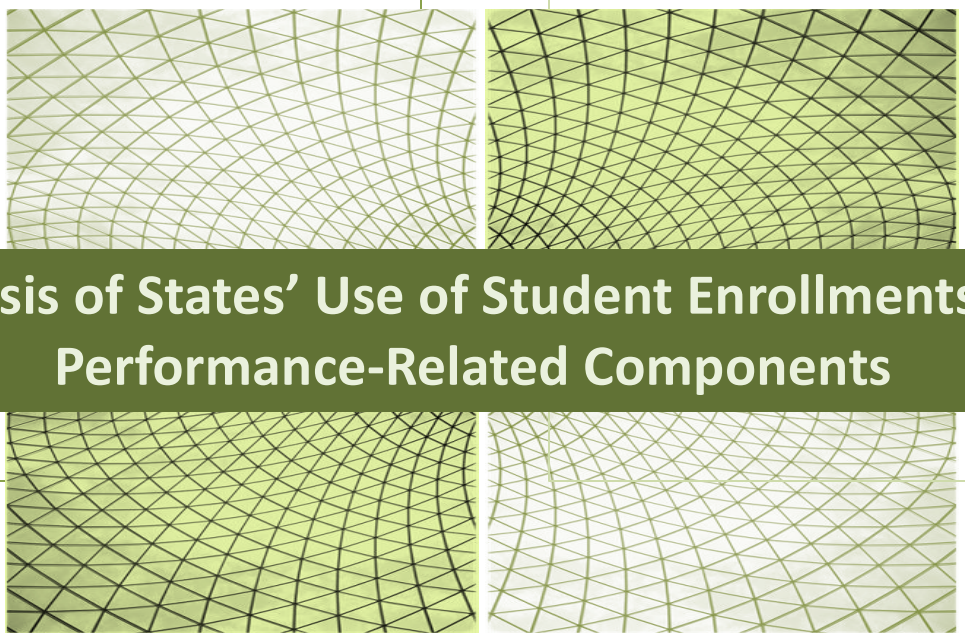


Analysis of States' Use of Student Enrollments and Performance-Related Components

Revised Reports B and C
June 27, 2012

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

SRI International®

Table of Contents

Overview

This report contains the second and third of four deliverables that, taken together, will comprise SRI International's evaluation of existing and proposed funding mechanisms for Nevada's System of Higher Education (NSHE). This report will address states' use of student enrollments as a driver for higher education funding as well as states' inclusion of performance-related components. Its conclusions may be usefully considered in isolation; however, as with the first report, all such budget practices occur in the context of the overall approach to funding higher education adopted by any particular state.

The findings reported here, therefore, will evaluate existing practice and proposed alternatives in Nevada without offering specific alternatives. This analysis, and the analysis from the first deliverable, will be folded into SRI's final report. That report will contain not only a general, combined analysis of the current model for funding higher education in Nevada, and of proposed alternatives, but also a complete set of specifications for any future higher education funding model. These specifications address and reflect the policy priorities of the state, as defined by core strategic documents such as "Envisioning Nevada's Future: Goals and Strategies for Advancing Our Quality of Life," "Unify, Regionalize, Diversity: An Economic Development Agenda for Nevada" and "Strategic Directions for the Nevada System of Higher Education." These specifications may reflect or approve present practice in Nevada or proposed alternatives, but it is likely that they will also include more or less substantial amendments or additions to present practice or proposed alternatives.

The report begins by describing existing practice in Nevada. It then summarizes and compares the practices of states that have formulas and that use or have used performance-related criteria in their funding methods. It then reviews the policy considerations associated with performance-related criteria.

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.

Background

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 13 districts covering 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 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 attempts to "focus on the equitable distribution of available funding."[2]

The revised funding formula is comprised of four formulas that independently calculate funding levels for Instruction, Academic Support, Institutional Support, and Operation and Maintenance of Physical Plant. Each formula has many complex elements; however, each 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. 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.[3]

[1] Nevada. Committee to Study the Funding of Higher Education. *Legislative Counsel Bureau Bulletin No. 01-4.* January 2001. Web. 6 Aug 2011.
[2] Nevada. Ibid. p. 2
[3] Fiscal Analysis Division, Nevada Legislative Counsel Bureau. Education. *2009 Appropriations Report.* p. 147-148.

- 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 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 funded 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;
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 comprises of the second and third in a series of four reports reviewing both other states' mechanisms of funding their higher education systems and existing best practices. In many cases higher education funding policies are a historic mash-up of different priorities and strategic decisions. The report that follows utilizes an extensive review of state legislation, publications, and reports as well as telephone interviews with state officials performed over the past six weeks. Please see Appendix A for a list of the sources for each state.

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

States' use of student enrollment as a basis for higher education formula funding

Many states use formulas to fund their higher education systems. These formulas are based on student credit hours attempted (also known as student course enrollment) or student credit hours completed (also known as course completion). Some states, such as Maryland, do not use a formula to fund their higher education system; however, increases in appropriation are based on enrollment growth. Enrollment calculations are based on a census, the timing of which varies from state to state. Some states use enrollment data taken two weeks into the term, while Indiana has used enrollment data taken on the last day of the term. Enrollment is generally reported as semester credit hours, which is a measure of how many classes (and number of students enrolled in these classes) institutions deliver.

As reviewed above, each sub-formula of the 1999 Nevada formula for funding higher education is driven by a main metric, such as FTE enrollment or maintained square feet. However, the Nevada formula is highly dependent on FTE student enrollments. Though some of the sub-formulas do not directly list FTE enrollment as an input, each sub-formula's driver depends on FTE enrollments in the following ways:

- Instruction is directly based on FTE enrollments.
- The formula for academic support is based on the number of full-time equivalent faculty members and staff members, number of library volumes, and the instruction budget. These input themselves are based on FTE student enrollments
- The formula for student services is directly based on combined headcount and FTE enrollment.
- The formula for institutional support is based on total operating budget, which is determined by FTE student enrollment
- The formula for operations and maintenance of physical plant is based on maintained square feet calculation. For instructional space, this is directly tied to FTE student enrollments.

The vast majority of enrollment-driven formulas are based on a beginning of the term census. They do so based on the theory that the cost of courses being provided does not change after that time period, regardless of the number of students that withdraw. However, some states have moved to funding course completions.

This report uses the following definitions:

- Full-time equivalent student means either a single student who carries, or several students who together carry among them, within a single academic year, a minimum number of clock hours of instruction. The minimum hours of instruction differ from state to state. Generally, full-time equivalent student numbers are generated by calculating one FTE for each 15 semester credit hours attempted in undergraduate lower division courses, one FTE for each 12 semester credit hours attempted in undergraduate upper division courses, and one FTE for each 10 semester credit hours attempted in graduate courses.
- A completed course is a course for which a letter grade or pass/fail mark has been entered. Some states fund only on *successfully* completed courses that have grades above a D (or D- where applicable).

- Student success is defined by the states as including degree completion, on-time graduation, transfer from a 2-year institution to a 4-year institution, course completion, and credit accumulation. Each state's preferred measures of student success are reflected in their performance criteria summarized in a later section.

States that use student enrollment numbers in their funding formula

Twenty-nine (29) states use some type of funding formula as shown in Figure 1. Some states use funding formulas for all universities, 4-year colleges, and 2-year colleges. Other states use funding formulas only for 2-year institutions, as indicated in Table 1. These formulas are driven by one main criterion: full-time equivalent enrollment (referred to as simply enrollment throughout the report) or completed credit hour (also knows as course completion). For the vast majority of the states, enrollments drive funding formulas. However, Louisiana and New Mexico employ course completion as the basis for their formula, even if the course was failed. (New Mexico is currently implementing their formula for fiscal year 2013 with new money.) Ohio and Tennessee employ inputs of only successful course completion. Many states employ course completion in the performance-based portion of their formula; however, course completion does not drive the formula. Please see the next section for discussion on course completion as a performance criterion.

Connecting state general fund appropriations to the number of students served by a university seems straightforward, which is why it is the dominant method. Funding based on enrollment incentivizes institutions to grow, which can encourage access. However, the missions of different institutions within a higher education system may differ widely. Some institutions may have a mission to provide access to higher education to all students, while other institutions have research missions; therefore, it may be desirable to incentivize activities other than enrollment. Conversely, rural institutions may not be able to grow their enrollments even when incentivized, and are unable to take advantage of economies of scale, so using enrollment-based formulas may underfund operations. Moving from an enrollment-based formula to a course completion-based formula moves a funding formula away from funding "inputs" only and towards funding success in the form of completed courses. However, a completed course is still an input measure rather than a true measure of success.

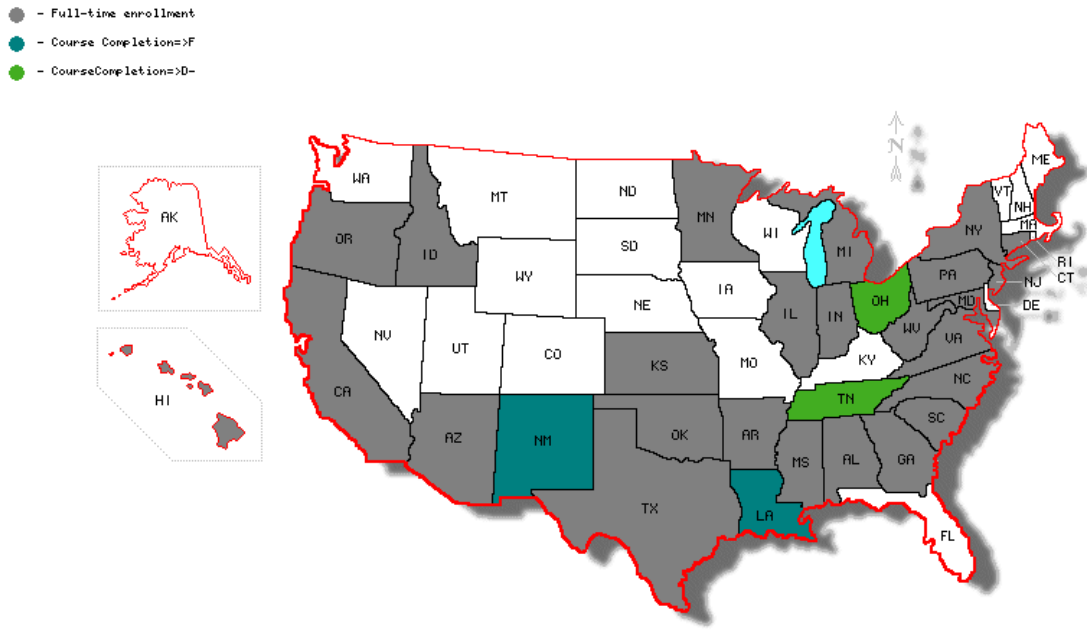
The NSHE proposed formula

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 used to calculate instructional support and operation and maintenance support, as well as determining the application of a small institution factor.

Table 1. States using formulas to fund their higher education systems.

Full-time enrollment is the driver	"End of Course" Course completion is the driver	Successful course completion is the driver
Alabama Arizona Arkansas California (CSU, CCC) Connecticut Georgia Hawai'i (2-year institutions only) Idaho Illinois (2-year institutions only) Indiana Kansas (2-year institutions only) Maryland (Regional Higher Education Centers only) Michigan Minnesota Mississippi New Jersey (2-year institutions only) New York North Carolina Ohio (2-year institutions only) Oklahoma Oregon Pennsylvania South Carolina Tennessee (only CC Dual Enrollment) Texas Virginia West Virginia	Louisiana New Mexico (for new funding only)	Ohio Tennessee

Figure 1: States that have funding formulas based on full-time enrollment or course completion. The grey states use funding formulas driven by full-time enrollment. The teal states (NM and LA) utilize formulas driven by course completions including the "F" grade. The green states (TN and OH) utilize formulas driven by successful course completion (D- and above).



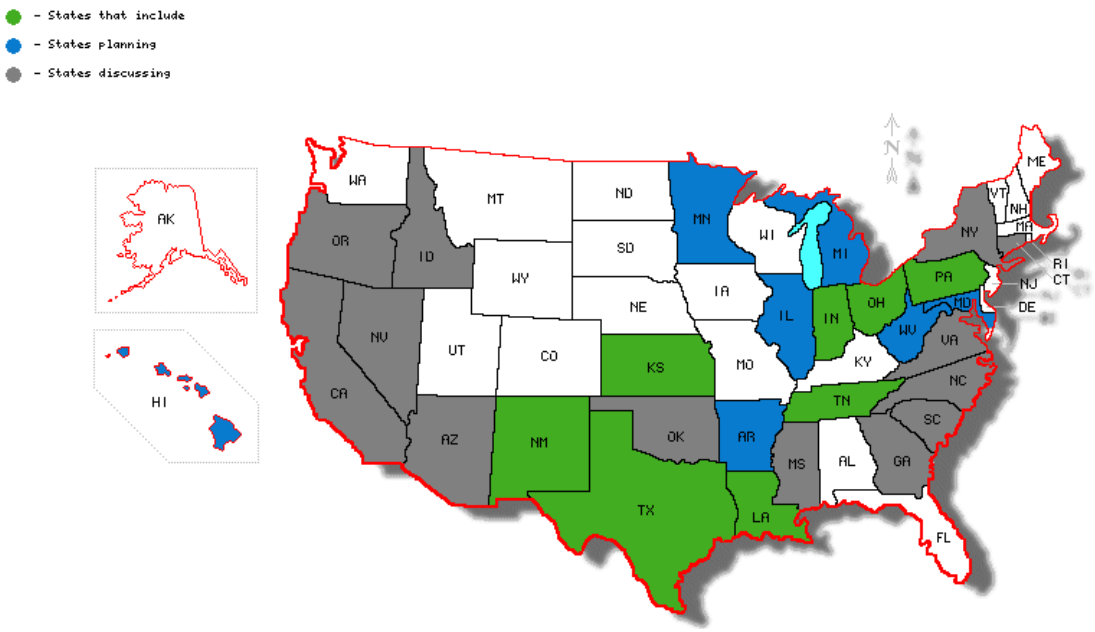
State using full-time enrollments that are examining alternative approaches

Many states are actively examining alternative approaches to enrollment-driven formulas. Hawai'i, Tennessee, and Ohio already employ performance-based funding as part of funding for their 2-year institutions, though enrollment is the main determinate of the funding for these institutions. Other states are actively implementing changes to their enrollment-based funding formulas; however, no state is planning on revisions that switch the driver from enrollment to performance-based measures. Arkansas and Illinois are examples of states with legislatures that mandated performance-based funding, but not a complete switch from enrollment to performance. Arkansas's performance funding is to be implemented for 2013-2014 and initially budgets 5% for an "outcome-centered" funding formula. The percentage increases by 5% every year until 2017-2018 where 25% of funding will be based on the outcome-centered funding formula. The remaining 75% of funding will be determined by a need-based formula driven by enrolled student credit hour. Illinois passed performance-based legislation in 2011. Current task force recommendations ask for new money to be allocated for performance measures. If no new money is allocated, the task force recommends a very small amount of existing money be reallocated (0.5%) for the first year and then increasing the amount allocated over time.

Many of the remaining states listed in Table 1 are discussing alternative methods of funding, except for Alabama and New Jersey, as shown in the figure below. Michigan, Minnesota, Texas, and West Virginia have proposed concrete plans for performance-based funding. Michigan, Texas, and West Virginia have each proposed performance-based funding levels near 10% of the state appropriation. The remaining states are too early in the discussions to indicate if they are

discussing a complete switch from enrollment driven formulas to non-enrollment driven methods.

Figure 2. States that have full-time enrollment driven funding formulas that are discussing alternative funding methods. States that currently include some sort of non-enrollment funding mechanism are indicated in green. States that are in the mist of implementing non-enrollment funding mechanism are indicated in blue. States that are discussing non-enrollment funding mechanism are indicated in grey.



Strengths and weaknesses of the use of enrollment

Many states, like Nevada, use student credit hours enrolled as opposed to student credit hours completed under the theory that the cost of providing services in a term does not change when students withdraw. However, if funding is based on course enrollment, institutions may be incentivized to enroll students regardless of their ability to succeed. The opportunity cost to the individual student is large in terms of both time and money. In addition, institutions and states waste money paying for a student who will not complete the class and their degree.

A way to mitigate low completion rates is to incentivize institutions to support course completion by funding only successful course completion. 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 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.[5]

[5] Jacobs, Joanne. "More States Utilize Performance Funding for Higher Education." *US News and World Report*. February 24, 2012.

Alternatively or concurrently, institutions may become overly stringent in admission standards, which could reduce access for students.

A third alternative funding alternative 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. However, these types of formulas have the same weaknesses as those listed at the outset of this section. The NSHE funding proposal falls into this category since the proposal allocates money to credit hours completed with any grade except a withdrawal.

Current funding formulas and best practice

As illustrated in this section, most states' formulas are driven by full-time student enrollment. A few states have chosen to drive their formulas by course completions. What is a "best practice" depends on a state's policy goals. 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 are the best practice to achieve access as a policy goals. However, if a policy goal is a higher graduation rate—and such a goal is now being widely considered by states—then funding based mainly on enrollment driven formulas is not a best practice. The low completion rates that plague states are associated with funding based on enrollment.

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, that this is a better practice than mere enrollment from the point of view of encouraging higher graduation rates.

Before deciding if course enrollment should drive funding, the Committee should consider what they want to incentivize. Nevada's historic funding method appears to have resulted in all institutions embracing an access 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.

States' use of performance-related criteria

Background

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

But as college enrollment has risen over the past 20 years, so has the cost of attending college, these costs are shared by taxpayers who fund public institutions as well as by students and their families. At the same time, questions have accumulated about the performance of institutions of higher education. For example, across the country only about 50% of students that enroll in an institution of higher education will graduate with a degree in the expected amount of time. In Nevada, it takes 6 years for about half of those students enrolled in a bachelor's program to get a degree.[6] Many don't graduate at all. This has generated a great deal of concern among policymakers, magnified by the sense that these expensive institutions play an increasingly critical role in the economic future of the country. As a result, there has been a decisive return by policy-makers and higher education leaders to the study and adoption of performance criteria.

Some policy organizations have focused their attention on improving completion rates, such as the National Governors Association's *Complete to Compete* initiative and the similar *Complete College America* initiative. This focus on completion has highlighted the increasing amount of time it takes to graduate. Time is viewed as the enemy of success. Most current plans with performance criteria incentivize successful completion, and "time to degree" or "progress" metrics are also being considered. But performance goes beyond completion, to include a variety of output and outcome measures, for example the production of specific credentials that fulfill state workforce needs, and the attainment of specific skill sets.

In practice states link public funding to campus outcomes in three general ways. First, output-based systems are funding formulas that incorporate counts of inputs and/or outputs into future budgets. A second type is performance contracts where institution enters into an agreement with the state regarding performance improvement in exchange for their state appropriation. The third type is performance set-asides that are a separate portion of the state appropriation doled out to institutions in a competitive way. This last type of funding was popular during the good economic times of the 1990s; however, they were the first to be cut during economic slowdowns.

Though many states collect performance-related data, relatively few states 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" by Joseph Burke. This differs from those states that explicitly tie funding levels to performance-related criteria through a formulaic

[6] Complete College America, http://www.completecollege.org/state_data/

process (true performance funding).[7] Furthermore, 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 cases, the performance pool was formally adopted but never implemented. This is true of the current Nevada funding formula, which included a performance pool that was never employed due to unclear performance metrics. Indeed, the development of clear metrics was not pursued because the performance pool was relatively small. The upshot was that 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 metric must be clear and the dollar amount significant.

Types of performance criteria used by states

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. Exactly which degrees are tracked depends on the state and institution.
- **Graduation rates (also know as time to degree):** number and/or percentage of certificate- or degree-seeking students who graduate in a predetermined length of time. On-time rate 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 student 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.
- **Student progression (as known as credit accumulation):** students are weighted more for funding purposes after they pass credit hours thresholds.
- **Advancement through remedial and adult education.**
- **Job placements.**

Economic development metrics

- **Earned research dollars.**
- **Degrees linked to workforce development goals**: high demand degrees generally in science, technology, engineering, mathematics and healthcare.

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

Federal definition of "successful course completion"

Congress has appropriated money to the United States armed services for tuition assistance, which pay tuition costs for courses taken by active duty personnel at a college, university or vocational/technical institution, whose regional or national accreditation is recognized by the Department of Education. The armed forces require tuition assistance reimbursement if the recipient receives:

- failing (F) grades
- non-passing (N) grades
- graduate level (D) grades
- incomplete (I) grades in effect longer than six months
- non-reimbursable fees paid for canceled courses
- voluntary withdrawal (W) grades[8]

From this policy, one can infer that the armed forces branch of the federal government defines successful course completion as receiving a passing grade.

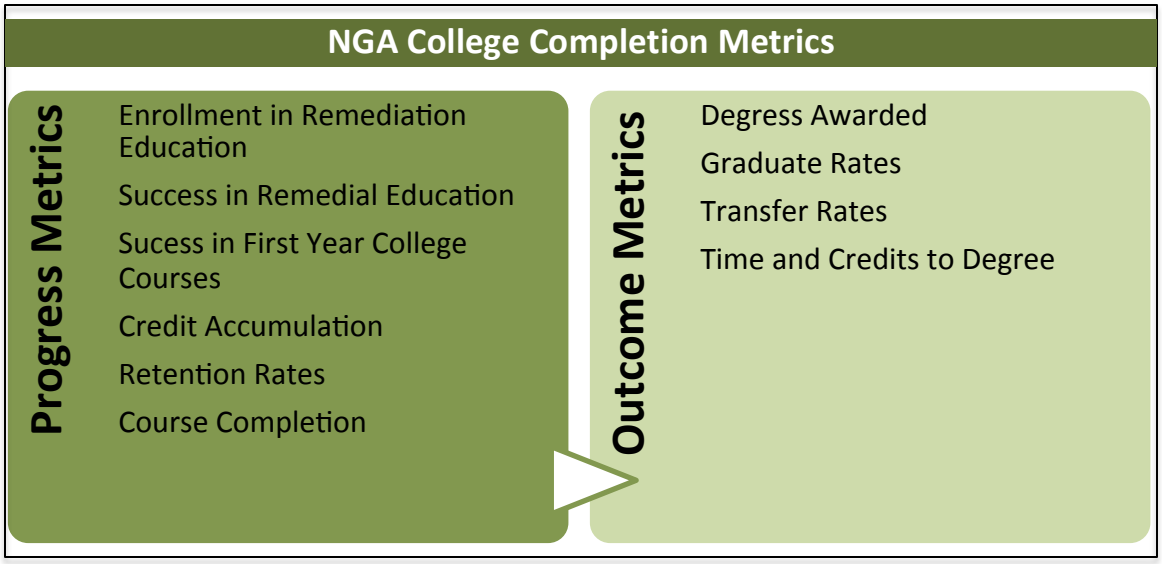
The Office of Veteran's Affairs (VA) fully supports courses that are completed with a failing grade if the failing grade is based on coursework completed. In order words, if a student receives a failing grade due to a failure to attend class, the VA will pay a prorated rate up until the student stopped attending class, which is generally the last day to withdraw from the course. Students will not receive VA support after they withdrawal. The VA does not use the term 'successful course completion.'

Federal student loan aid is paid at the beginning of the term, and is not required to be repaid if a failing grade was received. However, students have to remain in good academic standing, and have to be making satisfactory progress to maintain eligibility for future aid.[9]

[8] Center for Personal and Professional Development. *Navy College Program.* https://www.navycollege.navy.mil/nta.cfm (accessed 15 June 2012). *Army Regulation 621-5: Army Continuing Education System.* Issued 6 Sept. 2009. *Air Force Instruction 36-2306* Issued 13 August 2010. United State Coast Guard. *Tuition Assistance*. http://www.uscg.mil/hq/capemay/education/ta.asp (accessed 15 June 2012).

[9] Department of Education. *School-determined requirements.* FSA HB Oct 2011. Online.

Figure 3. NGA College Completion Metrics



National Governors Association Complete to Compete Metrics

Figure 3 displays the National Governors Association (NGA) *Complete to Compete* recommended metrics.[10] Progress metrics allow policymakers and the public to track 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 success and not on just enrollment or what other colleges spend."[11]

State that use performance criteria in their funding formula

Table 2 and 3 lists those states that SRI identified as using performance funding, where at least one performance-based criterion is directly linked to funding. Every state listed incentivizes completion by rewarding degrees or certificates produced. Four states fund based only on the NGA-defined outcome metrics, while the rest fund both on outcome metrics and progress metrics. The two most common progress metrics are credit/course completion and transfer rates between 2-year and 4-year programs. No states funds on all NGA completion metrics, though movement toward budgets based on course and degree completion align with the later NGA funding brief.

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

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

Table 2. States that include performance related components in higher education funding.

States using performance criteria	Elements/Description
Florida (2-year institutions only)	Degree completion; degree completion and employment of at-risk students
Hawai'I (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 (2-year institutions only)	Degree/certificate completion; degree/certificate completion for at-risk students; transfer to 4-year institutions; remedial & adult education advancement
Indiana	Credit hours; overall degree change; low-income degree student change; on-time degree change
Kansas	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	Course completion; STEM degrees; health degrees; research
New Mexico	Credit completion; degrees/certificates completion; STEM degrees/certificates; health degrees/certificates; at-risk student degrees/certificates
Ohio	Credit completion; degree completion; at risk student completion; STEM degrees
Oklahoma	Course completion; retention; degree/certificate completion
Pennsylvania	4-year institutions only: course completion; self-developed criteria
Tennessee	4-year & 2-year institutions: student progression; degree/certificate completion; transfers out with 12 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
Texas	Degrees awarded with special weights for critical fields and at-risk students.
Washington	2-year only: gains in basic skills; passing pre-college writing or math; earning 15 credits the first year; earning 30 credits; completing college-level math; finishing apprentice training; or earning a degree or program certificate.

Table 3a. 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					

Table 3b. States that include performance related components in higher education funding.

	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	

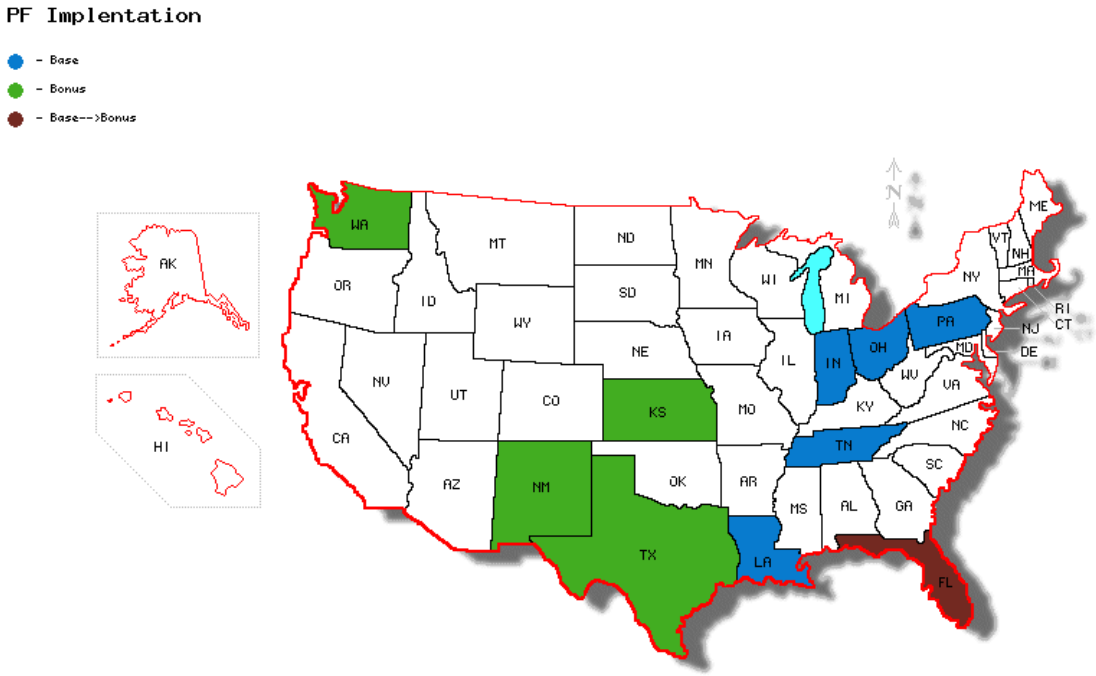
Performance funding implementation

Implementation and scale are critical questions for any new model. Performance-based rewards structured as bonus funding were the first to be eliminated when state revenues went down. Integration with the base allocation protects performance-based funding while communicating a state's commitment to outcomes. In addition, the scale must be large enough to make a difference – in hearts and actions. The funds allocated by performance-based measured should be large enough to incentivize behavior change and also communicate state commitment. Tennessee and Ohio have moved to all of their formula funding being based on successfully completed credit hours, while other states use small performance pools as listed in Table 4 and Figure 4. It should be noted, though, that there is value in any use of performance criteria as it focuses stakeholder attention on the alignment of institutional outcomes with state goals. 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 4. States' use and implementation of performance criteria.

States using performance criteria	Implementation	Institutional Base Funding or Bonus
Florida (2-year institutions only)	1%-2% - fix amount allocated ~$12 million.	Bonus with plans to move to institutional base funding
Indiana	5% of total state appropriation	Institutional base funding
Kansas	New money	Bonus
Louisiana	25 percent of institutional operating budgets when fully implemented	Institutional base funding
New Mexico	New money	Bonus
Ohio	100% of formula directed funding – though actual implementation varies based on institution.	Institutional base funding
Pennsylvania	2011 revision sets the performance pool at 2.4 %of PASSHE's total Education and General appropriation. This is equivalent to 8 percent of the Fiscal Year 2011 state appropriation for institutions.	Institutional base funding
Tennessee	Phase-in over 4 years to 100%	Institutional base funding
Texas	$80 million in 2009	Bonus
Washington (2-year institutions)	<1% - fix amount allocated $1.8 million - part of institutional base funding	Bonus

Figure 4. **Ways in which states have implemented performance funding.** States that currently implement performance funding as part of the base are shaded blue. States that are implement performance funding as bonus or additional money are shaded green. Florida's community college formula currently implements performance funding through a bonus mechanism, but has plans to move to institutional base funding – Florida is shaded brown.



Strategic Directions for the Nevada System of Higher Education

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 its primary goal to be 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. 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" and " establish[ing] performance metrics to set budget parameters, determine system priorities, and allocate performance funding dollars."

Many of the performance criteria used by other states align with the *Strategic Directions* initiative. Course and degree completion by low-income and under-represented students are performance criteria that align with Initiative #2.1 "Adopt…goals for enrolling and graduating students from diverse backgrounds." Performance criteria base on workforce needs align with 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."

Status performance criteria discussions

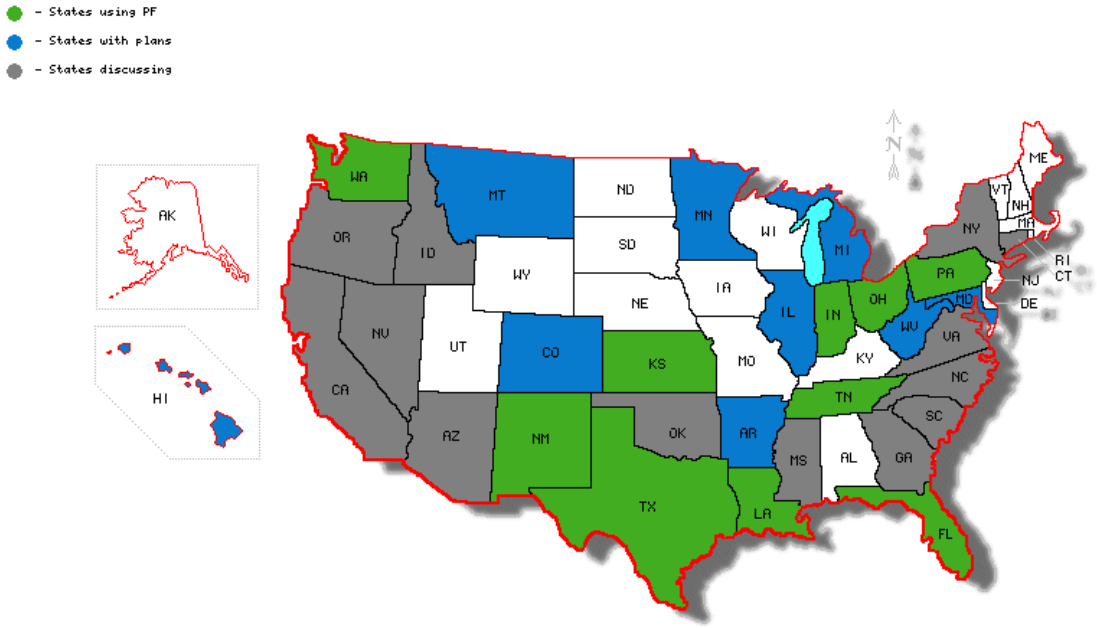
Table 5 and Figure 5 summarizes the states that have implemented performance criteria in their funding models. However, it also shows that other states also have definite plans to switch to performance-based funding. In addition, ten states are publicly considering implementing performance-based funding. The shift to the use of performance based funding is clear, and it is picking up speed. The concerns of taxpayers, parents and policymakers discussed above will likely ensure that this development is here to stay.

Table 5. States currently using and states considering performance-based funding (illustrative, not exhaustive).

States which currently use, or have a definite plan to switch to, performance-based funding		States considering performance-based funding
Arkansas	Montana	Connecticut
Colorado[1]	New Mexico	Arizona
Florida[2]	Ohio	Georgia
Hawai'i[3]	Oklahoma	Idaho
Illinois[4]	Pennsylvania	Kentucky
Indiana	South Carolina	Massachusetts
Kansas	Tennessee	Mississippi
Louisiana	Texas	New York
Maryland	Washington	Nevada
		North Dakota
		Oregon
		Michigan
		Virginia
		West Virginia

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

Figure 5. States that have adopted, or plan to adopt, or have discussed performance related funding. States that currently include a performance-based funding mechanism are indicated 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.



Illustrative State Narratives

Arizona

Arizona uses a base plus funding formula to fund its universities. The increase in funding is based on enrollment by a 22:1 ratio where an increase or decrease in 22 full-time equivalent students results in the addition or subtraction of 1 faculty member. Arizona is currently discussing incorporating performance criteria into its funding methods.[12]

Indiana

Indiana's base formula is driven by enrollment and accounts for the bulk of all funding provided to each college. Notably, enrollment numbers have been based on enrollment on the last day of class. In 2003, Indiana added an incentive fund to reward the state's research universities for federal research funds awarded. 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 2-year colleges to 4-year colleges, types of degrees, degree completion by low-income students, and dual credit hours, as well as research grant incentives. Performance funding was implemented within the increase in funding given to the system of higher education. The funding based on enrollment remained intact in 2007; however, in 2009 10% of the enrollment-based funding was shifted to successfully completed credit hours with a grade of at least a D-. 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 high costs and low completion rates.[13] In 2014, the enrollment component will shift to 100% completed credit hours. For the 2011-12 budget, Indiana allocated 5% ($61.4 million) to fund its performance pool. The allocation of funds emphasizes degree production with 60% of the pool awarded for degree completion.[14]

New Mexico

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

---

[12] Arizona Board of Regents. *Funding Enrollment Changes. https://azregents.asu.edu/Documents/FUNDING%20ENROLLMENT%20CHANGES.pdf (accessed 1 May 2011);* MGT America. *Options for Funding Arizona Higher Education. Phase II Report.* March 15, 2011. http://gettingaheadaz.org/assets/Phase_II_Report_combined_3_29_2011.pdf (accessed 1 May 2011).

[13] Lederman, Doug. "Performance (De-)Funding." *Inside Higher Edu. 28 Dec 2009 http://www.insidehighered.com/news/2009/12/28/indiana (accessed 1 May 2012).*

[14] HCM Strategists. "Performance Funding in Indiana: An Analysis of Lessons from the Research and Other State Models." Report to Indiana's Commission on Higher Education. 8 August 2011. http://www.hcmstrategists.com/content/Indiana_PFReport2_8.2.11.pdf (accessed 8 May 2012); 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 (accessed 2 May 2012)

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. Any future increase in budget request will be calculated by a performance formula unique to each type of institution.

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. There is an additional funding factor based upon the total number of undergraduate and graduate degrees and postgraduate certificates awarded by each institution. For fiscal year 2013, this funding factor is 2% of 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 those 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, a research factor, a quality factor, a progress factor, and a factor that rewards success of transfer students.

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 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 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.[15]

Kansas

Kansas uses a base plus method to fund the 4-year universities. Any new money distributed to the institution is based on compliance with performance agreements that the Kansas Board of Regents signs with each institution. Performance metrics are based on improvement. Though the exact criteria differ from institution to institution, they address increasing diversity, improving student achievement test scores, aligning the higher education system with the needs of the Kansas economy, increasing institutional quality, and providing student services.[16]

---

[15] *Educating Tomorrow's Workforce: New Mexico's Higher Education Funding Formula for Fiscal Year 2013.* New Mexico Higher Education Department. 14 Oct. 2011. http://www.nmsu.edu/~budget/PDF%20Files/HED_Ed_Funding_Formula_FY2013.pdf (accessed 3 May 2012).

[16] 2011 Performance Agreements. Kansas Board of Regents. http://www.kansasregents.org/resources/PDF/1698-BoardDec2011PerformanceAgreements.pdf (accessed 3 May 2012).

Ohio

Ohio uses a funding formula to calculate the state appropriation for higher education, which is termed the State Share of Instruction (SSI) formula. Ohio has different formulas for different types of campuses: university main campuses, university regional campuses, and community and technical college campuses. 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. The University Regional Campus funding model will be allocated entirely based on enrolled course completions, weighted for at-risk students. The Community and Technical College funding model consists of three components: (1) an enrollment component, (2) a student success component, and (3) an institutional specific goals and metrics (successful completion of undergraduate courses are weighted by campus, subject, and level). The student success component consists of degree completion in general, by at-risk students, and in STEM fields.

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

- Age: over 25 at the time of graduation
- Less than $2,190 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.

For community colleges in fiscal year 2012, 7.5% of funding was tied to successful completion of developmental activities, progress from remedial to college-level courses, completion of first 15 credit hours, then 30 credit hours, degree completion, and transfer to 4-year public institutions.[17]

Tennessee

In 2010, the Complete College Tennessee Act requires the development of a new funding formula that emphasized student retention and degree completion. The new funding method has a formula for universities and another formula for community colleges. Each institution has a fixed line item appropriation of 15-18%, with the balance of the funding tied to performance metrics. University performance metrics include degree completion, progression metrics, research and service, transfer rates, and a six-year graduation rate. Community college metrics include progression metrics, dual enrollment, degree and certificate completion, job placement, completion of remedial and developmental studies, and workforce training. 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.[18]

---

[17] 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.* 31 October 2011.

[18] Tennessee Higher Education Commission. *Outcome Based Formula Explanation.* Jan. 2011. http://tn.gov/thec/complete_college_tn/ccta_files/outcomes_based_ff/Outcomes_Based_Formula_Explanation.pdf (accessed April 27 2011).

Tennessee's change from a primarily enrollment-driven approach to an output approach has resulted in campuses bringing in extra student advisors, increase tutoring and remedial classes, fast-track majors, and develop extra courses between semesters.[19]

Texas

The bulk of funding for higher education in Texas is distributed through a funding formula driven by enrollment. However, in 2007 the Texas Legislature appropriated $100 million in fiscal year 2009 to establish the Higher Education Performance Incentive Initiative. Eighty million dollars were distributed for increases in degrees awarded with special weights given to critical fields and at-risk students.[20]

Washington

In 1997 Washington incorporated performance-based funding for both its 2-year and 4-year public institutions through an appropriation act that required the state to withhold a small portion of appropriation from each institution. 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 needed 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 instructions was abandoned in 1999 due partly due to politics, but also due several issues that have been found to contribute to the failure of performance-based funding across applicable states:[21]

- 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.

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 including gains in basic skill, passing pre-college writing or math, earning 15 credits the first year, then 30 credits, completing college-level math, finishing apprentice training, or earning a degree or program certificate.

Performance 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

---

[19] 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.*

[20] Texas Legislative Budget Board Staff. *Financing Higher Education in Texas: Legislative Primer.* January 2011.

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

results. Although Ohio has recently expanded its performance-based funding, the state started incentivizing graduation rates in 1998. Since then, Ohio has reported 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 other programs are too new to show clear results; however, the act of developing and implementing performance-based funding raised awareness of state priorities among campus officials.

Policy Considerations

Strengths and Weaknesses of Performance Criteria

Since the Second World War, higher education in the United States has been the engine of economic growth and social mobility. It is accustomed to worldwide recognition and emulation. 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 complete—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 we observe in the tables above, all states support higher education to some degree or other based on the number of students enrolled and taking classes. This has the effect of biasing decisions by campus leaders towards greater access. More students in seats mean more money. If access is the goal, then enrollment is an appropriate performance criterion. But once the focus shifts to other goals, as it has, then paying for enrollment is deficient 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 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, therefore, and that address the deficiencies noted above, fall into three broad categories:

- **Alignment:** It is striking how often funding models for higher education are not clearly aligned with 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 have a bachelor's degree, which ranks the state 46th

among the states and the District of Columbia, although the 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 performance criteria actually in use, but it has been the subject of a great deal of discussion, for example, in the *Spellings Commission Report of 2004*. As the focus on attainment and on graduates grows, there will inevitably be a concern with quality control. In the long run it is surely 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, 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—efforts to accelerate and ensure the graduation of students who are under-prepared—contribute to the overall purpose 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.

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. Extremely complex formulas have doomed past performance-based initiatives.

- **Differentiation:** Any set of performance criteria will be applied to a highly differentiated set of 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:** As noted at the beginning of this section, the resources subject to performance criteria should be significant enough to shape behavior. This means that even if fees

> and tuition revenues are properly separated from public monies, the overall income of an institution or system should be considered in determining what percentage of public funds is dedicated to performance. Furthermore, these funds should be drawn from the overall budget for higher education and not budgeted separately. 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, at least a framework designed to go beyond access and enrollment as a primary driver. Indeed, the three categories can be ranked in the order presented. Alignment should be the starting point for any understanding or evaluation of a 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. 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 become important (especially important when developing entirely new models of funding). Furthermore, the timing and character of the implementation plan is critical. However, implementation will be discussed in the next deliverable, as it is likely to be enmeshed in other policy choices beyond any particular formula and performance criteria.

Evaluating the Existing NSHE Formula

The "current" 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, as noted above, 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."[22]

These are serious objections from the point of view of the first and second criteria discussed above. It was never tightly linked to larger policy goals, or explicit principles. This deficiency is revealed in areas of the formula unrelated to students: 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 were never adopted, and there is no consideration at all of quality, in the form of skills, competencies or anything else.

[22] "Evaluation of the NSHE Funding Formula" MGT of America, (May, 2011) p. ES-2

Serious claims exist concerning the lack of equity in the way this formula has worked. In our view the objections to this formula are more fundamental. It is a model without a guiding rationale, based on students in seats, deficient in its support for remediation and student success, and combined with a large number of out-of formula payments of an arbitrary and unplanned kind. It should be abandoned, or so completely re-worked as to be unrecognizable.

The New Model for Funding Higher Education

The NSHE work on an alternative formula is grounded in the strategic planning process noted above, which yielded the strategy document "Strategic Directions for the Nevada System of Higher Education." Having clearly articulated goals as a 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, this strategy document 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 NSHE 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.[23])

The NSHE leadership has worked closely with the National Governor's Association (NGA) in devising the performance criteria or pool for its new formula. A particular virtue of the way the NGA approaches metrics, which is especially important in the case of Nevada, is that they have 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 require remediation, and almost 30% of four-year college freshman require it. But current remediation efforts aren't 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.

The work on this performance pool continues, and what is contained in the proposal is preliminary. The comments that follow are designed to contribute to that work by evaluating its broad direction, identifying ways in which it might be reshaped, and suggesting new elements that could be included. While everyone recognizes that the 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 a change consistent with developments in many other states.

[23] www.DataQualityCampaign.org/DFA2011

As noted above, the outcome metrics identified by the 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—provide administrators with the tools for targeting where exactly individuals go off track.[24] When used in combination they allow for measurement of progress and for understanding of how that progress was achieved.

The metrics proposed by the NSHE focus largely on one outcome: degrees awarded. This particular outcome 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.

But 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. Rewarding raw numbers 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 the 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, the proposed performance criteria include progress metrics for the community colleges only. Without progress metrics, the emphasis on graduates 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) one identified in the discussion 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 allow Nevada to compare its students' skills against national scores. No such measure is in the 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 performance pool. We will reserve most of our analysis of research funding for the final deliverable, as that is tightly tied to economic development alignment, which will be generally addressed at that time. However, the way in which research funding is treated in the proposed alternate funding formula is worth a preliminary discussion because it appears twice. 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. In the performance pool research is rewarded based on a very broad definition of dollars received for sponsored and external research expenditures (for

[24] 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.

example it includes dollars received for student services). Neither approach addresses directly the economic development goals of the state. Dollars earned through sponsored research (which is appropriately defined) should be rewarded, but perhaps not almost any kind of external grant, at least not under the rubric of research. This important area is not clearly aligned in ways consistent with stated goals.

Remediation is another important issue that SRI is contracted to address in the final deliverable, but it is worth noting here that the proposed alternative funding model pays only a modest amount of attention to this critical issue. The "base" formula provides no extra support for remedial courses at the colleges, even though successful remediation is a relatively costly activity, and does not support remedial courses at the universities at all (at present the universities provide remedial courses without using state support, a situation that will 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 formula should accentuate differentiation. It is not clear that the proposed formula achieves this.

In summary, our evaluation offers the following main points for consideration as the work on the performance pool continues:

- The commitment to a significant performance pool is important and must be continued.
- The focus on graduates as an outcome has several benefits.
- The focus on graduates should be tempered by a greater use of progress metrics.
- A metric that captures learning outcomes should be adopted in the future, and data collection begun immediately.
- Research is incorporated into the model in a somewhat idiosyncratic manner without clear alignment to economic development goals.
- The alternative model does not use (modest) financial support for remediation in ways consistent with differentiated institutions.

Finally, implementation and scale are critical questions for any new model. These have not yet been addressed in any detail by the proposed alternative model, but will be addressed by SRI in the final deliverable.

Appendix A: Resources consulted

Alabama

Alabama Commission on Higher Education. *FY 2011-2012 Consolidated Budget Recommendation.* http://www.ache.alabama.gov/CBR2011/Index.pdf

Arizona

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

Arkansas

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

California

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.*

Conversation with Deborah Obley, UCOP.

Conversation 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

Colorado

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 Educaiton Legislation in 2011.* https://www.ncsl.org/issues-research/educ/highereducationlegislation2011.aspx

Connecticut

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

Florida

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

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

Georgia

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

Hawai'i

Act 188 Task Force. (2011). *University of Hawai'i System Report.*

Conversation with John Morton, UH.

Idaho

Coffman, Mitch. (December 12th, 2011). State Board of Education may look to performance-based funding to fix higher education equity problem. *Idaho reporter.com. Retrievd 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.*

Illinois

Correspondence with Matt Berry, IBHE

Indiana

Indiana Commission for Higher Education. (2011). *2011-13 CHE Higher Education Budget Recommendation.* http://www.in.gov/che/files/2011-13_CHE_Higher_Education_HWM_Committee_Flat_Line_1-6-11%281%29.pptx

Kansas

Conversation with Diane Duffy, KBOR.

Kentucky

Conversation with Bill Payne, KCPE.

Louisiana

Louisiana Board of Regents. *Funding Formula for Louisiana's Public Postsecondary Institutions.* https://www.ladelta.edu/institutionaleffectiveness/sacs/bor_funding_formula_report.pdf

Maryland

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

Michigan

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

Correspondence with Robert Murphy and Beth Bullion, Michigan Department of Technology, Management & Budget.

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

Minnesota

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
Minnesota Statute 135A.101. (2007).
https://www.revisor.mn.gov/bin/getpub.php?pubtype=STAT_CHAP_SEC&year=current&section=135A.101

Mississippi

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

Montana

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

New Jersey

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

New Mexico

Conversation with Brigette Russell, NMHED.
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

New York

Bultman, Matthew. (February 26, 2012). SUNY funding changes concern Potsdam College Council. *Watertowndailytimes.com*. Retrieved from
http://www.watertowndailytimes.com/article/20120226/NEWS05/702269853
Conversation with Wendy Gilman at SUNY System Administration.
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

North Carolina

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

North Dakota

Conversation with Laura Glatt, Vice Chancellor for Admin Affaris North Dakota Univ. System.
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

Ohio

Crellin, Matthew, Aaron, D., et al. (2011). *Catalyst for Completion: Performance-Based Funding in Higher Education - A case study of three states*.
http://www.nebhe.org/info/pdf/PerformanceFunding_NEBHE.pdf

Oklahoma

Conversation with Sheri Mauck at Budget and Finance Oklahoma State Regents for Higher Education.
http://completionagenda.collegeboard.org/state-performance/state/oklahoma?quicktabs_2=1
Oklahoma State Legislature. (2012). *Lawmakers Seek to Reform Higher Ed Funding*.
http://www.okhouse.gov/okhousemedia/news_story.aspx?NewsID=4236

Oregon

Conversation with Jan Lewis.
Oregon University System. (2011). *FAQs: Senate Bill 242*.
http://www.ous.edu/sites/default/files/state_board/workgroups/gpc/files/SB242FAQsFINAL.pdf

Pennsylvania

Conversation with Lois Johnson, Director of Financial Management PA State System of HE.
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--> see pg.7
Pennsylvania State System of Higher Education. (2003). *Allocation Formula Overview.*
http://www.passhe.edu/inside/anf/budget/Pages/Allocation-Formula.aspx

South Carolina

Community College Research Center.(2010). 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
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/

Tennessee

Tennessee Higher Education Commission. (2010). *Tennessee's Outcomes Based Funding Formula.*
http://www.state.tn.us/thec/Divisions/Fiscal/funding_formula/1-Funding%20Formula%20-%20Updated%20for%20Website.ppt
Tennessee Higher Education Commission. (2011) *Outcomes Formula Definitions 11-4-11 Revised.*
http://www.state.tn.us/thec/Divisions/Fiscal/funding_formula/Outcomes%20Formula%20Definitions%2011-4-11%20Revised.xlsx
Tennessee Higher Education Commission. (2011). *2012-13 Outcomes Formula*.
http://www.state.tn.us/thec/Divisions/Fiscal/funding_formula/dynamic_model/2012-13%20Outcomes%20Formula%20email.xls

Texas

Legislative Budget Board. (2011). *Financing Higher Education in Texas*.

http://www.lbb.state.tx.us/Higher_Education/HigherEd_FinancingPrimer.pdf

Washington

Washington State Board for Community and Technical Colleges. *Student Achievement Initiative.* http://www.sbctc.ctc.edu/college/e_studentachievement.aspx

Virginia

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

West Virginia

Financing West Virginia's Future: A Funding Model for Higher Education. WVHEPC Efficiencies Project. January 21, 2011. https://www.wvhepc.org/efficiency