Washington State Auditor's Office

Troy Kelley

Independence • Respect • Integrity

Performance Audit

Higher Education Performance-Based Funding

A prospective analysis of performance funding in other states to inform options for public four-year higher education institutions in Washington

April 17, 2014

We learned that Washington's four-year colleges and universities already collect data for most of the performance metrics used by other states, including the five most commonly used. We found that systems and policy goals in other states vary widely, with each state's goals determining their performance metrics. We also identified several leading practices that could help guide policy-makers in the development of a performance-based funding system.

Audit Number: 1011502

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Executive Summary

Washington has six, four-year, public institutions of higher education. They enrolled more than 130,000 students in the 2012-2013 school year, and the Legislature has budgeted nearly $8.9 billion from all sources for these schools for the 2013-2015 biennium. An increasing need for a highly educated workforce, rising interest in accountability, and intensifying budget challenges in recent years have prompted policy-makers in Washington and other states to consider funding all or a portion of four-year higher education institutions based on performance. Performance-based funding is intended to encourage schools to meet specific performance goals to receive specified amounts of funding.

This performance audit reviews the performance-based funding systems in other states. Its results can help inform policy-makers as they consider such a system for Washington's public four-year institutions.

Washington's public four-year schools

Central Washington University

Eastern Washington University

Western Washington University

University of Washington

Washington State University

The Evergreen State College

Combined enrollment: 130,000 students

Biennial budget: $8.9 billion

Washington already collects the most common performance metrics

We found that Washington's public four-year colleges and universities collect the data needed in order to use most metrics already employed by other states, including the five most common. In fact, existing data account for more than 70 percent of the measures used by other states.

Five most commonly used metrics from other states	
1.	The number of degrees completed
2.	The number of students completing degrees on time
3.	Student retention rates
4.	The number of science, technology, engineering and mathematics (STEM) and high-demand degrees completed
5.	Student credit hours completed

You can view the tables with our results in the body of our report on pages 10-11.

Performance funding models vary from state to state

We researched performance-based funding in 11 other states that were identified by the National Conference of State Legislatures as having active performance funding systems for their public four-year colleges and universities. The systems in these states measure institutional performance to pursue a variety of goals. They also vary in other substantial ways, including the number and types of metrics used, the percentage of funding dedicated to improving performance, and the method for allocating performance-based funds.


In the following tables, each section heading names a goal pursued by one or more of the 11 states we researched. Below each goal is a list of the metrics that address that goal. The right column indicates how many of Washington's four-year institutions collect data for a given metric.

In many cases where a square is not highlighted, the metric may not apply to the school, or the school may collect some, but not all, of the data for the particular metric. **Appendix B** describes our methods for developing the inventory of goals and metrics. **Appendix D** provides detailed information about which institutions collect which data.

Goals and metrics	Other states with metric (out of 11)	WA institutions with data (out of 6)
Increase degrees completed		
Number of degrees completed	10	
Number of degrees per 100 FTE students	3	
Percentage of degrees compared to expected number of degrees	2	
Increase number of graduates	1	
Increase graduation rates		
Number of students that complete degrees on time	6	
Graduation rate	2	
Number of graduates compared to expected number of graduates	1	
Encourage student progress		
Retention rates	5	
Credit hours completed	5	
Number of courses completed	1	
Increase high-demand degrees and certifications completed		
Number of STEM and high-demand degrees completed	5	
Licensure exam passage rates	1	
Improve quality of education		
Percentage of accredited programs	3	
Standardized test scores	2	
Successful standards met by non-accreditable programs	1	
Promote research and development		
Total research, development, and service expenditures	3	
Amount of research funding at research universities	1	
Close achievement gaps		
Number of degrees completed by Pell grant recipients	1	
Number of degrees completed by at-risk students	1	

Pennsylvania's performance funding system seeks to reduce gaps in student access and increase course completion. Other goals include increasing access for under-represented student groups, increasing student success, and improving stewardship of public funds.

- *9% of higher education budget*
- *4-year institutions only*

South Dakota's performance funding pilot (no longer in place) intended to cultivate the state's workforce through higher degree completion rates and to enhance economic development by boosting sponsored research.

- *$3 million*
- *4-year institutions only*

Tennessee's performance funding system measures institutions on credit hours completed, degrees completed, on-time graduation rates, institutional efficiency, and quality of education, among other metrics.

- *100% of higher education budget*
- *2- and 4-year institutions only*

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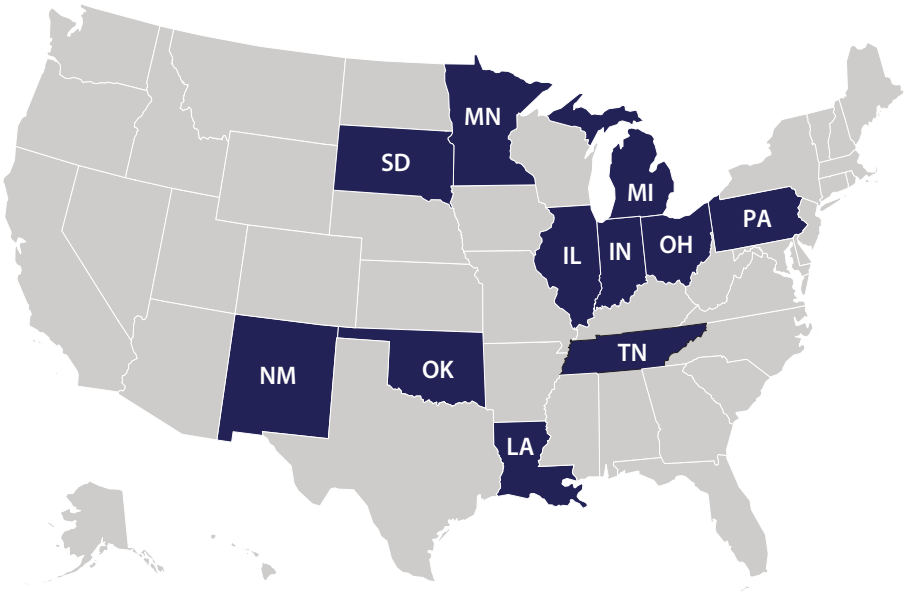
Lessons learned from other states

Developing a new funding system can be difficult, and the metrics used in a performance system depend on a state's goals. Our audit identified several leading practices drawn from the challenges and successes experienced by other states in their attempts to employ performance-based funding systems. Washington can learn from these experiences as it considers its own performance-based funding system for its four-year colleges and universities. The leading practices we identified apply to two broad categories: performance funding system metrics and issues of system implementation.



Leading practices for system metrics

- Address the **quality of student education**
- Account for **difference in school missions**
- Ensure continued **student access and equity**
- Recognize the importance of **student progress and completion rates**
- Identify and address **potential unintended consequences** of metrics

Leading practices for system implementation

- Keep the model **simple and understandable**
- Be aware of the **time needed to develop** the model and for **schools to adjust**
- **Phase in the model** to account for possible lack of initial data
- Encourage and maintain **stakeholder participation**
- **Emphasize shared goals** of schools
- **Dedicate an amount of funding** that **encourages change** but **minimizes difficulty of transition**
- Address and **effectively communicate technical details** of funding to schools

Introduction

Background and current interest in performance-based funding

More than 130,000 students attended Washington's public four-year colleges and universities in the 2012-2013 school year. The Legislature budgeted nearly $8.9 billion from all sources for these schools in the 2013-2015 biennium. An increasing need for a highly educated workforce, rising interest in accountability, and increased budget challenges in recent years have prompted policy-makers in Washington and other states to consider funding all or a portion of four-year higher education institutions based on performance. Performance-based funding is intended to encourage schools to meet specific performance goals to receive specified amounts of funding.

Washington first developed performance funding for higher education institutions in 1997 through a budget proviso that withheld around 0.9% of state appropriations for two-year and four-year higher education institutions. In the first year, each institution completed a plan to qualify for the withheld funds. Subsequent budgets did not renew the proviso.

In 2009, Washington's 34 technical and community colleges began using performance-based criteria to allocate a portion of their funding. The State Board for Community and Technical Colleges developed this system, known as the Student Achievement Initiative. Legislative proposals in 2012 and 2013 sought to tie funding to performance in public four-year colleges and universities, but did not pass.

The state's 2013-2015 budget directed a task force to propose an incentive funding model for four-year schools based on data already collected for each school. The task force made recommendations regarding:

- A funding system based on school performance, tuition control, and use of facilities and high-tech instruction
- A methodology to allocate funds using Washington's current accountability system
- A methodology for investing unallocated funds
- A methodology to establish baseline state funding

Most recently, in the 2014 legislative session, legislators introduced Senate Bill 6042 to create an incentive-based methodology for allocating state funds to public four-year institutions. Proposing the use of a variety of measures, the bill sought to encourage institutions to increase the number of degrees awarded overall, the number of degrees awarded in high-demand fields of study, and the number of degrees awarded to under-represented student populations. Senate Bill 6042 did not pass.

Also introduced this session was House Bill 2653, which sought to create an incentive fund for four-year schools to increase degree production in high-demand fields, for specific student populations, and overall. House Bill 2653 did not pass.

Washington's Student Achievement Initiative applies to all 34 technical and community colleges. Initiative achievement measures emphasize:

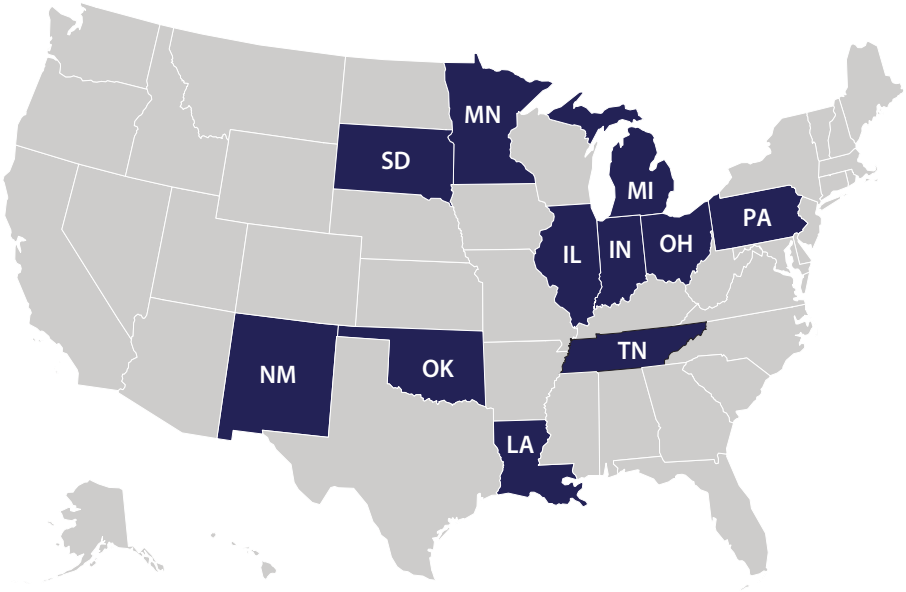
- improving preparation for college-level courses
- accumulating a year of college credit
- completing college-level math
- completing apprenticeship trainings, certificates and degrees

Audit objectives

Interest in performance-based funding in Washington reflects growing nationwide interest in using monetary incentives to produce improvements at public colleges and universities. Several other states use, or are transitioning to, performance-based funding models for higher education for their four-year schools. This audit explored elements of these models that could be applied in Washington. The information from this performance audit can help inform policy-makers as they consider or develop a performance-based funding system for Washington's public four-year schools. The audit sought to answer the following question:

What lessons can be learned from existing performance-based funding models to help inform policy deliberations in Washington?

Summary of audit scope and methodology



We researched 11 other states (illustrated in the map) with performance-based funding systems for their four-year schools to determine the metrics they use to pursue specific policy goals. The National Conference of State Legislatures (NCSL), a leading research organization on the topic, named these states as having performance funding systems in place for their four-year institutions.

We developed a summary of the performance funding system for each state. These summaries include the metrics each state uses to measure performance, information about the development of the various systems, the policy goals for each system, and lessons learned. **Appendix E** provides a sample of five short summaries; longer reviews are posted in the **Performance Audit/Recent Reports** section of our website.

We categorized the metrics other states use by policy goal. For example, we categorized a metric such as number of credits completed as a student progress goal. As we gathered more information from literature and other states, we refined the categories and compiled a list of the metrics other states use to measure performance. We then used this list to survey Washington's four-year schools to see if they collect the same or similar data. We did not assess the quality, reliability or standardization of the data that institutions collect.

Appendix A describes the provisions of Initiative 900 and how the audit addressed these provisions.

Appendix B provides more detail on our scope and methodology.

We conducted this performance audit under the authority of state law (RCW 43.09.470), approved as Initiative 900 by Washington voters in 2005, and in accordance with Generally Accepted Government Auditing Standards (December 2011 revision) issued by the U.S Government Accountability Office. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Next steps

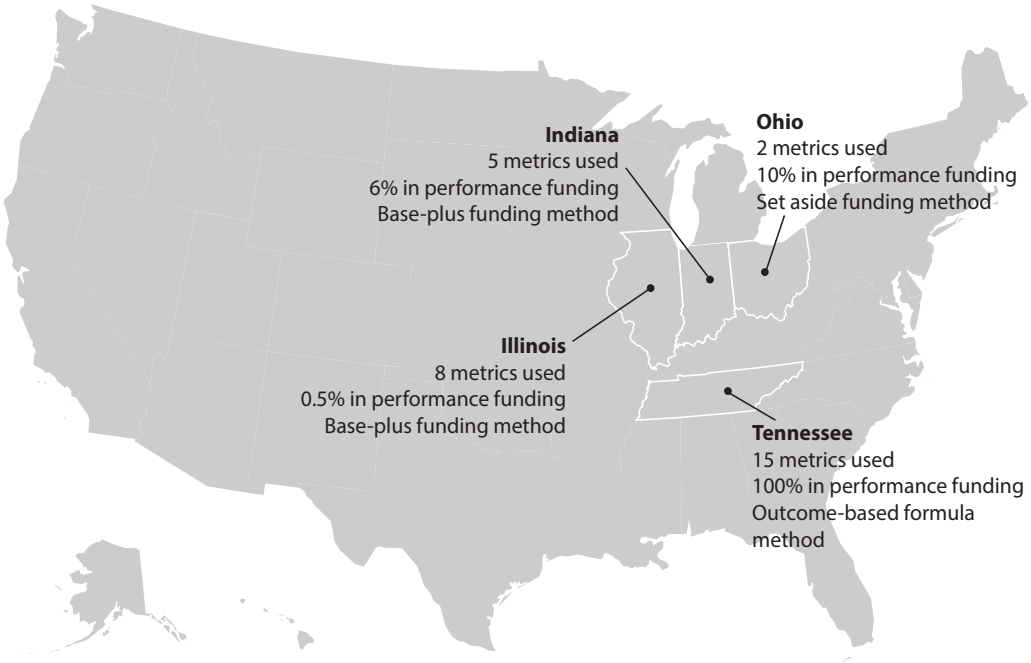
Our performance audits of state programs and services are reviewed by the Joint Legislative Audit and Review Committee (JLARC) or by other legislative committees whose members wish to consider findings and recommendations on specific topics. Representatives of the State Auditor's Office will review this audit with JLARC's Initiative 900 Subcommittee in Olympia. The public will have the opportunity to comment at this hearing. Please check the JLARC website for the date, time, and location (**www.leg.wa.gov/JLARC**). The State Auditor's Office conducts periodic follow-up evaluations to assess the status of any recommendations and may conduct follow-up audits at its discretion.

Audit results

Performance funding systems vary widely between states

The performance-based funding systems other states use for their public four-year colleges and universities vary widely because:

- Their models address different policy goals
- Some states use fewer than five metrics, others more than a dozen
- The percentage of funding tied to performance ranges from 0.5 percent to 100 percent.



We identified 12 broad policy goals from the performance funding systems in the 11 states we researched. Each state chose to measure performance from a selection of these goals, and no state addresses all of them through its performance funding system. The policy objectives we identified include:

1. Increase degrees completed
2. Increase high-demand degrees and certifications completed
3. Increase graduation rates
4. Encourage student progress
5. Close access gaps between student subgroups
6. Close achievement gaps between student subgroups
7. Improve quality of education
8. Improve institutional efficiency
9. Promote research and development
10. Increase private funding
11. Increase faculty and professional staff diversity
12. Improve operations and maintenance

Illinois' performance funding system addresses the state's economic needs by measuring the number of degrees completed, on-time graduations, completion of credit hours and cost of education.

- *0.5% of higher education budget*
- *2- and 4-year institutions*

Indiana's higher education policy goals include degree completion, student progress, productivity and school mission differentiation.

- *6% of higher education budget*
- *2- and 4-year institutions*

Louisiana's performance funding system emphasizes retaining students, closing student access gaps, and increasing graduation rates, degrees completed, and high-quality credentials.

- *Percent not available*
- *2- and 4-year institutions*

Michigan's performance funding system focuses on student access, college affordability, and a highly educated workforce by measuring degrees completed, STEM/Health degrees completed, and on-time graduations.

- *2% of higher education budget*
- *4-year institutions only*

Most existing performance funding models are new or are undergoing change

Of the states we researched, all had implemented their performance funding models, or made changes to them, in the last three years. Representatives we interviewed from some states said they have seen improved performance since implementing their models. However, Tennessee is the only state conducting a formal evaluation to compare performance before and after changes made to its model.

Washington already collects the most common performance metrics

We found that Washington's public four-year institutions collect most of the data needed to address the metrics used by other states, including the five most used metrics. With existing data, Washington can measure over two-thirds of the measures used in other states. While existing data do not fully address some metrics, Washington's schools often collect at least some of the required data.

Five most commonly used metrics from other states:	
1.	The number of degrees completed
2.	The number of students completing degrees on time
3.	Student retention rates
4.	The number of science, technology, engineering and mathematics (STEM) and high-demand degrees completed
5.	Student credit hours completed

Roughly 40 percent of the data used in other states is already collected centrally in Washington through the Public Centralized Higher Education Enrollment System (PCHEES). This database is maintained by the Office of Financial Management (OFM) in partnership with Washington's public four-year colleges and universities. OFM's Statewide Public Four-Year Dashboard, which uses PCHEES data, displays accountability data such as graduation rates and the time it takes to complete a Bachelor's degree, among others, for each institution. Several of the metrics displayed are similar to those commonly used across performance models in other states.

There is no one size fits all performance-based funding model

The metrics used in performance models depend on a state's goals. For example, Ohio aims to keep a greater portion of graduates in its state. While Ohio weights degrees for out-of-state students more heavily in its performance model, Washington might not. Also, depending on the choice of policy goals, some performance metrics may not apply to all of Washington's four-year institutions: what may be important for research universities may be irrelevant for the state's regional universities. Other states address mission differences by allowing schools to choose from a selection of metrics or by applying weights to metrics based on their unique characteristics.

Minnesota's performance funding system promotes accountability by measuring degrees completed, student diversity, access to online classes, and student retention.

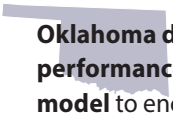
- *1%-5% of higher education budget*
- *4-year institutions only*

New Mexico's performance funding system encourages its institutions to create a globally competitive workforce by increasing course completion, the number of graduates, and the number of STEM/Health degrees, and graduation by at-risk students.

- *5% of higher education budget*
- *2- and 4-year institutions*

Ohio's performance funding system seeks to graduate more citizens from college, keep a greater number of graduates in Ohio and to strengthen the state's response to new or increased workforce development opportunities.

- *10% of higher education budget*
- *2- and 4-year institutions*



Oklahoma designed its performance funding model to encourage student retention and increase completion of degrees and professional certifications.

- *$9 million*
- *2- and 4-year institutions*

In the following tables, each section heading names a goal pursued by one or more of the 11 states we researched. Below each goal is a list of the metrics that address that goal. The right column indicates how many of Washington's four-year institutions collect data for a given metric.

In many cases where a square is not highlighted, the metric may not apply to the school, or the school may collect some, but not all, of the data for the particular metric. Appendix B describes our methods for developing the inventory of goals and metrics. **Appendix D** provides detailed information about which institutions collect which data.

Goals and metrics	Other states with metric (out of 11)	WA institutions with data (out of 6)
Increase degrees completed		
Number of degrees completed	10	■■■■■■
Number of degrees per 100 FTE students	3	■■■■■■
Increase number of graduates	2	■■■■■■
Percentage of degrees compared to expected number of degrees	1	■■■□□□
Increase graduation rates		
Number of students that complete degrees on time	6	■■■■■■
Graduation rate	2	■■■■■■
Number of graduates compared to expected number of graduates	1	■■■□□□
Encourage student progress		
Retention rates	5	■■■■■■
Credit hours completed	5	■■■■■■
Number of courses completed	1	■■■■■■
Increase high-demand degrees and certifications completed		
Number of STEM and high-demand degrees completed	5	■■■■■■
Licensure exam passage rates	1	■■□□□□
Improve quality of education		
Percentage of accredited programs	3	■■■□□□
Standardized test scores	2	□□□□□□
Successful standards met by non-accreditable programs	1	□□□□□□
Promote research and development		
Total research, development, and service expenditures	3	■■■■□□
Amount of research funding at research universities	1	■■■■□□
Close achievement gaps		
Number of degrees completed by Pell grant recipients	1	■■■■■■
Number of degrees completed by at-risk students	1	■■■■■■

Pennsylvania's performance funding system seeks to reduce gaps in student access and increase course completion. Other goals include increasing access for under-represented student groups, increasing student success, and improving stewardship of public funds.

- *9% of higher education budget*
- *4-year institutions only*

South Dakota's performance funding pilot (no longer in place) intended to cultivate the state's workforce through higher degree completion rates and to enhance economic development by boosting sponsored research.

- *$3 million*
- *4-year institutions only*

Tennessee's performance funding system measures institutions on credit hours completed, degrees completed, on-time graduation rates, institutional efficiency, and quality of education, among other metrics.

- *100% of higher education budget*
- *2- and 4-year institutions only*

Goals and metrics	Other states with metric (out of 11)	WA institutions with data (out of 6)
Close access gaps		
Number of students enrolled in online courses	2	■■■■■■
Number of online programs and courses	2	■■□□□□
Number or percent of total non-majority students enrolled	2	■■■■■■
Institutional financial aid	1	■■■■■■
Cost of attendance	1	*See note below**
Percentage of Pell grant recipients	1	■■■■■■
Percentage of first-time under-represented freshmen at entry	1	■■■■■■
Improve institutional efficiency		
Cost per credit hour and completion	1	■■■□□□
Ratio of FTE students to FTE employees	1	■■■■■□
Student credit hours taught	1	■■■■■■
Remedial education offerings available at area community colleges	1	■■■■■□
Institutional funding that goes toward institutional support	1	■■■■■■
Percentage of support expenditures	1	■■■■■■
Increase private funding		
Annual private funds raised by universities and foundations	1	■■■■■□
Sponsored funding from business and industry	1	■■■■□□
Increase faculty and professional staff diversity		
Percentage of non-majority faculty and non-faculty	1	■■■■■■
Percentage of female faculty and non-faculty employees	1	■■■■■■
Operations and maintenance		
Deterioration rate for physical assets	1	■■■■■■
Total energy consumption	1	■■■■■■
Quality of service delivery	1	■■■■■■
Spending levels for staffing, maintenance, custodial, and grounds	1	■■■■■■

Note: Cost of attendance is used by one state's performance funding system where the metric varies by institution, so a precise definition of this metric was not available. We asked each school if it has a metric to reduce student cost of attendance (see Appendix F). While the answer is "no" to this specific question for each institution, one school responded that cost of attendance for each school is easily derived from the Integrated Postsecondary Education Data System (IPEDS).

Leading practices and lessons learned

What Washington can learn from other states when developing and implementing a performance funding system

Developing a new funding system can be difficult. During our audit research, we identified several leading practices that come from the challenges and successes experienced by other states in their attempts to employ performance-based funding systems. Washington can learn from these experiences as it considers its own system for its four-year schools. The leading practices we identified apply to performance funding system metrics and putting performance-based funding into action.

Metrics

We identified leading practices related to metrics based on the experiences of other states with their performance funding systems.

Address the quality of student education

Performance funding models should be sure to address educational quality as well as institutional efficiency. Some authorities suggest that encouraging schools to increase on-time graduation rates while simultaneously reducing costs could compromise education quality. A report on one state's proposed system stated its emphasis on course completion could cause grade inflation or jeopardize course rigor. The report instead recommended a model that balances issues of access with student success.

Louisiana, Oklahoma and Tennessee measure the quality of education by reporting on the percentage of accredited programs offered.

Performance funding models in most states we researched did not address the quality of education provided by four-year colleges and universities. However, some states indicated that they plan to integrate quality-focused measures in their models. Some have tried to address quality through metrics for program accreditation and standardized test scores, while others administer stakeholder satisfaction surveys.

Account for differences in the missions of participating schools

Universities—even in the same state—vary by mission, goals, student populations and other factors. Varying performance metrics or applying weights by institution allows a performance funding model to address each school's unique needs. Tennessee customized its performance goals for each institution. For example, the primary performance goal of University of Tennessee, Knoxville, was to improve six-year graduation rates, while Middle Tennessee State University's goal was to increase the total number of Bachelor's and Associate's degrees awarded. Some states also reward schools that increase participation and completion for certain groups, such as low income, adult and minority students.

Some states allow or require institutions to develop unique metrics based on their specific missions and goals. Pennsylvania allows two optional, institutionally-defined metrics per institution. Indiana requires each school to develop one metric that focuses on reducing student cost of attendance and that links to its strategic plan.

Using institution-specific metrics may have a downside. Metrics that are not common across a state's schools reduce comparability and may complicate performance funding decisions. Indiana recommends that its institutions choose from fewer and more standardized metrics to address this challenge.

Pennsylvania had difficulty comparing performance across institutions after allowing institutions to define their own metrics.

Ensure continued student access and equity

As states' demographics change, serving academically and financially at-risk students becomes an economic imperative and more than just an equity issue. Serving under-represented students is often a primary goal for institutions, and many performance funding models reward institutions for progress in this area. Performance funding formulas can ensure continued access and equity by giving under-represented populations more weight and by encouraging academic progress and completion for at-risk students. Performance funding models that emphasize only student academic success may unintentionally favor institutions with better-prepared student populations and encourage restrictive admissions.

Recognize the importance of student progress and completion rates

Benefits from higher education do not apply only to those who graduate. Research demonstrates that a student completing even one year of college experiences enhanced economic benefit. A key component of successful performance funding models is the inclusion of both progress and completion measures. States should consider including both progress measures, such as retention and credit attainment, and long-term output measures, such as degree completions.

Counting enrollment at the end of a term rather than at the beginning rewards schools for retaining students. The state can also base funding on courses completed rather than courses attempted. Both methods emphasize the value of course completion over course enrollment.

Indiana emphasizes the importance of course completion by measuring enrollment at the end of a semester rather than at the beginning.

Identify and address potential unintended consequences of metrics

States we researched anticipated unintended consequences associated with their performance funding models and metrics, and developed ways to deal with unexpected issues. For example, Illinois established a committee to monitor its system and fine tune or replace metrics to better address the state's goals.

Several states review their schools' performance results at the end of each year. Tennessee is in the process of completing a full-scale evaluation of its system. In its evaluation, a team of external researchers will examine how institutions have changed their policies and programs after implementation of the model and the possible effects of those changes.

Comparability among institutions

Performance funding systems sometimes fail to address high costs of certain divisions within an institution. For example, Illinois found that its performance-based funding system penalized the University of Illinois for its higher per-degree costs compared to other institutions because the model did not account for the high cost of the university's hospital. To address this, the Illinois Board of Higher Education removed high-cost programs such as hospitals from the state's funding calculation.

Shortcomings of specific metrics

Controlling rising tuition

Often called tuition reduction metrics, some states reward universities for holding tuition increases below a certain level. Tuition reduction metrics require careful thought and use. Michigan required that schools maintain tuition levels as a prerequisite to receiving performance funding. One Michigan institution did not comply with this requirement and raised tuition. In this case, the financial benefit of increasing tuition more than offset the funding lost by not meeting the requirement.

Graduation rates

For most institutions, graduation rate metrics use information about full-time, first-time students only. These metrics do not always include transfer students, students who enroll with previous credits, and part-time students. Increasing the graduation rates still may not account for the full population of students or the actual number of degrees awarded.

Faculty productivity

Faculty productivity metrics often use the number of credits and students that a faculty member teaches. These metrics do not ultimately address student learning.

Under-represented students

Metrics that address achievement gaps between under-represented students and other students may unintentionally penalize institutions even when both groups improve. The pace of improvement may be unequal, leading to an increased gap, and incorrectly suggest declining performance.

Putting performance-based funding into action

In addition to leading practices related to metrics and measures, we also identified leading practices related to how states implemented their performance funding models. Below we list practices that Washington may consider if it pursues a performance funding model for its four-year schools.

Keep the model simple and understandable

Successful models use few, targeted and well-defined metrics. A simple and straightforward performance funding model helps concentrate performance efforts. One approach to simplifying a model is to relate, as much as possible, the four-year model to the state's performance-based funding model for two-year institutions, if one exists. Washington has a model for its two-year schools.

Having too many performance metrics or priorities dilutes all priorities and compromises focus on overall goals. Several states, including Pennsylvania and Tennessee, are reevaluating their metrics to use more concise indicators. States should use metrics that are simple and understandable to its colleges and universities and other stakeholders.

In an early attempt at performance funding systems, South Carolina developed a model that used more than 30 performance metrics. The state eventually abandoned performance funding.

Be aware of time needed to develop the model and for institutions to adjust to it

The experiences of many states suggest that a lack of institutional support or engagement could inhibit implementation of the system or lead to abandonment of performance funding. Their experiences illustrate the value and importance of building consensus early in the process and of creating cohesive policies by beginning inclusive discussions with representatives from all schools involved and other stakeholders about performance funding.

Some experts suggest that rapidly deploying a performance funding model may minimize political pressure and institutional resistance. Once performance funding is in place, states can then phase in additional funding and make appropriate adjustments to mitigate potential fiscal shock. However, some states we researched also emphasized providing adequate time to test a model before implementation to ease transition to the new system.

Illinois created a steering committee to develop its performance funding model. The committee was made up of representatives from unions, the Governor's Office, and schools.

In addition to providing adequate time to develop, transition, and implement their model, Pennsylvania found it helpful to engage school leadership in training activities about the model. Schools also need time to adjust to the performance

funding system's metrics. Many or frequent changes from year to year make it more difficult for schools to adjust to different performance outcomes, and may cause them to question the value of performance measurement or resist participating altogether.

Phase in the model to account for the possible lack of initial data

Schools may not collect all required data when the performance funding model first goes into effect, making it difficult to compare data over time. To address this, some states phased in their metrics and funding. For example, Tennessee began by phasing in data collection, initially providing performance funds to institutions to develop student, alumni, and employer surveys. In the first year, the state evaluated institutions on survey quality and whether the schools administered the surveys. During the final year of implementation, the state distributed funding based on survey results.

Encourage and maintain participation of stakeholders

Sustaining a performance funding model requires that policy-makers and higher education leaders participate in the model's development and understand its purpose and function. When legislators and officials are involved in the development process, they can help shape performance funding to meet the state's needs. Also, states should engage institutions in a meaningful and authentic way to avoid delays and dissatisfaction with implementation. Higher education institutions should help determine performance metrics and benchmarks rather than having them legislated or mandated.

States we researched found it helpful to involve their colleges and universities in the development of their performance funding models. One state, for example, asked schools to propose their own performance contracts, which include metrics for past performance as well as long-term performance goals. In addition to representatives from its higher education institutions, Illinois brought outside stakeholders into discussions about performance funding.

Emphasize the shared goals and objectives of participating institutions

States can accommodate diverse interests by encouraging participation from multiple stakeholders while developing goals for their performance-based funding systems. Performance funding should relate to and align with the goals and agendas for higher education institutions, including their workforce and economic development priorities. After defining their goals, schools should have some flexibility in their approaches to addressing them.

Dedicate an amount of funding that encouages change but minimizes difficulty of transition

The amount of performance funding should be enough to inspire change but not so much that it discourages a smooth transition to the new funding system. When provided as additional funds beyond a yearly base appropriation, performance funds can create an incentive for improvement. Modest performance funding will not likely lead to a meaningful shift in institutional behavior. States allocated between 0.5 percent and 100 percent for performance funding from their base funds, and often provided new money. For example, Indiana provided around 4 percent from new money and took around two percent from base funds for its performance funding.

The National Center for Higher Education Management Systems recommends allocating a minimum of 10 percent for performance funding, but many states allocated only 1 percent to 10 percent of their total higher education dollars. However, some states are moving toward higher percentages for their performance funding. For example, Louisiana proposes to tie 25 percent of its higher education funding to performance, and Ohio is moving to an entirely performance-based funding model.

A study of a potential performance funding system for Wisconsin indicated that it would account for less than one percent of most schools' funding allocation.

Address and effectively communicate the technical details of funding to participating institutions

States that we researched had to address technical details such as who is responsible for distributing money and how. Some researchers suggest using the authority of higher-education governing boards to distribute funding after the state legislature appropriates funds, which can help insulate legislators from political pressures. Desired outcome metrics should be built into an institution's base funding formulas, as is the case in Ohio and Tennessee, to ensure that paying for performance is sustainable.

Certain policies are counterintuitive to performance funding. Some states use "hold-harmless" or "stop-loss" policies to cap funding losses for low-performing institutions. However, some experts suggest that such policies protect institutions from the consequences of failing to meet performance goals.

Competition between institutions and equal funding for all metrics created problems in Pennsylvania. If each of the state's 14 institutions excelled on the same metric, they all split funding allocated for that metric. However, if one institution excelled on a metric that others disregarded, that institution received all of that metric's funding allotment. To resolve this, Pennsylvania now uses a point system to more equitably distribute performance funds.

Experts and authorities in other states also suggested the following when implementing a performance funding system:

- Use a three-year rolling average
- Use value-added funding to simplify and target student success and completion outcomes
- Use an oversight office or agency for evaluation
- Avoid statewide competition for funding
- Reward and acknowledge improvement
- Institute statewide data systems
- Use benchmarks

Conclusions

Washington's four-year universities collect most of the data needed to develop a performance-based funding system, but the specific metrics and approach needed will depend on Washington's policy objectives and funding commitment.

Our review of performance-based funding systems in 11 other states shows the systems vary widely based on their goals and the amount of dedicated funding. For example, states trying to directly improve their economies use different metrics than states trying to increase graduation rates and student advancement. States devoting all their higher education funds to these systems have different experiences and expectations than states dedicating substantially less.

Washington policy-makers can learn from the challenges and successes other states had when developing and refining their performance-based funding systems. The lessons learned and leading practices show that creating successful systems can be difficult and will require ongoing analysis and adjustments. Developing a performance-based funding system is still a recent innovation, and all 11 states we reviewed either started or revised their systems in the last three years.

Agency response

STATE OF WASHINGTON

April 4, 2014

The Honorable Troy Kelley
Washington State Auditor
P.O. Box 40021
Olympia, WA 98504-0021

Dear Auditor Kelley:

Thank you for the opportunity to respond to the State Auditor's Office (SAO) performance audit report on "Higher Education Performance-Based Funding: A prospective analysis of systems in other states to inform options for public four-year higher education institutions in Washington." Washington's public baccalaureate colleges and universities worked with the Office of Financial Management (OFM) to provide a consolidated response.

We appreciate the SAO's efforts to provide a view of selected national practices in the higher education performance-based funding arena. The report complements the work done in the Technical Incentive Funding Model Task Force Report transmitted to the Legislature on December 31, 2013.

While the performance audit report references some of the state's performance and accountability efforts for the four-year institutions of higher education, it would be helpful to provide a more comprehensive context for policy and budget makers. During the past decade, these efforts have included:

- Higher Education Accountability Report (Higher Education Coordinating Board)
- Government Management Accountability & Performance (Governor Chris Gregoire)
- Performance agreements
- Performance plans
- Accreditation
- Performance Audit of Institutional Tuition-Setting Authority (Joint Legislative Audit and Review Committee)
- Performance Audit of Performance Incentive Funding (State Auditor's Office)
- Results Washington (Governor Jay Inslee)
- Statewide Public Four-Year Dashboard (OFM and public four-year sector) – Washington is a national leader for efforts to provide transparency and accountability through data.

We appreciate that the report points out that Washington already collects the most common performance metrics. However, it should be noted that most of the states which have adopted performance funding also have low-performing or expensive higher education systems.

Washington's four-year system is high-performing and low-cost. Consequently, we want to learn from other states with an eye toward tailoring performance funding policies to strengths and challenges specific to Washington state. Policies also should focus on incentivizing high-performing institutions.

The report also points out that the Legislature budgeted nearly $8.9 billion for public four-year schools in the 2013-15 biennium. However, this is inclusive of all funding sources – including the medical system – not just state general funds. To date, performance funding efforts for the public four-year schools have focused specifically on state General Fund allocations.

We appreciate that the SAO worked collaboratively with higher education staff to collect the information in this report and thank the performance audit team for its work.

Sincerely,

Paul Francis
Executive Director
Council of Presidents

David Schumacher
Director
Office of Financial Management

cc: Joby Shimomura, Chief of Staff, Office of the Governor
Kelly Wicker, Deputy Chief of Staff, Office of the Governor
Ted Sturdevant, Executive Director for Legislative Affairs, Office of the Governor
Tracy Guerin, Deputy Director, Office of Financial Management
Wendy Korthuis-Smith, Director, Results Washington, Office of the Governor
Tammy Firkins, Performance Audit Liaison, Results Washington, Office of the Governor
James Gaudino, President, Central Washington University
Rodolfo Arévalo, President, Eastern Washington University
T. Les Purce, President, The Evergreen State College
Michael Young, President, University of Washington
Elson Floyd, President, Washington State University
Bruce Shepard, President, Western Washington University

Appendix A: Initiative 900

Initiative 900, approved by Washington voters in 2005 and enacted into state law in 2006, authorized the State Auditor's Office to conduct independent, comprehensive performance audits of state and local governments.

Specifically, the law directs the Auditor's Office to "review and analyze the economy, efficiency, and effectiveness of the policies, management, fiscal affairs, and operations of state and local governments, agencies, programs, and accounts." Performance audits are to be conducted according to U.S. General Accountability Office government auditing standards.

In addition, the law identifies nine elements that are to be considered within the scope of each performance audit. The State Auditor's Office evaluates the relevance of all nine elements to each audit. The table below indicates which elements are addressed in the audit. Specific issues are discussed in the Results and Recommendations section of this report.

I-900 element	Addressed in the audit
1. Identification of cost savings	**No.** The audit did not identify cost savings.
2. Identification of services that can be reduced or eliminated	**No.** The audit did not address services that could be reduced or eliminated.
3. Identification of programs or services that can be transferred to the private sector	**No.** The audit did not address specific state programs or services, and therefore did not identify those that can be transferred to the private sector.
4. Analysis of gaps or overlaps in programs or services and recommendations to correct gaps or overlaps	**No.** The audit did not analyze gaps or overlaps in programs or services.
5. Feasibility of pooling information technology systems within the department	**No.** The audit did not address the pooling of information systems within a department.
6. Analysis of the roles and functions of the department, and recommendations to change or eliminate departmental roles or functions	**No.** The audit did not address any program's roles and functions related to delivery of services.
7. Recommendations for statutory or regulatory changes that may be necessary for the department to properly carry out its functions	**No.** The audit report does not contain recommendations for statutory or regulatory changes.
8. Analysis of departmental performance, data performance measures, and self-assessment systems	**No.** While this audit did not analyze performance data or self-assessment systems, it did identify data collected by four-year institutions that could be used for potential performance measures.
9. Identification of best practices	**Yes.** The audit identified and considered practices that other states use in their performance-based funding systems.

Appendix B: Scope and Methodology

The audit objective was to explore elements of performance-based funding that could be applied to Washington's four-year colleges and universities. We did not evaluate whether Washington should or should not adopt a performance funding system. The audit sought to answer the following question:

> *What lessons can be learned from existing performance-based funding models to help inform policy deliberations in Washington?*

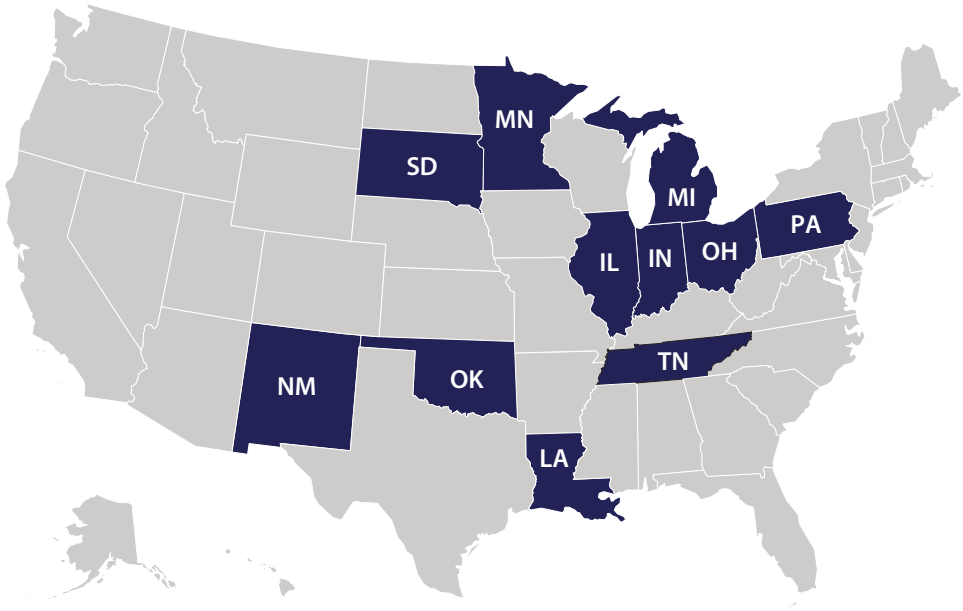
To achieve the audit objective, we:

- Researched and interviewed 11 other states for information about existing performance funding models, metrics used, and data collected
- Created an inventory of policy objectives, performance metrics and data collected from the 11 other states
- Gathered information about data collected from Washington's four-year institutions
- Compared data collected in Washington's institutions to data collected in other states

Interviews and research into other states

The National Conference of State Legislatures, a leading research organization on higher education performance funding, indicated that 12 states had performance funding systems in place, including Washington's performance funding system for two-year schools. We researched and interviewed the following 11 states:

- Illinois
- Indiana
- Louisiana
- Michigan
- Minnesota
- New Mexico
- Ohio
- Oklahoma
- Pennsylvania
- South Dakota
- Tennessee



During our research and interviews, we requested the following information from each state:

- Type of institutions affected by each state's performance funding model
- When performance funding was implemented or when it is expected to be implemented
- How the performance funding model was developed and by whom
- Who implemented the model
- Policy objectives
- What metrics states use to measure performance
- What measures or data is collected for each metric
- What weights are used and how
- Amount of higher education funding allocated through performance funding

- How institutions are awarded for their performance
- Completed or planned evaluations of the funding model
- Lessons learned after implementing the model

During this research, we also found leading practices identified by research organizations such as the National Conference of State Legislatures (NCSL), public policy firms such as HCM Strategists that have provided assistance to states when developing their performance funding models, and others.

Inventory of policy objectives, metrics and data collected

Using the information gathered, we created an inventory of policy objectives, performance metrics and data collected from the states we researched and interviewed. We included all objectives, metrics and data from the states we researched. To make this information meaningful, we merged metrics that were similar, taking care not to alter the purpose or measurements used in the metric. Short summaries of selected states are available in Appendix E.

During the course of our audit, we found and researched five additional states that had recently implemented some form of performance funding – Arizona, Arkansas, North Dakota, Utah and Virginia. However, because of the variety in performance funding models and metrics in the 11 states we initially researched, we did not complete in-depth analysis about performance measures and data collected for the five additional states.

The overviews of all states can be viewed on our website.

Information about data collected in Washington's four-year institutions

We asked Washington institutions whether they collect data found in other states. The survey we distributed included each metric found in other states and associated data elements. We pre-populated some fields with previously collected state-level data taken from the Office of Financial Management's Public Centralized Higher Education Enrollment System (PCHEES). We asked institutions to confirm the pre-populated information and record additional data elements used to measure metrics. We did not look at the quality, reliability or standardization of the data institutions collect.

Compared data collected by Washington's institutions to data collected in other states

Using the survey responses, we determined whether institutions could use performance metrics identified by other states based on existing data. We categorized responses into the following outcomes:

- Institutions collected all necessary data to measure a metric
- Institutions collected some of the data necessary to measure a metric
- Institutions collected no data necessary to measure a metric
- Institutions collected additional data beyond what other states collect, or
- Metrics do not apply to an institution. For example, the amount of private research funding raised does not apply to non-research universities.

Appendix C: Summary table of data collected by other states

This table displays the policy goals and associated metrics used by the 11 states we researched. Each highlighted heading is a specific policy goal, followed by a list of metrics that states use to address the goal. A summary column shows how many states of the 11 use each metric.

Goals and metrics	Used by states (of 11)	IL	IN	LA	MI	MN	NM	OH	OK	PA	SD	TN
Increase degrees completed												
Number of degrees completed	10	●	●	●	●	●	●		●	●	●	●
Number of degrees per 100 FTE	3	●								●		●
Number of graduates	2					●						●
Percentage of degrees completed compared to expected number	1			●								
Increase graduation rates												
Number of students that complete degrees on time (includes 4, 6, and 8 years)	6	●	●		●	●				●		●
Graduation rate (includes under-represented minorities, Pell grant recipients, transfer students)	2			●				●				
Number of graduates compared to expected number of graduates	1			●								
Encourage student progress												
Retention rates (includes first to last term; first to second, third, and fourth year rates; Pell grant recipients; for transfer students)	5			●		●			●	●	●	
Credit hours completed	5	●	●				●		●			●
Number of courses completed	1							●				
Increase high-demand degrees and certifications completed												
Number of STEM and high-demand degrees completed	5		●		●		●			●	●	
Number of licensure exams passed	1			●								
Improve quality of education												
Percentage of accredited programs	3			●					●			●
Standardized test scores	2									●		●
Number of successful standards met by non-accreditable programs	1											●
Results on student, alumni, and employer surveys	1											●
Maturity and effectiveness of an institution's assessment processes and reports	1											●
Promote research and development												
Amount of total research, development, and service expenditures	3					●					●	●
Amount of research funding at research universities	1				●							

Goals and metrics	Used by states (of 11)	IL	IN	LA	MI	MN	NM	OH	OK	PA	SD	TN
Close access gaps												
Number or percent of total non-majority students enrolled	2					●				●		
Number of students enrolled in online courses	2			●		●						
Number of online programs/courses	2			●		●						
Amount of institutional financial aid	1					●						
Cost of attendance (institutionally defined metric)	1		●									
Percentage of Pell grant recipients	1									●		
Percentage of first-time under-represented freshmen at entry	1									●		
Close achievement gaps												
Number of degrees completed by Pell grant recipients	1		●									
Number of certificates and degrees completed by at-risk students	1						●					
Improve institutional efficiency												
Cost per credit hour and completion	1	●										
Ratio of FTE students to FTE employees	1									●		
Student credit hours taught	1									●		
Number of remedial education offerings if offered at an area community college	1			●								
Amount of institutional funding that goes toward institutional support	1				●							
Percentage of support expenditures	1									●		
Average non-resident tuition compared to average tuition amount charged to in-state residents attending peer institutions	1			●								
Increase private funding												
Amount of annual private funds raised by universities and foundations	1									●		
Amount of sponsored funding from business and industry	1					●						
Increase faculty and professional staff diversity												
Percentage of non-majority faculty and non-faculty employees	1									●		
Percentage of female faculty and non-faculty employees	1									●		
Operations and maintenance												
Deterioration rate for physical assets	1									●		
Total energy consumption	1					●						
Quality of service delivery	1									●		
Spending levels on staffing, maintenance, custodial, and grounds	1									●		

Appendix D: Metrics collected by Washington's four-year colleges and universities

The following table displays, by Washington four-year institution, the data available for policy goals and metrics used in the performance-based funding systems of the 11 states we researched.

Each highlighted heading is a specific policy goal, followed by the metrics associated with the goal. Columns to the right show how many states use a metric and which Washington schools collect the data for the metric.

Washington's public 4-year schools:
CWU – Central Washington University
EWU – Eastern Washington University
WWU – Western Washington University
UW – University of Washington
WSU – Washington State University
TESC – The Evergreen State College

Key to data table
● – Data available
◐ – Data partially available
○ – Data not available
NA – Measure did not apply to the institution or instution was not asked about the measure.

Goals and metrics	Used by other states (of 11)	CWU	EWU	WWU	UW	WSU	TESC	Used by WA schools (of 6)
Increase degrees completed								
Number of degrees completed	10	●	●	●	●	●	●	6
Number of degrees per 100 FTE	3	●	●	●	●	●	●	6
Number of graduates	2	●	●	●	●	●	●	6
Percentage of degrees completed compared to expected number	1	●	◐	●	◐	●	◐	3
Increase graduation rates								
Number of students that complete degrees on time (includes 4, 6, and 8 years)	6	●	●	●	●	●	●	6
Graduation rate (includes under-represented minorities, Pell grant recipients, transfer students)	2	●	●	●	●	●	●	6
Number of graduates compared to expected number of graduates	1	●	◐	●	◐	●	◐	3
Encourage student progress								
Retention rates (includes first to last term; first to second, third, and fourth year rates; for Pell grant recipients; for transfer students)	5	●	●	●	●	●	●	6
Credit hours completed	5	●	●	●	●	●	●	6
Number of courses completed	1	●	●	●	●	●	●	6
Increase high-demand degrees and certifications completed								
Number of STEM and high-demand degrees completed	5	●	●	●	●	●	●	6
Number of licensure exam passage rates	1	◐	○	◐	●	●	○	2
Improve quality of education								
Percentage of accredited programs	3	◐	◐	●	○	●	●	3
Standardized tests scores	2	○	◐	◐	○	◐	○	0
Number of successful standards met by non-accreditable programs	1	◐	○	NA	NA	NA	NA	0
Promote research and development								
Amount of total research, development and service expenditures	3	◐	●	●	●	●	◐	4
Amount of research funding at research universities	1	●	NA	●	●	●	NA	4

Goals and metrics	Used by other states (of 11)	CWU	EWU	WWU	UW	WSU	TESC	Used by WA schools (of 6)
Close achievement gaps								
Number of degrees completed by Pell grant recipients	1	●	●	●	●	●	●	6
Number of certificates and degrees completed by at-risk students	1	●	●	●	●	●	●	6
Close access gaps								
Number or percent of total non-majority students enrolled	2	●	●	●	●	●	●	6
Number of students enrolled in online courses	2	●	●	●	●	●	●	6
Number of online programs/courses	2	●	◐	●	◐	◐	◐	2
Amount of institutional financial aid	1	●	●	●	●	●	●	6
Cost of attendance (institutionally defined metric)	1	*See note below						0
Percentage of Pell grant recipients	1	●	●	●	●	●	●	6
Percentage of first-time under-represented freshmen at entry	1	●	●	●	●	●	●	6
Improve institutional efficiency								
Cost per credit hour and completion	1	○	●	●	○	●	○	3
Ratio of FTE students to FTE employees	1	●	●	●	●	●	◐	5
Student credit hours taught	1	●	●	●	●	●	●	6
Number of remedial education offerings if offered at an area community college	1	●	●	●	NA	●	●	**5**
Amount of institutional funding that goes toward institutional support	1	●	●	●	●	●	●	**6**
Percentage of support expenditures	1	●	●	●	●	●	●	**6**
Increase private funding								
Amount of annual private funds raised by universities and foundations	1	●	●	●	●	●	◐	5
Amount of sponsored funding from business and industry	1	●	●	NA	●	●	NA	4
Increase faculty and professional staff diversity								
Percentage of non-majority faculty and non-faculty employees	1	●	●	●	●	●	●	6
Percentage of female faculty and non-faculty employees	1	●	●	●	●	●	●	6
Operations and maintenance								
Deterioration rate for physical assets	1	●	●	●	●	●	●	6
Total energy consumption	1	●	●	●	●	●	●	6
Quality of service delivery	1	●	●	●	●	●	●	6
Spending levels on staffing, maintenance, custodial, and grounds	1	●	●	●	●	●	●	6

**Note: Cost of attendance is used by one state's performance funding system where the metric varies by institution, so a precise definition of this metric was not available. We asked each school if it has a metric to reduce student cost of attendance (see Appendix F). While the answer is "no" to this specific question for each institution, one school responded that cost of attendance for each school is easily derived from the Integrated Postsecondary Education Data System (IPEDS).*

Appendix E: A sample of state performance-based funding system summaries

The following brief summaries of performance funding systems in five states illustrate the breadth of system variety. Some of this variety includes the percentage of performance funding (Illinois is less than 1 percent; Ohio is 10 percent and rising), number of metrics used (two in Ohio; over a dozen in Pennsylvania), and how the system was implemented (by legislation in Illinois; by a higher education commission in Pennsylvania).

Longer descriptions for the 16 states we researched during this audit are available in the **Performance Audit/Recent Reports** section of our website. We used information from the 11 states marked with an asterisk (*) in the list below to develop the policy goals and measures inventory used in this audit (see Appendix B for our methodology).

State	Summary page if included in this report
Arizona	
Arkansas	
Illinois*	**28**
Indiana*	
Louisiana*	
Michigan*	
Minnesota*	
New Mexico*	
North Dakota	
Ohio*	**29**
Oklahoma*	
Pennsylvania*	**30-31**
South Dakota*	**32**
Tennessee*	
Utah	
Virginia	33

ILLINOIS

Overview of system

During the 2012 fiscal year, Illinois' legislature mandated that the Board of Higher Education incorporate performance funding into their higher education system. The intent was to allocate state resources to institutions based on performance. The legislature appointed a steering committee composed of key stakeholders to assist with linking state goals to the higher education budgeting process. After implementing the model, the Board created a Refinement Committee to provide recommendations about improving or replacing existing metrics. Illinois' model is in its third year.

Budget and funding

Illinois' base-plus/Incremental funding system uses half a percent of the existing budget plus new funding distributed via a performance-based funding formula. The funding model affects Illinois' nine public four-year universities on 12 campuses and 48 community colleges. The state is considering increasing the percentage of performance funding.

Objectives, metrics and measures

Measures in Illinois' system use three-year averages, and funding is awarded based on outcomes rather than meeting benchmarks and targets. Weights for each measure are determined by an institution's mission or Carnegie Classification. A 40 percent premium is awarded for the production of desired outcomes by specific populations, including: low income, adult, Hispanic, black or non-Hispanic, and students in STEM-Health programs. Illinois is also considering additional subcategories and goals as data become available.

Goals and metrics: Illinois
Increase degrees completed
Number of Bachelor's degrees
Number of undergraduate degrees per 100 full-time equivalent students
Number of Master's degrees
Number of Doctoral and professional degrees
Increase on-time graduation
Graduation rate for Bachelor's degrees
Encourage student progress
Number of students that successfully complete 24, 48, and 72 credit hours
Decrease student cost
Cost per credit hour
Cost per completion

OHIO

Overview of system

In fall 2012, Ohio's governor called for a change to the state's performance funding model. Ohio's original 2010 model had little effect apparent on institutional performance. The 2012 model is intended to better align state funding for higher education with the state's economic development goals and reward institutions for student completion and success.

The 2012 model better reflects Ohio's primary objectives to graduate more Ohio citizens from college, keep more college graduates in Ohio and to strengthen the state's response to new or increased workforce development opportunities in the state. Additionally, the state seeks to improve graduation rates, the number of graduates and the time it takes to graduate, and to encourage colleges and universities to attract, prepare, and graduate non-traditional and at-risk students.

Ohio's governor and the president of Ohio State University led the efforts of the Higher Education Funding Commission to develop a new funding model. The model will be implemented in 2015.

Budget and funding

Ohio distributes 10 percent of its higher education appropriation through performance funding to its 14 public universities, which have 24 regional campuses. A portion of their base funding is distributed through a funding formula while the remainder is set-aside for medical and doctoral schools. Ohio will incrementally increase the percentage of performance funding until it reaches 100 percent by 2015. Then, 50 percent will go to degree completions, 28 percent to course completions, and 22 percent to medical and doctoral schools.

Objectives, metrics and measures

Measures use three-year averages. The state provides proportional credit to institutions for transfer students. For example, if a student completes half of his or her courses at one institution and then transfers to another institution, the credit is split between institutions.

Ohio's formula applies several weights for different student types and degrees. STEM degrees are weighted more than regular degrees. Weights are applied to at-risk students in the following categories: no risk factor, all risk factors, financial risk, academic risk, age and race. The formula weights undergraduate degrees for out-of-state students more heavily if the student remains in Ohio after graduation.

Goals and metrics: Ohio
Increase degrees completed
Graduation rates
Encourage student progress
Number of courses completed

PENNSYLVANIA

Overview of system

The Board of Governors and the Office of the Chancellor of the Pennsylvania State System of Higher Education (PASSHE) established the state's first version of performance funding in 2003. Unlike in many other states, Pennsylvania's decision to develop a performance funding model was not prompted by legislative or executive mandates.

Over time, PASSHE found that while the first version of the performance funding model had fulfilled its limited purpose, it also had problems: it was difficult to understand, it used short-term targets, and it limited universities to specific measures. The Chancellor of Higher Education wanted the model to be more sensitive to institution-specific missions and goals. In 2011, the PASSHE revised the performance funding model to address problems in the first version and to account for differences between institutions.

Budget and funding

Pennsylvania uses a set-aside funding model and provides the state's 14 public four-year universities with a model that is more sensitive to institution-specific missions and goals by tying a portion of funding to performance.

Performance funding accounts for nine percent of the state's higher education appropriation and is funded through existing state appropriations.

Objectives, metrics and measures

Over five-year periods, Pennsylvania measures its institutions' performance on 10 metrics. Some are mandatory, others are optional, and institutions may create up to two unique metrics based on the their specific missions and strategic goals. These unique metrics are subject to approval by the Chancellor of Higher Education. The state measures school performance against peer averages and specific goals established by the institutions for each year.

Goals and metrics: Pennsylvania	Required	Optional
Increase degrees completed		
Number of degrees completed	Y	
Number of degrees per 100 FTE	Y	
Increase graduation rates		
Number of students that complete degrees on time (includes 4, 6, and 8 years)		
Encourage student progress		
Percent of students returning for a third academic year		Y
Percent of students returning for a fourth academic year		Y
Increase STEM-health degrees		
Number of degrees completed in STEM-Health fields		Y
Improve quality of education		
Scores on the Collegiate Learning Assessment (CLA), Collegiate Assessment of Academic Proficiency (CAAP), and ETS Proficiency Profile (EPP)		Y
Close access gaps, increase student diversity		
Percent of total students enrolled who are non-majority		Y
Percentage of first-time freshmen at entry who are Pell grant recipients	Y	
Percent of first-time under-represented minority freshmen at entry	Y	

Goals and metrics: Pennsylvania	Required	Optional
Close achievement gaps		
Percent of first-time freshmen graduating in six years who are Pell Grant recipients	Y	
Percent of first-time under-represented minority (URM) freshmen to the percent of non-URM students at entry who obtained Bachelor's degrees within six years	Y	
Percent of Pell transfer students who obtain Bachelor's degrees within six years		Y
Percent of URM transfer students who obtain Bachelor's degrees within six years		Y
Improve institutional efficiency		
Ratio of FTE students to FTE employees		Y
Number of student credit hours taught		Y
Percent of support expenditures		Y
Stewardship of public funds		
Annual private funds raised by the university and its foundations		
Increase faculty diversity		
Percent of faculty who are non-majority persons	Y	
Percent of tenured faculty who are female	Y	
Percent of non-majority Associate Professors	Y	
Percent of female Associate Professors	Y	
Percent of non-majority Full Professors	Y	
Percent of female Full Professors	Y	
Increase non-faculty diversity		
Percent of non-majority executives		Y
Percent of female executives		Y
Percent of non-majority professionals		Y
Percent of female professionals		Y
Operations and maintenance		
Deterioration rate for physical assets		Y
Quality of service delivery		Y
Scoring index on maintenance, custodial, and grounds		Y

SOUTH DAKOTA

Overview of system

The South Dakota Board of Regents developed and adopted its performance funding model pilot in March 2012. South Dakota's projected workforce shortage threatened to stifle long-term economic development goals and the state developed the model in part to help address the shortage. The core priorities of South Dakota's performance funding model were to cultivate South Dakota's workforce by helping more students earn a college degree and to enhance statewide economic development by boosting sponsored research. Additionally, the higher education community increasingly believed that outcomes-based performance measures hold more value than input-based indicators. The performance funding pilot was only in effect during the 2013 fiscal year and did not lead to a permanent performance funding model.

Budget and funding

The one-time funding appropriation affected the state's six public universities. Performance funds were appropriated from a combination of a one-time appropriation of $3 million and a required $3 million match from the higher education base budget. Each institution competed only for performance dollars.

Objectives, metrics and measures

Measures are compared using a three-year rolling average, and the average of the most recent three years is compared to the previous three-year period.

Goals and metrics: South Dakota
Increase degrees completed *(used in the performance funding pilot)*
Number of graduates produced
Encourage student progress *(developed after the pilot)*
Percent of first-time and first-transfer Bachelor's degree-seeking students who enroll for a second year of school
Promote research and development *(developed after the pilot)*
Sponsored research expenditures made by each campus

VIRGINIA

Overview of system

Virginia's legislature initiated the state's incentive-based funding model for public colleges and universities with the Restructured Higher Education Financial and Administrative Operations Act of 2005. The incentive funding model was developed to provide institutions with more operational and administrative autonomy in exchange for a renewed commitment to their public missions.

In 2011, the state's higher education council formed a workgroup to develop and review state goals, objectives, and criteria for measuring performance, benefits, and consequences for the model. These changes were approved by the General Assembly in 2013 and are in place today. Virginia's Higher Education Advisory Committee is responsible for reviewing and developing the model's goals, objectives and metrics every five years.

Budget and funding

The incentive-based funding model provides Virginia's fourteen public colleges and universities with greater administrative autonomy including, but not limited to, rebates on credit card purchases and keeping interest earned on non-general fund education and general revenue deposits.

Financial benefits that institutions receive are provided on a case-by-case basis depending on the amount of interest a particular institution earns, the amount of unexpended appropriations, and credit card purchases. Unlike other states, there is no appropriated budget for rewarding performance. Rather, rewards take the form of administrative autonomy.

Objectives, metrics and measures

Institutions receive financial incentives if they successfully meet their targets. Failure to meet targets results in a remediation plan and a delay in receiving incentives.

Goals and metrics: Virginia
Increase enrollment
Number of enrolled undergraduates
Increase degrees completed, including high-demand degrees and certifications
Number of Associate's and Bachelor's degrees awarded
Number of in-state STEM and Health Associate's and Bachelor's degrees awarded
Close achievement gaps
Number of in-state Associate's and Bachelor's degrees awarded to under-represented students
Encourage student progression
Number of in-state two-year transfers to four-year institutions
Number of full-time equivalents in junior and senior level programs

Appendix F: Online resources

This appendix includes links to online materials we have produced as well as links to information on higher education performance measures produced by others.

Resources online at our website (**www.sao.wa.gov/state/Pages/HigherEd.aspx**)

- Extended state summaries
- Washington four-year schools survey instrument
- Detailed table of metrics collected by Washington four-year schools

Office of Financial Management resources:

- Statewide Public Four-Year Dashboard (**www.ofm.wa.gov/hied/dashboard/index.html**)
- Technical Incentive Funding Model Task Force Report (**http://councilofpresidents.org/docs/r_d_docs/Technical_Incentive_Funding_Report.pdf**)