threshold above which the rewards available will actually alter institutional behavior. Many recently adopted performance pools aim at a target level of 25% of state funds tied to performance-based criteria.

The issue of equity among NSHE institutions requires a final comment. The perception of equitable treatment – by geography or across institutional type – is important if the funding model adopted is to have wide stakeholder and popular support, which is indispensible for long-term success. One straightforward path to credibility is to make the policy goals pursued very transparent, and to make clear the tight connections that exist between the goals and the funding mechanisms. That is an important purpose of the framework and principles recommended above.

PART 2:

States' Methods for Funding Higher Education

I. Introduction

States' determinations of funding levels for higher education vary from state to state, and in some cases within states in several major ways:

Formula versus Non-Formula Funding Methods: According to SRI's research, seventeen states currently use a formula to calculate funding levels for higher education institutions. Nineteen states use non-formula-based funding methods, while an additional fourteen states have hybrid models (typically using formulas to fund two-year institutions and non-formula methods for four-year institutions or using a "base plus" approach where the plus is calculated by a formula). Generally, as we show below, both formula- and non-formula funding tends to be driven by student enrollment – formally in the case of formulas and informally in non-formula funding. Recently, higher education funding formulas have not been fully funded in many states, and so state appropriations are only a fraction of what the funding formula recommends. States that do not use formula-based methods tend to fund based on legislative priorities/policies or based on a "base plus" method.

Performance-Based Funding Methods: SRI research indicates that thirteen states currently use performance-based funding methods (and more than five states have definite plans to implement performance funding, while at least fourteen others are considering doing so). Use of performance criteria tends to be most common in formula-based states, although a couple of non-formula states also apply performance criteria. The most typical performance metrics incentivize completion by measuring degrees or certificates awarded, but many other metrics can potentially be used to measure outcomes, progress, and other policy and economic development goals. Performance-based funding mechanisms have been used by states at least three decades, with mixed results, and a number of states have cut their programs due to lack of alignment with state politics, complexity, lack of available data, or lack of funding. Some key determinants of success for performance-based funding are the size of the performance pool (i.e., are performance-based funds a large enough share of institutional funding to incentivize behavior?) and also whether performance funding is allocated as "bonus" funding or whether it is tied to baseline institutional support.

Use of Student-Derived Revenues: The most common model is for student-derived revenues (i.e., tuition and fees) to be controlled and retained by individual higher education institutions, and just over 40 states follow this model. In twelve states, however, student-derived revenues must be appropriated by the state legislature (and in three of these states, student-derived revenues are used to offset general fund appropriations). The dominant model of institutions retaining and controlling their student-derived revenues may be attributed to the fact that tuition and fees have historically represented a very small percentage of higher education budgets; however, this trend is changing (tuition revenues are going up, while state appropriations are going down). Many states are reviewing their policies as student-derived revenues move toward becoming the majority of public institutions' revenue streams. Additionally, some states are now requiring performance-based measures to be met for schools to gain increased autonomy over student-derived revenues.

Detailed analysis and data about states' approaches for each of these funding methodologies are presented throughout the rest of *Part 2* (and additional state-specific details are provided in *Appendices A, B,* and *C*).

II. States That Use a Formula for Higher Education Funding

A. List of states that use higher education funding formulas

As shown in *Table 2.1*, seventeen states determine currently or very recently funding through a formula, while an additional fourteen states use a hybrid model, in which a formula is applied only for certain types of institutions or parts of the allocation (such as the "plus" in "base plus"). In the states with a hybrid model, the formula is typically applied for two-year institutions, but not for four-year institutions. Five states – Arizona, Nevada, Florida, Massachusetts, and New York – have used funding formulas in the past, but have not employed the formulas for some or all institutions during fiscal downturns.

Table 2.1. States that use or have used formulas to fund their higher education systems.

States currently using formulas		States that use a hybrid system – *formula is used only for the specified type of institutions*
Alabama	**Ohio**	**California** (*for CSU, CCC only*)
Arkansas	**Oregon**	**Florida** (*for 2-year institutions only*)
Connecticut	**Pennsylvania**	**Hawai'i** (*for 2-year institutions only*)
Georgia	**South Carolina**	**Illinois** (*for 2-year institutions only*)
Louisiana	**Tennessee**	**Kansas** (*for 2-year institutions only*)
Minnesota	**Texas**	**Maryland** (*for Regional Higher Education Centers[28] only*)
Mississippi	**Virginia**	**Montana** (*for 2-year institutions only*)
		New Jersey (*for 2-year institutions only*)
		New Mexico (*for new funding only*)
		New York (*for 2-year institutions only*)
		South Dakota (*for federally-funded technical schools only*)
State that have recently used formulas, but are not currently employed.		
Arizona		
Florida (*formula dropped for 4-year institutions only*)		
Massachusetts		
Nevada		
New York (*formula dropped for 4-year institutions only*)		
States that use a hybrid approach of "base plus" where the plus is calculated by a formula		
Idaho		
Indiana		
North Carolina		

[28] Regional higher education centers were established by law in 2000 to provide another option for high school graduates seeking further education. These centers provide access to affordable higher education in areas of the State which have few institutions of higher learning. They also provide courses and programs needed by business and industry in the area served.

B. Typical components of state higher education funding formulas

The complexity of funding formulas varies widely from state to state. Virginia, for example, has a very complex set of formulas for each different type of institution, while Arizona used a simple formula based solely on full-time equivalent (FTE) students. Every state that uses a formula also utilizes non-formula appropriations to fund everything from operations and maintenance to special programs to entire schools.

State funding formulas typically consist of a subset of the following list of ten budgetary functional areas:

1. Instruction
2. Remedial Instruction
3. O&M/Physical Plant
4. Academic Support
5. Library Support
6. Student Services
7. Institutional Support
8. Public Service
9. Research
10. Scholarships

There are slight variations in how each state specifically defines each function, but this list reflects the most commonly used general definitions. Most state formulas only contain a fraction of the list, as shown in *Tables 2.2-2.12*. Almost every state with a formula has an instruction component and most have a plant and maintenance category. The following sections provide additional details about the typical methods used by states for calculating funding levels within each of the ten functional areas. Note that a detailed explanation and narrative for most of the individual states that use funding formulas is provided in *Appendix A* and narratives for states that have hybrid funding models are provided in *Appendix C*.

1. Instruction

The formula for instructional support aims to fund activities associated with an institution's instructional program. Every state but New York with a formula funds instructional activities though the formula, and the instructional support formula accounts for the vast majority of the calculated funding levels**.** No two states use the same formula, and some states use multiple formulas based on different institutional missions. However, two main types of instructional formulas are typically used, as illustrated in *Table 2.2*. Each type of formula is explained in greater detail below.

- **Method 1:** The first type of instructional formula is based on a conversion from FTE enrollment to FTE faculty multiplied by a salary rate.
- **Method 2:** The second type of instructional formula is based on student credit hours that are then multiplied by a cost and program level weight and a rate or an inclusive cost matrix. This type of formula is also used as a performance-based funding mechanism where, instead of *enrolled* student credit hours, *completed* student credit hours are used.

Table 2.2. States that include an instructional support component in their funding formula.

State	Type of Institution	Formula currently employed, or will definitely be implemented	Formula Driver
Alabama	Senior Institutions	Yes	credit hours
	Community colleges	Yes	FTE enrollment
	Technical colleges	Yes	FTE enrollment
Arizona	Senior institutions	No	credit hours
Arkansas	Universities	Yes	credit hours
	Community Colleges	Yes	credit hours
California	CalState	Yes	credit hours
Florida	Community colleges	Yes	enrollment
Georgia	4-year Institutions	Yes	credit hours
Idaho	2- and 4-year Institutions	Yes	enrollment
Illinois	Community colleges	Yes	credit hours
Indiana	2- and 4-year Institutions	Yes	enrollment and successfully completed credit hours
Kansas	Community colleges	Yes	enrollment
Louisiana	2- and 4-year Institutions	Yes	completed credit hours
Maryland	Regional Higher Education Centers	Yes	enrollment
Massachusetts	2- and 4-year institutions	No	enrollment
Minnesota	2- and 4-year institutions	Yes	enrollment
Mississippi	Senior institutions	Yes	credit hours
Montana	Community colleges	Yes	enrollment
New Jersey	Community colleges	Yes	credit hours
New Mexico	2- and 4-year institutions	Yes	credit hours, degrees produced
North Carolina	Senior institutions	Yes	credit hours
	Community colleges	Yes	enrollment
Ohio	University main campuses	Yes	completed courses
	University regional campuses	Yes	completed courses
	Community and technical colleges	Yes	enrollment
Oregon	Senior institutions	Yes	enrollment
Pennsylvania	Senior institutions	Yes	enrollment
South Carolina	Senior institutions	Yes	Student credit hours
South Dakota	Federally-funded technical schools	Yes	enrollment
Tennessee	2 and 4-year Institutions	Yes	output metrics
Texas	General academic institutions	Yes	credit hours
	Health-related institutions	Yes	credit hours
	Community colleges	Yes	contact hours
	Vocational & technical schools	Yes	contact hours
Virginia	2- and 4-year institutions	Yes	enrollment

Instructional Formula Method 1: Enrolled credit hours → FTE students → Faculty positions

Nevada under its most current formula and Virginia are examples of states that transform student enrollment hours into full-time equivalent (FTE) faculty positions through the use of "FTE student enrollments to faculty" ratios.

- In Arizona, an FTE student is defined as 15 credit hours for lower division classes, 12 credit hours for upper division classes, and 10 credit hours for graduate classes.
- In Virginia, the formula defines an FTE as all of the students in full-time standing (taking 12 or more credit hours) plus one-third of the part-time students.[29]
- In 1999, the Nevada Legislature Committee to Study the Funding of Higher Education recommended a change from the previous definition of a FTE (which was defined at 30 student credit hours per year for undergraduate students and 16 credit hours per year for graduate students). The recommendation was to differentiate the graduate student hours into a doctoral level student FTE equaling 18 student credit hours and a master's level student FTE equaling 24 student credit hours. The Nevada colleges were directed to use 30 student credit hours as the definition of an FTE for both lower and upper division credit hours.

Once FTE students are calculated, these schools then use a ratio to calculate the number of faculty positions. The transformation was simple in Arizona, which funds one faculty position for every 22 FTE students. It is more complicated in Virginia and Nevada, which have different FTE student to faculty position ratios for different disciplines and division levels, creating a two-dimensional matrix. Nevada's ratios are listed in *Table 2.3*. The Virginia ratio matrix lists out specific disciplines instead of using categories such as "low cost" and "high cost" like Nevada.

Table 2.3. Student faculty ratios in Nevada.[30]

Student Faculty Ratios for the Universities				
Type of Program	**Lower Division**	**Upper Division**	**Masters**	**Doctoral**
Clinical	8	8	8	8
High Cost	18	13	10	8
Medium Cost	21	16	13	8
Low Cost	26	22	16	8
Student Faculty Ratios for Nevada State College				
Type of Program	**Lower Division**	**Upper Division**	**Masters**	
Clinical	8	8	8	
High Cost	18	15	12	
Medium Cost	21	18	15	
Low Cost	26	24	18	
Student Faculty Ratios for Remaining Nevada Colleges				
Type of Program	**TMCC & CCSN**	**WNCC**	**GBC Lower Division**	**GBC Upper Division**
High Cost	14	12	12	12
Medium Cost	21	21	21	16
Low Cost	26	26	23	22

[29] State Council of Higher Education For Virginia. *Condition of Higher Education Funding in Virginia*. May 2003. P. 9
[30] Nevada Committee to Study the Funding of Higher Education. *Bulletin 01-4*. 1999. P. 41.

Once FTEs are calculated, the faculty positions are funded at a set amount depending on the state and may cover only salaries or the sum of salaries, employee-related expenses, and operations. Virginia's funding rate is based on the average faculty salary. Alabama's rate is based on the regional general studies average salary for doctoral and regional institutions, as estimated by the National Association of State Universities and Land-Grant Colleges.[31] Nevada funds each faculty position based on an academic salary schedule. In addition, some state formulas add funding for an additional support position with a specific number of faculty positions funded by enrollment increases. For example, Nevada adds the cost of a support position with every five additional faculty members, and Arizona's formula adds funding for 0.75 support positions with each additional faculty member.

Instructional Formula Method 2: Student credit hours X cost matrix

Other state formulas – including those used in Texas and in the NSHE proposed funding formula – determine support levels for instruction through the use of student credit hours multiplied by a cost matrix. Most states that employ this type of instructional formula use *enrolled* student credit hours to make the calculation. However, Tennessee and Ohio use *successfully completed* student credit hours, while Louisiana and the NSHE proposed alternative formula use *all completed* credit hours (including credit hours completed with a grade of F).

The formulation of a cost matrix differs from state to state. Texas's program and level weights are determined according to an aggregation of actual costs, based on institutions' annual financial reports. The 2011 program level and weights are listed in Appendix D. This weighted matrix is multiplied by a single rate, which is set by the legislature and is based on available funding. The result is a cost-informed matrix. In Nevada, the NSHE proposed funding formula also uses a cost-informed weighting matrix that is multiplied by a rate based on current state funding; however, the weights are a synthesis of other state's cost matrices. This matrix is also reprinted in Appendix D. Ohio does not build its funding matrix based on available funding, but rather uses a cost matrix based on the previous year's actual costs as a function of subject codes and course level.

Embedding incentives in instructional formulas

Historically, the goals of public higher education institutions have centered on access, interpreted as enrolling as many students as practicable in higher education. It could be said, therefore, that funding formulas based on enrollment (also known as *enrolled* student credit hours) such as those described above, are the best practice to achieve access and enrollment policy goals. However, if the policy goals include higher graduation rates – and such a goal is now being widely considered by states – then funding mainly based on enrollment-driven formulas is not a best practice. The low completion rates that plague states may be associated with instructional funding formulas based solely on enrollment. Formulas based on course completions have been adopted by a few states, but only recently, so the impact of this practice is not yet discernible. However, we may imagine, in principle, that where completion is defined as only those classes completed with a letter grade of D- or above, then this would be a better practice than mere enrollment levels from the point of view of encouraging higher graduation rates.

However, instructional formulas are also driven by other policy decisions. Faculty-based instructional formulas depend on the salary multiplier used. Some states, such as Alabama, use the average salary at

[31] Alabama uses faculty productive hours to transform enrolled credit hours to faculty positions.

peer institutions. This is a best practice if the policy goal is to maintain state-to-state peer-equity in the funding of higher education funding, and if the student-to-faculty ratios are comparable with peer states.

Program-level and cost matrices can be a best practice to fund according to the actual cost of courses. However, care must be taken in how courses are classified and how cost figures are calculated. Nevada's current formula uses a relatively simple low/medium/high cost funding matrix. Other states, such as Oregon, use a similar funding level matrix, but the matrix is more granular at a discipline level and also reflects policy goals through targeted program funding. The NSHE proposed alternative formula uses a complex matrix that is cost-informed and gives additional weight to upper and graduate classes for research.

Cost matrices must be used with care. Actual cost matrices are resource-intensive to produce, and are also state- and institution-dependent. For example, Ohio and Texas collect cost information from departments every year and then divide by student credit hours. Though it seems intuitive to fund in this way, costs change frequently and will change more frequently in the future as online delivery of courses becomes mainstream. A cost matrix developed this year may be out of date next year. In addition, a purely cost-based approach does not incentivize alignment with state goals. Also, we note that once funds are allocated or budgeted for an institution, the institutions generally have autonomy over those funds. Therefore, funds allocated toward the "cost" of science classes may not actually be used for funding the science classes.

Best practice instructional funding at institutions of higher education may require a move away from purely cost-based matrices and towards a funding matrix in which weights reflect some mix of cost and policy goals, in order to incentivize the funding of specific disciplines that align with state goals. The important questions to be resolved are the specific character of state policy goals, and how they should be translated into instructional weights. For example, it may be that STEM fields should enjoy a premium when compared to cost benchmarks.

2. Remedial Instruction

Some states' formulas provide for increased funding for remedial instruction. Alabama, for example, weights remedial student credit hours at 115% of standard credit hours when calculating the instructional support funding formula. Other states (as listed in *Table 2.4*) fund remedial education explicitly and separately from instructional support. Illinois has a community college-specific funding formula that determines remedial education funding levels based on student enrollment multiplied by the previous year's cost per instructional unit. Generally, enrollment is the primary driver for remedial instruction for two states that explicitly include this category in their formula (Florida and North Carolina community colleges), while completed credit hours are the driver for the other two states (Illinois and Tennessee). Nevada's current formula does not specifically fund remedial instruction differently, except that the Legislature does not pay for remedial education to be taught at the universities. In the alternative model proposal, remedial student credit hours are grouped with the lower division student credit hours for the colleges.[32] However, the CIP code 32 is mapped to the Basic Skills Cluster, which has

[32] Redding, Vic. Personal Communication. May 11, 2012.

an increased weight of 1.5 for lower division classes. The two digit CIP code 32 does include basic skills and developmental/remedial education.[33]

Table 2.4. States that include remedial instruction explicitly in their funding formula.

State	Type of Institution	Formula currently in use, or will definitely be implemented	Remedial Instruction Formula Driver
Florida	Community colleges	No	enrollment
Illinois	Community colleges	No	credit hours
North Carolina	Community colleges	Yes	enrollment
Tennessee	Community colleges	Yes	successfully completed credit hours

3. Operation and Maintenance of Physical Plant

This category includes all expenditures of current operating funds for the operation and maintenance (O&M) of physical plant. It includes expenditures for physical plant administration, utilities, building maintenance, custodial services, landscape and grounds maintenance, and repairs and renovations. Most formula states only include this category for their senior institutions and technical colleges (see *Table 2.5*), because most community colleges are supported by local revenues. Most formulas are based calculated square feet needed based on enrollment, though some are based either actual square feet. Nevada's current formula is solely dependent on actual square-footage with weighting due to age of the building. Virginia bases its funding levels on a percentage of instructional budgets; therefore its O&M/physical plant funding levels are a function of student enrollment. Texas has a complex space prediction model that is based on full-time-student equivalents with consideration for degree level. In addition, Texas has separate formulas that respectively fund research space, libraries, and office space. Some states include utilities in their O&M/physical plant funding, but recent increases in utility prices have resulted in several states (like Texas) adding additional supplements to the funding levels. The NSHE proposed formula does not include O&M/physical plant as a separate funding category except for research space. The proposed formula includes the cost of operations and maintenance in the instructional cost-informed matrix driven by completed student credit hours. Research facilities at the universities that provide no direct support for student instruction are supported with a separate per square feet formula. UNR's 450,000 square feet of research space is funded at $7.96 per square foot, and UNLV's 274,499 square feet of research space is funded at $11.73 per square foot.[34]

Funding O&M/ physical plant on the basis of simple square feet measures favors institutions with many buildings with no regards to building usage, while formulas based on enrollment (such as Virginia and Texas) result in O&M/physical plant funding being tied to the number of students served. Though it seems unlikely that an institution would regard constructing a new building as an easy method to increase its state allocation, funding based on simple square feet does reward institutions with more buildings regardless of the number of students they serve. On the other hand, if the upkeep of buildings with no educational use is not paid for by the state, this may incentivize wise management, in which

[33] The Integrated Postsecondary Education Data System. Detail for CIP Code 32: **Title:** BASIC SKILLS AND DEVELOPMENTAL/REMEDIAL EDUCATION. *CIP 2010.*
http://nces.ed.gov/ipeds/cipcode/cipdetail.aspx?y=55&cipid=88951
[34] Eardley, Larry. Personal Communication. August 3, 2012.

institutions sell or rent out their extra space. In addition, it may also incentivize institutions to be more efficient in their use of space by offering weekend or evening classes. The best practice to incentivize efficient use of space is to fund O&M/physical plant based on educational usage by tying O&M funding calculations to enrollment levels. Building and maintaining structures is not, in itself, a higher education policy goal.

Table 2.5. States that include a component for operations & maintenance (O&M) of the physical plant in their funding formula.

State	Type of Institution	Formula currently in use, or will definitely be implemented	Formula Driver
Alabama	Senior institutions	Yes	square footage; cost
Arkansas	Universities	Yes	space prediction (credit hours, etc.)
Arkansas	Community Colleges	Yes	space prediction (credit hours, etc.)
Florida	Community colleges	Yes	square footage; cost; enrollment
Georgia	2- and 4-year institutions	Yes	square footage of instructional space
Illinois	Community colleges	Yes	square footage
Louisiana	2- and 4-year institutions	Yes	square footage based on instruction space
Massachusetts	2- and 4-year institutions	No	square footage; cost; enrollment
Minnesota	2- and 4-year institutions	Yes	square footage
Mississippi	Senior institutions	Yes	square footage and enrollment
North Carolina	Senior institutions	Yes	credit hours
Pennsylvania	Senior institutions	Yes	square footage; replacement value; predicted space (credit hour)
South Carolina	Senior institutions	Yes	costs; instructional square feet
Texas	General academic institutions	Yes	space prediction (credit hours, etc.)
	Health-related institutions	Yes	space prediction (credit hours, etc.)
	Vocational & technical schools	Yes	space prediction (credit hours, etc.)
Virginia	2- and 4-year institutions	Yes	space prediction (credit hours, etc.)

4. Academic Support

Some states' funding formulas include a funding category for the support of the institution's primary academic mission such as include computer labs, academic administration, and curriculum development and support. Many states include library costs under this category, but some fund library costs separately. States that employ an academic support category in their formula generally determine the academic support funding level as a specific percentage of the instructional support funding level, and this percentage varies from state to state. Therefore, enrollment is the primary driver for academic support formula components in all of the states that include this category (as shown in *Table 2.6*), with the exception of Louisiana, whose instructional formula is driven by course completion (though since failing grades are funded, it is still basically an enrollment-based formula).

Nevada's current formula for academic support is based partly on the number of FTE faculty members and staff members, number of library volumes, and the instructional budget. In particular, the current formula funds community colleges at 22% of the instructional budgets except for Great Basin College, which is funded at 30% of the first $7.5 million of the calculated instructional budget, and 25% of any calculated instructional budget over $7.5 million.

Table 2.6. States that include a component for academic support in their funding formula.

State	Type of Institution	Formula currently in use, or will definitely be implemented	Academic Support Formula Driver
Alabama	Senior institutions	Yes	credit hours
Arkansas	Community Colleges	Yes	credit hours
Florida	Community colleges	Yes	enrollment
Georgia	2- and 4-year institutions	Yes	credit hours
Louisiana	2- and 4-year institutions	Yes	completed credit hours
Massachusetts	2- and 4-year institutions	No	enrollment
Minnesota	2- and 4-year institutions	Yes	enrollment
North Carolina	Senior institutions	Yes	credit hours
Pennsylvania	Senior institutions	Yes	enrollment
South Carolina	Senior Institutions	Yes	credit hours
Virginia	2- and 4-year institutions	Yes	enrollment

5. Library Support

As mentioned above, many states fund library support through the academic support funding formula. A few states determine funding separately for library services, as listed in *Table 2.7*. These formulas are typically based either on total enrollment (headcount instead of FTE) or as a percentage of the instructional support budget (like for academic support). Nevada's current formula funds library support within its academic support formula rather than as a separate funding category. Basically, Nevada's current formula calculates a specific number of library volumes per student, and then funds a specific number of library staff positions based on the number of volumes. Therefore, enrollment is the primary driver for the library support funding formula component for all states that include this category separately.

Table 2.7. States that include a separate library support component in their funding formula.

State	Type of Institution	Formula currently in use, or will definitely be implemented	Library Support Formula Driver
Alabama	Senior institutions	Yes	credit hours
Arkansas	Universities	Yes	credit hours
Florida	Community colleges	Yes	enrollment
Georgia	2 and 4-year institutions	Yes	credit hours
Minnesota	2 and 4-year institutions	Yes	enrollment
North Carolina	Senior institutions	Yes	credit hours
	Community colleges	Yes	enrollment

6. Student Services

This category includes funds expended for offices of admissions and registrars, as well as those activities whose primary purpose is to contribute to students' emotional and physical well-being and to intellectual, cultural, and social development outside the context of the formal instruction program. The category includes expenditures for student activities, cultural events, student newspaper, intramural athletics, student organizations, intercollegiate athletics, student organizations, intercollegiate athletics, counseling and career guidance, and student aid administration.[35] As with academic support, states that employ this category in their funding formulas typically calculate funding levels either as a percentage of instructional costs (e.g., Georgia) or based on headcount (full time + part time students) (e.g., Alabama and South Carolina) as listed in *Table 2.8*. Nevada's current formula for student services support is based on a combination of headcount and FTE enrollment; however, it does provide more money per FTE enrollment for the smaller institutions due to economies of scale for the larger institutions. NSHE's proposed formula also includes a small institution factor to cover fixed administration costs. The alternative model includes an adjustment for small community colleges' administrative costs that assumes a base amount of $1.5 million that diminishes as an institution reaches 100,000 weight student credit hours. Generally, enrollment is the primary driver for student services for most states that include this category in their funding formula. It is a best practice to fund student services based on total enrollment instead of weighted student credit hours, since student needs are not dependent on their program, discipline level, or hours completed.

[35] As defined by the National Association of College and University Business Officers.

Table 2.8. States that include a component for student services in their funding formula.

State	Type of Institution	Formula currently in use, or will definitely be implemented	Student Services Formula Driver
Alabama	Senior institutions	Yes	Headcount
Arkansas	Community Colleges	Yes	FTE enrollment and headcount
Florida	Community colleges	Yes	enrollment
Georgia	2- and 4-year institutions	Yes	credit hours
Massachusetts	2- and 4-year institutions	No	enrollment
Minnesota	2 and 4-year Institutions	Yes	base + enrollment
North Carolina	Senior institutions	Yes	credit hours
Pennsylvania	Senior institutions	Yes	enrollment
South Carolina	Senior Institutions	Yes	headcount
Virginia	2- and 4-year institutions	Yes	enrollment

7. Institutional Support

This funding category supports central, executive level activities related to management and long-range planning for the entire institution, such as the president's office, fiscal operations, logistical activities (including procurement, storeroom, safety, security, printing), support services to faculty & staff, and activities concerned with community and alumni relations (e.g., development and fund raising). Georgia, North Carolina, Pennsylvania, and Virginia include institutional support in all of their institutions' funding formulas, while Florida includes it only in the community college funding formula, as listed in *Table 2.9*. Like many of the other funding components, this category is typically funded as a specific percentage of instructional support. However, North Carolina funds institutional support at cost. Nevada's current funding formula funds institutional support at a specific percentage of operating budget, with the percentage level dependent on total operating budgets. The percentages used elsewhere varies from state to state. Again, enrollment is the primary driver for institutional support funding for states that include the category. However, each state controls the total amount of the budget by the percentage with which it weights the component.

Table 2.9. States that include a component for institutional support in their funding formula.

State	Type of Institution	Formula currently in use, or will definitely be implemented	Institutional Support Formula Driver
Alabama	Senior Institutions	Yes	credit hours
Arkansas	Universities	Yes	credit hours
Arkansas	Community Colleges	Yes	FTE enrollment
Florida	Community colleges	Yes	enrollment
Georgia	2- and 4-year institutions	Yes	credit hours
Massachusetts	2- and 4-year institutions	No	enrollment
North Carolina	Senior institutions	Yes	credit hours
	Community colleges	Yes	cost
Pennsylvania	Senior institutions	Yes	enrollment
South Carolina	Senior Institutions	Yes	credit hours
Virginia	2- and 4-year institutions	Yes	enrollment

8. Public Service

A few state funding formulas allocate money for public service, as listed in *Table 2.10*. Public service funds are indicated to foster the continuation and expansion of public service activities. The amount funded is typically a very low percentage of the total budget and is usually based on a percentage of the instructional budget – and is therefore tied to enrollment levels. Neither Nevada's current funding formula or NSHE's proposed formula separately calculates funding for public service.

Table 2.10. States that include a component for public service in their funding formula.

State	Type of Institution	Formula currently in use, or will definitely be implemented	Public Service
			Formula Driver
Alabama	Senior institutions	Yes	credit hours
Arkansas	Universities	Yes	credit hours
Georgia	2- and 4-year institutions	Yes	credit hours
Minnesota	2- and 4-year institutions	Yes	enrollment
South Carolina	Senior institutions	Yes	30% of previous FY sponsored public service and non-general fund public service expenditures

9. Research

Some state formulas include a research component, as listed in *Table 2.11*. This category supports research at institutions typically by adding a small percentage of the instructional support budget to the total calculation (and is therefore usually tied to enrollment levels). For example, Alabama calculates its research funding as 2% of the sum of the estimated costs of instruction, operating expenses, and academic support in addition to 5% of the total sponsored research brought into the institution. South Carolina's research formula component is based on 30% of previous FY sponsored research

expenditures. NSHE's proposed funding allocation model weights upper-division and graduate student credit hours at the universities by 10% more to support research activities at those institutions. Functionally, this would result in completed student credit hours driving the research support.

Table 2.11. States that include a component for research in their funding formula.

State	Type of Institution	Formula currently in use, or will definitely be implemented	Research Formula Driver
Alabama	Senior institutions	Yes	credit hours plus 5% sponsored research amount
Arkansas	4-year institutions	Yes	graduate enrollment
Georgia	2- and 4-year institutions	Yes	credit hours of gradates
Massachusetts	2- and 4-year institutions	No	enrollment
Minnesota	2- and 4-year institutions	Yes	enrollment
South Carolina	Senior institutions	Yes	30% of previous FY sponsored research expenditures
Texas	Health-related institutions	Yes	research expenditures

10. Scholarships

No states currently have a budgetary function in their funding formula for determining the funding levels for scholarships. However, Connecticut higher education funding uses two statutory formulas, both designed to set funding levels for financial aid. The Connecticut Independent College Student Grant Program (CICSG) provides funds for students attending independent schools in the state, and the Connecticut Aid for Public College Student Grant Program (CAPCS), for students attending public colleges. CAPCS is designed to match tuition funds set aside by an institution (at least 15% of all tuition revenue, per the Board of Governors' tuition policy) but is not been fully funded in recent years. Neither Nevada's current funding formula nor NSHE's proposed formula calculates funding for scholarships.

III. States That Do Not Use a Formula for Higher Education Funding

A. List of states that do not use higher education funding formulas

Nineteen states do not employ a formula to determine funding levels for higher education, while an additional ten states have a hybrid system and do not use a formula for some categories of institutions (typically for senior or 4-year institutions). These are listed in *Table 2.12*. Note that a detailed explanation and narrative for most of the individual states that do not use funding formulas is provided in *Appendix B* and narratives for states that use hybrid funding models are provided in *Appendix C*.

Table 2.12. States that do not use a formula for higher education funding.

States currently not using formulas		
Alaska	**Michigan**	**Rhode Island**
Colorado	**Missouri**	**Utah**
Delaware	**Nebraska**	**Vermont**
Iowa	**New Hampshire**	**Washington**
Kentucky	**North Dakota**	**West Virginia**
Maine	**Oklahoma**	**Wisconsin**
		Wyoming

States that use a hybrid system – *NO formula is used for the specified type of institutions*	
California (*for UC only*)	**Maryland** (*non-Regional Education Centers only*)
Florida (*for 4-year institutions only*)	**Montana** (*for 4-year institutions only*)
Hawai'i (*for 4-year institutions only*)	**New Jersey** (*for 4-year institutions only*)
Illinois (*for 4-year institutions only*)	**New York** (*for 4-year institutions only*)
Kansas (*for 4-year institutions only*)	**South Dakota** (*for all institutions other than federally-funded technical schools*)

B. Typical funding approaches in states that do not use formulas

Non-formula funding determination methods vary widely from state to state, from "base plus" methods to purely political ways of determining allocations, as illustrated in *Table 2.13* below and in the detailed state narratives in *Appendix B* and *C*. The two most common methodologies are the following:

"Base Plus" Method: This is the most popular non-formula funding method. The higher education appropriation or funding request is based on the previous year's appropriation (the base), plus some enhancement or cut – which may be formally or informally based on enrollment (or other performance factors) in some states. States that use enrollments formally in formulas are reviewed in the previous section.

Funding Based on Legislative Priorities: Some states fund simply based on legislative priorities or policies, which could be based on the amount of funding available or on peer equity with other states for higher education funding.

Table 2.13. Summary of states' non-formula funding approaches for higher education.

Base plus/minus	Funding Based on Legislative Priorities
Alaska	New Hampshire
Colorado	North Dakota
Delaware	Oklahoma
Iowa	Rhode Island
Kentucky	Vermont
Maine	West Virginia
Michigan	
Missouri	
Nebraska	
Utah	
Washington	
Wisconsin	
Wyoming	

As shown above, about one-third of the states use formulas and a bit more than a third do not use formulas. The reminding states use a hybrid system. This has not always been the case. Historically, when there were few state institutions of higher education, states funded with no formula; however, as higher education systems became larger and more complex, policy-makers started to look for a more "objective" way to distribute resources as competition for resources grew. Formula funding started in large systems (Texas, California) and then spread, with many states borrowing from Texas' methods. Formulas are not only based on enrollment (though primary so), they also take in account other factors such as utility costs and differential costs of instruction. [36] States that currently use funding formula tend to be southern, and many tie the cost component of their formula to the Southern Regional Board Average Salary.

States that do not use a formula have (until recently) generally appropriated more money to pay for increasing student enrollment. Sometimes that increase was only informally tied to enrollment – i.e., "we have more students, we need more money". At other times the increase was based on general increases in the state budget or on legislative priorities. However, in recent economic times, higher education appropriations have declined despite increasing enrollments. Some have tied the lack of a formula to declining state support.[37] However, states with funding formulas have also seen declining state support as legislatures rarely fully fund the needs estimated by funding formulas.

[36] MGT of America. *Evaluation of the NSHE Funding Formula*. May 2011. Please see report for more in-depth discussion of the history of funding formulas.
[37] Lowery, Nick. "Missing formula increases tuition." *The SDSU Collegian.* March 14, 2012. http://www.sdsucollegian.com/2012/03/14/missing-formula-increases-tuition-3/

IV. States' Use of Performance-Related Criteria in Higher Education Funding

A. Background on use of performance-based funding

Higher education policymakers, foundations, and other organizations have recently emphasized the use of performance-based funding in higher education; however, this approach is not new. Since 1979, states have experimented with different types of performance-based funding that went beyond funding systems based simply on enrollments. The results have been mixed, and many programs have been cut due to lack of alignment with state politics, complexity, lack of available data, or lack of funding.

Though many states collect performance-related data, relatively few states actually incorporate performance-related criteria into their funding decisions. In some states, performance metrics are reported to the legislature as part of the system of higher education's annual or biennial budget request, a practice termed "performance budgeting." This approach differs from those states that explicitly tie funding levels to performance-related criteria through a formulaic process ("true" performance funding).[38] Furthermore, for performance-based funding methods to be effective, states need to tie performance-related funding to a significant share of an institution's overall income if the criteria are to have an impact on behavior. While there is considerable debate about what constitutes a "significant" share, in the past those states that have implemented performance-based funding have done so at levels too low to truly incentivize behavior.

In other states, a performance pool was formally adopted but never implemented. This is true of the current Nevada funding formula. In 2001, the Governor recommended an allocation of $3 million for the FY 2002-03 performance pool; however, the 2001 Legislature denied the request because "a comprehensive plan was not provided that specified how the proposed funded would be allocated."[39] The pool has not been funded since then. Indeed, the development of clear metrics was not pursued in Nevada because the portion of funding allocated to the performance pool was relatively small. The result of the lack of clear metrics led to the performance pool being returned to the NSHE's general fund appropriation. For performance criteria to change behavior, the metrics must be clear and the dollar amounts significant.

B. Types of metrics used for performance-based funding

Only a handful of states have implemented performance funding after the first wave of performance funding in the 1980s and 1990s. The renewed interest has been spurred by falling budgets and dismal completion rates. Implementation of performance-based funding has been made easier with increased availability and quality of data. Performance indicators fall into three categories: outputs (graduation rates, certificates conferred, etc.), progress (course completion, transfer, credit milestones, etc.), and economic development (high-need degrees, etc.) Most states that use performance-based funding apply output metrics, while very few are using economic development metrics. These metrics are tied to funding – either new funding on top of the base appropriation, some portion of the base appropriation, or the entire formula calculation.

[38] As accounted in Carey, K. and C. Alderman. *Ready to Assemble: A Model State Higher Education Accountability System.* Education Sector Report. December 2008.

[39] Fiscal Analysis Division, Nevada Legislative Counsel Bureau. Education. *2001 Appropriations Report.* p. 20.

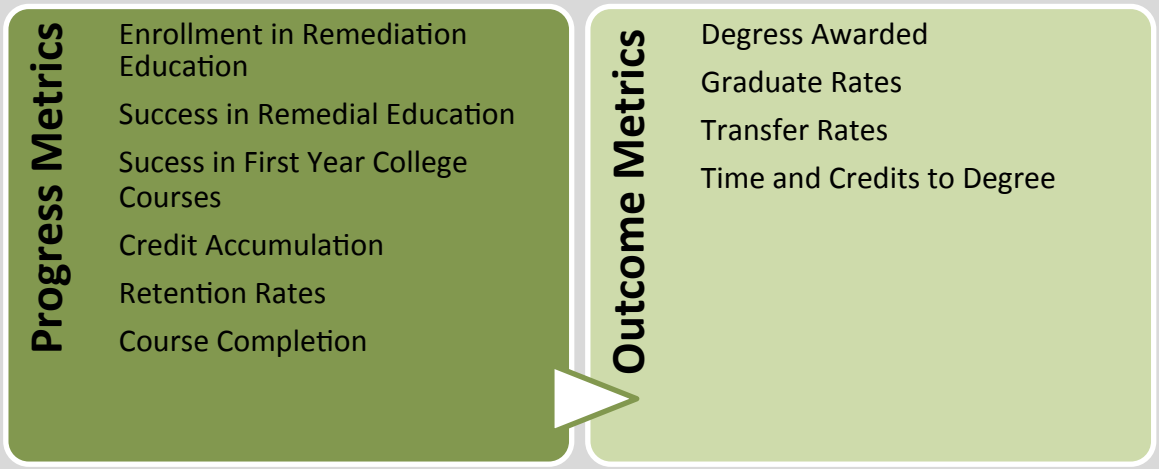
Table 2.14. Types of performance-based funding metrics.

Category	Metrics	Explanation of Metric
Output Metrics	***Degrees awarded***	Annual number and/or percentage of certificates, associate's degrees, bachelor's degrees, master's degrees, doctorate degrees, and other professional degrees awarded. Exactly which degrees are tracked depends on the state and institution.
	Graduation rates (or "time to degree")	Number and/or percentage of certificate- or degree-seeking students who graduate in a predetermined length of time. On-time rates are defined as two years for associate's degrees and four years for bachelor's degrees. Extended time usually refers to three years for associate's degrees and six years for bachelor's degrees.
	Research incentives	Metrics related to the amount of federal research and development money brought into the university.
Progress Metrics	***Transfer rates***	Annual number and/or percentage of students who transfer from a two-year to a four-year institution.
	Successful course completion	A course for which a letter grade above a D- or pass has been entered.
	Time and credit to degree	Average length of time in years to earn a degree.
	Student progression (or "credit accumulation")	Students are weighted more for funding purposes after they pass specified credit hours thresholds.
	Advancement through remedial and adult education	Students are weighted more for funding purposes after they pass specified remedial and adult education courses.
	Job placements	Rate of job placements post-graduation.
Economic Development Metrics	***Earned research dollars***	Amount of outside grants for research brought into the institution.
	Degrees linked to workforce development goals	Annual number and/or percentage of high demand degrees, generally in science, technology, engineering, mathematics and healthcare.

National Governors Association *Complete to Compete* Metrics

The National Governors Association (NGA) *Complete to Compete* initiative has recommended metrics for higher education performance funding.[40] **Progress metrics** allow policymakers and the public to determine if the state and its public institutions are on track to meet future goals, while **outcome metrics** show how the state and institutions are currently performing against the completion goals. NGA simply recommends that these metrics be collected and published. A later NGA brief recommends that states "include performance measures (e.g., degrees awarded, degrees awarded to low-income and minority students) as part of the regular budgeting process for higher education. State funding for public colleges and universities should be based on measures of student program and success and not on just enrollment or what other colleges spend."[41]

For more information on the NGA *Complete to Compete* metrics and initiative, see: http://www.subnet.nga.org/ci/1011/.



C. States' use of performance-based funding approaches

1. States that are using or considering using performance-based funding

Eleven states currently use performance funding for higher education with at least one performance-based criterion directly linked to funding (see *Table 2.15* below). Florida and Illinois have used performance funding in the past, but the performance pool is not currently funded. All of these states incentivize completion by awarding funding based on degrees or certificates awarded. The two most common progress metrics in use are credit/course completion and transfer rates between 2-year and 4-year programs. No state utilizes all of the NGA completion metrics, though movement toward higher education budgets based on course and degree completion align with more recent NGA recommendations. Note that most of the states using performance-based funding are doing so within a formula-based funding method, although a couple of states (Oklahoma and Washington) are applying performance criteria for non-formula funding methods.

[40] Reyna, Ryan. *Complete to Compete: Common College Completion Metrics.* NGA Center for Best Practices. June 2010.

[41] Conklin, Kristin. "Follow the Money: Strategies for Using Finance to Leverage Change in Higher Education." *Complete to Compete Briefing Paper.*

Table 2.15. States that include performance-related criteria in higher education funding.

States Using Performance Criteria	Formula or Non-Formula State	Performance Criteria Elements/Description
Arizona	Formula*	Growth in degrees awarded, completed student credit hours, and external funding for research and public service.
Florida** (*for 2-year institutions only*)	Hybrid / Formula for 2-year institutions only	Degree completion; degree completion and employment of at-risk students
Hawai'i (*for 2-year institutions only*)	Hybrid / Formula for 2-year institutions only	Credit completion; degree/certificate completion; degree/certificate completion for Native Hawaiians; STEM degrees/certificates; number of at-risk students; transfers to 4-year institutions
Illinois** (*for 2-year institutions only*)	Hybrid / Formula for 2- year institutions only	Degree/certificate completion; degree/certificate completion for at-risk students; transfer to 4-year institutions; remedial & adult education advancement
Indiana	Formula	Successful completion of credit hours; overall degree change; low-income degree student change; on-time degree change; research incentive.
Kansas	Hybrid / Formula for 2-year institutions only	Criteria vary, as each institution creates its own performance agreement: increasing diversity; improving student achievement test scores; aligning the higher education system and the needs of the Kansas economy; increasing institutional quality; providing student services.
Louisiana	Formula	Course completion; STEM degrees; health degrees; research
New Mexico	Hybrid / Formula applied for new funding only plus 5% of base in FY2012	Credit completion; degrees/certificates completion; STEM degrees/certificates; health degrees/certificates; at-risk student degrees/certificates
Ohio	Formula	Credit completion; degree completion; at risk student completion; STEM degrees
Pennsylvania (*for 4-year institutions only*)	Formula	Course completion; degrees conferred; student persistence; quality metrics; high-risk students; self-developed criteria; diversity metrics.
Tennessee	Formula	*4-year & 2-year institutions:* student progression; degree/certificate completion; transfers out with 12 credit hours *4-year institutions only:* research & service; 6-year graduation rate *2-year institutions only:* dual enrollment; degrees/certificates; job placements; remedial & developmental success; workforce training *All* – quality measures
Texas	Formula	Degrees awarded with special weights for critical fields and at-risk students
Washington (*for 2-year institutions only*)	Non-Formula	Gains in basic skills; passing pre-college writing or math; earning 15 credits the first year; earning 30

States Using Performance Criteria	Formula or Non-Formula State	Performance Criteria Elements/Description
		credits; completing college-level math; finishing apprentice training; earning a degree or program certificate

*Though Arizona does have a funding formula, it has dropped its use in recent years. Please see state narrative in Appendix A.
**Is not currently funded.
An alternate form of this table is shown in Appendix E

In addition to the states that have already implemented performance criteria in their funding models, a number of other states also have definite plans to switch to performance-based funding (see *Table 2.16*). The shift toward the use of performance-based funding is clear trend, and it is picking up speed. The concerns of taxpayers, parents, and policymakers over the time it takes for students to graduate, and grave concerns about the many students who never graduate, will likely ensure that this development is here to stay.

Table 2.16. States currently using and states considering performance-based funding.

States that currently use, or have a definite plan to switch to, performance-based funding (*Note: states in **bold** currently use it*)		States considering performance-based funding	
Arizona	Montana	California	New York
Arkansas	**New Mexico**	Connecticut	North Dakota
Colorado[1]	**Ohio**	Georgia	Oregon
Florida[2]	Oklahoma	Idaho	South Dakota
Hawai'i[3]	**Pennsylvania**[5]	Kentucky	North Carolina
Illinois[4]	South Carolina	Maine	Utah
Indiana	**Tennessee**	Massachusetts	Virginia
Kansas	**Texas**	Michigan	West Virginia
Louisiana	**Washington**[6]	Mississippi	Wisconsin
Maryland		Nevada	Wyoming

[1] CO will only switch to PBF if the state meets a target funding threshold.
[2] FL: for 2-year institutions only; 4-year institution plan under development
[3] HI: for 2-year institutions only; 4-year institution plan has been developed but not yet implemented due to lack of funding
[4] IL: for 2-year institutions only; 4-year institution plan under development
[5] PA: for 4-year institutions only
[6] WA: for 2-year institutions only

2. Performance-based funding implementation and scale

Implementation and scale are critical questions for any new performance-based funding model. When state revenues declined in the recent recession, performance-based rewards structured as bonus funding were the first items to be eliminated from higher education allocations. Integration of performance-linked funding with the baseline funding allocation for higher education helps to protect performance-based funding pools while communicating a state's strong commitment to outcomes. In addition, the scale of performance-based funding must be large enough to make a difference – both in hearts and in actions. The funds allocated by performance-based measures should be large enough to incentivize behavior change and also communicate state commitment. For example, Tennessee and Ohio have changed all of their formula funding so that it is based on successfully completed credit hours, while other states use smaller performance pools (as shown in *Table 2.17*). It should be noted, though, that there is still value in *any* use of performance criteria, as it focuses stakeholder attention on the alignment of institutional outcomes with state goals. For example, Virginia and Louisiana both reward institutions meeting their performance-based goals by giving those institutions more autonomy over their student-derived revenues. In Louisiana, institutions meeting benchmarks are allowed to raise tuition.

Table 2.17. Selected states' use and implementation of performance-based criteria.

States Using Performance Criteria	Implementation/Scale of Performance-Based Funding	Performance Criteria Applied to Institutional Base Funding or as Bonus Funding?
Indiana	Performance pool is 5% of total state appropriation for higher education in 2011	Institutional base funding
Kansas	Increases to appropriation	Bonus funding
Louisiana	Performance pool will be 25% of institutional operating budgets when fully implemented	Institutional base funding
New Mexico	Currently being implemented – 5% of FY2012 base funding and applied to all appropriation increases.	Institutional base funding plus any new appropriations
Ohio (*university and regional campuses)*	100% of higher education formula funding is linked to performance criteria	Institutional base funding
Pennsylvania (*for 4-year institutions only*)	$36 million of $412 million ins 2012-2013	Institutional base funding
Tennessee	Phase-in over 4 years to 100% of higher education formula funding linked to performance criteria	Institutional base funding
Texas	Performance pool was $80 million in 2009 of ~ $147.2 million.	Bonus funding
Washington (*for 2-year institutions only*)	Fixed amount allocated $1.8 million	Base funding

3. Performance-based funding results

Like any policy, time is required for results to be shown. Many of the current uses of performance-based funding are too new to evaluate; however, a few are old enough to see results.

- **Ohio:** Though recently Ohio has expanded its performance-based funding, the state started incentivizing graduation rates in 1998. Since then, Ohio has reported that the median time-to-degree for bachelor's degrees decreased from 4.7 years in fiscal year 1999 to 4.3 years in fiscal year 2003; the in-state bachelor's degree 4-year graduation rate increased from 34% in 1999 to 43% in 2006; and the number of at-risk students who received bachelor's degrees increased by 13% from 1999 to 2006.[42]
- **Pennsylvania:** Between 2002 (when the performance pool was initially enacted) and 2008, the Pennsylvania System of Higher Education reported a nearly 10 percentage point increase in overall four-year graduation rates, including increases of 6 and 9 points for African American and Hispanic students and a jump in second-year persistence rates, especially for Hispanic students, who saw a 15-point persistence improvement.[42]
- **Washington:** Between the 2006-07 baseline year and 2008-09, the first performance year, the colleges served 4% more students but increased student achievement by 19% with gains in all categories, including the largest increases in gaining college ready skills. In 2009-10, points again increased in all categories. Total achievement increased by 12 percent or 40,716 total points compared to student population growth of 1%. In 2010-11, completions increased by 17 percent over one year prior. College math points were the second highest increase (5 percent), a result, the system claims, of more attention being paid to both math and pre-college math.[43]

These initial results are modest, and it if the debate raging in k-12 education over testing is any guide, the question of whether performance funding has clear benefits will remain unsettled for the foreseeable future. But there is general agreement that performance in higher education has plateaued over the last two decades. Graduation rates have stagnated, while costs have risen dramatically. More importantly, citizens are paying less for public institutions through their taxes, and more through fees and tuition. This direct exposure to the costs of higher education has made them much more concerned about performance.

[42] HCM Strategists. *Performance Funding in Indiana. An Analysis of Lessons from the Research and other State Models.* 2012. http://www.hcmstrategists.com/content/**Indiana**_PFReport2_8.2.11.pdf.

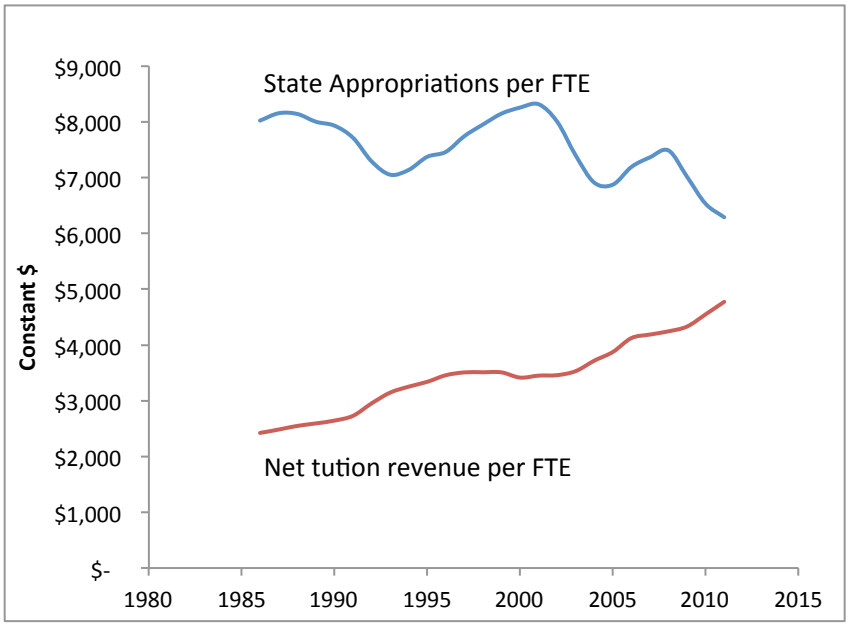
[43] Washington State Board for Community and Technical Colleges, "Student Achievement Initiative." http://www.sbctc.ctc.edu/college/e_studentachievement.aspx

V. States' Treatment of Student-Derived Revenues in Higher Education Funding

A. Background on use of student-derived revenues

Any discussion about higher education funding provided by state governments should include a discussion about student-derived revenues. As illustrated in *Figure 2.2*, around 1985, average tuition revenues per FTE enrolled student (~$2,300) were only about one-quarter of the level of state appropriations per FTE enrolled student (~$8,000). In the 25 years since then, student tuition revenues have grown while state appropriations have decreased. Tuition revenues are becoming a much more important portion of funding for higher education institutions as compared to state appropriations. Therefore, the demand for transparency may be larger than in the past due to the increased burden of tuition.

Figure 2.1. Average state appropriations per FTE enrolled student have fallen, while average tuition revenues per FTE enrolled student have risen. (Constant 2011 Dollars)



Source: State Higher Education Finance FY *2011*

Historically, student-derived revenues have been controlled and retained at each institution, and this remains the dominant arrangement as seen in the sections below. Even in states like Nevada, which has a requirement for some student-derived funds to be budgeted through the legislature, higher education institutions have a lot of autonomy in how to spend their money. Other states, such as New York and Virginia, are rewarding their higher education institutions with increase autonomy in controlling their student-derived revenues if they meet performance-based benchmarks. States like Texas budget some student-derived revenues through the legislative process, but differential tuition policies allow high-demand institutions to charge higher tuition rates that they can retain and control.

B. States' budgeting practices for student-derived revenues

1. States that budget student-derived revenues through the legislative process

Nevada and twelve other states budget student-derived revenues by the legislature. In a recent national survey by the State Higher Education Executive Officers (SHEEO), twelve state higher education executive officers indicated that student-derived revenues must be appropriated by their state legislature (see *Table 2.18*). Of these twelve survey responses, only the California Community College system, the New York system, and the Texas system indicated that student-derived revenues are used to offset the general fund appropriation. However, further research beyond the SHEEO survey found that Alabama, Arkansas, Minnesota, Pennsylvania, Tennessee, Florida, South Carolina, and North Carolina subtract student-derived revenues from their formula's calculated need. The New York system is currently in the process of changing the way it handles and accounts for student-derived revenues (see the further discussion of New York's approach in *Appendix C*). Ten of the twelve listed states that appropriate student-derived revenues through the legislature require the revenues to be deposited into separate state tuition accounts, while Florida and Colorado states allow the actual funds to be retained on campus.

Table 2.18. States that appropriate student-derived revenues through the legislative process.

States where student-derived revenues appropriated through the legislature	Tuition is a direct offset of the state general fund revenue appropriation	Student-derived revenues are deposited into separate, institutional designated state tuition account
Arizona*	California	Arizona*
California	New York**	California
Colorado*	Texas	Hawaii
Florida		Idaho
Hawaii		Kansas
Idaho		New York*
Kansas		North Carolina
New York		Tennessee
North Carolina		Texas
Tennessee		Virginia
Texas		
Virginia		

Source: State Higher Education Executive Officers (SHEEO), *State Tuition, Fees, and Financial Assistance Policies for Public Colleges and Universities: 2010-11*.. Survey data was supplemented with additional research by SRI for states that did not respond to the SHEEO survey.
*Only a portion is appropriated. Please see state narratives in the appendices.
** The New York system is currently in the process of changing the way it handles and accounts for student-derived revenues (please see *Section V.B.3.*).
Nevada is not listed in this table since they do not consider their budgeting of the student-derived revenues to be an appropriation action, and this table lists the results with given heading of the SHEEO survey.

State practices are more nuanced than a simple table indicates. Arizona has a hybrid system where each institution retains a portion of tuition, and another portion of the tuition revenues is deposited with the state treasurer and appropriated back to the universities. Each university ultimately receives back all tuition remitted to the state.[44] In Kansas, state universities' tuition is deposited into the state treasury and appropriated back without restrictions; at all other public Kansas universities, tuition is fully controlled at the campus level. The representative from Florida said although the legislature appropriates funds through the annual appropriations bill, funds remain with the institutions where collected.[45] In Wisconsin, the revenues are deposited into state accounts, but the higher education system has the authority to spend all revenues as collected.[46]

Funding for Nevada institutions comes from a complex mix of state general funds, student-derived tuition and fees, indirect cost recovery from research grants, and other miscellaneous sources. The Board of Regents sets fees and out-of-state tuition, which are referred to as "student-derived revenues." Tuition and fee amounts are set independently of the Legislature and Governor. Student-derived revenues are budgeted through two budgets: a "state-supported budget" and a "self-supported budget". The state-supported budget is submitted by the governor to the legislature, who revises according to its will. More than 70% of the state-supported budgets' revenues come from state general funds and a significant portion of student-derived revenues.[47] The self-supported budgets are determined by each institution and are not approved by the legislature. The self-supported budgets' revenues include the balance of student fees, indirect cost recovery, investment/endowment income, and gifts. Legislative budget policy towards the state-supported budget has been to account for student-derived fees first and then to fill the balance with state general funds to reach the specified funding amount. Student fees and nonresident tuition remain on campuses; however, the total amount of fees collected offsets the amount required in state general fund appropriations to meet the desired level of support. It should be noted, however, that even if fees were accounted differently, it is unknown whether the legislature would automatically provide a higher level of state general fund support.

It is not uncommon for formulas to account for student tuition in the calculated need as Nevada's does. As mentioned above, Alabama, Arkansas, California, Florida, Minnesota, Pennsylvania, Tennessee, Florida, South Carolina, and North Carolina subtract student-derived revenues from their formula's calculated need. However, most of these states do not account formally for tuition and fee revenue in the state-support budget as Nevada does. Even if states required the student-derived revenues to be budgeted through the legislative process, most states allow institution to retain control over the physical funds, even if they are accounted for in the state-supported budget. This process is reviewed below, and many states overlap between the categories. In addition, some state overlap since just a portion of the student-derived revenues is appropriated.

[44] Arizona representative's answer to Question 13 on the SHEEO *2010-2011 State Tuition, Fees, and Financial Assistance Survey*.
[45] Florida representative's answer to Question 13 on the SHEEO *2010-2011 State Tuition, Fees, and Financial Assistance Survey*.
[46] Wisconsin representative's answer to Question 13 on the SHEEO *2010-2011 State Tuition, Fees, and Financial Assistance Survey*.
[47] Finance Department, Office of the Chancellor. *NSHE state-supported budget fiscal year 2010-2011*.

2. States where institutions retain their student-derived revenues

Table 2.19 shows the forty-two states where individual institutions or campuses control and retain their student-derived revenues, according to a national survey by the State Higher Education Executive Officers. Of the states whose institutions control and retain tuition revenue, four state representatives said that the revenues are also required to be deposited into a state account and appropriated prior to expenditure.

Analysis of the national survey data suggests that the states that allow individual institutions to control and retain their student-derived revenues, and that do not appropriate that revenue through some direct means, also do not account for or recognize these revenues in the budget setting process.[48] However, it should be noted that accounting for student tuition and fee revenues might happen informally in state budget negotiations. This apparently dominant model of institutions retaining control and direction over their student-derived revenues may be attributed to the fact that tuition and fees have historically represented a very small percentage of the overall budget of public higher education institutions. However, the relatively recent change in this trend (as discussed above) may cause many states to review this practice in the future, as student-derived revenues move toward becoming the majority of public institutions' revenue streams.

Five states did not respond to the national survey, including Nevada (as well as Michigan, New Jersey, Rhode Island, and Washington). SRI researched these states independently and found that none of the non-responsive states, except for Nevada, budgets student-derived revenues through the legislature. In review of legislative documents, it did not appear that student-derived revenues were accounted for in reducing general fund appropriations for any of the non-responsive states except for Nevada. The one notable state SRI found was Michigan, whose legislature attempts to control the increase in student derived-revenues by rewarding those institutions that stay beneath a tuition increase percentage cap with more general fund appropriations.[49]

[48] Davis Bell, Julie. *Getting What You Pay For: The nuts and bolts of the higher education legislative appropriations process.* Nov. 2008.

[49] Jen, Kyle. *Memo on University Funding Policy*. Wisconsin House Fiscal Agency. February 21, 2012.

Table 2.19. States that allow institutions to retain student-derived revenues.

States where tuition revenues are controlled and retained by individual institutions or campuses		Tuition revenues are deposited into separate, institutional-designated state tuition accounts from which all funds must be appropriated prior to expenditure
Alabama	**Mississippi**	Arizona
Alaska	**Missouri**	California
Arizona	**Montana**	Kansas
Arkansas	**Nebraska**	North Carolina
California	**New Hampshire**	
Colorado	**New Jersey**	
Connecticut	**New Mexico**	
Delaware	**North Carolina**	
Florida	**North Dakota**	
Georgia	**Ohio**	
Illinois	**Oklahoma**	
Indiana	**Oregon**	
Iowa	**Pennsylvania**	
Kansas	**Rhode Island**	
Kentucky	**South Carolina**	
Louisiana	**Utah**	
Maine	**Vermont**	
Maryland	**Washington**	
Massachusetts	**West Virginia**	
Michigan	**Wisconsin**	
Minnesota	**Wyoming**	

Source: State Higher Education Executive Officers (SHEEO), *State Tuition, Fees, and Financial Assistance Policies for Public Colleges and Universities: 2010-11*. Survey data was supplemented with additional research by SRI for states that did not respond to the SHEEO survey.

Appendices

Appendix A: Narratives of States That Use a Formula for Higher Education Funding

1. Alabama[50]

State funds are budgeted for Alabama higher education through both formula and non-formula mechanisms. Senior institutions and two-year institutions use different sets of formulas. In Alabama, the funding formula is only a recommendation made by the Alabama Commission on Higher Education. The Governor and the Legislature are under no legal requirement to use it when they make the appropriations to the colleges and universities and in fact do not use it when developing the actual allocations. The ACHE Standard calculation as the model for how funds are actually distributed in Alabama. The actual allocation of funds to the colleges and universities is usually based more on a base plus/minus model. Each institution starts with what they received the previous year and the percent increase or decrease made is generally the same to all institutions with some small variances.[51]

Senior Institutions
For senior institutions, Alabama's formula calculation for instruction and related operating expenses is a function of enrolled student credit hours. The three-year average of actual on-campus weighted semester credit hours are multiplied by an "academic program multiplier," which is predicated on the estimated National Association of State Universities and Land-Grant Colleges (NASUGLC) regional General Studies average salary for doctoral and regional institutions 2 years prior to the formula year, adjusted for inflation. The multiplier is determined from regional faculty salaries adjusted by an estimated departmental expense rate (20% in 2012-2013). The multiplier uses an assumed faculty productivity factor of 630 student credit hours (SCH) annually for doctoral institutions and 585 SCH for non-doctoral institutions. These productivity factors imply a General Studies faculty to student ratio of 1:26 for doctoral institutions and 1:24 for regional institutions. Remedial credit hours are multiplied by 115% before being multiplied by the academic program multiplier.

- Academic Support is budgeted at 5% of the estimated cost of Instruction and Operating Expenses.
- Research is budgeted at 2% of the sum of estimated cost of Instruction, Operating Expenses, and Academic Support.
- Sponsored Research is calculated to be 5% of qualifying research.
- Public Service is budgeted at 2% of the sum of the estimated cost of Instruction and Operating Expenses and Academic Support.
- Library Support is based on actual unweighted semester hours, less military science, times a cost factor that depends on degree level (undergraduate, master, doctoral, law).
- General Administration & Student Services support is based on an average 3-year headcount enrollment, with increase per head support for institutions with less than 4,000 students. This part of the calculation uses a three-year average unduplicated on-campus headcount enrollment as reported by the institutions.

[50] Alabama Commission on Higher Education. *Consolidated Budget Recommendation for Fiscal Year 2012-2013 Section C.* http://www.ache.alabama.gov/CBR2012/Index.pdf.
[51] Margaret Gunter, Alabama Commission on Higher Education (personal communication July 20, 2012.)

- Physical Plant and Custodial Services is funded by gross square feet multiplied by a cost factor.
- General Institutional Support is based on 14% of the sum of Instruction, Academic Support, Research, Public service, Library Support, General Institutional Support and Student Services, and Physical Plant and Custodial services.
- The Utilities O&M Allowance is based on consumption rates for heating, electricity, and other utilities and gross square educational and general floor area.

From this sum for each institution, a tuition adjustment is calculated for each institution, as follows: a weighted average credit charge is calculated using tuition and required fee level and three-year average unweighted credit hours (excluding Military Science); ninety percent (90%) of that rate multiplied by the three-year average of unweighted credit hours is the tuition deduction for all institutions. For the 2012-2013 formula, the weighted per-credit-hour tuition deduction is $250.40.[52]

Like many states, Alabama also funds its higher education institutions by appropriation not calculated by their funding formula. For example, the following off-formula allocations are calculated by the indicated method:

- Agricultural Experimentation and Extension: Auburn University – prior year ACHE Standard calculation times 3%.
- Organized Research: 8% of Academic Program Research Component for doctoral institutions and 4% for non-doctoral institutions.
- Public Service: 8% of Academic Program Public Service Component.
- Facilities Renewal and Replacement: based on volume of physical space, its construction and age, use, and nationally estimated engineering rates for renovation and replacement.

Community Colleges and Technical Colleges
Two-year colleges are funded per FTE student. For community colleges, the three-year average fall FTE enrollment is multiplied by the average funding rate per FTE of the Southern Regional Education Board. Technical College funding levels are calculated by using a 15:1 student-to-faculty ratio and average fall FTE enrollment and multiplying the resulting FTE faculty positions by the average 9-month salary for technical college faculty. A tuition adjustment is then applied to account for student-derived revenues.

Alabama does not employ performance-based funding or specific formula funding mechanisms for economic development. However, Alabama's *State 5-year Strategic Plan for Higher Education*, published in 2009, includes a priority for establishing a comprehensive workforce development plan. Goals under the priority include aligning higher education programs with labor market information.[53]

[52] Alabama Commission on Higher Education. *Consolidated Budget Recommendation for Fiscal Year 2012-2013* page C-9
[53] Alabama Commission on Higher Education. *Forging Strategic Alliances: 2009-2014: State Plan for Alabama Higher Education.* http://www.highered.alabama.gov/spac.;

Table A.1. Higher education funding formulas in Alabama.

Alabama – Formula for Senior Institutions	
Instructional Support	The three-year average of actual on-campus weighted semester credit hours are multiplied by an academic program multiplier.
Remedial Education	Receive 15% more Instructional Support for each remedial student credit hour in the Instructional Support line
Operations and Maintenance	Based on consumption rates for heating, electricity, and other utilities and gross square educational and general floor area
Academic Support	5% of instructional support
Student Services	Based on approved headcount multiplied by a size dependent multiplier: *For institutions with total approved campus headcount enrollment of less than 4,000:* • 1 to 2,000 Headcount: $1,457.22 • 2,001 to 2,999 Headcount: $766.96 • 3,000 to 3,999 Headcount: $344.90 *For institutions with total approved headcount enrollment of 4,000 or greater:* • First 4,000 Headcount: $601.03 • 4,001 to 8,000 Headcount: $450.11 • Over 8,000 Headcount $404.86
Institutional Support	14% of sum of Instructional Support, Research, Sponsored Research, Public Service, Library Support, Student Services, and Physical Plant & Custodial Services
Public Service	2% of sum of estimated cost of Instruction, Operating Expenses, and Academic Support
Scholarships	-
Research	2% of combined amounts for Instruction and Academic Support plus 5% of 2007-2008 Sponsored Research
Performance Criteria	None
Workforce Development	-
Student-Derived Revenues	Tuition and fees are subtracted from the formula calculation: For the 2011-2012 formula, the weighted per-credit-hour tuition deduction is $227.45.

Alabama – Formula for Two-Year Colleges	
State Support	Three-year average fall FTE enrollment is multiplied by the average funding rate per FTE of the Southern Regional Education Board

Alabama – Formula for Technical Colleges	
State Support	15:1 student-to-faculty ratio and average fall FTE enrollment and multiplying the resulting FTE faculty positions by the average 9-month salary for technical college faculty
Student-Derived Revenues	Tuition is subtracted from the funding formula calculations For the 2012-2013 formula, the weighted per-credit-hour tuition deduction is $250.40.

2. Arizona[54]

Arizona's higher education funding is based on the so-called "22 to 1 Formula," which stipulates adding or subtracting one faculty position for every increase or decrease of 22 FTE students; additionally, 0.75 staff positions are added or subtracted for every 1 faculty position. "FTE students" is defined differently across divisions: in the undergraduate lower division courses one FTE = 15 semester credit hours (SCH) attempted; in undergraduate upper division courses one FTE = 12 SCH attempted; and in graduate courses one FTE = 10 SCH attempted. This formula is used to cover enrollment growth and funding for related expenses including salaries, employee-related expenses, and operations. The total number of FTE students is determined by a three year weighted rolling average. This is calculated by using 25 percent of the past year's actual fall enrollment, 50 percent of the present year's fall enrollment and 25 percent of the projected next fall enrollment.[55] However, the 22-to-1 formula has not been used in the past 5 years, since the legislature has been drastically cutting higher education funding in Arizona. Recently, appropriation has been made on a base and base adjustment basis.[5657]

Several non-formula items, including academic support, student services, research, institutional support, public service, general institutional support, scholarships funds, and auxiliary enterprises are all allocated by the individual institution and submitted to the board for approval.[58]

Though the "22 to 1" formula is still law in Arizona, since 2011 Arizona has been transitioning performance based funding. The FY2013 enacted budget provides a $5 million "claw-back" of base funding apportioned by each university's share of the FY 2012 GF budget, which is then to be appropriated to Arizona Board of Regents for redistribution in accordance with a new performance funding model. The Arizona Board of Regents adopted a performance funding consist of three components:

1. Increases in Number of Degrees Awarded weighted by level and cost, in accordance with a 3x3 matrix
2. Increases in Number of Completed Student Credit Hours again, weighted by level and cost, in a 3x3 matrix
3. Increases in External Research and Public Service Funding

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[54] Arizona Board of Regents. (2011). *Getting AHEAD Committee Provides Recommendations for Modernizing Arizona's Higher Education Funding System.* https://azregents.asu.edu/palac/newsreleases/Getting%20AHEAD%20Committee%20Provides%20Recommendations%20for%20Moderning%20Arizona%27s%20Higher%20Education%20Funding.pdf.

Arizona Board of Regents. *Funding Enrollment Changes or the 22 to 1 Formula.* https://azregents.asu.edu/Documents/FUNDING%20ENROLLMENT%20CHANGES.pdf.

Arizona Board of Regents. *Outcome-based (Expenditures) Funding Formula.* https://azregents.asu.edu/enterpriseinitiativesfinancestrategicplanning/Strategic%20Planning%20Committee%20Documents/Rich%20Stanley%20Model_Outcomes%20based%20funding%20formula%20%28used%20in%204-08%20meeting%29.pdf.

MGT of America. (2011) *Funding Model for Arizona Higher Education, Final Report.* http://gettingaheadaz.org/educators/Funding_Model_AZ_Higher_Education_Report_7_21_2011.pdf.

[55] Arizona Board of Regents. *Funding Enrollment Changes or the 22 to 1 Formula.* https://azregents.asu.edu/Documents/FUNDING%20ENROLLMENT%20CHANGES.pdf.

[56] Christine Thompson, Arizona Board of Regents. Personal communication. July 24, 2012.

[57] Board of Regents. *Performance Funding.* August 2011.

[58] Arizona Board of Regents. *Regents Approve Performance Funding Model; Allocate State Appropriated Monies for Parity and Performance Funding in FY13.* Press Release. June 14, 2012.

The raw data informing these components are in the form of a 3-year moving average. The model will allocate monies approximately based on mission, based on the following:

- 50% in support of the growth of degrees awarded
- 25% in support of the growth of completed student credit hours
- 25% in support of the growth of external funding for research and public service

Carnegie classifications are used to differentiate between Arizona State University and the University of Arizona, as very high research versus high research. Arizona State University and the University of Arizona both use an even weighting of 33.3% each for degrees, student credit hours (SCHs) and research. Northern Arizona University will use a weighting of 42.5%, 42.5% and 15%, respectively, for degrees, SCHs and research. The model allows policy makers, to periodically adjust various factors or "dials" to emphasize or direct the state's investment in different directions based upon the economic needs of the state. Though the Board of Regents have approved a major structure of the performance funding model, they are still working their final model, which will most likely include weights for STEM degrees.

The current formulas for community colleges include operating aid, equalization aid, and equipment/capital outlay. The operating aid is a function of FTE students. Like the universities funding, the community college funding formulas are in the process of being revised.[59]

3. Arkansas[60]

Arkansas is implementing a performance based funding model for universities and community colleges beginning in fiscal year (FY) 2013-14. Funding for this mechanism will be phased in over a five-year period: for 2013-14, 5% of funding will be performance-based, with the percentage increasing every year until 2017-18, when performance-based funding will reach its target of 25% of total funding. The performance-based model is required by statute to consider at the least the following metrics: course completion, degree completion, critical needs shortage areas, minority students, economically disadvantaged students, and non-traditional students.

Universities

Arkansas' non-performance based funding component (also known as need-based) uses six student credit hour (SCH) functions, one square-footage function based on a space prediction model, and special-mission function. Teaching salary support is calculated using a matrix containing four discipline categories and three instructional levels that transform student credit hours into FTE faculty members. The number of faculty at each instructional level is then multiplied by an average Southern Regional Education Board faculty salary for a university at that level. Other instructional costs are then calculated as 45% of the institution's teaching salaries; library costs as 11% of the sum of the institution's teaching salaries and other instructional costs; general institutional support as 54% of the sum of the institution's teaching salaries and other instructional costs; research as the sum of 5% of undergraduate 25% of graduate and 50% of doctoral teaching salaries; and public service as 3% of the institution's teaching

[59] MGT of America, Inc. *Funding Model for Arizona Higher Education: Final Report* June 30, 2011.

[60] Arkansas code § 6-61-228 and § 6-61-229.
Arkansas Senate Bill 766. (2011). http://www.arkleg.state.ar.us/assembly/2011/2011R/Bills/SB766.pdf
Association of Governing Boards. (2011). *Arkansas Senate Bill 766.* http://agb.org/ingram/policy/arkansas-senate-bill-766.

salaries. Facilities maintenance and operations funding is based on square footage, multiplied by a funding factor determined every biennium by the Arkansas Higher Education Coordinating Board based on institutional spending in recent years.

Facilities maintenance and operations funding of the university is based upon the university's needed square footage as determined by the Five-Factor Academic Space Prediction Model that considers the discipline and level of the student semester credit hours of each university. For each year of a biennium, the Arkansas Higher Education Coordinating Board staff determines a funding rate per square foot based upon the most recent cost experiences of the universities. Excess or less square footage above the space prediction model's established need shall be funded at a rate determined by the Arkansas Higher Education Coordinating Board staff.

Institutions may also receive funding for the traditional minority mission and/or the land grant mission. Institutions with a traditional minority mission receive an additional 15% for SCH/FTE-based portions of the formula. Land grant institutions receive an additional 10% of teaching salaries.

Additional "diseconomy of scale" funding is provided for universities with FTEs under 3,500, with the method of calculation determined by Arkansas Higher Education Coordinating Board in consultation with the presidents and chancellors of the universities.

Appropriation needs for a university are determined by subtracting from the total expenditure needs the tuition and fee revenues.[61] The Arkansas funding formula is used to request funds from the legislature, but the legislature has not fully funded the university formula in recent years.[62] In addition, the funding formula is used to only allocate funds to the university and no used to prescribe the allocation of those funds within the universities.[63]

Community College[64]

The funding formula determines the funding needs of two-year colleges in four student-semester-credit-hour or full-time-equivalent, student-based expenditure functions, which provide support for teaching salaries, academic support, student services, and institutional support; one square-footage-based expenditure function; and one contact hour expenditure function for workforce education programs.

The student-based expenditure functions transform student semester credit hours into FTE faculty members. The number of FTE faculty members is multiplied by the Southern Regional Education Board average salary for two-year colleges with no academic rank, adjusted for the use of part-time faculty determined by the Coordinating Board. Funding needs for the academic support functions shall be equal to sixty percent (60%) of adjusted teaching salaries plus $35,000 for a staff salary in public service. student services is calculated based on a variable rate per student using the mean of full-time-equivalent enrollment and headcount enrollment and an economy-of-scale component that will provide progressively less funding per student over established enrollment levels. Institutional support funding shall be as follows based on the college's full-time-equivalent student enrollment. For one thousand (1,000) or fewer students enrolled, an amount equal to twenty-one percent (21%) of the total teaching

[61] Arkansas code § 6-61-228 section (m) (2) (a). June 12, 2012.
[62] Dan Howard. ASU Chancellor. Monthly Report, March 2, 2011 http://www.astate.edu/a/chancellor/first-friday/archive.dot?id=b277adf4-5c94-48b4-9e92-cf9633a0b9ef
[63] Arkansas code § 6-61-228 section (n) (1) and (2). June 12, 2012.
[64] Arkansas code § 6-61-229 June 12, 2012.

salaries, academic support, student services, and facilities maintenance and operations. For one thousand one (1,001) to three thousand (3,000) students enrolled, an amount equal to eighteen percent (18%) of the total of the teaching salaries, academic support, student services, and facilities maintenance and operations. For more than three thousand (3,000) students enrolled, an amount equal to fifteen percent (15%) of the total teaching salaries, academic support, student services, and facilities maintenance and operations.

Operations and Maintenance is funded in the same manner as universities. Funding for workforce education is based on contact hours and shall be calculated by using an established rate for the first ten thousand (10,000) contact hours, a lesser rate for the next ten thousand (10,000), and a lesser rate for all noncredit contact hours in excess of twenty thousand (20,000).

The calculated tuition and fee income are subtracted from total expenditure needs of the college to calculate the appropriation needs of each college. The Coordinating Board establishes biennially a tuition rate per credit hour for two-year colleges with revenue derived from a local tax, including, but not limited to, a sales tax or an ad valorem tax, and a higher per credit hour tuition rate for those colleges without revenue derived from a local tax.

Table A.2. Higher education funding formulas in Arkansas.

Arkansas – Formula for Universities	
Instructional Support	Annualized student semester credit hours are transformed into FTE faculty members multiplied by level and cost matrices and multiplied by an average Southern Regional Education Board faculty salary for a university at that level to calculate teaching salary support. 45% of the institution's teaching salaries are added instructional support.
Remedial Education	-
Operations and Maintenance	Five-factor academic space prediction model that considers the discipline and level of the student semester credit hours of each university
Academic Support	Library costs: 11% of the sum of the institution's teaching salaries and other instructional costs;
Student Services	-
Institutional Support	54% of the sum of the institution's teaching salaries and other instructional costs.
Public Service	3% of the institution's teaching salaries
Scholarships	-
Research	Sum of 5% of undergraduate 25% of graduate and 50% of doctoral teaching salaries
Performance Criteria	Being implemented
Workforce Development	-
Student-Derived Revenues	Subtracted from formula calculation

Arkansas – Formula for Community Colleges	
Instructional Support	Annualized student semester credit hours are transformed into FTE faculty members by an average Southern Regional Education Board salary.45% of the institution's teaching salaries are added instructional support.
Remedial Education	-

Operations and Maintenance	Five-factor academic space prediction model that considers the discipline and level of the student semester credit hours
Academic Support	60% of adjusted teaching salaries $35,000 for a staff salary in public service
Student Services	Calculated based on a variable rate per student using the mean of full-time-equivalent enrollment and headcount enrollment
Institutional Support	Based on the college's full-time-equivalent student enrollment
Public Service	Included in Academic Support
Scholarships	-
Research	-
Performance Criteria	Being implemented
Workforce Development	Based on contact hours and shall be calculated by using an established rate for the first ten thousand (10,000) contact hours, a lesser rate for the next ten thousand (10,000), and a lesser rate for all noncredit contact hours in excess of twenty thousand (20,000)
Student-Derived Revenues	Subtracted from formula calculation

4. Connecticut[65]

Connecticut higher education funding uses two statutory formulas, both designed to set funding levels for financial aid. The Connecticut Independent College Student Grant Program (CICSG) provides funds for students attending independent schools in the state, and the Connecticut Aid for Public College Student Grant Program (CAPCS), for students attending public colleges. CAPCS is designed to match tuition funds set aside by an institution (at least 15% of all tuition revenue, per the Board of Governors' tuition policy) but is not been fully funded in recent years.

5. Georgia[66]

Georgia has used a formula-based funding system since 1963, generally based on enrollment growth. The 2013 budget divides a $3.7 billion allocation as follows:

- Direct Instruction (based on enrollment) – 35.5%
- Research – 8.7%
- Academic and Institutional Support – 20.2%
- Fringe Benefits – 22.5%
- Physical Plant and Utilities – 10.3%
- Public Service/Continuing Education – 1.1%

[65] Connecticut House Bill No. 6651, Public Act No. 11-48 (2011). http://www.cga.ct.gov/2011/ACT/PA/2011PA-00048-R00HB-06651-PA.htm.

State of Connecticut, Department of Higher Education. (2011). *Connecticut Public Higher Education 2011 System Trends.* Hartford, CT.

Thomas, Jacqueline R. (December 16, 2010). Lawmakers propose tying higher education funding to performance. *CTMirror.* Retrieved from http://ctmirror.org/story/8735/lawmakers-recommend-restructuring-how-public-colleges-are-funded-state.

[66] *University System of Georgia Funding Formula Overview*. November 2011. http://www.usg.edu/fiscal_affairs/documents/Consolidated_Formula_Presentation_-_November_Board_-_Final.pdf.

- Technology – 1.7%

Major Repairs and Rehabilitation are funded outside the normal appropriations by General Obligation Bonds.

The Direct Instruction component multiplies enrolled semester credit hours from two years before. The hours are categorized into discipline and level. These hours are multiplied by a price per credit hour based on the discipline and level. The research component is based on Graduate Academic Salaries. Academic support is calculated at 18.9% of the sum of Instruction support and research support and Institutional Support is calculated at 26.9% of the sum. Physical Plant and Utilities are funded based on square feet of instructional space.

The calculated need is not fully funded by state money. Student-derived revenues are expected to pay for some of the calculated need; however, there is not a formula subtraction piece of the formula. Initially, the state funded 75% of the formula; however that has decreased over the years.

The Higher Education Funding Commission is now creating new performance-based formula, and is expected to make its recommendations in December of 2012. Performance funding is expected to be used for the FY2015 budget.

Table A.3. Higher education funding formulas in Georgia.

Georgia – Formula for Universities	
Instructional Support	Enrolled credit hours are multiplied by a price per credit hour based on the discipline and level.
Remedial Education	-
Operations and Maintenance	Square feet of instructional space.
Academic Support	18.9% of the sum of Instruction support and Research support.
Student Services	-
Institutional Support	26.9% of the sum of Instruction support and Research support.
Public Service	1% of the sum of Instruction support and Research support.
Scholarships	-
Research	Based on Graduate Academic Salaries.
Performance Criteria	Investigating.
Workforce Development	-
Student-Derived Revenues	Considered, but not formally accounted for.

6. Louisiana[67,68]

Louisiana funds all its institutions of higher education using a formula with two components: cost and performance. The cost component governs core, general, and operations funding and comprises 75% of total funding. This covers instruction, faculty and student academic support, and administration. The cost level is calculated by multiplying completed student credit hours by a discipline and level cost matrix. For each institution, the resulting credit hour cost matrix is multiplied by a rate based on their Southern Regional Board category's average faculty salary discounted for Liberal Arts discipline (12% for 4-year institutions and 6% for 2-year institutions). Thirty percent is added on for academic support services. Operations and Maintenance is calculated at $6.75 per gross square foot with a modest premium or penalty based on ratio of academic and support square foot to FTE enrollment. The state only supports a fraction of the cost component. The percent funded is the same for each institution.

The *performance* component uses metrics aligned with the Louisiana Granting Resources and Autonomy for Diplomas Act (GRAD) (whose four objectives are student success, articulation and transfer, workforce and economic development, and institutional efficiency and accountability). These metrics include course completion, research, STEM completers, and health completers, and make up the remaining 25% of funding. The weights are listed in table A.5.

Cost calculations are based on end of course counts (completion), with the exception of technical colleges, which use day 14 enrollment counts. Southern Regional Education Board peer faculty costs by discipline are used to calculate funding per student credit hour. An academic support factor is added after student credit hour funding is calculated. An additional $6.75 per net academic and support square foot is then added for physical plant costs.

Table A.4. Higher education funding formulas in Louisiana.

Louisiana – Formula for community colleges and universities	
Instructional Support	Completed credit hours multiplied by level and discipline cost matrix and SREB average faculty salary.
Remedial Education	-
Operations and Maintenance	$6.75 per gross square foot with a modest premium or penalty based on ratio of academic and support square foot to FTE enrollment.
Academic Support	30% of instructional support.
Student Services	-
Institutional Support	-
Public Service	-
Scholarships	-
Research	In performance funding.
Performance Criteria	• Number of Graduates: 29.0%

[67] Louisiana Board of Regents. Regents Adopt Revamped Funding Formula. March 2011. http://regents.louisiana.gov/assets/media/2011/Regentsadoptrevampedformula0311FINAL.pdf

[68] Louisiana Board of Regents **.** *Learn More…Earn More…Be More. The Formula for Enriching Louisiana.* Presentation to Louisiana Association of Institutional Researchers. August 4, 2010; FY10-11 Cost Component Excel Sheet. FY 10-11 (Two and Four Year Institutions) Excel Sheet http://regents.louisiana.gov/index.cfm?md=pagebuilder&tmp=home&pid=81

	• Number of Graduates with an Undergraduate Degree - 25 or older: 9.0% • Number of Graduates By Race – Minority: 9.0% • Number of Graduates - Pell Recipients: 8.5% • Transfer to/from Institution with Associate Degree: 2.0% • Transfer to/from Institution with more than or equal to 30 Hours: 2.0% • Number of Graduates in STEM/Health Workforce: 29.5% • Research and Development: 9.0% • Workforce Training: 2.0%
Workforce Development	-
Student-Derived Revenues	-

7. Massachusetts[69,70]

Massachusetts in theory funds higher education using a formula based on FTE for Instruction, Academic Support, Student Services, Research, and Institutional Support, and based on square footage for some physical plant factors. The budget should then be allocated as follows:

- Budget formula requirement – by institution.
- Total local revenue – by institution; includes distance & continuing education tuition and all fee revenue.
- State support – by institution; based on current year General Appropriation Act.
- State-supported fringe benefits – by institution.

However, this formula has only been implemented during one year since its creation. Since then the appropriation has based on legislative priorities. The Governor has called for the board of trustees of the University of Massachusetts in consultation with the secretary and the board of higher education to create a performance measurement system, and for the commissioner of higher education in consultation with college presidents to develop a funding formula for community colleges that is based in part on performance.

8. Minnesota[71,72]

Minnesota uses a funding formula with the following components: Instruction and Academic Support, Library, Research and Public Service, and Facilities. For all purposes where student enrollment is used for budgeting purposes, student enrollment shall be measured in full-year equivalents (FYE) and shall include only enrollments in courses that award credit or otherwise satisfy any of the requirements of an academic or vocational program.

[69] Stephen Lenhardt, Massachusetts Board of Higher Education, Personal Communication, May 9, 2012.
[70] "House Ways and Means Committee Releases Budget for Fiscal 2013" Massachusetts Teachers Association. http://www.massteacher.org/news/archive/2012/hwm_budget_summary.aspx
[71] Minnesota Statue 135A.01
[72] Educationminnesota.org. (2007). *General Description of Allocation Framework Components.* http://www.educationminnesota.org/en/events/polconference/~/media/Files/Sections/events/polconference/2011handouts/MNSCU%20allocation%20framework.ashx.

Instruction and academic support component of the formula is based on actual instruction and academic support expenditures for each program at each institution at the level of instruction (lower division, upper division, and graduate). For each program, a "band" is calculated with boundaries at 10% above and 10% below the system average for each instructional program. If a program's cost per full-year equivalent (FYE) student is within the band, it will be allocated the actual amount of funding per FYE; if it is above the upper 10% band, funds will be reduced to the level of the upper band; and if it is below the band, funds will be increased to the level of the lower band. The number of FYE in the program multiplied by the resulting amount per FYE equals the total program allocation; an institution's total instructional and academic support allocation is the sum of all its program allocations. To improve the stability of funding, since 2006 a three-year rolling average has been used for this component. Minnesota's stated goal for this unique approach is to maintain enrollment support while controlling program costs.

The administrative support component of the funding formula supports Institutional Support and Student Services. A core cost and a variable cost is estimated using the administrative expenditures and enrollments of the national data set of colleges and universities in similar Carnegie classifications. The core and variable costs are calculated separately for colleges and universities. The library component equals 3.5% of total operating costs for two-year institutions and 6% for four-year institutions. Research and Public Service combined are allocated 1.17% for two-year institutions and 2.62% for four-year institutions, based on peer comparisons. Facilities functions are budgeted at $1.80 per square foot for maintenance and operations and $1.50 per square foot for repair and replacement. These prices are based on square footage, three-year rolling average for utilities, recognized leases, student duplicated headcount. It also recognizes multi-campus, residential impact, and steam plant. Repair and replacement is allocated on square footage. Utilities funding is calculated as the average expenditure over the previous three years, and other funding may be provided for leases, or for multiple campus or residential living factors. Additionally, a tuition offset is calculated and applied to all components except instruction.

The resulting funding calculation is not funded fully by the legislature. According to Minnesota Statute 135A.01, Funding Policy, "It is the policy of the legislature to provide stable funding for public postsecondary institutions and that the state and students share the cost of public postsecondary education. The legislature intends to provide at least 67 percent of the combined revenue from tuition, the university fee at the University of Minnesota, and state general fund appropriations to public postsecondary institutions."

Table A.5. Higher education funding formula in Minnesota.

Minnesota – Formula for community colleges and universities	
Instructional Support	Actual program cost per full-year equivalent adjusted for average system costs.
Remedial Education	-
Operations and Maintenance	Square footage, three-year rolling average for utilities, recognized leases, student duplicated headcount. It also recognizes multi-campus, residential impact, and steam plant. Repair and replacement is allocated on square footage.
Academic Support	Included in Instructional Support. Library component equals 3.5% of total operating costs for two-year institutions and 6% for four-year institutions.

Student Services	A core cost and a variable cost is estimated using the administrative expenditures and enrollments of the national data set of colleges and universities in similar Carnegie classifications. The core and variable costs are calculated separately for colleges and universities.
Institutional Support	
Scholarships	-
Public Service	Research and Public Service combined are allocated 1.17% for two-year institutions and 2.62% for four-year institutions, based on peer comparisons.
Research	
Performance Criteria	-
Workforce Development	-
Student-Derived Revenues	Included in the state revenue calculation for funding the formula calculation.

9. Mississippi[73]

Senior institutions use a funding formula comprised of four elements: Instruction and Administration; Predicted Space; Capital Renewal; and Small School Supplement. The sum of these is referred to as the formulated need.

The instruction and administration component of the formula multiplies a 3-year average of student credit hours by a discipline and level of instruction cost matrix. The cost matrix is based on cost study by the Texas Higher Education Coordinating Board. The resulting weighted student credit hours are multiplied by dollar value of a university's weighted student credit hours using the Southern Regional Education Board's (SREB) average appropriation per full-time equivalent student based on the level of the university per one of two IHL designations of regional universities and research universities. The average appropriation is adjusted down to account for its inclusion of O&M funding. The sum is the requested allocation for instruction and administration.

The O&M portion of the formula uses a predicted space formula that calculates the space a university should need rather than on the amount of space actually maintained. The predicted space is based on the number, program, and level of students; the number of faculty, staff, and library holdings; and research and educational and general expenditures. The capital renewal component addresses deferred maintenance issues on the campuses and is based on the predicted space formula. The Small School Supplement component of the formula equals $750,000 if a university's three-year average of full-time equivalent students is 5,000 or less and its most current appropriation per full-time equivalent student must be less than 110% of the SREB average.

[73] Ccweek.com. (2012). *State Strategies Vary Amid Budget Squeeze.* http://www.ccweek.com/news/templates/template.aspx?articleid=2939&zoneid=7.
Crisp, Elizabeth. (May 4, 2011). State College Board wants funding formula revisited. *www.cdispatch.com.* Retrieved from https://www.cdispatch.com/news/article.asp?aid=11136.
Joint Legislative Committee on Performance, Evaluation and Expenditure Review (PEER). (2008). An Analysis of the Allocation of FY 2009 State Support Funds to Mississippi's Institutions of Higher Learning. http://www.peer.state.ms.us/reports/rpt516.pdf.
SREB. (2011). *Legislative Report - 2011 Final Report.* http://publications.sreb.org/2011/11S09_Final_Leg_Rep.pdf.
State Board for Community and Junior Colleges. (2007). *2007 Mississippi Legislative Session.* http://www.sbcjc.cc.ms.us/pdfs/pb/LegBook2007.pdf.

The sum of the formula components determines the amount required for each university, but as available funds are often less than that required for institutions' recommended allocations, funds are distributed on a pro-rata basis according to each university's percentage of the total formulated need.

Two-year institutions are funded according to the "Mid-level Formula," which fixes community college funding mid-way between that at universities and at K-12 schools, calculated as the average of per-student funding.

Mississippi is currently working on revising the way it funds higher education. The new formula will go beyond funding for enrollment to include funding based on how well institutions are meeting state productivity goals. The council must present its recommendations to the Legislature and governor by November 2012.[74]

Table A.6. Higher education funding formulas in Mississippi.

Mississippi – Formula for universities	
Instructional Support	3-year average of student credit hours by a discipline and level of instruction cost matrix is multiplied by adjusted SREB average appropriation.
Remedial Education	-
Operations and Maintenance	Predicted space formula based on the number, program, and level of students; the number of faculty, staff, and library holdings; and research and educational and general expenditures.
Academic Support	-
Student Services	-
Institutional Support	-
Scholarships	-
Public Service	-
Research	-
Performance Criteria	-
Workforce Development	-
Student-Derived Revenues	-

10. Ohio

Ohio uses a funding formula called the State Share of Instruction (SSI) to calculate its state appropriation for higher education. Ohio has different formulas for different types of campuses: university main campuses, university regional campuses, and community and technical college campuses. Ohio's funding formula has recently been implemented, and stop-loss provisions are still in place.

[74] State Strategies Vary Amid Budget Squeeze. *Community College Week.* Feb. 20, 2012. http://www.ccweek.com/news/templates/template.aspx?articleid=2939&zoneid=7

University Main Campuses[75]

The *University Main Campus* funding model consists of three components: (1) a course completion component, (2) a student success component, and (3) an institutional specific goals and metrics component.

For the Course Completion Component, Ohio is unique because it collects cost data based on actual operating expenditures per student credit hours, which are aggregated into standardized full-time equivalent student units. In determining the average cost for the Fiscal Year 2012-2013 biennium, the calculation is based on data for FY 2004, FY 2005, FY 2006, FY 2007, FY 2008 and FY 2009. The resulting average is adjusted for inflation. STEM, graduate classes, and at-risk students are then weighted preferentially. The resulting cost per FTE is then multiplied by the subsidy eligible FTEs, which is based on course completion of a grade D or higher.[76] The resulting weighted FTEs are averaged over 5 years and 2 years, and the average resulting in the largest calculation is used for each institution.

Doctoral hours are not funded through the SSI formula, but are funded through a doctoral set-aside established by the Graduate Funding Commission. This is schedule to change in the 10th year of the model to 25% research grant activity, 25% quality measure, and 50% degrees awarded.

At-risk degrees are defined as degrees earned by students with any of the following characteristics:

- Age: over 25 at the time of graduation
- Less than $2,190 in annual income in the last 3 years prior to degree attainment
- Less than 17 on ACT Exam in either the Math or English
- Any developmental course at any time before the degree was awarded on any USO campus
- Race: African American, American Indian, or Hispanic

The Student Success Component is based on degree awarded. For FY 2012, the weighted degree cost component was calculated as 15% of FY 2012 value for the State Share of Instruction excluding one set-aside. For FY 2013, the weighted degree cost component was calculated as 20% of the FY 2013 value for the State Share excluding one set aside. The statewide average degree costs is determined from the average credit hour cost described above. This degree cost is multiplied by the number of degrees earned at each campus weighted by degree, at-risk student status, and campus information and a percentage calculated to allocate the entire appropriation used for degree attainment.

The final piece of the formula is the Institutional Specific Goals and Metrics Component

Each University receives an initial set-aside share of funding equal to their enrollment and student success components of the funding formula, which the chancellor redistributes based on each institution's relative progress and achievement of its institution specific goals and metrics.

[75] Ohio Board of Regents. *State Share of Instruction Handbook: Providing the Methodology for Allocating State Share of Instruction Funds for FY 2012 and FY 2013 For Use by: University Main Campuses.* http://www.ohiohighered.org/sites/default/files/uploads/financial/ssi/HANDBOOK%20UM.pdf.

[76] Ohio Board of Regents. *A Funding Formula for Ohio's Universities based on Outcome Goals.* http://*www.**ohio**.edu/.../IUC-**Funding**-Recommendations-Final.pdf*

Regional Campuses[77]
Funding for regional campus is allocated entirely with the Course Completion Component and the Institutional Specific Goals and Metrics Component, both described above.

Community and Technical Colleges[78]
Funding for community and technical colleges funding model consists of an enrollment component and the student success component. The institutional specific goals and metrics component for community and technical colleges has been defined by the Board of Regents and come off the top of the allocation. For FY 2013, 90% of the formula allocation is based on the enrollment component and the remaining is allocated for the student success component.

The enrollment component is calculated with the same method as the student success component described above, except enrollments are used instead of successful course completions. The student success component is based on the following success points:[79]

1. Students earning their first 15 college level semester SCH at this institution by the current year.
2. Students earning their first 30 college level semester SCH at this institution by the current year.
3. Students earning at least one associate degree from this institution in the current year.
4. Students completing their first developmental course in the current year earn 2/3 of a point.
5. Students completing any developmental English in the previous year and attempting any college level English either in the remainder of the previous year on any term this year earn 2/3 of a point.
6. Students completing any developmental Math in the previous year and attempting any college level Math either in the remainder of the previous year on any term this year earn 2/3 of a point.
7. Students enrolling for the first time at a USO University main campus or branch this year and have previously earned at least 15 college level semester SCH at this community college.

These Success Points are selected from 4 different cohorts of students:

1. Students enrolled in the current year at each Community College are the source for Success Points 1, 2 and 4.
2. Students graduated with an Associated Degree from each Community College are the source for Success Point 3.
3. Students completing developmental English or Math in the previous year at each Community College are the source for Success Points 5 - 6.
4. Students enrolling for the first time at any USO University main campus or branch in the current year are the source for Success Point 7.

[77] Ohio Board of Regents. *State Share of Instruction Handbook: Providing the Methodology for Allocating State Share of Instruction Funds for FY 2012 and FY 2013 For Use by: University Main Campuses*. http://www.ohiohighered.org/sites/default/files/uploads/financial/ssi/HANDBOOK%20UB.pdf.
[78] Ohio Board of Regents. *State Share of Instruction Handbook: Providing the Methodology for Allocating State Share of Instruction Funds for Fiscal Year 2012 and Fiscal Year 2013.* October 31, 2011.
[79] Ohio Board of Regents. *Student Success Initiative.* July 29, 2010. http://regents.ohio.gov/hei/success_points.html

The three-year average of each of these Student Success points is used to calculate each Community and Technical College's share of the student success funding.

Table A.7. Higher education funding formulas in Ohio.

Ohio – Formula for universities	
Instructional Support	Average cost per credit hour multiplied by successfully completed credit hours (D or higher) weighted by STEM, graduate level, and at-risk student status.
Remedial Education	-
Operations and Maintenance	-
Academic Support	-
Student Services	-
Institutional Support	-
Scholarships	-
Public Service	-
Research	-
Performance Criteria	This degree cost is multiplied by the number of degrees earned at each campus weighted by degree, at-risk student status, and campus information and a percentage calculated to allocate the entire appropriation used for degree attainment plus institution-specific goals and metrics.
Workforce Development	-
Student-Derived Revenues	-

Ohio – Formula for regional universities	
Instructional Support	Average cost per credit hour multiplied by successfully completed credit hours (D or higher) weighted by STEM, graduate level, and at-risk student status.
Remedial Education	-
Operations and Maintenance	-
Academic Support	-
Student Services	-
Institutional Support	-
Scholarships	-
Public Service	-
Research	-
Performance Criteria	Institution-specific goals and metrics
Workforce Development	-
Student-Derived Revenues	-

Ohio – Formula for regional community and technical colleges	
Instructional Support	Average cost per credit hour multiplied by enrollment weighted by STEM, graduate level, and at-risk student status.
Remedial Education	-
Operations and Maintenance	-
Academic Support	-
Student Services	-
Institutional Support	-
Scholarships	-
Public Service	-
Research	-
Performance Criteria	Student Success Points
Workforce Development	-
Student-Derived Revenues	-

11. Oregon[80]

Oregon uses a Resource Allocation Model (RAM) to allocate state funding to Oregon State Universities. The RAM contains two mechanisms: (1) a per-student FTE basis that is funded through a cell matrix, and (2) a targeted program basis. In addition to the RAM, in 2011-2012, $6.4 million was reserved for initiative funding.

The component of funding driven by enrollment is calculated by multiplying fundable student FTE (Oregon residents (generally) enrolled in fall, winter, and spring) reported at the end of each term with funding values identified in 18 cells, which are defined by categorizing the Classification of Instructional Programs (CIP) Code into four levels of instruction. 2011-12 six additional cells were added to the original 12 to reflect priority graduate level funding for student FTE in certain fields of study deemed important to the Oregon economy. Though these cells may have been based on cost in the past, they have been discounted since the early 2000s to account for a decrease in state support.

Targeted programs, grouped by functions such as regional university support, engineering, research institutes/programs, and center services, are primarily mission-based rather than enrollment-driven, and account for approximately 37% of the state operations funding.

In 2011-2012, a reserve of $6.4 million was established for initiatives to advance student success goals or to recognize specific campus achievements in student success. For 2011-12, 50% of the reserve was allocated among the campuses based on the total number of resident Oregon degree recipients produced (including both undergraduate and graduate students) for 2010-11. In addition, the remain 50% was allocated among the campuses based on the number of declared underrepresented resident

[80] Lewis, Jan. Personal communication. 2012.
Oregon University System. (2011). *FAQs: Senate Bill 242*.
http://www.ous.edu/sites/default/files/state_board/workgroups/gpc/files/SB242FAQsFINAL.pdf
Oregon University System. *2011-12 Budget Summary Report.*
http://www.ous.edu/sites/default/files/dept/budget/files/2011-12BRS.pdf

Oregon degree recipients plus rural resident Oregon degree produced (including both undergraduate and graduate students) for 2010-11.

Table A.8. Higher education funding formulas in Oregon.

Oregon – Formula for higher education institutions	
Instructional Support	Average "cost" per credit hour multiplied by enrolled credit hours. Plus target program funding.
Remedial Education	-
Operations and Maintenance	-
Academic Support	-
Student Services	-
Institutional Support	-
Scholarships	-
Public Service	-
Research	-
Performance Criteria	Degrees received by Oregon residents, degrees received by underrepresented Oregon residents and rural Oregon residents.
Workforce Development	6 new cells in weighting matrix for instruction funding certain for fields of study deemed important to the Oregon economy.
Student-Derived Revenues	-

12. Pennsylvania[81,82]

Pennsylvania uses a funding formula that calculates the costs for instruction, support services, and physical plant. It also includes an adjustment for small universities.

The instruction component supports instruction, public service, and research and is calculated by multiplying the average of the two-year in-state full time equivalent enrollment by a course level and discipline cost matrix. The matrix is a 4 x 2 with the levels consisting of lower division, upper division, master's, and doctoral cost category and the disciplines are categorized as normal cost disciplines and high cost disciplines.

The support services component uses a flat dollar amount to support academic support, student services, and institutional support. The formula uses same two-year enrollment figures as used for the instruction calculation. The physical plant formula is calculated as 2.5% of the Education and General (E&G) facilities replacement value and 1.5% of the infrastructure replacement value, plus a fixed dollar amount per gross square foot where the gross square footage is the average of actual space inventory and space guidelines. The small university adjustment funds all universities at the amount needed for

[81] Pennsylvania State System of Higher Education. *Allocation Formula Overview.* http://www.passhe.edu/inside/anf/budget/Pages/Allocation-Formula.aspx.

[82] Pennsylvania State System of Higher Education. *2011-2017 Performance Funding Program*. http://mansfield.edu/academic-affairs/media/files/PBF%20Conceptual%20Framework%20Document%203-30-12%20Final%20(4).pdf.

1,000 students and provides additional support to universities with enrollment below 5,000 on a decreasing scale. The small university adjustment is funded entirely from state appropriation, while state appropriation and other revenues fund the main components of the formula.

Besides the allocation model, Pennsylvania employs a performance-based model to allocate approximately $36 million of $412 million total funding (2012-2013).[83] Pennsylvania four-year institutions must choose ten performance measures, consisting of five mandatory and five optional performance indicators, to be evaluated over a five-year period, with an optional 3-year review. The ten performance measures span three main principles: student success, access, and stewardship. In addition to these three areas, universities can also develop their own indicators, as approved by the Chancellor. For all indicators, university performance will be measured via progress toward institution-specific goals and against external comparisons or expectations. Each university has the ability to meet performance on each measure for a maximum total of ten points, or one point per measure. All points are totaled for each university and weighted by the university's base appropriations funding determined by the allocation formula, exclusive of the small university adjustment factor. The weighted points are divided into the total performance funding pool to create a dollar-per-point value that is multiplied by the number of points the university earned to establish the allocation.

The standardized performance measures universities can choose are listed below:

Student Success

Group I: Two measures

1. Degrees Conferred
    a. Number of associate, baccalaureate, and graduate degrees conferred
    b. Baccalaureate degrees awarded per FTE undergraduate enrollment
2. Closing the Achievement Gaps for Freshmen
    a. Closing the Achievement Gap for Pell Recipients
    b. Closing the Achievement Gap for Underrepresented Minority (URM) Students

Group II: Universities can select from the following:

1. Student Persistence
    a. Overall percentage of students returning for a third academic year
    b. Overall percentage of students returning for a fourth academic year
2. Value-Added—Senior CLA, CAAP, or ETS® Proficiency Profile Scores
3. STEM and Health Profession (STEM-HP) Degree Recipients—Percentage of university degree recipients in high need programs such as science, technology, engineering, mathematics(STEM), and health care
4. Closing the Achievement Gaps for Transfer Students
    a. Closing the Transfer Achievement Gap for Pell Recipients
    b. Closing the Transfer Achievement Gap for URM) Students

Access

Group I: Two measures

1. Closing the Access Gaps for Freshmen
    a. Closing the Access Gap for Pell Recipients
    b. Closing the Access Gap for URM Students
2. Faculty Diversity

[83] Lois Johnson, Director of Financial Management at Pennsylvania State System of Higher Education. Personal communication

a. Percent of full-time tenure/tenure-track faculty who are nonmajority persons
b. Percent of full-time tenure/tenure-track faculty who are female

Group II: Universities can select from the following:

1. Faculty Career Advancement
    a. Percent of Associate Professors who are nonmajority
    b. Percent of Associate Professors who are female
    c. Percent of Professors who are nonmajority
    d. Percent of Professors who are female
2. Employment (Nonfaculty) Diversity
    a. Percent of Executives who are nonmajority
    b. Percent of Executives who are female
    c. Percent of Professional staff who are nonmajority
    d. Percent of Professional staff who are female
3. Student Diversity
    a. Percent of total student enrollment who are federal Pell Grant recipients
    b. Percent of total student enrollment who are nonmajority
4. Closing the Access Gaps for Transfers
    a. Closing the Access Gap for Pell Recipients
    b. Closing the Access Gap for URM Students

Stewardship

Group I: One measure

1. Private Support—Three-year average of total dollars raised

Group II: Universities must select at least one from the following:

1. Facilities Investment
2. Support Expenditures as Percent of Cost of Education
3. Instructional Productivity
4. Employee Productivity

For two-year institutions, different funding formulae have been used for different institutions from the 1960s to 2011. The Pennsylvania Commission for Community Colleges has created a task force in 2011 to develop a unified funding formula, and a new funding model is currently being developed.

Table A.9. Higher education funding formulas in Pennsylvania.

Pennsylvania – Formula for universities	
Instructional Support	Two-year average of enrolled students multiplied by a level and cost matrix.
Remedial Education	-
Operations and Maintenance	2.5% of the Education and General (E&G) facilities replacement value and 1.5% of the infrastructure replacement value, plus a fixed dollar amount per gross square foot where the gross square footage is the average of actual space inventory and space guidelines
Academic Support	Two-year enrollment figures multiplied by flat dollar figure.
Student Services	
Institutional Support	
Scholarships	-

Public Service	Included in the instructional component
Research	Included in the instructional component
Performance Criteria	$36 million distributed on 10 institution-specific metrics.
Workforce Development	-
Student-Derived Revenues	Accounted for to meet the formula calculation

13. South Carolina[84]

South Carolina used to have a 100% performance-based funding formula until 2003. In 2003, the performance-based model was removed due to its complexity and was replaced by a non-performance-based method review below.[85] In January 2012, South Carolina announced its plan to reintroduce a performance-based funding model, which takes into account graduation rates, job placement, institutional outcomes in economic development, and services to disadvantaged students.[86]

Currently, South Carolina is using the Mission Resource Requirements (MRR) funding model to determine the state fund appropriation for research, teaching, regional, and technical institutions.

The instruction component of the formula is calculated using three-year rolling average of student credit hours, which are converted to FTEs based on student/faculty ratios. The resulting number of faculty is then multiplied by the regional average salaries for that discipline by sector. Salary data is from the College and University Personnel Association. Benefits are added. Instruction support is funded at a discipline-specific percentage of the faculty salary-based costs. The combined value of faculty costs and instructional support represents the total Instructional costs.

The formula calculates support for research at 30% of previous year's sponsored research expenditures at the institution is included to foster the continuation and expansion of research activities. Public Service support is calculated 25% of the previous year's sponsored public service and non-general fund public service expenditures at the institution. Support for libraries and student services is calculated on a per student headcount formula, adjusted for the size of the institution.

The formula calculates support for physical plant costs based on the building values, replacement costs of the Education and General (E&G) buildings, maintenance costs, custodial service/average hourly wage, the E&G square footage of buildings, and the total number of acres of regularly maintained areas.

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[84] South Carolina Commission on Higher Education. *FY 2008-2009 Mission Resource Requirements Funding Model (MRR).* http://www.che.sc.gov/Finance/Fin/MRRManual/2008-09_MRR_Booklet.pdf.
Julie Carullo SC Commission on Higher Education. Personal communication. May 2012.
Harnisch, Thomas L. (2011). *Performance-based Funding: A Re-Emerging Strategy in Public Higher Education Financing.* http://www.congressweb.com/aascu/docfiles/Performance_Funding_AASCU_June2011.pdf.
McLeod, Harriet. (April 11th, 2011). South Carolina Moves to Define Performance-based Funding Formula for Higher Education. *Diverseeducation.com.* http://diverseeducation.com/article/15010/.

[85] Community College Research Center (CCRC). *CCRC Working Paper No. 22, The Political Origins of State-Level Performance Funding for Higher Education.* The Cases of Florida, Illinois, Missouri, South Carolina, Tennessee, and Washington. http://ccrc.tc.columbia.edu/Publication.asp?UID=819.

[86] Harnisch, Thomas. "Performance-based Funding: A Re-Emerging Strategy in Public Higher Education Financing." *American Association of State Colleges and Universities: A Higher Education Policy Brief.*

Administration support associated with non-instructional faculty activities and academic and institutional support is calculated at 25% of the total costs for instruction, libraries, student services, and physical plant.

The resulting sum of support is then reduced by student revenues such as tuition and some fees in order to determine the amount of support required from the State. In 2008-2009, the target revenue for four-year institutions was 50% for in-state undergraduate students and 100% for out-of-state students. Target revenue for graduate students was 30% for instate and 100% for out-of-state students.

Table A.10. Higher education funding formula in South Carolina.

South Carolina – Formula for higher education institutions	
Instructional Support	Three-year rolling average of student credit hours, which are converted to FTEs based on student/faculty ratios. The resulting number of faculty is then multiplied by the regional average salaries for that discipline by sector.
Remedial Education	-
Operations and Maintenance	Based on the building values, replacement costs of the Education and General (E&G) buildings, maintenance costs, custodial service/average hourly wage, the E&G square footage of buildings, and the total number of acres of regularly maintained areas.
Academic Support	Discipline-specific percentage of the faculty salary-based costs plus library support.
Student Services	Headcount formula.
Institutional Support	25% of the total costs for instruction, libraries, student services, and physical plant.
Scholarships	-
Public Service	25% of the previous year's sponsored public service and non-general fund public service expenditures at the institution.
Research	30% of previous year's sponsored research expenditures at the institution.
Performance Criteria	-
Workforce Development	-
Student-Derived Revenues	Accounted for to meet the formula calculation of need.

14. Tennessee[87,88]

In 2010, the *Complete College Tennessee Act* required the development of a new outcomes-based funding formula that emphasizes student retention and degree completion. The outcomes-based formula accounts for approximately 85% of the state appropriation. The remainder is allocated to fixed costs, legislative initiatives, and the Performance Funding: Quality Assurance component, which is

[87] Tennessee Higher Education Commission. *Outcome Based Formula Explanation.* January 2011. http://tn.gov/thec/complete_college_tn/ccta_files/outcomes_based_ff/Outcomes_Based_Formula_Explanation.pdf.

[88] Tennessee Higher Education Commission Fiscal Affairs. *Dynamic Outcomes Funding Formula.* http://www.tn.gov/thec/Divisions/Fiscal/fiscal_affairs.html

discussed below. The Tennessee funding framework allows for different weightings for each institution to reflect the different missions of each institution. Hence, no two institutions have the same weightings. However, each data input is rescaled or normalize the data, if necessary, so it is comparable across variables. The scaling is constant across institutions and are listed in Table A.11. In addition, adult and Pell- eligible student receive a 40% premium in the calculations.

Table A.11. Tennessee outcomes-based formula scaling weights.

Community College Outcomes	Scales	University Outcomes	Scales
Students Accumulating 12 hrs	2	Students Accumulating 24 hrs	1
Students Accumulating 24 hrs	2	Students Accumulating 48 hrs	1
Students Accumulating 36 hrs	2	Students Accumulating 72 hrs	1
Dual Enrollment	2	Bachelors and Associates	1
Associates	1.5	Masters/Ed Specialist Degrees	0.3
Certificates 1-2 Years	1.5	Doctoral / Law Degrees	0.05
Certificates Less Than 1 Year	1.5	Research and Service	20,000
Job Placements	0.5	Transfers Out with 12 hrs	1
R & D Success	5	Degrees per 100 FTE	0.02
Transfers Out with 12 hrs	2	Six-Year Graduation Rate	0.04
Workforce Training	50		
Awards per 100 FTE	0.05		

Tennessee has different weights on the performance components dependent on the institutional mission as shown in Table A.12 and Table A.13. Most institutions have different weightings, yet some institutions have similar missions and therefore the same weights such as East Tennessee State University (ETSU) and Tennessee State University (TSU); however, due to the 40% premium on certain outcomes for low-income and adult students, the actual calculations may be different with the same inputs. The weighting structure was determined by the Formula Review Committee and is based on institutional mission and, at the university level, informed by Carnegie Classification. Priorities were determined by each institution's leadership with input from the Formula Review Committee. While the weighting structure may be adjusted in the future to reflect evolving institutional missions, there are no current plans to change the weighting in the near term.

To calculate funding levels, a three-year average of outcome data are collected from the statewide student information system, rescaled or normalized if necessary, and weighted according to the institution's mission. The results are then multiplied by southern regional board average faculty salary amounts. Added to this are maintenance, operations, and equipment fixed costs to produce the estimated need. Of the estimated need, the state is expected to cover 66.67% at community colleges and 55% at universities while tuition and fees are expected to cover the rest. Since out-of-state fees decrease the subsidy amount needed, out of state tuition revenue is subtracted. Distributions are made on a pro-rata basis per institution when the state does not fund 100% of the formula. No base allocation is guaranteed, and all funding must be earned anew each year.

Table A.12. Tennessee outcomes-based formula weights for universities.

Universities	APSU	UTM	TTU	UTC	MTSU	ETSU	TSU	UM	UTK
Students Accumulating 24 hrs	3%	3%	3%	3%	3%	3%	3%	2%	2%
Students Accumulating 48 hrs	5%	5%	5%	5%	5%	5%	5%	3%	3%
Students Accumulating 72 hrs	7%	7%	7%	7%	7%	7%	7%	5%	5%
Progression	*15%*	*15%*	*15%*	*15%*	*15%*	*15%*	*15%*	*10%*	*10%*
Bachelors and Associates	25%	30%	25%	25%	25%	25%	25%	25%	15%
Masters / Ed Specialist Degrees	20%	15%	15%	15%	15%	15%	15%	15%	15%
Doctoral / Law Degrees	0%	0%	5%	5%	7.5%	7.5%	7.5%	10%	10%
Research and Service	10%	10%	10%	10%	12.5%	12.5%	12.5%	12.5%	15%
Transfers Out with 12 hrs	10%	10%	10%	10%	5%	5%	5%	5%	5%
Degrees per 100 FTE	10%	15%	10%	10%	10%	10%	10%	7.5%	10%
Six-Year Graduation Rate	10%	5%	10%	10%	10%	10%	10%	15%	20%
	100%	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Bachelors degrees; little research/doctoral degrees

Extensive doctoral degrees and emphasis on research

Table A.13. Tennessee outcomes-based formula weights community colleges.[89]

Community Colleges	CHSCC	CLSCC	COSCC	DSCC	JSCC	MSCC	NASCC	NESCC	PSCC	RSCC	STCC	VSCC	WSCC
Students Accumulating 12 hrs	6%	6%	4%	6%	6%	6%	4%	4%	6%	2%	4%	2%	4%
Students Accumulating 24 hrs	7%	7%	5%	7%	7%	7%	5%	5%	7%	3%	5%	3%	5%
Students Accumulating 36 hrs	7%	7%	6%	7%	7%	7%	6%	6%	7%	5%	6%	5%	6%
Progression	*20%*	*20%*	*15%*	*20%*	*20%*	*20%*	*15%*	*15%*	*20%*	*10%*	*15%*	*10%*	*15%*
Dual Enrollment	5%	10%	10%	5%	5%	5%	5%	5%	10%	10%	5%	10%	10%
Associates	5%	15%	10%	10%	20%	10%	20%	20%	20%	20%	10%	20%	20%
Certificates 1-2 Years	5%	1%	4%	2%	3%	0%	7%	17%	0%	6%	2%	4%	1%
Certificates Less Than 1 Year	5%	9%	1%	8%	7%	5%	13%	3%	5%	14%	18%	16%	19%
Total Certificates	*10%*	*10%*	*5%*	*10%*	*10%*	*5%*	*20%*	*20%*	*5%*	*20%*	*20%*	*20%*	*20%*
Job Placements	20%	5%	5%	10%	5%	10%	10%	10%	10%	15%	10%	5%	5%
Remedial & Developmental Success	10%	20%	10%	20%	15%	10%	10%	5%	5%	5%	20%	10%	10%
Transfers Out with 12 hrs	15%	10%	20%	15%	10%	20%	10%	10%	15%	10%	5%	15%	10%
Workforce Training (Contact Hours)	10%	5%	5%	5%	5%	5%	5%	5%	10%	5%	5%	5%	5%
Awards per 100 FTE	5%	5%	20%	5%	10%	15%	5%	10%	5%	5%	10%	5%	5%
	100%	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

[89] *Ibid.*

In addition to Tennessee's outcome-based formula, the Tennessee Higher Education Commission has a separate performance funding program that has been in operation for 30 years. All public universities and community colleges have been able to "earn" additional funds (up to 5.45 percent of the institution's state funding) on the basis of quality improvement as measured by a common set of indicators. A collective $50 million is awarded annually for evidence of improved quality in programs and services. For 2010-15, 100 percent of Performance Funding points are now dedicated to quality assurance. Thus, the 2010-15 Performance Funding Program reinforces the Funding Formula but does not duplicate its purpose. Within the performance pool, institutions choose five subpopulations to measure quality of student learning and engagement and access and success that are important to their mission and service area.[90] This results in institution-specific performance metrics that are reviewed every five years.

Tennessee's change from a primarily enrollment-driven approach to an output approach has resulted in campuses bringing in extra student advisors, increasing tutoring and remedial classes, fast-track majors, and developing extra courses between semesters.[91]

Table A.14. Higher education funding formula in Tennessee.

Tennessee – Formula for higher education institutions	
Instructional Support	-
Remedial Education	-
Operations and Maintenance	
Academic Support	-
Student Services	-
Institutional Support	-
Scholarships	-
Public Service	-
Research	-
Performance Criteria	Degree awarded, progress metrics, quality metrics.
Workforce Development	-
Student-Derived Revenues	Subtracted from estimated need.

The Board of Trustees and the Board of Regents set the tuition and fees for the institutions under their respective control. According to the Tennessee Code Ann. § 49-7-2014, the fees collected by the institution are deposited in the state treasury and credited to a special agency account. Tuition collected by the institutions is appropriated by the legislature through a funding formula – i.e., student revenue is subtracted from estimated need.[92,93]

[90] Tennessee Higher Education Commission. *The Public Agenda for Tennessee Higher Education 2010-2015. http://www.tn.gov/thec/complete_college_tn/ccta_files/master_plan/The%20Public%20Agenda%20with%20Appendices%20Jan2011.PDF*

[91] Harnisch, Thomas. "Performance-based Funding: A Re-Emerging Strategy in Public Higher Education Financing." *American Association of State Colleges and Universities: A Higher Education Policy Brief.*

[92] *State of Tennessee Budget. Fiscal Year 2012-2013*. PP. B-370.

[93] SHEEO. *2010-2011 State Tuition, Fees, and Financial Assistance Survey 2010-2011*. http://www.sheeo.org/finance/tuit/.

15. Texas

The Texas system of public higher education encompasses 35 general academic teaching institutions (including law schools), with three new institutions emerging by the end of 2011; 50 community and junior college districts; one technical college system with four main campuses; three lower-division state colleges; and nine health-related institutions, which operate a total of eight state medical schools, three dental schools, two pharmacy schools, and numerous other allied health and nursing units. Formulas are utilized to calculate institution-level allocations for higher education, but do not reflect how the allocation may ultimately be spent, as appropriations to institutions are made in a lump sum. Texas funding formulas are driven principally by enrollment and the actual cost of program delivery; however, they also differentiate teaching costs by tenure and tenure-track professors versus adjunct and graduate student instructors when calculating supplements. Texas has a small performance fund that is distributed outside the formula and is only applied to general academic institutions, not community colleges or health-related institutions.

More than half of state appropriations for general academic teaching institutions are allocated via an instruction and operations formula, teaching experience supplements, an infrastructure formula, and a small institution supplement.

General academic teaching institutions
Instruction and Operations supports faculty salaries, departmental operating expenses, instructional administration, and libraries with the following formula. The Texas Legislature approves the program and level weights as well as the rate. The rate is based on available funding, and in 2010-2011 the rate was $62.19 per weighted semester credit hour. The program and level weights are based on an aggregation of actual costs from institutions' annual financial reports. Currently, the Coordinating Board uses a rolling three-year average to adjust the weights each biennium. The semester credit hours are calculated by the number of students enrolled in a class multiplied by the number of credit hour of the class, and then summed over the entire university for a specific a base period. For the 2010-2011 biennium the base period covered summer 2008, fall 2008, and spring 2009. The instruction component of the formula calculates support by multiplying the enrolled student credit hours by the program weight and the credit hour rate.

Texas uses a statewide Infrastructure rate ("all other rate") that is augmented by an adjusted utility rate that is calculated for each institution to incorporate different utility costs from institution to institution. The rate is multiplied by a square feet measure that is the result of the Coordinating Board's Space Projection Model for Higher Education Institutions in Texas. The model is based on full-time-student equivalents with consideration of degree level (undergraduate, master, doctorate), because Texas states that upper level students require less special or general use space, classrooms, and class labs. Each type of program is allowed a specific amount of square feet per FTE for each level. For undergraduate space, this amount of space is slightly reduced with every 1,000 FSTE above 15,000. The space funded for libraries is dependent on the collection size, which is dependent on the number of faculty, and number and level of fields. The space funded for research can be calculated two ways: 1) First, an institution can receive funding for certain amount of research space per $1 million average research expenditures; 2) Alternatively, an institution can receive funding for a certain amount of research space per FTSE. Funding for office space is also funded by two methods: 1) First, office space can be funded on a per full-time equivalent faculty basis; 2) Alternatively, office space can be funded according to current

educational and general expenditures reported by the institution. Support space is funded at 9% of the sum of teaching, library, research, and office space allocations.

Texas also funds several non-formula items for general academic institutions. Texas provides its small institutions with a Small Institution Supplement of $750,000 (2010-2011) if enrollments are less than 5,000. In addition, institutions with 5,000-10,000 student enrollments receive a declining proportion of $750,000 as enrollment figures reach 10,000. Institutions can also request appropriation for specific campus-projects. In addition, the Legislature-funded Research Development Fund distributes funds to faculty for individual projects, such as laboratory and equipment upgrades and graduate student tuition. Furthermore, Texas's version of performance-based funding is distributed outside the funding formula through a performance incentive initiative, which distributed $80 million in fiscal year 2009 for increases in degrees awarded, with special weights given to critical fields and at-risk students.

Appropriations to Texas's health-related institutions are calculated primarily through Instruction and Operations Support, Infrastructure Support, and Research Enhancement as well as mission-specific formulas. For instruction each FTE is multiplied by the program weight and $11,129 for the 2010-2011 biennium. Programs with enrollments less than 200 receive a Small Campus Supplement. Infrastructure is funded using a square footage factor. However, the space model has different rates in addition to including a multi-campus adjustment. In addition to the Research Enhancement appropriation, a supplement for graduate medical education is added by multiplying $6,653 by the number of medical residents per year. The Chest Disease Center and the Cancer Center also receive special per Texas patient supplements. Health-related institutions do not receive any funding tied to performance criteria.

Texas community colleges have local support in addition to state support. State appropriations are funded entirely through a funding formula based on student contact hours. Special supplements are provided to community colleges outside the formula for small institutions and dramatic enrollment factors. No physical plant support is provided by the state. Texas vocational and technical schools are funded in a similar way to community colleges, except that physical plant support is provided by the state per the infrastructure formula of general academic institutions. Developmental education courses are funded through the instructional allocations.

Only a portion of student-derived revenues is budgeted through the state budgeting process. The statutory tuition rates are set by the legislature and are included in the "general revenue-directed funds" along with some of the student fees. The revenue is transferred from the institutions to the state Treasury. For all institutions besides community colleges, the appropriated student-derived revenues offset the general fund appropriation as determined by Texas' higher education funding formula. Institutions can set tuition higher than the statutory rate, and set aside the difference for specific purposes. Fee and tuition revenues that are set-aside for specific purposes are not counted in the calculation of general appropriation funds. During fiscal year 2009, total student revenues were $4.7 billion, of which $3.7 billion (78%) were not deposited into the state Treasury. During fiscal year 2009, statutory tuition revenue was 32 percent ($1.0 billion) of $3.2 billion of tuition revenue statewide. Community college student-derived revenues are considered to be institutional funds and are neither set or appropriated by the state.[94]

[94] Texas Legislative Budget Board Staff. *Texas State Government Effectiveness and Efficiency: Selected Issues and Recommendations.* January 2011. PP. 493-508.

Student derived-revenues

For every Texas institution, 25% of student-derived revenues are appropriated through the legislature and transferred from the institutions to the state Treasury and the remaining 75% of revenues are kept on campus. The statutory tuition rates are set by the legislature and are included in the "general revenue-directed funds" along with some of the student fees. The appropriated student-derived revenues offset the general fund appropriation as determined by Texas' higher education funding formula. Institutions can set tuition higher than the statutory rate and set aside the difference for specific purposes. Fee and tuition revenues that are set-aside for specific purposes are not counted in the calculation of general appropriation funds.[95]

Future of performance-based funding

House Bill 9 of 2011 directs the Higher Education Coordinating Board to propose an outcomes-based funding methodology. They have proposed two different formulas to be considered by the Legislature in 2013.

Table A.15. Higher education funding formulas in Texas.

Texas – Formula for universities	
Instructional Support	Multiplying the enrolled student credit hours by the program weight and the credit hour rate.
Remedial Education	-
Operations and Maintenance	Rate multiplied by a square feet measure that is the result of the Coordinating Board's Space Projection Model for Higher Education Institutions in Texas
Academic Support	-
Student Services	-
Institutional Support	-
Scholarships	-
Public Service	-
Research	1,412,500 + 1.48% X Research Expenditures (Health Institutions)
Performance Criteria	$80 million in fiscal year 2009 for increases in degrees awarded, with special weights given to critical fields and at-risk students. (General teaching institutions)
Workforce Development	-
Student-Derived Revenues	Subtracted from estimated need.

Texas – Formula for community colleges and technical colleges	
Instructional Support	Based on student contact hours
Remedial Education	-
Operations and Maintenance	Rate multiplied by a square feet measure that is the result of the Coordinating Board's Space Projection Model for Higher Education Institutions in Texas (Technical colleges)
Academic Support	-
Student Services	-
Institutional Support	-

[95] Texas Legislative Budget Board Staff. *Texas State Government Effectiveness and Efficiency: Selected Issues and Recommendations.* January 2011. PP. 493-508.

Scholarships	-
Public Service	-
Research	-
Performance Criteria	-
Workforce Development	-
Student-Derived Revenues	Subtracted from estimated need. (Technical colleges)

16. Virginia[96]

Virginia uses a funding formula that weights institutions differently according to their mission. Virginia has no set performance-based criteria for funding; however, in exchange for more autonomy institutions must meet performance-based benchmarks dependent on each institution's individual agreement with the state.

Virginia has used a funding formula called the Base Budget Adequacy Formula since 2000. The formula calculates Instructional appropriations using full-time equivalent student enrollment. The student enrollment numbers are transformed into FTE faculty count by the use of student-to-faculty ratios, which differ by discipline and level. Higher class levels have lower student-to-faculty ratios. The resulting FTE faculty positions are multiplied by the average faculty salary to calculate direct Instructional Costs. Instructional Support Costs are calculated at 40% of the direct costs. The sum of the direct instructional Costs and Instructional Support Costs result in the total funding level for instructional programs.

Academic Support, Institutional Support, and Student Service Programs are supported at different levels for different institutions to reflect their unique missions. Virginia institutions are classified as research, doctoral, master's/comprehensive, baccalaureate, or two-year. Each type of institution has a different funding multiplier for each program. Academic Support and Institutional Support are calculated by applying a multiplier to the sum of total support, which is mainly based on FTE enrollment, while Student Services funding is based on a dollar amount per headcount student. Operations and Maintenance is also funded as a percentage of the total Instruction, Academic Support, and Student Services funding level.[97]

As part of the 2000 study on higher education that produced this funding formula, the committee recommended that Virginia adopt performance-based accountability under institutional performance agreements. Performance-based accountability was never directly calculated within the formula; however, the institutions agreed to comply with their institutional performance agreements in exchange for more autonomy from the state in relation to their non-state funds.[98] As long as the institution has been certified by the State Council of Higher Education for Virginia as meeting educational-related performance benchmarks, then the institution is allowed to hold and invest its tuition revenues,

[96] State Council of Higher Education for Virginia. Senate Finance Committee Education Subcommittee Presentation. http://sfc.virginia.gov/pdf/education/SCHEV%20SF%20presentation%20on%20base%20adequacy%20(1-18-07).pdf.

[97] Virginia Legislature, *Legislature's Joint Subcommittee on Higher Education Funding Policies Recommendations.* December 18, 2000. University of Virginia, *Budget Overview 2010-2011.* State Council of Higher Education for Virginia, *SCHEV Review of Base Adequacy Funding Guideline Methodologies and Process*, 2007.

[98] Restructured Higher Education Financial and Administrative Operations Act, Chapter 4.10 (§ 23-38.88) of Title 23*, VII. Financial Resource Retention and Management*.

education and general fees, research and sponsored program funds, and all other non-general fund revenues. Funds still have to be deposited, but certified institutions can draw down the sum on the same business day they were deposited.[99]

In 2010, Virginia's governor instituted the Governor's Commission on Higher Education Reform, Innovation and Investment, which seeks to significantly increase undergraduate degrees as well high need degrees. The commission is currently considering a variety of performance-based funding options.[100] In January of 2012, the Virginia Governor announced his desire to go to performance funding: A"I am proposing a dynamic new funding model for higher education that ties new general funds to achieving our statutory goals. Institutions will be rewarded for increasing the number of degrees, especially in STEM-H fields; improving graduation rates, and expanding practical research. It will also require colleges to be more accountable and efficient, by reprioritizing 5 percent of their current general fund dollars by 2014 to meet the key policy goals we enacted last year, including year round use of facilities and greater use of technology to leverage more programs and courses."[101]

Table A.16. Higher education funding formulas in Virginia.

Virginia – Formula for universities	
Instructional Support	Enrollment numbers are transformed into FTE faculty count by the use of student-to-faculty ratios, which differ by discipline and level. The result is multiplied by the average faculty salary plus 40% of the direct costs.
Remedial Education	-
Operations and Maintenance	Percentage of the total Instruction, Academic Support, and Student Services funding level.
Academic Support	Different percentage for different institutions to reflect their unique missions multiplied total support.
Student Services	Different levels for different institutions to reflect their unique missions multiplied by headcount.
Institutional Support	Different percentage for different institutions to reflect their unique missions multiplied total support.
Scholarships	-
Public Service	-
Research	-
Performance Criteria	-

[99] Restructured Higher Education Financial and Administrative Operations Act, Chapter 4.10 (§ 23-38.88) of Title 23*, IX.* Disbursement Management.

[100] Crowder, Melinda and Steven Janosik, "Performance Funding in Virginia Higher Education," *Virginia Issues and Answers: A Public Policy Forum*, Volume 7, Number 2, PP. 25-29, 2001. State of Virginia, *Higher Education Commission – Mission and Priorities*, http://www.education.virginia.gov/initiatives/HigherEducation/MissionAndPriorities.cfm.

[101] Harnisch, Thomas and Emily Parker. *2012 Gubernatorial State of the State Speeches and Higher Education.* February 29, 2012. http://*aascu.org/.../State%20of%20the%20States%202012(2).pdf*

Appendix B: Narratives of States That Do Not Use a Formula for Higher Education Funding

1. Alaska[102]

The University of Alaska is codified in the state's constitution, and its funding therefore has a statutory basis. As a practical matter, the legislature generally begins with the past year's funding level and then considers how to reach the funding level requested by the University of Alaska Board of Regents' unified budget, which is itself based on requests from the three major academic units (or "MAUs" – Fairbanks, Anchorage, and Juneau). Once funding is approved by the legislature it falls under the direct control of the Board of Regents, but for practical purposes funding is controlled by the Chancellors of each MAU.

Alaska sets aside a pool of approximately 1% of the overall higher education budget for performance-based funding. Performance factors include degree production (especially in high need areas), undergraduate retention, and the progression of community college students from remedial to credit-bearing courses. Each MAU decides on each institution performance metrics, and controls the distribution of the performance funds, which "should be allocated to appropriate strategic investments and reported as part of the overall performance and accountability process."[103]

2. Colorado[104]

The Colorado Commission on Higher Education uses a three-part model to create a budget based on the Governor's "budget mark". In general, each institutional is allocated what they received last year (base) and an addition based on enrollment increases to address the Commission's principles: providing adequate funding to keep all institutions open, addressing the significant enrollment growth at some institutions during the current economic downturn and providing funding for high cost programs. Since in the recent past general fund budget has been reduced, the reduction has been taken out of the base, though enrollment increases have been distributed, the total amount has also been reduced.[105]

Colorado requires institution-specific performance contracts for institutions that participate in the College Opportunity Fund program. Each one of the performance contracts is individually tailored

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[102] Oba, University of Alaska, Academic Affairs & Research. Personal communication. 2012.
University of Alaska System of Higher Education, 2010. *Performance Evaluation Guidelines.*

[103] University of Alaska System of Higher Education. *Performance Evaluation Guidelines*. 2010.

[104] Brodhed, Patrick. (2012). *Colorado Department of Higher Education FY 2012-13 Staff Figure Setting (JBC Working Document).* Denver, CO.
Colorado Commission on Higher Education. (2011). *Agenda Item III, B: Proposed FY 2012-13 General Fund Allocation.*
Colorado Senate Bill 11-052. (2011). http://www.leg.state.co.us/clics/clics2011a/csl.nsf/fsbillcont3/63B087D7A1DC83D687257801006051AC?open&file=052_enr.pdf.
National Conference of State Legislatures. (2011). *Higher Education Legislation in 2011.* https://www.ncsl.org/issues-research/educ/highereducationlegislation2011.aspx.
Engdahl, Todd. "Education budget decisions delayed." *EdNews Colorado.* March 5, 2012. http://www.ednewscolorado.org/2012/03/05/34334-education-budget-decisions-delayed

[105] Department of Higher Education. *ES-1 – FY 2011-12 Higher Education Budget Balancing General Fund Reduction.* Online.

to the specific governing board's unique role and mission; however, most performance contracts include several common performance measures, principally in areas related to student access and success. Colorado is currently reviewing its funding methods, and plan to tie future performance contracts to funding.[106]

Student-derived revenues

Although it had previously appropriated tuition and fee revenues, Colorado has enacted legislation that temporarily modifies this arrangement. For the period FY2011-12 through FY2015-16, fees will continue to be appropriated, but tuition revenues will be retained under the authority of institutional governing boards.[107]

3. Delaware[108]

Higher education funding in Delaware is provided as part of the annual appropriations bill for all state general fund appropriations. Each institution's Board of Trustees develops a budget, which is presented to the Office of Management and Budget, and passed along for the Governor's consideration in developing the recommended budget. Joint Finance Committee hearings are held for all agencies, and a proposed budget is drafted and presented to the legislature for voting. Generally the funding base is the previous year's total budget, which will be adjusted based on mandatory or discretionary spending items, depending on the state's financial situation. Allocated state funds for higher education generally fall under the control of individual institutions, but may be restricted by the funding bill.

4. Iowa[109]

The Board of Regents of the State of Iowa governs all three of Iowa's public universities and two special schools; therefore, individual institutions do not have their own boards. Funding is not based on enrollment or any other factor; rather, the legislature starts with the base budget from the previous year, and may add or subtract funds, or allocate a flat amount. This can be classified as a "base plus" method. The Board of Regents approves operating and restricted fund budgets. Occasionally the legislature adds unique funding for operations or capital funds for specific purposes that will not be included in the base amount.

State operating funds are generally designated for a specific institution to cover various expenses including salaries, support, maintenance, equipment, and other miscellaneous purposes. "Special purpose" operating units, including the State Hygienic Lab at the University of Iowa, Cooperative Extension at Iowa State University, the Recycling and Reuse Center at the University of Northern Iowa, and economic development programs at each institution, are funded separately from the central higher education budget.

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[106] Colorado Department of Higher Education. *Higher Education Strategic Plan FY 2012-13*. November 2011.

[107] Colorado Department of Higher Education, *Policies & Procedures, Section VI. Part C, rev*. February 4, 2011. http://highered.colorado.gov/Publications/Policies/Current/vi-partc.pdf. SHEEO *2010-2011 State Tuition, Fees, and Financial Assistance Survey 2010-2011*: http://www.sheeo.org/finance/tuit/.

[108] Maureen Laffey, Delaware Department of Education, Personal Communication. May 17, 2012.

[109] Brad Berg, Board of Regents, State of Iowa. Personal Communication. April 25, 2012.

5. Kentucky[110]

Since 2006, Kentucky institutions of higher education have been funded using a "base plus" system, although due to the current economic climate the total base plus amounts requested have often not been met. The state supplements this funding with The Bucks for Brains (B4B) program, which requires institutions to match state funds with private contributors, including philanthropists, corporations, foundations, and other non-profits. The matched funds are invested and remain unused, but earnings on the principal are used to fund faculty positions, programs, or scholarships. There are six B4B funds: Research Challenge, Regional University Excellence, Technology Initiative, Physical Facilities, Postsecondary Workforce Development, and Student Financial Aid and Advancement.[111]

6. Maine[112]

Maine does not use a higher education funding formula for its universities or community colleges, nor is there any statutory basis for funding practice. Although a "base plus" system has been used in the past, the state is going to try zero-based budgeting for the next biennium. The legislature may restrict funds either for specific purposes, or for specific institutions. Four-year institutions fall under the authority of the University of Maine System Board of Trustees, and funds not restricted by the legislature are controlled and distributed to individual institutions by the Board of Trustees. Each university then develops an annual budget that must be approved by the Board of Trustees.

7. Michigan[113]

Michigan does not currently use a formula for higher education funding for either universities or community colleges, instead allocations have recently been based on past year's allocations, with budget cuts being distributed proportionally among the institutions.[114] The legislature is debating currently a proposal by the Governor for a 3% increase in higher education funding that will be tied to

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[110] Bill Payne, Kentucky Council on Postsecondary Education, Personal communication. May 1, 2012.

[111] Kentucky Council on Postsecondary Education. *Kentucky's Bucks for Brains Initiative: The Vision, The Investment, The Future, 1997-2007*. 2010.

[112] Miriam White, Director of Budgeting & Financial Analysis, University of Maine System. Personal Communication May 4, 2012.

[113] Confer, Karen. (March 28th, 2012). MSU, U-M advocate alternative higher education funding metric. *Michiganpolicy.com.* Retrieved from http://www.michiganpolicy.com/index.php?option=com_content&view=article&id=1185:msu-u-m-advocate-alternative-higher-education-funding-metric&catid=74:state-budget-blog&Itemid=111.

Robert Murphy and Beth Bullion, Michigan Department of Technology, Management & Budget. Personal communication. May 7, 2012 and June 18, 2012.

Eisler, David L. (2011). *Performance-based Funding, House Appropriations Subcommittee on Higher Education, Ferris State University.* http://www.ferris.edu/HTMLS/administration/president/presentations/2011-2012/Performance_based_funding.pdf.

Jen, Kyle I. (2012) *FY 2012-13: Higher Education, Summary: As Passed by the Senate, Senate Bill 955 (S-1) as Amended.* http://www.house.mi.gov/hfa/Summaries/12s955s1%20Higher%20Ed%20Summary_senate%20passed%20w%20attach.pdf.

[114] Matthew Miller, "Funding formula idea worries leaders at state universities; Officials fear they might not have time to adjust", *Lansing State Journal*, April 6, 2011.

performance measures for FY 2013. The proposed approach in the Executive Budget uses four metrics. The following metrics each carry funding of $9 million and data for each metric are used to determine the dollar amount per unit of measure and the allocation to institutions:

1. Growth in undergraduate degree completions measured by three-year average change in undergraduate degrees.
2. Three-year average number of undergraduate degree completions in critical skill areas.
3. Three-year average number of all undergraduate students receiving Pell grants.
4. Tuition restraint based on a percentage increase in resident undergraduate tuition.

8. Missouri[115,116]

Missouri typically uses a "base plus" system for all higher education funding. Each institution makes an annual budget request to the state's Coordinating Board for Higher Education, which then makes a unified budget request for all institutions to the Governor and the General Assembly. The Governor then makes a recommendation, but the actual budget bills must be passed by the legislature. Due to the current budget climate no requests for funding increases have been entertained by the Governor for several years.

In August 2011, the governor of Missouri states that his administration is working on "recommendations for a public funding formula based on performance achievements — rather than past allotments and enrollments."[115]

9. Nebraska[117]

Nebraska does not use a formula to distribute state funds to its University and State College system. The Governor and Legislature use a "base plus" approach: the current appropriations for each institution become the base, and the University and State Colleges lobby for additions to the base. None of the state appropriated funding is based on enrollment growth, number of degrees conferred, or any other performance metrics.

State appropriations for community colleges used to be based on a formula that did include enrollment growth, weighting of course costs, ability to generate tax funds, and some other factors. However, starting in 2011, the state no longer uses a formula to distribute state funds to the community colleges. Rather, the state determines the overall amount of funding for the community colleges, and then those funds are distributed by percentages based on the amount each college received the last time the state used the formula.

[115] Sampson, Tim. "Governor calls for higher education funding fix." *Missouri News Horizon.* August 26, 2011.
[116] Wagner, Paul. Missouri Department of Higher Education. Personal communication. May 1, 2012.
[117] Pfeil, Carna. Associate Director at Coordinating Commission for Postsecondary Education. Personal communication. May 2012.

10. New Hampshire[118]

New Hampshire higher education has a biennial budget that is determined by the funding amount of the previous year and available state resources. In addition, the state's political processes can influence the amount of funding.

11. North Dakota[119]

North Dakota no longer uses a formula for state fund appropriations for its higher education institutions. In the past, North Dakota had used a Peer Institutions Comparison method to calculate the appropriate amount of funding for each school. This was done to try to close the gap in the distribution of resources across universities and colleges in North Dakota. The Peer Comparison model provided funding to institutions that were judged to have satisfactorily closed the gap with peer benchmarked institutions.

12. Oklahoma[120]

Oklahoma's higher education has had reductions in state appropriations in recent years; therefore, no funding formula has been used in the allocation process in the last few years. Oklahoma is currently developing a new performance-based funding model. An updated 2013 outcomes-based formula has recently been proposed but has yet to be implemented. If Oklahoma's senior institutions receive any new funding for FY2013, then the updated performance-driven formula will be used. The new model will incorporate the following factors:

- Campus completion plan in conjunction with the Complete College America (CCA) goals;
- Retention rates from 1st to 2nd year;
- Pell grant retention from 1st to 2nd year;
- 24 hours completion rate;
- Graduation rates;
- CCA degree target completion;
- Number of certificates/degrees conferred; and
- Program accreditation.

13. Rhode Island[121]

Since 2007, Rhode Island has experienced an annual decrease in funding for higher education. Rhode Island has never used a funding formula to appropriate state funds for its higher education. The state

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[118] Cody, Ken. Chancellor for Financial Affairs and Treasurer/CFO at University System of New Hampshire. Personal communication. May 2012.

[119] Glatt, Laura. Vice Chancellor for Administration Affairs of North Dakota University System. Personal communication. May 2012.

Parmley, Kelli, Bell, A., et al. (2009). *State Budgeting For Higher Education In the United States - As Reported For Fiscal Year 2007.* http://www.sheeo.org/finance/Budgeting_For_Higher_Ed.pdf.

[120] Mauck, Sheri. Oklahoma Budget and Finance Oklahoma State Regents for Higher Education. Personal Communication. May 2012.

Oklahoma State Legislature. (2012). *Lawmakers Seek to Reform Higher Ed Funding*. http://www.okhouse.gov/okhousemedia/news_story.aspx?NewsID=4236

[121] Trainer, Michael. Rhode Island Board of Governors for Higher Education. Personal communication. May 2012.

legislature decides the amount of funding, which reflects the economic and political climate of each year.

14. Utah[122]

Utah does not use a specific funding formula for its higher education appropriations. The Utah state legislature determines funding amounts for Utah universities and community colleges using a "base budget plus" method, which factors in a cost of living allowance, such as employee salaries and fringe benefits, and tuition. The Utah Legislature has established "mission based funding" as a basis for higher education appropriations in Utah. Instead of funding institutions appropriation increases based solely on enrollment growth, mission-based funding will consider both enrollment growth and the strategic priorities for colleges and universities.[123]

15. Vermont

Vermont does not use a funding formula for higher education institutions. Funding is determined annually on an ad-hoc basis at the discretion of the state.

16. Washington[124]

Washington does not use a funding formula for higher education instead use a "base plus". The plus for Washington's community and technical college system is based a performance, which distributed some of the base based on achievement points. The Washington Higher Education Coordination Board was abolished in 2011, effective July 2012, and will be replaced by the Student Achievement Council. The Council's responsibilities will include identifying budget priorities and the levels of funding necessary for major policy changes in higher education.

Washington incorporated performance-based funding for both its two-year and four-year public institutions through an appropriation act that required the state to withhold a small portion of the base appropriation from each institution in 1997. The withheld amount was distributed if institutions achieved performance targets. Four-year institutions' targets included persistence, completion, faculty productivity, and graduation efficiency (credits completed versus credits need to graduate). Two-year institutions' targets included transfer rates, course completions, wages of occupational training graduates, and graduation efficiency. The use of performance criteria for both types of institutions was then abandoned in 1999 due partly due to politics, but also due to several issues that have been found to contribute to the failure of performance-based funding across applicable states: [125]

- Higher education's lack of support for performance funding systems,
- Difficulty in meeting performance criteria,
- Insufficient attention to institutional diversity, and
- Incongruence between the goals of the legislature and the goals of the institutions.

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[122] Marshal, Darren. Audit and Financial Services of Utah System of Higher Education. Personal communication. May 2012.

[123] "State Strategies Vary Amid Budget Squeeze." *Community College Week* February 20, 2012.

[124] Washington State Board for Community and Technical Colleges, "Student Achievement Initiative." http://www.sbctc.ctc.edu/college/e_studentachievement.aspx

[125] Dougherty, Kevin and Rebecca Natow. "The Demise of Higher Education Performance Funding Systems in Three States." *CCRC Working Paper No.* 17. May 2009.

In 2007, the Washington State Board for Community and Technical Colleges resurrected performance-based funding by allocating a portion of its institutions' budgets based on student success. The system rewards colleges when students reach various achievement points in their academic careers. One point is awarded each time a college student:

- Makes nationally recognized standardized test gains in math or in English language reading or listening as measured by pre- and post-testing or by earning a GED or high school diploma
- Passes a remedial math or English course with a qualifying grade to advance toward college-level work
- Earns the first 15 college-level credits
- Earns the first 30 college-level credits
- Completes the first 5 college-level math credits
- Earns a certificate backed by at least one year of college, earns a two-year degree or completes an apprenticeship

Each college will receive awards for improvements in student achievement measured by net gains in its total momentum points over the previous year. Prior to each academic year, Washington State Board for Community and Technical Colleges sets the dollar value per point based on the total dollars available for awards. ($1,148,360 for 2011-12) The dollar value per point is set conservatively so that funds available should cover all projected rewards. There is no upper limit to the number of points that can be earned by a college. If funds available do not cover all earned rewards, the unfunded points will be banked for incentive rewards the following year. Once earned, the reward is added to the college's base budget.

Performance results

Between the 2006-07 baseline year and 2008-09, the first performance year, the colleges served 4% more students but increased student achievement by 19% with gains in all categories, including the largest increases in gaining college ready skills. In 2009-10, points again increased in all categories. Total achievement increased by 12 percent or 40,716 total points compared to student population growth of 1%. In 2010-11, completions increased by 17 percent over one year prior. College math points were the second highest increase (5 percent), a result, the system claims, of more attention being paid to both math and pre-college math.

17. West Virginia[126]

In 2011, the West Virginia Commission on Higher Education approved a new funding formula for higher education; however, it has not yet been used by the Commission or West Virginia to distribute funding. In the past, West Virginia has funded higher education through peer-based funding models that drove the appropriation requests.

The approved new funding formula follows the trend of other formula states. Instruction is funded by multiplying student enrollment hours by a discipline-weighted matrix where more costly courses are

[126] Schumaker, Ashley. West Virginia Higher Education Policy Commission. Personal Communication. May 17, 2012. Financing West Virginia's Future: A Funding Model for Higher Education. WVHEPC Efficiencies Project. January 21, 2011. https://www.wvhepc.org/efficiency.

funded at a higher rate. However, the weighted matrix is also weighted higher for upper division courses, with the assertion that this rewards retention.[127] The weighted credit hours are then multiplied by a legislatively set rate based on average revenue per credit hour. The rate takes into account student-derived revenue, with the goal of moving to 50% state support and 50% student support.

The formula contains a component to maintain equity with peer institutions and another for performance funding. There are also incentives for increased bachelor degree production and increased enrollment of adults over the age of 25. The proposed appropriation addition is about $8,000 per increased degree or increased student. In addition, the formula rewards institutions for course completion by measuring the ratio of credit hours completed to credit hours attempted. The proposed addition to appropriations is about $14,000 for each percentage point above 70%.[128]

18. Wisconsin[129]

The State of Wisconsin allocates resources to the University System of Wisconsin using a "base plus" funding method. A base level of funding is established, and incremental changes are made based on funding for specific initiatives. The UW system must request funding for specific items, justify those requests, and use the new funds for the purposes requested. The new funding that is received is distributed in a manner that is consistent with how the funding was provided to the system. For example, with funding for high demand faculty, the increases are distributed based on each institution's proportion of faculty within the UW System. Funding for particular programs, such as majors, goes only to the institutions that have those majors. Utilities funding is distributed based on previous expenditure of utilities (an indicator of need), plus funding to support expected increases due to new facilities at an institution.

The largest source of increased revenue in most years is for pay plan increases. That funding is distributed to institutions based either on actual cost (in the case of classified staff increases) or as a percentage of an established payroll base (for unclassified staff). The latter (calculated percentage) is the preferred method as it can be calculated earlier and provides institutions more certainty about the revenue available to them.

Annually, the Board of Regents passes institution-specific allocations in the form of block grants and may at that time decide to change how resources are allocated to the institutions.

There is no additional formal performance funding. The state asks each agency to provide performance measures with their budget requests each biennium, but does not provide additional resources based on that performance. In addition, the 2011-2013 Board of Regents budget tied their budget request to the "Wisconsin Growth Agenda", which they focus on producing more graduates.[130]

[127] Legislative Oversight Commission On Education Accountability Meeting Packet. September 13, 2011. P. 52.
[128] Task Force on Efficiencies, West Virginia Higher Education Policy Commission. *Financing West Virginia's Future: A Funding Model for Higher Education.*
[129] Harris, Freda. University of Wisconsin System. Personal Communication. April 25, 2012.
[130] The University of Wisconsin System. *2011-13 Biennial Operating Budget.* August 2010.

19. Wyoming[131,132]

Wyoming funds higher education in the state budget via a University of Wyoming general fund block grant. Appropriation increases are informally, but not directly, tied to enrollment growth. The Community College Commission administrative budget and the state aid to college program is also appropriated as a lump sum that is based on funding parity with a group of comparator colleges from across the nation; however, it is distributed based on a formula that separates fixed costs (base) and variable costs that are tied to enrollment (plus). The model accounts for local support and allows specific requests from colleges for program funding related to state initiatives, such as economic development goals.

Wyoming has no performance-based criteria tied to funding besides requests for specific initiatives; however, the University of Wyoming, and the Community College Commission publish an annual report that details their performance on a wide variety of performance-based metrics.[133]

The University of Wyoming retains and controls all student-derived fees. Student-derived fees are accounted for in the distribution of funds to community colleges from within the general appropriation to the Wyoming Community College Commission.

[131] University of Wyoming. "The University's Funding and Response to State Funding Reduction." *Self-study*. http://www.uwyo.edu/accreditation/_files/docs/selfstudy_chap10.pdf.
Barron, Joan. "Wyoming lawmakers scrutinize community college funding." *Wyoming Star-Tribune. March 29, 2012*
[132] Wyoming Community College Commission. *Fiscal Handbook.*
[133] Wyoming Community College Commission. *Annual Report 2011.*

Appendix C: Narratives of States That Use a Hybrid (Formula/Non-Formula) Approach for Higher Education Funding

1. California (formula for CSU and CCC, non-formula for UC)[134]

As mandated by the 1960 *California Master Plan for Higher Education*, California state higher education is comprised of three systems: the University of California (UC), California State University (CSU), and the California Community Colleges System (CCCS). Each system has its own board, and there are 72 local CCCS boards. The California Postsecondary Education Commission (CPEC), established in 1974, is responsible for statewide coordination and has an advisory role to the governor and the legislature. Each system has a separate funding procedure. Student-derived revenues are handled differently by each of the three systems.

CSU

Since 1993, CSU has used a formula based on FTE enrollment, where one FTE = 15 semester units. This is used to create a "base" budget for Instruction, which may change from year to year due to FTE targets, faculty salary requirements, and program needs. Academic Support, Student Services, Institutional Support, and Plant Operations are normally treated as "fixed" budgets and adjusted only in special situations. Operating expenses have in the past been tied to FTE enrollment, but recent reductions have not allowed this budget to grow with the enrollment target. California State University (CSU) campuses also retain control of student-derived revenues but the funds are accounted for through an appropriations process.

CCC

CCC funding is governed by Proposition 98, which sets K-14 funding in the state. This provides three formulas or "tests," one or more of which must be used to set funding levels:

- Test 1 – Share of General Fund. Provides 39% of General Fund revenues.
- Test 2 – Growth in Per Capita Personal Income. Increases prior-year funding by growth in attendance and per capita personal income.
- Test 3 – Growth in General Fund Revenues. Increases prior-year funding by growth in attendance and per capita General Fund revenues.[135]

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[134] California Senate Bill No. 724 (2005). http://www.leginfo.ca.gov/pub/05-06/bill/sen/sb_0701-0750/sb_724_bill_20050922_chaptered.pdf.

California State Auditor. (2011). *University of California, July 2011 Report 2010 - 105. Sacramento, CA.*

Communication with Deborah Obley, UCOP.

Communication with staff member, CSU Media Office.

Legislative Analyst's Office. (2005). *Proposition 98 Primer.* http://www.lao.ca.gov/2005/prop_98_primer/prop_98_primer_020805.htm.

San José State University, Academic Affairs Division. *Budget Allocations, Fiscal Year 2011/2012*.

Wandling, Tim. 2009. *Understanding Marginal Cost formula and its relationship to SSU budgeting*. Sonoma State University, CA.

[135] Legislative Analyst's Office. *Proposition 98 Primer.* 2005. http://www.lao.ca.gov/2005/prop_98_primer/prop_98_primer_020805.htm.

Which test is used depends on the state's economic performance and the availability of General Fund revenues. Test 1 was last used in 1988-89; Test 2 is normally used in years when General Fund revenues have grown; and Test 3 is usually applied when General Fund revenues have decreased or have shown only slow growth. The California Legislature may restrict funds allocated under Proposition 98 if it so wishes. It may also, with a two-thirds vote, suspend Proposition 98 and provide any level of K-14 funding it wishes.

California Community Colleges are funded through state general fund appropriations, local property taxes, and a legislative-set student fee, which is deposited with the state. CCCS's student revenues are appropriated through the state legislature, and the general fund appropriation is offset by student revenues. CCCS's programs are funded through a program-based funding formula, which sets the target allocations. The state apportionment is calculated by the following formula:

State apportionment = target allocation – (property tax revenue) – (98% of fees)[136]

UC

UC has used a "base plus" system since the 1990s, both in the allocation of funds from the state to the UC system and from the UC system to the system's individual campuses. The UC system negotiates a new funding agreement with each governor. As of May 2012, the latest agreement with Governor Brown had not been finalized, but typical past metrics have included fulfilling UC's goal of admitting anyone in the top 12.5% of California high school graduates, graduation rates, persistence rates, and admission of community college transfers.

Since 2007, each individual campus of the University of California (UC) system retains the majority of tuition and fees paid by its students. All nonresident tuition is retained at the source campus. However, a current proposal by the UC Office of the President will enable campuses to retain nearly all revenues they generate.[137]

2. Florida (formula for 2-year institutions, non-formula for 4-year institutions)[138]

Florida has both a State University System, which governs senior institutions (four-year institutions), and a Division of Florida Colleges, which is responsible for community colleges (two-year institutions). Funding mechanisms differ for each.

Universities

The State University System prepares a budget, which is submitted to the Governor and the Florida Legislature. The Legislature then allocates funds to the system itself (not individual institutions). In 2004, Florida established a formula for the State University System which, although it did not change universities' existing base budgets, was designed to support university programs by calculating needs by level (lower, upper, Grad I, Grad II and Grad III) adjusted by three university groups. It included

[136] Murphy, Patrick J. *Financing California's Community Colleges*. Public Policy Institute of California 2004. P. 39.

[137] California State Auditor. "Appendix A: University funding sources and methods for budgeting funding to campuses." *University of California: July 2011 Report 2010-105.*

[138] Jones, Tim. Florida Board of Governors. Personal communication. May 2012.

Florida Board of Governors, *Funding Formula Recommendations 3-3-04* (Word document).

Florida Higher Education Coordinating Council. (2012). *Higher Education Coordinating Council 2012 Work Plan.* http://www.floridahighereducation.org/_doc/The-2012-HECC-Work-Plan-8.pdf.

components for research, public support, library staffing, university support, student financial aid, student services, academic advising, tuition waivers, remedial education, library resources, offsetting inflation, technology support/resources, branch campuses, regional campuses, the University of Florida's Institute of Food and Agricultural Sciences (IFAS), and health sciences. However, this formula has not been used since FY2007-08 due to the decline in available state revenue. Appropriations have been made in a "base plus" methodology, though the "plus" has been a minus. Student-derived revenues are authorized through the appropriations act, but are kept on campus.[139]

An older performance-based funding formula was based on factors including overall degree completion and degree completion and employment of at-risk students (defined as racial/ethnic minorities, non-native English speakers and disabled). This provision was never implemented for senior institutions.[140] However, the Board of Governors has formed a working group that is expected to make recommendations for a new performance-based funding formula in the fall of 2012.

College System[141]

Florida's model for allocating funds within the Florida College System uses a unique standards based approach. Although full-time equivalent (student enrollment) is a critical factor in their funding model, a host of other factors that directly impact an institution's ability to offer a quality education that meets the needs of its students and communities are also considered. From the calculated funding need is subtracted legislatively-appropriated funding and anticipated student fee revenues, adjusted for legally-mandated waivers and exemptions, to arrive at the calculated increase in state support needed. Each college's proportional share of this "calculated unmet need" represents their share of any new funding appropriated for the system. The actual funding process remains base-plus, but the allocation process is based on the following formula:

- The Instruction component is calculated by the class size multiplied by credit hour load multiplied by facility salary rates.
- Instructional support is calculated as a percentage of the sum of the faculty salary component. The percentage varies among institutions.
- Academic support is calculated by multiplying the three-year average student FTE by the base academic support rate and then adding Educator Preparation Institute, supplement for small colleges, supplement for multi-campus colleges, and a technology refresh supplement.
- The library funding calculation is based on quantitative national standards for materials and staffing and the experience, analysis, and research of the College Center for Library Automation.
- The student services calculation is based on a fixed base with some variable costs dependent on institution.
- The institutional support calculation is based on a fixed base with some variable costs dependent on institution.
- The operations and maintenance support calculation is based on a fixed base with increased support for increased FTE students.
- A standardized student fee is deduced from the sum of the total need.

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[139] State University System of Florida Board of Governors. *2012-2013 Allocation Summary and Workpapers: Education and General.* Page 11, 14, and *http://www.flbog.edu/about/budget/allocation_summary.php*

[140] Dougherty, Kevin J., Rebecca S. Natow, Rachel J Hare, and Blanca E. Vega. (2010). *The Political Origins of State-Level Performance Funding for Higher Education: The Cases of Florida, Illinois, Missouri, South Carolina, Tennessee, and Washington.* Community College Research Center Working Paper No. 22. Page 8.

[141] Florida College System, Budget Office*. 2012-2013 Resource Allocation Funding Model*.

The resulting "need" is compared across institutions' current appropriations, and the "plus" portion of appropriation is allocated according to this comparison ratio.

The performance measures dropped by senior institutions in 1997 continue to remain in effect for community colleges; 1-2% of state funding for the Division of Florida Colleges is tied to these goals. Community colleges must submit a performance-based program budget, and good performance is rewarded by extra funding from the state, added to the existing base budget. Though this funding remains in status, it has not been applied in the past two budget cycles.[142]

Table A.17. Higher education funding formulas in Florida.

Florida – Formula for community colleges	
Instructional Support	Class size multiplied by credit hour load multiplied by facility salary rates
Remedial Education	-
Operations and Maintenance	Fixed base with increased support for increased FTE students
Academic Support	Multiplying the three-year average student FTE by the base academic support rate and then adding Educator Preparation Institute, supplement for small colleges, supplement for multi-campus colleges, and a technology refresh supplement
Student Services	Fixed base with some variable costs dependent on institution
Institutional Support	Fixed base with some variable costs dependent on institution
Scholarships	-
Public Service	-
Research	-
Performance Criteria	-
Student-derived revenues	A standardized student fee is deduced from the sum of the total need.

3. Hawai'i (non-formula base for 2-year institutions with performance funding formula, non-formula for 4-year institutions)[143]

Senior (4-year) institutions in Hawai'i are allocated base budget funding, and modifications to individual programs are considered by the legislature. If approved, the modifications are allocated as add-ons to the base budget. Salary increases are also negotiated separately with the legislature. Generally, distribution of funds at the university level is up to the University of Hawai'i system itself. Although the performance funding formula recommended by the Act 188 task force has been endorsed by the University of Hawai'i Board of Regents, it is not yet in effect for four-year institutions because the state has not provided the funding to implement it. However, the Board of Regents is committed to the performance-based concept and will implement the program should the legislature fund it in the future.

[142] HCM Strategists. *Performance Funding in Indiana. An Analysis of Lessons from the Research and other State Models.* 2012. http://*www.hcmstrategists.com/content/Indiana_PFReport2_8.2.11.pdf*.
[143] Act 188 Task Force. (2011). *University of Hawai'i System Report.*
Morton, John. University of Hawaii. Personal Communication. 2012.

Nevertheless, the performance funding formula is in effect for the University of Hawai'i community college system, which used it to implement approximately 3% of the base state funds in the last fiscal year. It must be noted, however, that the performance funding was paid for by American Recovery and Reinvestment Act (ARRA) restoration monies, and not "new" state funds.

The Act 188 Task Force recommended the following performance measures: degrees and certificates awarded, an overweight for degrees and certificates awarded to Native Hawaiian students, an overweight for degrees and certificates awarded to students in STEM fields, the number of low-income students participating in the Federal Pell program, and the number of transfers from the community colleges to the baccalaureate campuses. Each outcome is considered independently of the others. Each campus has differently weighted factors to reflect its own particular mission. A campus can only reach its full funding potential if it meets or exceeds the goals for each measure; any funds that are not distributed lapse to the general fund. The Task Force did not recommend a formula to cover enrollment, but rather that funds be set aside for future enrollment growth.

Student-derived revenues

Higher education in Hawai'i is organized under the unitary University of Hawai'i (UH) System, which manages all public graduate, undergraduate, and community college campuses in the state. The University of Hawai'i System is governed by a board of 15 regents appointed by the governor and acting through a President. The board controls both policy and management of the system, and student-derived revenues are deposited into state accounts from which they may later be withdrawn.

The board's control over tuition and student fees dates from the 1990s, when, during a time of recession, the state granted the UH System more control over its own finances. The board raised tuition considerably during the next decade. Because in Hawaii tuition and financial aid policies are linked, this resulted in more state investment in financial aid. It also resulted in more students being granted tuition waivers. Although authority over waivers was given to the president of the UH System, the president also had the authority to delegate this responsibility, with the result that in practice the individual campuses have some degree of autonomy in using them.

Because of the control over waivers, the campuses have some input into the system's financial procedures, although not total control of all student-derived revenues. Local input also comes through the public meetings the Board of Regents holds before all tuition adjustments. This must of course be considered in light of the fact that the UH System is highly centralized and serves a polity with a relatively small population by the standards of most U.S. states.[144]

[144] Bell, Julie Davis, Blanco et al. *Integrating Higher Education Financial Aid and Financing Policy: Case Studies from the Changing Direction Technical Assistance States*. February 2008. *University of Hawai'i Website*: https://www.hawaii.edu/.

4. Idaho (Base plus where the plus is formula based)[145]

Idaho starts the budgeting process by considering the prior year's funding and land grant endowment receipts. Each institution receives an amount equal to the previous year's base funding, and then adjustments are made to cover changes in compensation, benefits, enrollment growth, and new programs. Programs are assigned to one of four groups, each with different weights by category and level. An Enrollment Workload Adjustment is calculated for each institution as follows:

Step 1: ((total base budget) x 0.67)/3-year moving average of previous year's total credit hours weighted by program = amount per credit hour
Step 2: (amount per credit hour) x change from previous (that is, from last year's calculations) 3-year moving average = adjustment

Student derived revenue
Up until 2005, higher education institutions in Idaho were only allowed to charge resident students a "matriculation fee" to the institution at which they study, much like in Nevada. In 2005, a state law was passed allowing only Boise State University, Idaho State University, and Lewis-Clark State College to charge residents for tuition and to use the revenues generated to pay for instruction. In 2010, the Idaho Legislature passed an amendment allowing the University of Idaho to impose tuition and fees on all students enrolled.[146] The funds collected by institutions in the higher education system of Idaho generally must be deposited into designated state accounts, and the legislature must approve the expenditure of the funds.[147]

5. Illinois (formula for 2-year institutions, non-formula for 4-year institutions)[148]

Two-year institutions

Illinois community colleges are funded by grants, principally Base Operating Grants and Equalization Grants. Base Operating Grants are driven by enrolled credit hours in six categories (Baccalaureate,

[145] Coffman, Mitch. (December 12th, 2011). State Board of Education may look to performance-based funding to fix higher education equity problem. *Idaho reporter.com. Retrieved from* http://www.idahoreporter.com/2011/state-board-of-education-may-look-to-performance-based-funding-to-fix-higher-education-equity-problem/.
Coffman, Mitch. (December 1st, 2011). Committee told state has no clear definition of higher education funding equity levels. *Idaho reporter.com.* Retrieved from http://www.idahoreporter.com/2011/committee-told-state-has-no-clear-definition-of-higher-education-funding-equity-levels/.
Idaho State Board of Education. (2011). *Draft Minutes State Board of Education December 7-8, 2011.*
Idaho State Board of Education. (2006). *Governing Policies and Procedures.* http://www.boardofed.idaho.gov/policies/documents/policies/v/v_s_allocation_of_the_lump_sum_appropriation_02-06.pdf.
[146] The Idaho Legislature. Senate Joint Resolution 101. http://www.legislature.idaho.gov/legislation/2009/SJR101.htm.
[147] Bell, Julie Davis, Blanco et al. *Integrating Higher Education Financial Aid and Financing Policy: Case Studies from the Changing Direction Technical Assistance States*, February 2008. *Idaho State Board of Education Website*: https://www.boardofed.idaho.gov/.
[148] Matt Berry, Illinois Board of Higher Education. Personal Communication, May 2012.

Business, Technical, Health, Remedial, and Adult Education), and by square footage for operations and maintenance. When the state cannot meet the full funding target, the credit hour rate is adjusted downwards. Equalization Grants are designed to make sure that community colleges operating in districts with a limited tax base have the funds necessary to support basic operations. In recent years, Illinois has not been able to fully fund either the Base Operating Grant or the Equalization Grant.

Four-year institutions

Higher education funding in Illinois is appropriated annually by the General Assembly and allocated through direct operating support, indirect operating support, institutional grant programs, and student financial aid programs. Public higher education institutions receive most of their funding through direct operating support, most of which is unrestricted and can be used for various operating purposes. Specific operations funding is also appropriated for activities such as adult basic education, workforce preparation programs, and technical education.

Illinois' public four-year institutions each prepare a budget, which will typically include various factors including salary support, new facility operations and maintenance funding, increases in energy costs, and new program requests. The Illinois Board of Higher Education may make additional recommendations for these budgets, but the Governor and the General Assembly have the final say over actual funding levels. The allocation is determined using a "base plus" method.

After the Illinois Higher Education Finance Commission's 2010 report discussing performance-based funding as an option for the state, the Illinois House and Senate passed performance-based legislation in 2011, with the goal of introducing performance-based budgeting by fiscal year 2013.

Table A.18. Higher education funding formulas in Illinois.

Illinois – Formula for community colleges	
Instructional Support	Enrolled credit hours in six categories (Baccalaureate, Business, Technical, Health, Remedial, and Adult Education),
Remedial Education	-
Operations and Maintenance	Square footage
Academic Support	-
Student Services	-
Institutional Support	-
Scholarships	-
Public Service	-
Research	-
Performance Criteria	-
Student-derived revenues	-

6. Indiana[149,150]

Indiana's higher education funding starts with a "base" with adjustments to the base being calculated by a formula, which has driven by enrollment. Enrollment numbers have been based on enrollment numbers on the last day of class.[151] However, as reviewed below, Indiana began switching to a successfully completed course driver in 2009. In addition, Indiana funds workforce development outside the formal formula through a Workforce Development Incentive that funds non-credit coursework.

In 2003, Indiana added an incentive fund to reward the state's research universities for federal research funds awarded, and in 2007, performance-based funding was expanded to include all institutions. The formula provides incentives for an increase in the number of degrees, increase in on-time graduation rates, increase in transfer rates from two-year colleges to four-year colleges, types of degrees, degree completion by low-income students, and dual credit hours, as well as research grant incentives. The base funding based on enrollment remained intact in 2007; however, in 2009 10% of the enrollment-based funding was shifted to a performance-based system, based on the metric of successfully completed credit hours with a grade of at least a D-. In 2014, the enrollment component will shift to 100% completed credit hours.[152]

In the beginning, only new money was allocated via a performance funding formula. However, in the 2011-2013 budget, 5% of base funding was allocated via the performance funding formula via the metrics displayed in Table A.4. In addition in 2012, the Indiana state budget was cut and performance criteria were used to distribute budget reductions. Institutions with better performance and lower costs received smaller cuts than those with higher costs and lower completion rates.[153] Institutions with positive performance results receive extra funding; however institutions with negative performance results are not penalized.

Table A.19. Higher education funding formulas in Indiana.

Indiana – Formula for all institutions	
Instructional Support	Enrollment driven. Course completion being phased-in.
Remedial Education	
Operations and Maintenance	
Academic Support	

[149] Indiana Commission for Higher Education. *Funding Public Higher Education in Indiana: Context, Method, Possibilities.* July 2, 2003. http://www.in.gov/che/2429.htm
Indiana Commission for Higher Education. *2011-13 CHE Higher Education Budget Recommendation.* http://www.in.gov/che/files/2011-13_CHE_Higher_Education_Budget_Recommendation_v3_Old_Calc_SSCH__12-14-10.pptx

[150] HCM Strategists. *Performance Funding in Indiana: An Analysis of Lessons from the Research and Other State Models*. August 8, 2011. http://www.hcmstrategists.com/content/Indiana_PFReport2_8.2.11.pdf. HCM Strategists. *Indiana's Effort to Reward College for Performance.*

[151] Crellin, Matthew, Darrell Aaron, David Mabe, and Courtney Wilk. *Catalyst for Completion: Performance-based Funding in Higher Education.* March 2011 New England Board of Higher Education.

[152] Bautsch, Brenda and Ronald Williams. "Recommendation Nine: College Completion." *The College Completion Agenda State Policy Guide.* CollegeBoard Advocacy & Policy Center. 2010. http://completionagenda.collegeboard.org/sites/default/files/reports_pdf/Policy_Rec_Nine.pdf.

[153] Lederman, Doug. "Performance (De-)Funding." *Inside Higher Edu*. December 28, 2009 http://www.insidehighered.com/news/2009/12/28/indiana.

Student Services	
Institutional Support	
Public Service	
Scholarships	
Research	Separate initiative

Performance Criteria	5% of base starting in 2011.
	• Total degree attainment change – 60%
	  ○ Low income degree attainment change – 15%
	  ○ On-time degree attainment change – 15%
	  ○ Change in overall degree attainment – 30%
	• Total completion of credit hours – 25%
	  ○ Successful completion of credit hours – 18.7%
	  ○ Dual credit successful completion of credit hours – 5.5%
	  ○ Early college successful completion of credit hours – 0.8%
	• Research incentive – 15%

Workforce Development	Workforce Development Incentive
Student-Derived Revenues	-

7. Kansas (formula for 2-year institutions, non-formula for 4-year institutions)[154]

Four-year institutions

Senior (4-year) institutions of higher education in Kansas are governed by the Board of Regents, and the state uses a "base plus" method to fund these universities. University funding is allocated from state general funds to the Board of Regents, and is then distributed by the Board of Regents to individual institutions according to a formula uniquely negotiated by each institution with the Board of Regents.

Any new money distributed to an institution is based on compliance with performance agreements that the Kansas Board of Regents signs with each institution. Performance metrics are based on improvement. Although they must be aligned with Kansas' Foresight 2020 plan, performance metrics are chosen by each institution to suit its own mission, and to help cover costs in institutions that have less ability to generate tuition revenues. Though the exact criteria differ from institution to institution, they address factors such as increasing diversity, improving student achievement test scores, aligning the higher education system and the needs of the Kansas economy, increasing institutional quality, and providing student services.[155] The amount available for performance funding depends on the institution's agreement with the Board of Regents, and the distribution of new funds (although there have not been any for some years) also depends on performance.

[154] Duffy, Diane. Kansas Board of Regents. Personal communication. May 2012.
Kansas SENATE BILL No. 143
Duffy, Diana and Kelly Oliver. Staff Memo on Budgeting for Higher Education. September 21, 2011.
[155] Kansas Board of Regents. *2011 Performance Agreements*. http://www.kansasregents.org/resources/PDF/1698-BoardDec2011PerformanceAgreements.pdf.

Two-year institutions

Although the Board of Regents coordinates rather than governs two-year institutions, Community Colleges and Technical Schools must also negotiate a unique performance agreement aligned with the state's Foresight 2020 plan. Starting in FY2012-2013, they will be funded under an enrollment and cost model, which is still being developed.

8. Maryland (formula for Regional Higher Education Centers, non-formula for other institutions)[156]

Maryland higher education funding generally follows a "base plus" system. A specific exception to this was the allocation of state funds from FY2007-2009 to subsidize enrollment growth. However, all Maryland Regional Higher Education Centers (RHECs) will be switching to a performance-based funding model beginning in FY 2014. The formula provides a base allocation of $200,000 for each center, incentive funding for FTEs, lease funding for those institutions that lease space, and special funding to cover one-time or start-up costs. In 2010, the legislature mandated that total base funding for all RHECs be $1.75 million in future years.

9. Montana (formula for 2-year institutions, non-formula for 4-year institutions)[157]

Four-year institutions

Montana has not used a funding formula for state fund appropriations for its four-year institutions – Montana State University and the University of Montana, and their respective affiliates – for the past few years. The previous budget sessions have used a base budget concept where an inflation factor was added to the expenditures made in the base budget.

Two-year institutions

Montana's three two-year institutions, namely Dawson College, Miles City College, and Flathead Valley College, have a funding formula defined by state law. Since 1981, the general fund appropriation for Montana community colleges has been determined by multiplying three factors: 1) the cost of education per FTE student, 2) annual FTE student enrollment projections, and 3) the state percent share of funding. For a more accurate estimation of the cost of education (COE), Montana recalibrates the average cost of education every two years based on average figures across the community colleges. The updated COE is used to calculate fixed/variable cost of education. The variable cost of education per student, which is the total variable costs for the base year divided by the actual FTE students, is multiplied by the aggregated FTE count of three colleges, and then the fixed cost of education is added to this product. The product of the first part of the calculation is finally multiplied by the state percent share, which is based on the legislature's public policy decisions, to determine the level of the state general fund for Montana community colleges.[158]

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[156] Maryland House Bill 1228 (2012). http://mlis.state.md.us/2012rs/bills/hb/hb1228f.pdf.

[157] Houser, Frieda, Director of Accounting & Budgeting at Montana University System. Personal communication. May 2012.

Montana State University. (2010). *Perf Based Funding.* http://techsci.msun.edu/strizich/perf_based_funding.htm.

[158] Montana Legislature. *Funding Formula Review Work Plan Item.* http://leg.mt.gov/content/publications/fiscal/subcommittees/PEPB/2007_interim/Funding_Formula_Discussion.pdf.

10. New Jersey (formula for 2-year institutions, non-formula for 4-year institutions)[159]

Four-year institutions

Currently, there is no funding formula used to allocate funding to New Jersey's four-year institutions. Each four-year institution requests an amount it needs for operations and instructions, and the New Jersey Legislature and Governor make the final decision on appropriations.

Two-year institutions

Funding for New Jersey Community Colleges is based on a funding formula containing four components: Foundation Aid, Access Aid, Non-Credit Aid, and Differential Group funding.[160]

- Foundation Aid is the total foundation aid for a given fiscal year, which is equivalent to the prior year's aid level plus an adjustment based on the change in the state operating aid. Foundation Aid is maintained at a ratio of approximately 28% of the total aid.
- Access Aid is a fixed amount of approximately $10 million that is distributed to all 19 New Jersey community colleges.
- Non-Credit Aid is another fixed amount of around $6 million that is distributed to the 19 New Jersey community colleges.
- Differential Group Funding is determined by subtracting total Foundation Aid, Access Aid and Non-Credit Aid from the total state operating aid for a given fiscal year. Differential funding is allocated based on audited credit hour enrollments. The base rate for each institution is determined by dividing the total number of credit hours for all institutions by the total amount of differential funding, and then the base rate is applied against each institution's credit hours to determine the level of its differential funding.

11. New Mexico[161] (base plus with 5% base and new funding be allocated via formula)

New Mexico's Higher Education Department (HED) implemented a new funding formula for fiscal year 2013 as required by legislative action in 2011. The new funding formula is used for calculating workload and funding needs for the budget recommendation submitted to the executive and legislative branches. The State of New Mexico uses three separate funding formulas for research universities, regional or comprehensive universities, and two-year colleges to reflect the mission differentiation of each type of institution. This formula is a "base plus" model that defines the base as each institution's fiscal year 2012 instruction and general appropriations adjusted for utility costs. Five percent of the total base will

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[159] New Jersey Higher Education Task Force. (2010). *Report of the Governor's Task Force on Higher Education*. http://www.state.nj.us/highereducation/documents/GovernorsHETaskForceReport.pdf.

[160] Lam, Linda E. *New Jersey Community College Funding Formula*. Online.

[161] New Mexico Higher Education Department. *Educating Tomorrow's Workforce: New Mexico's Higher Education Funding Formula for Fiscal Year 2013*. October 14, 2011. http://www.nmsu.edu/~budget/PDF%20Files/HED_Ed_Funding_Formula_FY2013.pdf.

Russell, Brigette, New Mexico Higher Education Department. Personal communication. May 2012.

New Mexico Higher Education Department. (2011). *Educating Tomorrow's Workforce: New Mexico's Higher Education Funding Formula for Fiscal Year 2013*. https://www.nmsu.edu/~budget/PDF%20Files/HED_Ed_Funding_Formula_FY2013.pdf.

New Mexico Legislature. (2011). *LFC Hearing Brief, June 17th 2011.* http://www.nmlegis.gov/lcs/lfc/lfcdocs/Higher%20Education%20Funding%20and%20State%20Lessons%20on%20Funding%20to%20Outcomes.pdf.

be calculated by output measures. In addition, any new funding allocated to the system will be allocated by the following formulas.

Research Universities

New Mexico's formula for *research universities* is based on completed student credit hours for all courses for which a student received a letter grade, pass-fail grade, incomplete, or audit complete. These student credit hours are multiplied by the following credit hour cost matrix:

Formula Cost Factors			
Tier	*Lower*	*Upper*	*Graduate*
1	$153.67	$313.77	$655.42
2	$219.53	$479.73	$894.14
3	$341.49	$548.17	$1,417.10

There is an additional funding factor based upon the total number of undergraduate and graduate degrees and postgraduate certificates awarded by each institution, which are multiplied by the following cost matrix:

Tier	Bach Degree	Master Degree	Doctorate	1st Prof	Post Bach Cert	Post MA Cert
1	$33,000	$24,434	$80,727	$80,727	$5,809	$14,306
2	$47,623	$35,261	$116,499	$116,499	$8,383	$20,645
3	$69,792	$51,675	$170,732	$170,732	$12,286	$30,255

For fiscal year 2013, this funding factor is 2% of the total cost of generating the degree produced at each institution. Degrees and certificates in STEM fields are an additional funding factor that is funded at 3% of the total cost to produce degrees. The funding formula also includes a factor for at-risk student degrees (defined as students whose expected family contribution would make them eligible for Pell grants). This factor is funded at 3% of the total cost to produce degrees. Currently the interim committee is looking at expanding the formula to include sector-specific formula factors, such as a research factor, a quality factor, a progress factor, and a factor that rewards success of transfer students.

Comprehensive universities

New Mexico's *comprehensive universities* are regional universities that produce master's degree and bachelor's degrees. A few also produce associate's degrees and certificates. The funding formula is identical to that for research universities, except that comprehensive universities' completed student credit hours also include developmental, remedial, or vocational/technical courses, which research universities do not offer.

Community colleges

Community colleges provide vocational and technical education, general academic preparation leading to associate's degrees and certificates, remedial education, and adult basic education. The community college funding formula includes completed student credit hours, number of degrees and postgraduate certificates awarded, workforce needs, and degrees awarded to at-risk students. HED hopes to add a transfer factor for community colleges in the future so that they may be rewarded when students transfer to 4-year institutions, rather than having their efforts effectively credited to senior institutions.

Additionally, Land Grant Permanent Fund monies may be distributed (only) to four-year and special schools according to statute mechanisms. The distribution mechanism for performance-based funding has not yet been determined, although a "hold harmless" clause will be in effect for the first year (only) to ensure that no institution can gain or lose more than 2% of the previous year's funding.

Student-derived revenues

Individual institutions in New Mexico have traditionally had, and retain under the 2010 plan, the authority to keep student tuition and fee revenues and spend them at their own initiative. Tuition rates are set by the governing boards of individual institutions, with no explicit state-level restrictions or incentives to minimize increases. This institutional autonomy is somewhat counter-balanced by the HED's authority to review and approve budgets, and to place institutions that fail audits on a "fiscal watch." An institution on this probationary status must submit a plan to the HED to explain how it will address the audit findings.

12. New York (formula for 2-year institutions, non-formula for 4-year institutions)[162]

Two-year institutions

New York's two-year colleges receive approximately 40% of their operational funding from the State, about 27% from their local community, and about 33% from student tuition.[163] For the 2011-2012 fiscal year, the statutory formula for full opportunity colleges[164] was determined by choosing the lowest of the following: 1) two-fifths (40%) of the net operating budget of the college, as approved by the State University trustees; 2) two-fifths (40%) of the net operating costs of the college; or 3) the combined figure of (a) the total of the budgeted or actual number (whichever is less) of FTE students enrolled in programs eligible for State financial assistance multiplied by $2,122 AND (b) up to one-half (50%) of rental costs for physical space. For non-opportunity colleges, the statutory formula was determined by choosing the lowest of the following: 1) one third (33%) of the net operating budget of the college, as approved by the State University trustees; 2) one third (33%) of the net operating costs of the college; or 3) the combined figure of (a) the total of the budgeted or actual number (whichever is less) of FTE students enrolled in programs eligible for State financial assistance multiplied by $1,516 AND (b) up to one-half (50%) of rental costs for physical space.

Four-year institutions

The State University of New York (SUNY) used a funding formula methodology from 1998-99 through 2008-09, but has used incremental funding since that time. SUNY is currently developing a new formula, which will be somewhat similar to the previous one, comprising enrollment, research, and other components. The details of a new formula have not been settled upon, but it is scheduled to be implemented in 2013-14.[165] The performance-funding portion of the model is being developed separately and will also take effect in 2013-14. The funding amount prior to 2008 was determined through the Budget Allocation Process (BAP).[166]

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[162] Bultman, Matthew. (February 26, 2012). SUNY funding changes concern Potsdam College Council. *Watertowndailytimes.com*. Retrieved from http://www.watertowndailytimes.com/article/20120226/NEWS05/702269853

Gilman, Wendy. SUNY System Administration. Personal Communication. May 2012.

Potent, Jacob D. (January 25, 2011). SUNY still looking for autonomy. *The Legislative Gazette*. Retrieved from http://content.yudu.com/Library/A1qsg7/TheLegislativeGazett/resources/3.htm.

[163] The State University of New York. *Assembly Standing Committee on Higher Education Public Hearing*. http://www.suny.edu/govtRelations/state/pdf/Matonak.pdf.

[164] A community college that essentially agreed to an open-door admission policy for residents in their sponsor area with a recent high school diploma or who were veterans.

[165] Gilman, Wendy. *The State University of New York: Overview of the University Budget Process*.

[166] Gilman, Wendy. *State University of New York: Resource Allocation State Operated/Funded Campuses*.

Student-derived revenues

Historically, in New York, the Board of Regents and the legislature have exercised a great deal of control over the state's public institutions of higher education. SUNY campuses are either state-operated, or, in the case of community colleges, administered by local governments under SUNY's supervision. CUNY, created in 1961 from a backbone of existing institutions, was originally tuition-free for NYC residents, and had traditionally operated more as a community of schools than a unified system. In recent years the CUNY Board of Trustees has managed to exert more control over the system as a whole. Until recently, tuition revenues for SUNY and CUNY were either deposited into separate state accounts or were appropriated as a direct offset of the state general fund, and appropriation authority from the Governor and legislature was required in order for the systems to expend deposited funds.

The *Public Higher Education Empowerment and Innovation Act* proposed in 2010 represented an attempt to change this system, allowing both SUNY and CUNY institutions to set their own tuition levels and keep all tuition revenues. Supporters of the bill hoped that this would help the systems avoid sudden increases in tuition that have become all too common in times of economic stress. It was not enacted, but in August 2011, Governor Cuomo signed the NYSUNY 2020 legislation, which, amongst other provisions, provides that SUNY and CUNY campuses may follow a graduated plan for tuition increases ($300 per year for 5 years) and that tuition revenues will be returned to individual campuses. Unlike the *Public Higher Education Empowerment and Innovation Act*, NYSUNY 2020 requires legislative approval for tuition increases and sets a required level of state funding (no less than that of the current year).

There was significant opposition to both acts, including student protests. Opponents' concerns included that state funding would decrease precisely because tuition levels increased, and that these policies would lead by degrees to the privatization of public institutions. Others argue that state contributions have been declining for some years anyway, and that the old system, where all campus-created revenue went back to the state general fund, allowed legislators to treat funds raised by the systems and individual institutions as if they were public monies.[167]

14. North Carolina[168]

Four-year Institutions

North Carolina employs a hybrid-approach to higher education funding. Appropriations are based on the previous year's appropriation plus an increase based on enrollment predictions. Starting in 2011, institutions were only allowed to project growth if they had at least an 80% retention rate (in general). The increase is calculated by a formula called Student Credit Hour (SCH) Funding Model. The SCH Funding Model contains five basic components: Instructional Salary Costs, Other Academic Costs, Library, General Institutional Support (GIS), and Deductions based on expected tuition revenue.

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[167] *About SUNY 2020*: http://www.stonybrook.edu/sb/nysuny/overview.html. *New York Governor's SUNY and CUNY Legislation*: http://agb.org/ingram/policy/new-york-governor%E2%80%99s-suny-and-cuny-legislation. *New York Office of Higher Education*: http://www.highered.nysed.gov/swp/#HigherEdinNY. SHEEO *2010-2011 State Tuition, Fees, and Financial Assistance Survey 2010-2011*: http://www.sheeo.org/finance/tuit/.

[168] University of North Carolina. *Semester Credit Hour Enrollment Change Funding Model*. 2010. http://www.wcu.edu/WebFiles/PDFs/Enrollment_Manual_Oct_2010.pdf.
Ginger Burks, University of North Carolina General Administration. May 2012. Personal Communication.

The Salary Costs are calculated by transforming projected student credit hours into faculty positions through the use of a discipline and level matrix based on the National Study of Instructional Cost and Productivity (Delaware Data)[169] along with the University of North Carolina System average class sizes. In addition, the resulting equivalent faculty positions can be increased for each institution based on their service to disadvantaged populations, diseconomies of scale, have high degree efficiencies, and have high retention rates. The resulting faculty positions are multiplied by annual salary rate specific to each institution. This number is then multiplied by an estimated instructional cost factor rate of 45% to determine funding for other instructional costs including fringe benefits, salaries of faculty members and other personnel, office operating expenses, travel, equipment, etc.

The combined amount of salary components and other instructional costs, called the Total Academic Requirements, forms the basis for calculating the remaining components. Library funding is determined by multiplying the Total Academic Requirements by the library-funding factor of 11.48%. The General Institutional Support, designed to calculate funding for academic support services, student services, institutional support, campus administration, and physical plant operations, is given a factor of 54.05%, which is then multiplied by the total academic requirements to determine a funding amount.

The sum of the above components is the funding required for the increase in enrollment. From this total, the tuition revenue is subtracted out to equal the appropriations request.

Two-year Institutions

Each two-year institution in North Carolina receives an instructional fixed-base allocation (approximately $373,000 in FY2011-12) from the State Board, in addition to the remainder of funds on a weighted FTE budget (average FTE enrollment of the past three years) categorized into three funding tiers and the type of discipline.[170] Each college is allocated $3,608 for each FTE in Tier 1 courses and $3,137 for each FTE in Tier 2 courses. For continuing education (occupational extension) instruction, a base allocation of $62,137 is given to each college along with $3,137 for each FTE in Tier 2 courses and $2,666 for each FTE in Tier 3 courses. The instructional resources allotment provides funds to each college for library materials through a base allocation of $25,000 and the remaining balance is based on each college's weighted library FTE (L/FTE). The L/FTE is calculated by applying different category weights, as determined by different types of education (such as college transfer and general education FTE, technical education FTE and occupational extension FTE), to the actual FTE of the preceding year, and adding these products to obtain a sum for each college. Colleges also receive $4.62 per weighted L/FTE above 1,000 L/FTE.

Table A.20. Higher education funding formulas in North Carolina.

North Carolina – Formula for four-year institutions	
Instructional Support	Projected new student credit hours transformed into faculty position by a level and discipline matrix multiplied by average faculty salary at each institution. The result is adjusted for different missions and then multiplied by 145%.
Remedial Education	-
Academic Support	Library: 11.48% of Instructional Support

[169] This is a member-only study located at http://www.udel.edu/IR/cost/.
[170] North Carolina Community Colleges. *State Aid Allocations and Budget Policies FY 2011-12.* 2011.

Operations and Maintenance	54.05% of Instructional Support
Student Services	
Institutional Support	
Research	
Public Service	-
Scholarships	-
Performance Criteria	Incorporation in enrollment increase; $1 million requested, but not implemented.
Workforce Development	-
Student-Derived Revenues	Tuition is subtracted out from enrollment increase request.

14. South Dakota (formula for federally-funded technical institutions, non-formula for other institutions)

In 1998, the South Dakota Board of Regents dropped its enrollment-based funding formula. Therefore, there is no official funding formula for higher education in South Dakota. However, according to Paul Gough, Director of Department of Policy and Planning, South Dakota universities and colleges depend on student enrollment information to determine internal annual adjustments and present budget requests to the state.[171] There is a mainly enrollment-driven formula in use for technical schools, but these are federally funded and are locally governed by the local Boards of K-12 Education.

Student-derived revenues

South Dakota is unusual in that it is the only state, and the only polity other than Washington, DC, within the continental United States, in which tuition revenues are retained at the state level under the direct control of a state-level governing board, the South Dakota Board of Regents. Tuition from all institutions is collected in a central depository. The Board of Regents reserves some of the collected revenues for capital maintenance, repair, and new construction (20% in 2010). As of 2010, funds from central deposits are "earned" back by institutions as they achieve certain targets set by the Board. Individual institutions have the authority to retain revenues from certain Board-approved fees, and also from "charges" that are levied for elective services (as opposed to those mandated by the school).

[171] Gough, Paul. Director of Policy and Planning at South Dakota Board of Regents. Personal communication. May 2012.
Lowery, Nick. "Missing formula increases tuition." *The SDSU Collegian.* March 14, 2012. http://www.sdsucollegian.com/2012/03/14/missing-formula-increases-tuition-3/

Appendix D: 2011 Program/Level Weighting matrix for General Academic Institutions[172]

Texas.

Fund Code	Discipline	Level	Relative Weight
1	Liberal Arts	Undergraduate Lower Level	1.00
2	Science	Undergraduate Lower Level	1.75
3	Fine Arts	Undergraduate Lower Level	1.42
4	Teacher Education	Undergraduate Lower Level	1.41
5	Agriculture	Undergraduate Lower Level	2.02
6	Engineering	Undergraduate Lower Level	2.42
7	Home Economics	Undergraduate Lower Level	1.03
8	Law	Undergraduate Lower Level	-
9	Social Service	Undergraduate Lower Level	1.88
10	Library Science	Undergraduate Lower Level	1.44
11	Veterinary Science	Undergraduate Lower Level	-
12	Vocational Training	Undergraduate Lower Level	1.42
13	Physical Training	Undergraduate Lower Level	1.38
14	Health Services	Undergraduate Lower Level	1.19
15	Pharmacy	Undergraduate Lower Level	1.48
16	Business Administration	Undergraduate Lower Level	1.11
17	Optometry	Undergraduate Lower Level	-
18	Teacher Ed-Practice Teaching	Undergraduate Lower Level	1.60
19	Technology	Undergraduate Lower Level	2.10
20	Nursing	Undergraduate Lower Level	2.03
1	Liberal Arts	Undergraduate Upper Level	1.69
2	Science	Undergraduate Upper Level	2.93
3	Fine Arts	Undergraduate Upper Level	2.33
4	Teacher Education	Undergraduate Upper Level	1.74
5	Agriculture	Undergraduate Upper Level	2.54
6	Engineering	Undergraduate Upper Level	3.70
7	Home Economics	Undergraduate Upper Level	1.66
8	Law	Undergraduate Upper Level	-
9	Social Service	Undergraduate Upper Level	2.09
10	Library Science	Undergraduate Upper Level	1.12
11	Veterinary Science	Undergraduate Upper Level	-
12	Vocational Training	Undergraduate Upper Level	1.89
13	Physical Training	Undergraduate Upper Level	1.18
14	Health Services	Undergraduate Upper Level	1.81
15	Pharmacy	Undergraduate Upper Level	5.02

[172] *Texas Higher Education Coordinating Board – General Academic Institution – Program Funding Estimation Tool.* www.thecb.state.tx.us/reports/Docfetch.cfm?Docid=2291&Format=XLS

16	Business Administration	Undergraduate Upper Level	1.71
17	Optometry	Undergraduate Upper Level	-
18	Teacher Ed-Practice Teaching	Undergraduate Upper Level	1.74
19	Technology	Undergraduate Upper Level	2.45
20	Nursing	Undergraduate Upper Level	2.21
1	Liberal Arts	Masters	3.91
2	Science	Masters	7.97
3	Fine Arts	Masters	5.41
4	Teacher Education	Masters	2.27
5	Agriculture	Masters	7.13
6	Engineering	Masters	7.46
7	Home Economics	Masters	2.89
8	Law	Masters	-
9	Social Service	Masters	2.98
10	Library Science	Masters	2.69
11	Veterinary Science	Masters	-
12	Vocational Training	Masters	-
13	Physical Training	Masters	-
14	Health Services	Masters	3.15
15	Pharmacy	Masters	23.28
16	Business Administration	Masters	3.16
17	Optometry	Masters	5.46
18	Teacher Ed-Practice Teaching	Masters	-
19	Technology	Masters	3.87
20	Nursing	Masters	4.08
1	Liberal Arts	Doctorate	9.23
2	Science	Doctorate	21.08
3	Fine Arts	Doctorate	7.22
4	Teacher Education	Doctorate	7.37
5	Agriculture	Doctorate	9.62
6	Engineering	Doctorate	16.03
7	Home Economics	Doctorate	7.24
8	Law	Doctorate	-
9	Social Service	Doctorate	14.70
10	Library Science	Doctorate	9.64
11	Veterinary Science	Doctorate	-
12	Vocational Training	Doctorate	-
13	Physical Training	Doctorate	-
14	Health Services	Doctorate	9.75
15	Pharmacy	Doctorate	34.24
16	Business Administration	Doctorate	23.34
17	Optometry	Doctorate	19.12
18	Teacher Ed-Practice Teaching	Doctorate	-
19	Technology	Doctorate	2.84
20	Nursing	Doctorate	9.25

1	Liberal Arts	Special Professional	-
2	Science	Special Professional	-
3	Fine Arts	Special Professional	-
4	Teacher Education	Special Professional	-
5	Agriculture	Special Professional	-
6	Engineering	Special Professional	-
7	Home Economics	Special Professional	-
8	Law	Special Professional	4.15
9	Social Service	Special Professional	-
10	Library Science	Special Professional	-
11	Veterinary Science	Special Professional	20.04
12	Vocational Training	Special Professional	-
13	Physical Training	Special Professional	-
14	Health Services	Special Professional	2.60
15	Pharmacy	Special Professional	3.97
16	Business Administration	Special Professional	9.00
17	Optometry	Special Professional	7.00
18	Teacher Ed-Practice Teaching	Special Professional	-
19	Technology	Special Professional	-
20	Nursing	Special Professional	-

NSH proposed formula weights

APPENDIX A - DISCIPLINE CLUSTERS AND WEIGHTS

Discipline Cluster	Lower Division	Upper Division	Master's	Doctoral
Liberal Arts, Math, Social Science, Languages, Other	1.0	2.0	4.0	5.0
05. Area, Ethnic, Cultural & Gender Studies	1.0	2.0	4.0	5.0
09. Communication, Journalism & related programs	1.0	2.0	4.0	5.0
16. Foreign Languages, Literature and Linguistics	1.0	2.0	4.0	5.0
19. Family & Consumer Sciences/Human Sciences	1.0	2.0	4.0	5.0
23. English Language & Literature/Letters*	1.0	2.0	4.0	5.0
24. Liberal Arts & Sciences, General Studies	1.0	2.0	4.0	5.0
25. Library Sciences	1.0	2.0	4.0	5.0
27. Mathematics & Statistics*	1.0	2.0	4.0	5.0
28. Reserve Officer Training Corps	1.0	2.0	4.0	5.0
29. Military Technologies	1.0	2.0	4.0	5.0
30. Multi/Interdisciplinary Studies	1.0	2.0	4.0	5.0
38. Philosophy & Religious Studies	1.0	2.0	4.0	5.0
42. Psychology & Applied Psychology	1.0	2.0	4.0	5.0
45. Social Sciences	1.0	2.0	4.0	5.0
54. History	1.0	2.0	4.0	5.0
99. Honors Curriculum and other	1.0	2.0	4.0	5.0
Basic Skills	1.5	n/a	n/a	n/a
32. Basic Skills				
Business	1.0	2.0	4.0	6.0
44. Public Administration & Social Services	1.0	2.0	4.0	6.0
52. Business Mgmt, Marketing & related services	1.0	2.0	4.0	6.0
Education	1.5	2.0	2.5	5.0
13. Education	1.5	2.0	2.5	5.0
Services	1.5	2.0	3.0	4.0
31. Parks, Recreation, Leisure & Fitness Studies	1.5	2.0	3.0	4.0
12. Personal & Culinary Services	1.5	2.0	3.0	4.0
43. Security & Protective Services	1.5	2.0	3.0	4.0
Visual and Performing Arts	1.5	2.5	5.0	5.0
50. Visual and Performing Arts	1.5	2.5	5.0	5.0
Trades/Tech	2.0	2.5	n/a	n/a
46. Construction Trades	2.0	2.5	n/a	n/a
47. Mechanic Repair Technologies/Technicians	2.0	2.5	n/a	n/a
48. Precision Production	2.0	2.5	n/a	n/a
49. Transportation & Materials Moving	2.0	2.5	n/a	n/a
Sciences	2.0	3.0	5.0	8.0
01. Agriculture, Agriculture operations & related	2.0	3.0	5.0	8.0
03. Natural Resources & Conservation	2.0	3.0	5.0	8.0
11. Computer & Information Sciences	2.0	3.0	5.0	8.0
26. Biological & Biomedical Sciences	2.0	3.0	5.0	8.0
40. Physical Sciences	2.0	3.0	5.0	8.0
Law	2.0	2.0	4.0	4.0
22. Legal Professions and Studies	2.0	2.0	4.0	4.0
Engineering/Architecture	2.0	3.0	5.0	8.0
04. Architecture	2.0	3.0	5.0	8.0
14. Engineering	2.0	3.0	5.0	8.0
15. Engineering Technologies/Technicians	2.0	3.0	5.0	8.0
Health	2.0	2.0	5.0	6.0
51. Nursing, Allied Health, Health Professions	2.0	2.0	5.0	6.0

**includes remedial courses at the colleges only*

Appendix E: States that include performance related components in higher education funding.

	Completion	Progress	Remedial	At-risk	Research	Employment/ED	Other
Florida -Two year	Degrees			Degree completion		At-risk students	
Hawaii -Two year	Degrees & certificates Transfers	Credit completion		Number Degree & certificate completion		STEM degrees & certificates	
Illinois -2 year	Degrees & certificates Transfers	Remedial & adult		Degree & certificate Completion			
Indiana	Degrees	Credit completion On-time degrees		Low income degrees			
Kansas -Individual contracts				Increased diversity		ED alignment	Test scores National rankings Student services
Louisiana		Course completion			Research	STEM & health degrees	
New Mexico	Degrees & certificates	Credit completion		Degrees & certificates		STEM & health degrees & certificates	
Ohio	Degrees	Credit completion		Degree completion		STEM degrees	
Oklahoma	Degrees & certificates	Course completion Retention					
Pennsylvania -4 year		Course completion					Self-developed criteria
Tennessee -4 & 2 year	Degrees & certificates 12 hour transfers	Student progress					

	Completion	Progress	Remedial	At-risk	Research	Employment/ED	Other
Tennessee -4 year only		6 year graduation			Research & service		
Tennessee -2 year only	Degrees & certificates		Remedial success			Job placement Workforce training	
Texas		Basic skill gains		Degrees		Degrees for critical fields	
Washingto-2 year only	Degrees & certificates	Pre-college writing and math 15 first year credits 30 credits College level math				Apprentice training	

Appendix F: Matrix of States' Higher Education Funding formula components

This table is a generalization of complex and varying formulas. Please see individual state narratives and tables in the previous appendices.

State	Type of Institution	Formula currently in use, or will definitely be implemented	Instruction	O&M/Physical Plant	Academic Support	Library Support	Student Services	Remedial Instruction	Research	Institutional Support	Public Service	Scholarships
Alabama	Senior Institutions	Yes	credit hours	square footage; cost	credit hours	credit hours	Headcount	115% weight on credit hours	credit hours plus sponsored research amt	credit hours	credit hours	
Alabama	Community Colleges	Yes	FTE enrollment									
Alabama	Technical Colleges	Yes	FTE enrollment									
Arizona	Senior Institutions	In law, but not been used	credit hours									
Arizona	Community Colleges	Yes	FTE enrollment									
Arkansas	Universities	Yes	credit hours	space prediction (credit hours, etc.)		credit hours			graduate enrollment	credit hours	credit hours	
Arkansas	Community Colleges	Yes	credit hours	space prediction (credit hours, etc.)	credit hours		FTE enrollment and headcount			FTE enrollment		
California	UC	No										
California	CalState	Yes	credit hours									
California	CCC	Yes										
Connecticut	Senior Institutions	Yes										X
Florida	Senior Institutions	No										
Florida	Community Colleges	Yes	enrollment	square footage; cost; enrollment	enrollment	enrollment	enrollment	success		enrollment		
Georgia	4-year Institutions	Yes	credit hours	square footage of instructional space	credit hours	credit hours	credit hours		credit hours of gradates	credit hours	credit hours	
Hawai'i	Community Colleges	Yes										

State	Type of Institution	Formula currently in use, or will definitely be implemented	Instruction	O&M/Physical Plant	Academic Support	Library Support	Student Services	Remedial Instruction	Research	Institutional Support	Public Service	Scholarships
Idaho	2 and 4-year Institutions	Yes	enrollment									
Illinois	Community Colleges	Yes	credit hours	square footage				enrollment				
Indiana	2 and 4-year Institutions	Yes	enrollment and successfully completed credit hours									
Kansas	Senior Institutions	No										
Kansas	Community Colleges**	Yes	enrollment									
Louisiana	2 and 4-year Institutions	Yes	completed credit hours	square footage based on instruction space	completed credit hours							
Maryland	Regional Higher Education Centers	Yes	enrollment									
Massachusetts	2 and 4-year Institutions	No	enrollment	square footage; cost; enrollment	enrollment		enrollment		enrollment	enrollment		
Minnesota	2 and 4-year Institutions	Yes	enrollment	square footage	enrollment	enrollment	base + enrollment		enrollment		enrollment	
Mississippi	Senior Institutions	Yes	credit hours	square footage and enrollment								
Mississippi	Community Colleges	Yes										
Montana	Community Colleges	Yes	enrollment									
New Jersey	Community Colleges	Yes	credit hours									
New Mexico	2 and 4-year Institutions	Yes	credit hours, degrees produced									
New York	Community Colleges	Yes										
North Carolina	Senior Institutions	Yes	credit hours	credit hours	credit hours	credit hours	credit hours			credit hours		
North Carolina	Community Colleges	Yes	enrollment			enrollment		enrollment		cost		
Ohio	University Main Campuses	Yes	successfully completed									

State	Type of Institution	Formula currently in use, or will definitely be implemented	Instruction	O&M/Physical Plant	Academic Support	Library Support	Student Services	Remedial Instruction	Research	Institutional Support	Public Service	Scholarships
			courses									
Ohio	University Regional Campuses	Yes	successfully completed courses									
Ohio	Community and Technical Colleges	Yes	enrollment									
Oregon	Senior Institutions	Yes	enrollment									
Pennsylvania	Senior Institutions	Yes	enrollment	square footage; replacement value; predicted space (credit hour)	enrollment		enrollment			enrollment		
Pennsylvania	Community Colleges	Yes**										
South Carolina	Senior Institutions	Yes	student credit hours	costs; instructional square feet	credit hours		headcount		30% of previous FY sponsored research expenditures	credit hours	30% of previous FY sponsored public service and non-general fund public service expenditures	
South Dakota	Federally funded Technical Schools	Yes	enrollment									
Tennessee	2 and 4-year Institutions	Yes	outcome metrics									
Texas	General Academic Institutions	Yes	credit hours	space prediction (credit hours, etc.)								
Texas	Health-Related Institutions	Yes	credit hours	space prediction (credit hours, etc.)					research expenditures			
Texas	Community Colleges	Yes	contact hours									

State	Type of Institution	Formula currently in use, or will definitely be implemented	Instruction	O&M/Physical Plant	Academic Support	Library Support	Student Services	Remedial Instruction	Research	Institutional Support	Public Service	Scholarships
Texas	Vocational & Technical Schools	Yes	contact hours	space prediction (credit hours, etc.)								
Virginia	2 and 4-year Institutions	Yes	enrollment	enrollment	enrollment		enrollment			enrollment		
West Virginia	2 and 4-year Institutions	No	credit hours									

*** remedial education was funded FL community college performance-based funding formulas. Neither performance system has been funded recently.**

****new funding formula under development**