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Research Report

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Steps Forward in Higher Ed

Success Measures, Game Changers, and Performance-Based Funding in Utah

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The mission of Utah Foundation is to promote a thriving economy, a well-prepared workforce, and a high quality of life for Utahns by performing thorough, well-supported research that helps policymakers, business and community leaders, and citizens better understand complex issues and providing practical, well-reasoned recommendations for policy change.

Steps Forward in Higher Ed

Success Measures, Game Changers, and Performance-Based Funding in Utah

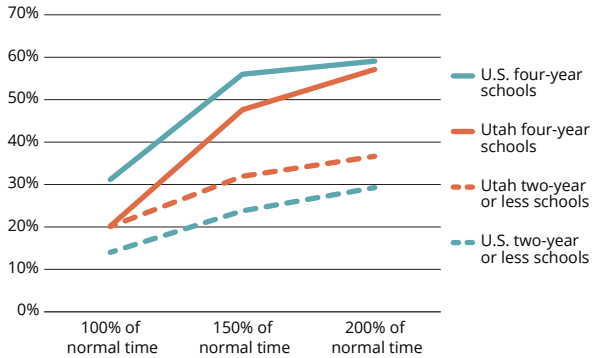
What are the goals of Utah's colleges and universities? How do these goals align with the goals of the state? This report provides an overview of higher education success measures, the barriers to reaching them, and the costs of failure. The report then analyzes how some of the biggest "game changers" for success are implemented in Utah, with a particular emphasis on performance funding. As opposed to funding higher education based upon enrollment, performance funding is allocated based upon the success of certain outcomes, such as graduation rates, campus diversity, and students persistence. While Utah Foundation is not recommending a specific course of action for Utah, the lessons learned by other states that have implemented performance funding are instructive:

- Collaborate with all stakeholders to develop the performance funding model.
- Utilize overall outcomes (or results) as performance measures, not annual goals.
- Ensure that the outcome measures – and the funding model itself – are simple, but are specific to institutional missions.
- Put enough funding at stake to truly incentivize outcomes.

HIGHLIGHTS

- Utah's public four-year institutions have slightly lower graduation rates than the nation when the comparison is the six-year graduation rate as defined by the Integrated Postsecondary Education Data System (IPEDS), although Utah students seeking bachelor's degrees gain ground between their sixth and eighth years of enrollment. (see page 5)
- Utah's graduation rate delay is not due to the "missionary effect" or military service; students who leave for official church missions or military service are not included in the graduation rate calculation. (see page 5)
- Utah's public two-year institutions have higher completion rates than the nation. (see page 5)
- When adjusted for inflation, the cost of educating students at public colleges and universities has not increased in the past 20 years; there is simply a cost shift from the government to students in Utah and across the U.S. (see page 7)
- Nationally, the post-secondary education access agenda has shifted to include a completion agenda. (see page 7)
- Half of the states have begun to employ performance funding to affect completion rates. (see page 13)
- Utah directs less than 0.1% of higher education funds to performance funding. (see page 23)

Post-Secondary Completion Rates at Public Institutions by Time of Completion, 2012



See source and notes from Figure 2

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INTRODUCTION

Higher education is more important than ever. A recent Pew report shows that people with college degrees have lower poverty rates, lower rates of unemployment, and shorter bouts of unemployment. Also, there is an increasing disparity in wages between those with and those without college educations. Further, only those with high school diplomas or less have lower incomes than their counterparts from previous generations at similar points in their lives.[1] Enrolling in higher education is an important first step, though only half of Utah students who enroll in post-secondary degree and certificate programs complete them.

What can Utah do to help students remain enrolled and complete their education? Utah Foundation utilized guidelines from Complete College America as the backbone to answer that question. Utah Governor Herbert joined that organization's Alliance of States in an effort to "make challenging commitments to substantially boost college completion and increase student success."[2] This research report used Complete College America's five "Game Changers" for college completion as a structure for analyzing policies in Utah and Utah's higher education institutions in comparison to policies in peer states' institutions. The Game Changers are as follows:

- Full-Time is Fifteen
- Guided Pathways
- Structured Schedules
- Corequisite Remediation
- Performance Funding

In setting the stage for a Game Changer analysis, the report first examines the particulars of higher education in Utah, and includes an analysis of completion rates in Utah, the cost of dropouts, and why students drop out. The report then details the Game Changers themselves; Utah seems to be succeeding in some – like the focus on students completing 15 credit hours per semester – but it is falling short in others.

The report highlights the use of performance-based funding, which is a growing trend across the United States. This particular Game Changer can be important because it not only enhances each of the other objectives, it can also be used to guide institutions toward state policy objectives. Utah is exploring performance-based funding – also referred to as outcomes-based funding – though it only puts a small proportion of its higher education funding toward this goal.

HISTORY OF HIGHER EDUCATION: A SHIFT IN AGENDA

Access Agenda

Founded in 1850, the University of Utah is the state's oldest public university and one of the oldest universities west of the Mississippi River. In the past 165 years, numerous public and private higher education institutions have been established – each with different missions, degree/certificate offerings, and target populations. These and other institutions began focusing on access to post-secondary education in the mid-twentieth century.

The first major push toward enrollment increases was with student financial aid from the G.I. Bill, before which only 8% of adults had college degrees. Franklin D. Roosevelt signed the G.I. Bill in 1944 to give "servicemen and women the opportunity of resuming their education or technical training after discharge." When the G.I. Bill's original authorization ended in 1956, just under half of the 16 million World War II veterans

had participated in higher education or job training programs. The G.I. Bill's most recent authorization in 2008 provides additional educational benefits to veterans who have served since 2001, with unused benefits transferable to veterans' spouses and children.[3]

Two decades after the G.I. Bill, federal policy focused on expanding access to postsecondary education to lower income students. Congress passed Title IV of the Higher Education Act of 1965 in part to "provide financial assistance for students in postsecondary and higher education" through the administration of federal student financial aid programs, the commonly known Perkins and Stafford products, and others.

Pell Grants – which are grants, not loans, and therefore are not required to be repaid to the federal government – have further increased post-secondary education access. These grants were instituted during Richard Nixon's presidency by the 1972 reauthorization of the Higher Education Act of 1965. They were rolled out during the 1973-74 school year, and now as many as 10 million students rely on Pell Grants each year. Over 60% of African-American and half of Hispanic/Latino undergraduates utilize Pell Grants. The $5,730 maximum Pell Grant in 2014-15 covers approximately one-third of college costs based upon financial need, cost of attendance, and full- or part-time status. This amount is historically the smallest share of education covered since inception of the program.[4]

The last decade has seen additional enrollment increases. Postsecondary education enrollment tends to increase during economic recessions. This was certainly the case with the Great Recession (between 2007 and 2009) when people chose to pursue higher education over trying their luck in the weak job market. Utah college enrollment was below average in 2005, 2006, and 2007, but it skyrocketed back up to a peak increase of 8.7% between 2008 and 2009, surpassing the national enrollment increase of 7.1% that year. The largest enrollment increases during the recession were in certificate programs and graduate programs. In Utah, Dixie State University saw an increase of over 56% between 2007 and 2010 (2,929 students), with four other institutions seeing increases in enrollment of 20% to nearly 30%.

Completion Agenda

College enrollment and access are important, but a new era in higher education began with more concentrated focus on degree completion.[5] This shift was in response to low completion rates – which have remained somewhat stable (but low) since the big increase in enrollment in the 1970s as a result of Pell Grant availability. In an effort to counter the problem of low completion rates, numerous entities have implemented new initiatives.

Utah Governor Herbert's "66% by 2020" initiative is intended to help ensure that there are enough certificate and degree holders – 66% of the working age population ages 25-35 – available to maintain the state's economic development. The completion requirement of "66% by 2020" is tied to the completion agenda set forth by Complete College America. Utah was part of the initial 17 Complete College America states, which now includes 33 states and D.C.

HIGHER EDUCATION IN UTAH

Eight public institutions comprise the Utah System of Higher Education (USHE). The eight USHE institutions grant credits for course completion and are governed by the State Board of Regents. Two of these are research universities; the University of Utah (the U of U) is considered a flagship institution, and Utah State University (USU) is Utah's land-grant university with numerous campuses throughout the state. Four of the credit-granting institutions are regional/comprehensive universities: Weber State University, Southern

Utah University (SUU), Utah Valley University (UVU), and Dixie State University. The remaining two are considered community colleges: Salt Lake Community College (SLCC) and Snow College. The state also has several private institutions that educate approximately 27% of Utah's students.[6] The Utah College of Applied Technology (UCAT) is Utah's career and technical college, provides non-credit job training, and is not a part of USHE. UCAT is governed by its own Board of Trustees and accredited by the Council on Occupational Education. This report focuses on the eight USHE institutions.

Total headcount enrollment for USHE institutions during the fall semester of 2013 was 177,688, or 106,863 full-time equivalent students. The total number of enrolled undergraduates was 164,845 compared to 12,843 graduates at the end of the autumn 2013 term. Based on past trends, it is likely that just over half of these students will successfully complete their degrees or certificates.

STUDENT SUCCESS

Retention in Utah

There are two primary ways of looking at student success and progress to program completion. One is by analyzing retention rates from year-to-year and the other is graduation rates. Retention is typically defined as the percentage of full-time, first-year undergraduate students who enroll at the same school the following year. Graduation rates are typically the percentage of students who graduate within 150% of the published time for the program (six years for a four-year baccalaureate degree and three years for an associate degree).

Figure 1 details retention data for 2011-12, showing rates for full-time and part-time enrollment. The retention rate for four-year public institutions was 79% while two-year public institutions were at 58%. The University of Utah had the highest retention rates in the state for full- and part-time students in 2011-12.

Part-time students have retention rates 10%-15% lower than full-time students at every Utah institution. More than two-thirds of SUU and U of U students are enrolled full-time, compared to about half of UVU and Weber State students. Snow, Utah State, and Dixie State fall somewhere in between. Only one-third of SLCC students are enrolled full-time.[7]

Not only is there a difference between full-time and part-time student retention, but there are differences between institutions based upon other factors. One variable is acceptance rate. Institutions that accept fewer than 25% of applicants have a 95% retention rate for full-time students while the retention rate for full-time students in open admissions programs (100% acceptance) is only 61%. (Note that none of the USHE institutions have a 25% or lower acceptance rate.)[8]

Figure 1: First-Year, First-Time, Degree Seeking Undergraduates Retention Rate, 2012

	Full-Time Students	Part-Time Students
Utah Public Institutions		
University of Utah	87%	66%
Utah State University	72%	52%
Weber State University	71%	45%
Southern Utah University	66%	64%
Utah Valley University	62%	46%
Salt Lake Community College	57%	42%
Dixie State University	57%	38%
Snow College	56%	24%
Utah State University – Eastern	54%	37%
U.S. Four-Year Public Institutions	79%	50%
Less than 25% accepted	95%	66%
25% to 49.9% accepted	85%	59%
50% to 74.9% accepted	81%	54%
75% to 89.9% accepted	77%	52%
90% or more accepted	70%	44%
Open admissions	61%	39%
U.S. Two-Year Public Institutions	58%	42%

Source: National Center for Educational Statistics.

Graduation in Utah

People tend to think of bachelor's degrees as taking four years to complete and associate degrees as taking two. However, 150% of "normal time" is the accepted rate for graduation rates. Graduation rates are defined in the 1990 Student Right-to-Know Act:

> [A] student shall be counted as a completion or graduation if, within 150 percent of the normal time for completion of or graduation from the program, the student has completed or graduated from the program, or enrolled in any program of an eligible institution for which the prior program provides substantial preparation.[9]

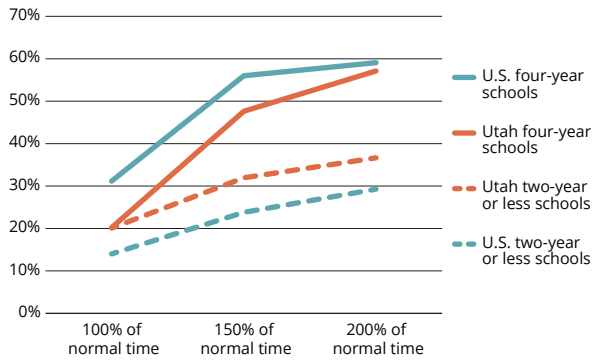
Who is graduating within 150% of the normal time? In Utah's public 4-year colleges 46.9% of students graduate in six years, placing Utah back at thirty-ninth in nation. In Utah's public 2-year colleges 35.6% graduate in 150% time, ranking Utah fourth in nation.[10]

Graduation rate data were expanded by the 2008 Higher Education Opportunity Act to include 200% of normal time. For Utah, it is beneficial to look at the 200% of normal time data. Looking at Figure 2 makes it easy to see why. The increase in the national graduation rate between six and eight years of initially enrolling is very small – 3% for public four-year institutions; but for Utah the rate jumps 9% during this period. As seen in Figure 2, this graduation rate is not mirrored for two-year and less institutions. For greater detail on graduation rates for Utah institutions, USHE's 2014 Data Book provides comparisons between Utah institutions' graduation rates and comparable institutions nationally.[11]

A common explanation for the delay in graduation rates at Utah institutions is the "missionary effect." This effect would dictate that the bump in 200% of normal time is due to students delaying school because of church missions. Utah has a relatively large percentage of students who serve church missions.[12]

The National Center for Education Statistics' Integrated Postsecondary Education Data System (IPEDS) cohort definition used when measuring graduation rates is the fall group of full-time, first-time degree/certificate-seeking undergraduate students, with exclusions. These exclusions are important. They are students who have left the institution because of disabilities, military service, foreign aid service, and students who "left school to serve on official church missions."[13]

Figure 2: Post-Secondary Completion Rates at Public Institutions by Time of Completion, 2012



Notes: 1) Snow and Dixie State are not included in this figure because their institution types have been recently reclassified. 2) Two-year and less were combined because the survey instrument which includes 200% of normal time data combines 2-year awards and certificates.
Source: NCES IPEDS data, Utah Foundation calculations.

The church mission exclusion is much more significant than the other exclusions combined. In fact, of the 7,280 exclusions nationally in 2012, 2,985 or 41.0% were from Utah. These data suggest that 15.3% of the 19,465 enrollees in the 2004 first-time, full-time higher education cohort went on missions after starting their education (this is the cohort that graduated within 200% of normal time if graduating by 2012). Utah may see more interruptions to post-secondary education for young women due to new missionary rules implemented in 2012, even as such interruptions for young men are likely to greatly decrease because they will more often go on missions before they start their higher education.

Returning to post-secondary education after two years away can also affect the time to completion. The need to work full-time or close to full-time to pay for an education or support a family can slow down one's education. Further, not having been engaged in education activities can slow down completion (for example, the "deterioration" of knowledge in math is rapid). Research to determine the possible causes for longer time to graduation in Utah would be valuable.

Many consider that the IPEDS graduation definition itself is more problematic than the exclusions. As noted previously, rates – just like with retention – vary according to how selective institutions are. The American Council on Education makes the following point:

> When graduation rates are determined, little is controlled and much is excluded or ignored. At best, graduation rates are – for the vast majority of schools – an estimate based on a relatively small number of students.[14]

Transfer rates complicate the graduation rate measure even more, particularly for community colleges where many students attend to complete their general studies before transferring to bachelor's-granting colleges for the completion of their degrees.

Regardless of how good the retention and graduation rate data are, they do provide some indication of the importance of the cost of not completing higher education.

COST OF DROPOUTS

There are short- and long-term financial repercussions to students and to society for lower completion rates for post-secondary education. They range from student-centered effects like debt that did not lead to degree completion and higher future earnings to negative societal effects like a less-educated workforce and state investment in supporting student post-secondary attendance that did not pay off in completed degrees.

Student Debt

The graduation rate is particularly disconcerting given that students may take on debt whether or not they receive a degree. Within the past five years, student debt surpassed credit card and auto loan debt in the U.S., up to over one trillion dollars in 2014.[15] From 2008 to 2012, student loan debt at graduation increased an average of 6% each year. Utahns fare comparatively well. Utah ranks 45th for the percentage of students that accrue debt: nationally, over two thirds of students have debt while in Utah that number is nearer to one-half.[16] Further, average student debt for graduates is two-thirds of the national level: $21,520 compared to $29,400.[17] Most Utah institutions report student debt far less than the national average, with SUU graduates faring the best with debt of under $13,500.

Defaults on this debt are also a cause for concern. However, the national three-year default rate was 13.7% of students who began repayment in 2011, down from 14.7% who began in 2010. The rate is highest in for-profit institutions and lowest in private, non-profit ones, with public institutions at 12.9%.[18] Most of these defaults are on federal loans.

Increasing debt is due in part to increasing tuition levels nationwide. In 1988, average state tuition was higher than the states' share of education in only two states; in 2013 it was higher in 23 states.[19] Utah was one of these 23 states. These increases are not necessarily due to the rising costs of college per pupil. In fact, there has not been a marked change in full-time equivalent costs when adjusted for inflation;

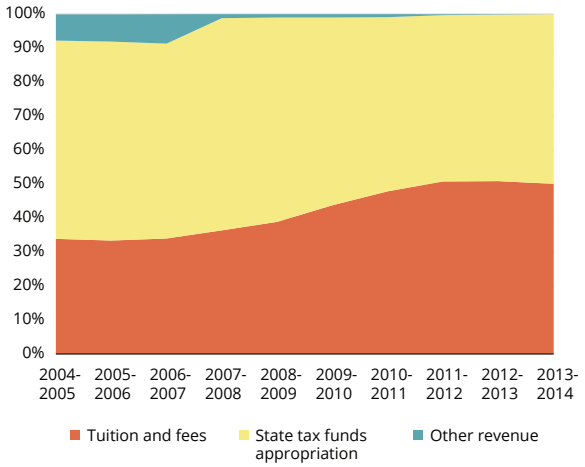
there is simply a cost shift from state governments to students.[20] Tuition covered just 33% of Utah's higher education budget in 2005 and in 2012 it pushed just over 50%, although in 2014 it slipped back below 50% (see Figure 3).

Economic Harm to Households

College-educated people have lower poverty rates, lower rates of unemployment, and shorter bouts of unemployment. There is also an increasing disparity in wages between those with college educations and those without. Those with only high school diplomas are doing worse than their counterparts from previous generations at similar points in their lives.[21]

During a 40-year working life, the median earnings of someone with a bachelor's degree (but not an advanced degree) is 65% higher than that of high school graduates. Master's degree holders are 96% higher.[22] Accordingly, failing to complete one's post-secondary education has a big impact on household income.

Figure 3: Revenue Sources in Higher Education Budget, Showing that Utah Students are Increasingly Footing the Bill



Note: "State tax funds" between 2008 and 2011 include federal stimulus funds, 2013-2014 is budgeted amount.
Source: Utah System of Higher Education 2014 Data Book.

Economic Harm to States

This economic harm (due to low completion of post-secondary certificates and degrees) is not only to students themselves, but to the state as well. Nationally, 65% of jobs will need a post-secondary degree or certificate; in Utah, that number is estimated at 66%.[23] This need for highly educated workers is the impetus behind the Utah Governor's 66% by 2020 plan to assure that economic development in the state increases. As shown in Figure 4, Utah has a long way to go.

Public Financing

There is also a direct public cost to students failing to graduate. The state's investment in higher education is well over $500 million per year. Between 2003 and 2008 (five years of post-secondary education) Utah appropriated $67 million for students who did not return to a second year of education, along with an additional $2,600,000 in state student grants and $5,400,000 in federal student grants.[24]

The amount spent on 27.8% of Utahns with "some college, no degree" is not insignificant.[25] Who are these Utahns who began post-secondary education but did not complete? To understand that question one must understand why students do not graduate.

Figure 4: Educational Attainment of Population 25 Years and Over, Utah, 2013

	2010 Baseline Estimate	2013 Estimate	2020 Target
Board-approved certificates	4.3%*	4.3%*	8.0%
Associate degree	9.0%	9.5%	14.0%
Bachelor's degree	19.9%	20.9%	31.0%
Graduate or professional degree	9.4%	10.5%	13.0%
Total population with degrees and certificates	42.6%	45.2%*	66.0%

* The U.S. Census does not estimate board-approved certificates; 2013 estimate is the 2010 baseline estimate as new data are unavailable.
Sources: U.S. Census, 2013 American Community Survey 1-Year Estimates; Utah System of Higher Education.

WHY DON'T STUDENTS GRADUATE?

Time is the enemy of graduation. Students are less likely to graduate if they attend part-time rather than full-time. Nationally, the six-year graduation rate is 55%, bumping up only slightly to the eight-year rate of 58%, though as noted previously the rate increases more for Utah's students.

Demographics also affect graduation rates. The likelihood of graduating is comparatively low for African American students, Hispanic/Latino students, low-income students, and students who start when they are over 25 years of age.[26]

But what, specifically, are the reasons students drop out before completing? There are many, but some of the most important are not being prepared for the rigors of postsecondary academic work, the cost of education, and student inability to cope with the competing demands of school, family, and jobs.[27]

Preparation

The ACT sets college readiness benchmarks based on the likelihood that students would earn passing grades in college-level courses. Just 25% of Utah seniors met all four college readiness benchmarks: 63% of students were ready in English, 43% were ready in reading, 39% in math, and 36% in science.[28] Students who are not ready for college often need to take remedial courses. Nationally, 36% of all students took remedial courses; 43% of community college students did. David Driscoll, chair of the National Assessment Governing Board notes that:

> When students have to take remedial courses in college they have to pay for courses that do not further their degrees, take longer to graduate, and are more likely to drop out and therefore may be less able to get jobs that increasingly require postsecondary education and training.

Money

In 2014, 86% of Utah seniors aspired to a postsecondary education. This is up 1% from 2013, though of those graduates only 40% enrolled.[29] One barrier to enrollment may be the financial ability to do so.

At the Fayetteville State University's Winter Commencement on December 10, 2011, Arne Duncan, U.S. Secretary of Education, said that "In America, education is still the great equalizer." He was echoing a statement by Horace Mann – a politician and education reformer – from 1848. While education may be an equalizer, it may be more difficult for some to attain that education. This is readily apparent when looking at household incomes. Just over half of high school graduates from the lowest income quintile (the bottom 20%) enrolled in college directly after high school; four-fifths of the top 20% did.[30] The likelihood of bachelor's degree attainment for 24-year-olds is even more striking when looking at the lowest income quartile (the bottom 25%) which is 10.7%, compared to the top quartile which is 79.1%.[31] In other words, just over one-tenth of the poorest kids end up with bachelor's degrees compared to nearly four-fifths of the richest kids. Further, students from homes with lower incomes are more likely to attend part-time and to go to institutions with lower completion rates.[32]

A joint project between Institutional Research at Salt Lake Community College and Utah Foundation, "Inspirations and Aspirations: A Survey of 2013 Utah High School Graduates," showed that the price of college and availability of grants, scholarships, or financial aid were extremely important to over 70% of respondents; this was particularly true for the Hispanic/Latino and low-income respondents.

Family

Familial pressures also affect completion. Utah is somewhat different than the nation in this respect. Utahns get married about three years before the national average (see Figure 5). Accordingly, over one-third of undergraduate students in Utah are married as compared to less than one-fifth nationally (see Figure 6). However, the added pressures of children are not more common in Utah; only one-quarter of undergrads have children in Utah and nationally (see Figure 7).

Figure 5: Median Age at First Marriage

	Utah	U.S.
Men	26.2	29.1
Women	24.1	27.1

Source: U.S. Census Bureau, 2012 American Community Survey (1 year sample).

Figure 6: Comparison of Undergraduate Marital Status

	Utah	U.S.
Married	33.9%	17.1%
Widowed	0.4%	0.5%
Divorced	5.6%	4.7%
Separated	0.9%	1.2%
Never married or under 15 years old	59.2%	76.5%

Source: U.S. Census, PUMS, 2012.

Figure 7: Comparison of Undergraduate Parental Status

	Utah	U.S.
With related children under 5 years only	7.9%	8.7%
With related children 5 to 17 years only	10.9%	11.5%
With related children under 5 years and 5 to 17 years	6.7%	5.2%
No related children	74.5%	74.7%

Source: U.S. Census, PUMS, 2012.

INCREASING GRADUATION RATES: GAME CHANGERS

As noted previously, higher education institutions have worked to increase enrollment for decades. Recently there has been a push to increase graduation rates. A part of that push is Complete College America's Game Changers. These models of working to increase college completion are as follows:

- Full-Time is Fifteen
- Guided Pathways
- Structured Schedules
- Corequisite Remediation
- Performance Funding

Stan Jones from Complete College America states that the goal of the Game Changers is to make the spring graduating class look like the fall class that started:

> You can't pick and choose, you can't say that you are going to do one Game Changer. You need to do all five [and] you can't think about them as pilot programs.[33]

In Utah, many of these initiatives are being tested. Thus far, there is little funding or financial incentive for institutions to fully embrace them. That is where the fifth Game Changer – performance funding – could be instrumental to widespread change. The first four are behaviors that research shows are important to increasing graduation rates. The fifth provides the funding to specifically engage in those behaviors and/or experiment with campus specific measures.

The remainder of this report details the five Game Changers and how they are being applied in Utah. The report provides a specific emphasis on performance funding: what it is and how it might be constructed to manifest the outcomes desired by USHE, the Utah State Legislature, and other stakeholders.

Full-time Is Fifteen

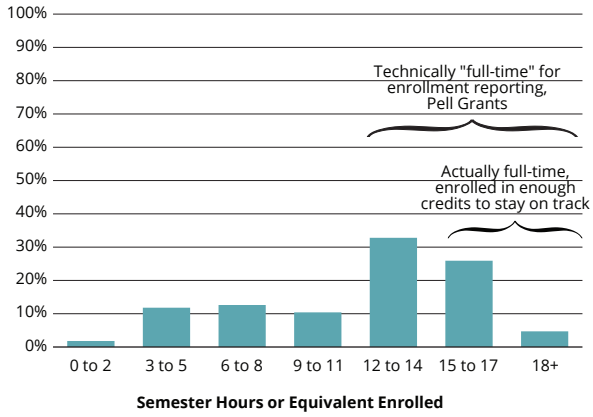
Full-time enrollment is considered twelve credits per semester by many grant and scholarship programs. However, in order to receive a bachelor's degree (approximately 120 semester hours) on time (in four years)

a student must take 15 credits for two semesters per year for four years (or a total of 30 semester hours in a single year, which might include fall, spring and summer semesters). The same goes for receiving an associate degree in two years.

A survey of 329 institutions in 30 states revealed that 69% of college students were not taking enough classes to graduate on time. Just under one-third of students are taking enough classes to be on-track for on-time completion; but one-third are nearly there, taking between 12 and 14 credit hours (see Figure 8).[34]

Some best practices that encourage students to complete 15 hours per semester include plateaued tuition policies so that students pay the same for 15 credits as they do for 12 credits or offering small scholarship incentives to students who take 30 credits per year. Hawaii has stressed with its students the benefits of taking 15 credits. These benefits include increased academic performance, plateaued tuition, and the advantage of receiving your degree more quickly.

Figure 8: Percent of Undergraduates by Course Load, U.S., 2012



Source: Postsecondary Analytics.

USHE launched its "15 to Finish" campaign in 2013. It uses videos, a website, banners, posters, and social media to promote 15 hours per semester.[35] Commissioner David Buhler has expressed that "15 to Finish is showing signs of success" in Utah institutions.[36] Senator Jerry Stevenson sponsored legislation which passed in 2013 that ties continuation of Utah's New Century Scholarship and the Regent's Scholarship to recipients enrolling in a minimum of 15 credit hours. [37]

Seven of eight Utah public institutions are currently offering plateaued tuition. The most advantageous is at Snow, where the tuition for 20 credits is the same as for 10. Of the seven institutions, Utah State provided the smallest benefit, with 18 credits being offered for the same price as 13.

The University of Utah considered plateauing its tuition but the shift would result in an increase in tuition for part-time students.[38] However, the school has implemented "The New U Student Experience" initiative to bolster retention and graduation. Part of this initiative redefines "full time" to encourage students to take more credit hours each semester.[39]

Weber State's Dream Weber program builds on the 15 to Finish model. For students with household incomes of less than $40,000 annually, the program provides free tuition if students maintain a 2.0 grade point average and enroll between 12 and 18 hours each semester.

Guided Pathways

Students can get lost in course catalogs and end up taking a variety of classes they may not need. For some students it may be a rite of passage to dabble in different degrees until they determine their majors. This is ultimately more costly and delays completion since such students end up taking more credits than are needed to graduate. The additional courses (25% more for those seeking associate degrees, 10% more for bachelor's degrees) are costing students time and money.

A solution for this problem is to produce clear pathways to graduation. Graduation maps detail the classes students need to graduate on time. Complete College America emphasizes the need to make these pathways the default for all students. It also suggests that students choose "meta majors" that broadly match their areas of interest so that fewer credits are unusable for degrees. Guaranteed milestone courses each semester not only ensure that students are not falling behind, but that they are not taking courses too far ahead of where they should be. Lastly, aligning math to specific majors is useful since algebra can be an obstacle to completing college. Courses like statistics and quantitative literacy are more appropriate than algebra for certain disciplines.

All of Utah's institutions have implemented or are in the process of implementing some form of graduation maps for at least some of their programs. Board of Regents has directed institutions to create 3-year and 5-year goals that include the creation of "semester-by-semester degree program maps with specific recommended courses each semester and make them available to current and potential students."[40]

Additionally, SLCC is using $800,000 of its Mission Based Funding for its Student Advising Pathway Project. The University of Utah's "New U Student Experience" is focusing on pathways to help students complete their general education requirement within one year of enrolling. [41]

Structured Schedules

Many of the Game Changers are closely related. Structured schedules are closely related to pathways. A student chooses a degree and then the college provides the student with the sequence of courses that the student will take.

With structured schedules comes cohort alignment. Student cohorts have been shown to increase college completion; "learning communities" that organize students into groups that take the same sections of classes together allow cohorts to work closely with professors across course subjects for deeper, more engaged learning.[42] Several states are starting widespread cohort scheduling.[43]

In Utah, SUU is working to "develop clear pathways for incoming freshmen… [bundling] these courses with other freshmen courses in a cohort/learning community."[44] The University of Utah's "New U Student Experience" is also attempting to redesign the curricular experience for students by placing them into learning communities.[45] In 2013 SLCC implemented a specific learning community pathway as the default choice for new students.[46]

Dixie State is seeking to increase retention and completion rates for underprepared students. In 2012 they began creating cohorts for at-risk students to take courses together.[47]

Corequisite Remediation

Over half of all two-year college students enroll in remedial courses, but less than one-tenth of them graduate within three years. Why? In part because of the additional time required to complete their education and the demoralizing effect of being in "high school level" classes instead of college ones. Accordingly, Complete College America insists that many of these students can, in fact, pass college-level gateway courses if they just have additional support. States are beginning to implement course schedules that – instead of offering separate remedial classes – offer classes with college level work with remedial support sufficient enough for success in the college-level class.[48] This is termed "corequisite remediation."

Institutions that have open-enrollment need to focus on corequisite remediation. These include Dixie State, SLCC, Snow, USU (East), UVU, and Weber State. Corequisite remediation is sometimes necessary at the other USHE institutions as well, particularly for students that are returning to postsecondary education as adults.

As with Guided Pathways, corequisite remediation can be used to align math to specific majors to keep mathematics from being a insurmountable hurdle for students. In Utah, College Algebra (Math 1050) is often required for college degrees but presents a barrier to completion for some students since it may take more time and effort to achieve the required mathematical foundation. The Utah Education Policy Center showed that Utah students are not prepared for college math and it is a struggle for more students than other classes; they found that students who enrolled in Math 1050 as a concurrent enrollment course and students with higher grade point averages are more likely to have success in obtaining College Algebra credit.[49] This does not bode well for students with low GPAs or those who put off math as long as possible.

USHE is encouraging students to take four years of progressive math while in high school and to enroll in the college-level math either in Concurrent Enrollment or in the first semester of college. Institutions are adopting various strategies to drive their students to take developmental math earlier in their school career. As part of the Board of Regent's goal directives, institutions should set goals to decrease the number of semesters students spend in Math 1010 or lower. Weber State's graduation maps will include options for students who must start with developmental math and English courses.[50]

Performance Funding

Higher education funding is typically based upon enrollment, with additional funding for each institution's specific mission. As noted, performance funding is funding for higher education that is allocated based upon the success of certain performance indicators. Performance funding can provide incentives for outcomes such as:

- Graduation/completion
- Campus diversity
- Persistence of students advancing toward certificates and degrees

When performance funding was first used in Tennessee in 1979, it provided institutional revenue as a bonus above the base funding. This is often dubbed PF 1.0, compared to PF 2.0 which is used to determine base funding itself.[51] PF 2.0 provides funds to institutions for each student that reaches a certain goal, like degree completion or a certain number of completed credit hours. An example of the PF 2.0 is shown in Figure 9.

Just a handful of states utilized performance funding in 2010, although this number ballooned to 16 states in 2013, and to 25 states by 2014 (Arizona, Arkansas, Florida, Illinois, Indiana, Kansas, Louisiana, Maine, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, New Mexico, Nevada, North Carolina, North Dakota, Ohio, Oklahoma, Pennsylvania, South Dakota, Tennessee, Texas, Utah, and Washington). Several other states are in the process of implementing some form of performance funding. Many of these are of the PF 2.0 variety.

Utah has begun dabbling in performance funding with a pilot program launched in 2013 where funding is provided as a "bonus" (PF 1.0 model). Senator Stephen Urquhart – who is seen as a performance funding champion at the Utah State Legislature – helped facilitate the approval of $1 million in one-time funding for performance funding during the 2013 Legislative Session. In 2014, the Legislature increased that

amount to $1.5 million in one-time funding. Most recently, in September 2014, the Utah State Board of Regents approved a request for $5 million in ongoing performance funding (as opposed to one-time funds) from the 2015 Legislature as part of a $78 million legislative request.

With the legislatively allocated performance funding the Legislature included intent language as to the performance measures to be used in allocating the funds.[52] The language is similar to the most recent core performance measures approved by the Utah State Board of Regents in 2014:

1. First year to second year retention
2. Increased completion rates (transfer counts towards completion)
3. Acceleration in fulfilling the general education math requirement (such as requiring at least one math class during the first two semesters)
4. Rapid transition of students from developmental math to successful completion of college math course
5. Increase in graduate education (as applicable by institutional mission)

Figure 9: Performance Funding "PF 2.0" Example

	Per Unit Amount
Overall Degree Completion	
One-year certificate	$2,000
Associate degree	$4,000
Bachelor's degree	$8,000
Master's degree	$4,000
Doctoral degree	$2,000
At-Risk Degree Completion	
One-year certificate	$1,500
Associate degree	$3,000
Bachelor's degree	$6,000
Student Persistence	
15 credit hours completed	$300
30 credit hours completed (two-year degree)	$600
30 credit hours completed (four-year degree)	$800
45 credit hours completed	$1,200
60 credit hours completed	$1,500

Source: Indiana Commission for Higher Education.

Presently, each institution sets specific goals based upon one or more of the measures from the list above. For 2014, one of the institutions set a total of four goals, two institutions set three, two set two goals, and three set one goal. If the institutions complete their respective goals, they receive the amounts allotted to them of the full amount appropriated by the Legislature, or a portion of $1,500,000 (including $143,100 remaining on the table from the previous year, for a total of $1,643,100). If successful, the University of Utah and USU would receive $328,620 each, Weber State, UVU, and SLCC would receive $197,170 each, and SUU, Dixie State, and Snow would receive $131,450 each.

While Utah has started down the path of performance funding, its current model does not include many of the more widely accepted performance funding practices. However, as described later in this report, the Utah State Board of Regents and Senator Urquhart have plans to make the pilot program more robust. From its research, Utah Foundation has found that robust performance funding models tend to be widely collaborative in nature, focus on general outcomes rather than specific annual goals, include several specific funding characteristics, and put a large proportion of that available funding at stake.

ROBUST PERFORMANCE FUNDING MODELS

In an effort to determine best practices in performance funding for Utah institutions, Utah Foundation studied education systems that Dennis Jones (the President of the National Center for Higher Education Management Systems and a leader in performance funding initiatives) and others consider the "best of the best" in performance funding design and implementation. These include the Massachusetts Department of Higher Education (which has implemented performance funding at community colleges only) and the Washington State Board for Community and Technical Colleges. This report does draw on these two-year higher education systems for some performance funding insight, but it more closely examines three educational systems whose focus included performance funding for both two- and four-year institutions.

These institutions are:

- Indiana Commission for Higher Education
- Nevada System of Higher Education
- Tennessee Higher Education Commission

Utah Foundation also evaluated the eleven design principles and six implementation principles from the National Center for Higher Education Management Systems (NCHEMS) and evaluated nine performance funding design tips from the National Conference of State Legislatures (NCSL).

Utilizing these principles, design tips, and input from other states, Utah Foundation focused on the following:

- Steps toward a robust model
- Outcomes-based funding approach
- Model design
- Funding decisions

These concepts were analyzed keeping in mind the potential unintended consequences of performance funding. A recent Community College Research Center study included over 200 interviews with administrators, deans, and department chairs in Indiana, Ohio, and Tennessee. Respondents were concerned that the implementation of performance funding could result in restrictions in college admissions and the weakening of academic standards.[53] Less significant concerns were related to the cost of compliance and a weakening of cooperation between institutions.

After detailing the performance funding concepts, the report shows what Utah has in store for 2015. The report concludes with a recap of the lessons learned from each of the four performance funding model concepts.

STEPS TOWARD A ROBUST MODEL

How do you progress to a robust performance funding model? First, it is important to recognize that performance funding is not a new idea, it is just a model that focuses on different – or additional – goals. Beyond increasing enrollment, "student success and completion of academic programs are on the ascendancy as state priorities."[54] Performance funding models are being designed across the U.S. to incentivize institutions to focus additional efforts on student success and completion.

Policymakers must determine which outcomes they prefer. They then decide on how much of the higher education budget should be directed toward performance funding. At that point, mathematicians step in; each state with performance funding utilizes a slightly different funding technique (see funding examples from Indiana, Nevada and Tennessee in the Appendix).

Beginnings

Performance funding has already begun in Utah. Currently, the state directs less than 0.1% of total higher education funding toward its core performance goals. However, the Utah State Board of Regents is asking for performance funds that triple this year's appropriation. As noted, there is also a strong indication that Utah's performance funding measures will expand during the 2015 Utah Legislative Session.

Several states have begun with limited funding and increased it over time. Most states currently using performance funding quickly overhauled their systems without any previous experience in the practice.

Complete College America asserts that performance funding should be implemented as follows:

- Begin with a small number of explicit, easy-to-understand metrics that are laser-focused on completion and specific priorities for improvement.
- Ensure that performance-based funding metrics represent the most critical data points to improve certificate and degree completion, such as improvement in the number of annual certificates and degrees awarded (not graduation rates), improvement in the number of "on-time" completions, and improvement in the number of students successfully transferring from community colleges to four-year universities.
- Provide funding based on the number of courses completed rather than attempted (or simply change the count date on the current enrollment formula from the beginning of the semester to the end of the semester).
- Level the playing field to include incentives for completion gains among hard-to-reach groups, especially low-income and under-represented populations. Also include incentives for college certificates and degrees that not only provide trained workers for current industry needs in the state, but also assist in attracting new employers.
- To help sustain support, start with a modest percentage of performance funding of 5% or more – built into base budgets – then compound it over time.

As currently implemented, Utah's model of performance funding does not closely follow these tenets.

Indiana's first performance funding foray was with a research-related metric in 2003 that accounted for approximately 1% of the total higher education budget. Three outcomes metrics – degree completion, on-time graduation, and seamless transfer incentives for two-year campuses – were funded in 2009 at 2.5% of the total budget. Indiana completely revamped its funding model the following year and by 2015 the funds have reached 6% or $68 million.

In 2011, Nevada's legislature required a study of higher education's funding formula. The study – which was completed in 2012 – included a performance funding recommendation. The legislature passed a performance funding bill the following year.

The State of Tennessee began using performance funding to a limited extent in 1979, although it did not utilize a large portion of the funds towards performance funding until recently. In 2009 the governor wanted bold ideas for K-12 and higher education. The result was a short, simple bill that focused funding on outcomes.[55] The specific details of the implementation were developed by the Tennessee Higher Education Commission.

Consensus and Collaboration

NCHEMS has determined that "it is well worth the time and effort to get broad consensus around a public agenda for the state before embarking on a design of an outcomes-based funding model."[56] NCSL notes that once a broad consensus is reached, engaging all stakeholders in the design of the funding system is a priority. This includes lawmakers, higher education officials, institution leaders, and faculty members.

According to Indiana, collaboration is key to performance funding:

> There is certainly a high likelihood that institutions will not like performance funding, specifically if the model includes base reallocation. You must include the institutions in the process of creating your performance funding model. If you assure institutions you will work to keep the model stable and predictable they will be more agreeable through the process. Indiana's institutions want to keep it in place because they have many innovative programs in the pipeline [that tie funding to their success at certain goals.] Once you set the policy in place and determine the outcomes to meet your state goals, let

> the institutions and their boards of trustees create the path to success at their institutions – they are the boots on the ground and know far more than any other body how to create success on their own campuses.[57]

Nevada is much the same, though they included a student representative and a faculty representative in their model design. The key to successful implementation for them is collaboration.[58]

Tennessee urges states to keep higher education very involved because they "will get nervous about the process, but as long as discussions with them are about the big picture items and not on the mechanism itself, the process will work. That is where it fails, when higher education is not involved."[59] Tennessee convened a committee of state government officials, higher education leaders, and other stakeholders. These players helped determine state goals and prioritize them. They worked toward consensus, and even though consensus was not always reached on all issues, the model itself moved forward. For example, universities did not want IPED's graduation rates included as a measurable outcome because of how it is calculated (as noted previously); nevertheless, graduation rates were ultimately included as a key outcome measure.

Bringing all players to the table can allow the process to happen very quickly if statewide goals are already in place. Massachusetts was able to complete the process of implementing its performance funding goals in four task force meetings. The first one determined specific metrics for its goals, the second decided upon the proportion of higher education budget to include in performance funding, the third determined the weights for specific populations, and the fourth set limits for funding gains and losses. Half of Massachusetts' state-appropriated funding is based on its performance measures.

Lessons learned #1: Collaborate with all stakeholders to develop the performance funding model.

Figure 10: Steps toward a Robust Model, Section Overview

	Indiana	Nevada	Tennessee
How it began	History of performance funding (since 2003), but quick implementation of new model	Very quickly	Very long history of performance funding (since 1979), but quick implementation of new model
Level of collaboration and agreement	Strong	Strong; included student and faculty representatives	Strong

Source: U.S. Census Bureau.

OUTCOMES-BASED FUNDING APPROACH

Complete College America refers to its fifth education funding Game Changer as "performance" funding. Different entities tend to focus on subtly different ways of implementing performance funding. Washington State Board for Community and Technical Colleges funds "outputs," not performance. Indiana Commission for Higher Education is adamant that it focuses on "outcomes." What is the big deal with these differences in terminology? Dennis Jones has put it this way:

> At the policy level, the objective is to improve outcomes… Linking funding to outcomes, not performance in the broader sense, is the clear intent. The change in language reflects more than semantics; it reflects substantive changes in intent.[60]

What are the differences between outputs, outcomes, and performance?

Outputs relate to what an institution does. They relate to the activities that are performed and the people that are affected by these activities. They are often shown numerically.

Outcomes refer to the differences that these outputs make; outcomes may be the increase in knowledge or an increased percentage of classes taken or degrees given. Outcomes are often shown as a percent change. Policy is sometimes related to outcomes. Outcomes are a clear but broad definition of success, like increasing third grade reading, making state tax code competitive, or opening up public lands for oil and gas drilling.

Performance refers to how something performs in meeting a goal based upon either outputs or outcomes. Performance is shown in specific, static, measurable goals. Policies are sometimes based upon performance, like increasing post-secondary education attainment to 66% by 2020. Achieving this goal would be the result of the outputs (increased number of graduation and certificate holders) and outcomes (higher completion rates) at institutions.

It may seem as though moving from outputs to outcomes to performance in Figure 11 is a natural progression. In some ways it might be. Although Dennis Jones and others caution that performance is a clear end goal in the broader policy world, it may be worthwhile to take a step back and instead measure specific outputs and outcomes; this approach may be more important to achieving broader policy goals.

Figure 11: Comparison of Higher Education Performance Funding Measures, with Examples

Measure	Output-based	Outcome-based	Performance-based
Increase bachelor's degrees awarded at 4-year institutions	Institutions receive $5,000 for each student receiving a bachelor's degree	Institutions receive $1,000,000 for each 1% increase in graduation rate	Institution receives $5,000,000 for increasing graduation rate to 60% by 2015

Some argue that performance funding models should reward continuous improvement, not attainment of fixed goals. But if a goal is fixed – like the goals set from Utah's current core performance measures – institutions may find them too easy to attain or, conversely, too difficult and quit before attaining them.

"One of the primary purposes of outcomes-based funding is to focus institutional attention on key state priorities" instead of narrowly defined institutional priorities.[61] States with greater amounts of performance funding are not directing such funding toward institution-level performance goals. Instead, they allow the outcomes funding to be up for grabs, with institutions rewarded not for succeeding with certain measures but for the broader goals of the state.

Indiana asserts that states must focus on major indicators, not institution-specific goals. Tennessee, in fact, makes that point and uses Utah as an example: "Utah is very performance based, instead of outcomes

Figure 12: Outcomes-Based Funding Approach, Section Overview

	Indiana	Nevada	Tennessee
Outputs – these metrics are the simplest to determine, like the numbers of students attaining a certain success metric	Yes: student persistence, number of degrees, remediation, high-impact degrees	Yes: numbers of degrees, transfer students, research expenditures	Yes: student persistence, number of degrees, transfer students, research
Outcomes – what policy makers expect, often determined by rates	Yes: on-time graduation rate only	Yes: efficiency only (awards per 100 FTE)	Yes: both graduation rate and efficiency (awards per 100 FTE)
Performance – static, annual goals	Yes: institutionally defined metrics only (5% of performance funding for FY2013-15)	Yes: institutionally defined metrics only (removed for 2015)	No

FTE: Full-time equivalent

based. Utah should change that approach. Tennessee does not have to worry about targets and goals. Thus, no one can complain that one or another institution's goals are too easy to achieve. Instead, all Tennessee institutions work toward the outcomes; public policy and institutional finances are aligned."[62]

Lessons learned #2: Utilize overall outcomes (or results) as performance measures, not annual goals.

MODEL DESIGN

Why are states pursuing performance funding in the first place? The answer is to achieve specific measurable outcomes. These specific outcomes are usually related to increased educational attainment, but also include other variables. States use a variety of model design features depending upon desired outcomes.

Include All Public Institutions

Most states include all their public institutions in performance funding. Of those who do not, Washington and Massachusetts focus only on two-year campuses. Several other states only focus on four-year campuses. However, many of these states have management entities that are separated, unlike USHE which oversees all two- and four-year public institutions.

A key problem with only focusing on one system is that it shows that the state is focusing on system goals, not state goals. That said, it is often wise to incentivize institutions differently when they do not share the same mission.

Model Should Reflect and Reinforce Mission Differentiation

NCSL asserts that states must measure postsecondary institutions with different missions by different standards. Two-year institutions naturally have different goals than four-year ones. Research institutions have different goals than other four-year institutions.

Utah's current model does reflect mission differentiation, but this is because performance goals are developed by the institutions themselves. If expanded to an outputs/outcomes model with statewide goals, Utah's institutions of higher education would need to continue treating research institutions differently than community colleges. The Board of Regents has categorized its public institutions within an adaptation of the Carnegie Classification of Institutions of Higher Education, as follows:

Doctorate-granting Universities
- University of Utah
- Utah State University

Master's Colleges and Universities
- Southern Utah University
- Utah Valley University
- Weber State University

Baccalaureate Colleges and Universities (at least 10% of undergraduate degrees are baccalaureate or higher, with few master's and doctoral degrees)
- Dixie State University

Comprehensive Community or Associate Degree Colleges
- Salt Lake Community College
- Snow College

The expanded Carnegie Classification includes its broad classification, but also differentiates institutions by their undergraduate and graduate instructional programs, enrollment and undergraduate profiles, size classifications, and location-based classifications.

Tennessee is a good example of providing funding based upon mission differentiation (see Figure 13). The state has widely different goals between its four-year institutions and two-year institutions. The model also has slightly different goals within each of its four-year institutions and within each of its two-year institutions. The broader differences are of course due to difference in missions between four- and two-year institutions. The smaller differences include mission differences, but are also due to the Tennessee funding model that was calibrated in the first performance funding year to provide each institution with their previous year's funding.

Models Should Reward Success of Underrepresented Populations

NCSL urges states to "include a measure to reward colleges that graduate low-income, minority and adult students to ensure that institutions keep serving these populations."[63] This is in line with the "access agenda" of college enrollment.

Post-secondary success rates are different for students of different socioeconomic backgrounds, and different races and ethnicities. For example, Asian students top the list for six-year graduation rates in the U.S. at 68.5%,

Figure 13: Percentage of Performance Funding by Goal, an example of three universities and two community colleges in Tennessee

Universities	Austin Peay State University	Middle Tennessee State University	University of Tennessee	Chattanooga State Community College	Volunteer State Community College
Students accumulating 12 hours	-	-	-	6%	2%
Students accumulating 24 hours	3%	3%	2%	7%	3%
Students accumulating 36 hours	-	-	-	7%	5%
Students accumulating 48 hours	5%	5%	3%	-	-
Students accumulating 72 hours	7%	7%	5%	-	-
Dual enrollment	-	-	-	5%	10%
Associate degrees awarded	-	-	-	5%	20%
Certificates (1-2 years) awarded	-	-	-	5%	4%
Certificates less than 1 year awarded	-	-	-	5%	16%
Bachelor's and associate degrees awarded	25%	25%	15%	-	-
Master's / education specialist degrees	20%	15%	15%	-	-
Doctoral / law degrees awarded	-	7.5%	10%	-	-
Job placements	-	-	-	20%	5%
Remedial & developmental success	-	-	-	10%	10%
Research and service	10%	12.5%	15%	-	-
Transfers out with 12 hours	-	-	-	15%	15%
Transfers out with 12 hours or more	10%	5%	5%	-	-
Degrees per 100 FTE	10%	10%	10%	-	-
Six-year graduation rate	10%	10%	20%	-	-
Workforce training	-	-	-	10%	5%
Awards per 100 FTE	-	-	-	5%	5%
Total	100%	100%	100%	100%	100%

Source: Tennessee Higher Education Commission, adapted by Utah Foundation.

with American Indian/Alaska Natives at the bottom at 38.2%.[64] Without incentivization for certain population subgroups, some institutions could be incentivized to admit only those populations with the greatest likelihood of reaching state goals and priorities. Arkansas, Florida, Georgia, Hawaii, Illinois, Minnesota, Tennessee, and Virginia provide additional funding for successful outputs from low-income students. This is often measured by students' Pell grant eligibility. Illinois provides additional funding for Black/African American students, Arkansas and Virginia for "minorities," and Colorado and Pennsylvania for student body diversity.

As noted, family and job pressures can be additional factors to not completing post-secondary education. Arkansas, Georgia, Illinois, Maine, Tennessee, and Virginia provide additional funding for adults. Tennessee, for example, deems students over 25 as adults. Maine incentivizes for adults over 30. Other possibilities for incentivization can focus on additional "non-traditional" students, like the married student population.

Washington asserts that focusing on remedial students is key. Helping those students quickly move to general education classes is at the top of their list of priorities (along with retention and completion).

One way to incentivize the completion for "at-risk" students is to place a premium on funding such populations. In such a model, a graduate in the target population is funded at a higher level than other graduates. An example of this is shown in Figure 14.

Figure 14: Indiana "At-Risk" Degree Completion

	Degree Completion	"At-risk" Addition	"At-risk" Degree Completion
One-year certificate	$2,000	$1,500	$3,500
Associate degree	$4,000	$3,000	$6,000
Bachelor's degree	$8,000	$6,000	$14,000
Master's degree	$4,000	-	$4,000
Doctoral degree	$2,000	-	$2,000

Source: Indiana Commission for Higher Education.

Since restricting admissions of less-prepared students might be an easy way to increase success of certain measures, the Community College Research Center has determined that "states need to take even more steps than they have to reduce this temptation."[65] The Center is uncertain whether the "at-risk" weights in Indiana, Tennessee, and others use are large enough to offset the temptation. Other options are to avoid comparing institutions with different student compositions or to simply compare institutions' performance with their past performance as is done in Washington.

Model Should Include Progress Metrics

NCHEMS holds that funding models – at least early on – should include progress metrics. NCSL prioritizes the goal of college completion along with rewarding progress or persistence, retention, and transfer facilitation.

Indiana rewards institutions for the number of credits their students complete (see Figure 15). Similarly, Tennessee rewards institutions for the number of university students who complete 24, 48, and 72 credits and the number of community college students who complete 12, 24, and 36 credits. Most states with performance-based funding programs include progress and persistence provisions (including Washington, North Carolina, Missouri, Nevada, New Mexico, Texas, Ohio, Arkansas, Massachusetts, and Oklahoma).

Figure 15: Indiana Student Persistence Metric

	15 Credits	30 Credits	45 Credits	60 Credits
Four-year	-	$765	$1,210	$1,530
Two-year	$305	$600	$1,210	-

Source: Indiana Commission for Higher Education; adapted by Utah Foundation.

Dennis Jones asserts that these progress metrics should be phased out after five or six years at four-year institutions because the ultimate objective is degrees, not just progress. However, progress is a tangible success measure in the short term. Community colleges could always use progress; "step-by-step progress for a typically at-risk student population can be justified."[66]

Funding Formula and Metrics Should Be Clear

Both NCHEMS and NCSL urge states to create simple funding formulas with unambiguous metrics so expectations are clear to everyone.[67] This is key concept for Indiana. To them, the model and metrics should be clear so that stakeholders can easily understand them. Nevada asserts that having simpler, clearer metrics and funding formulas allow the whole funding process to be more transparent, thus helping with buy-in from the institutions themselves. One of Tennessee's top considerations is to keep metrics simple, and to focus on major indicators.

For simplicity's sake, NCHEMS deems it particularly important to limit the number of variables institutions should be required to focus on to six or fewer. Most states using funding formulas focus their efforts on six or fewer variables.

Figure 16: Indiana "High-Impact" Degree Completion Incentivization

	"High-impact" Addition
One-year certificate	-
Associate degree	-
Bachelor's degree	250%
Master's degree	360%
Doctoral degree	350%

Source: Indiana Commission for Higher Education. Adapted by Utah Foundation.

Ensure that Metrics Are Difficult to "Game"

As noted, Tennessee labeled Utah as "very performance based, instead of outcomes based." According to them, "Utah should change that approach. Tennessee does not have to worry about targets and goals. Thus, no one can complain that one or another institution's goals are too easy to achieve."[68]

Utah goals are set directly from the institutions themselves. While there may or may not be concern that other institutions' goals are too easy and set too low, the possibility exists. With outputs centered on specific outcomes, this may not be as much of an issue. In 2014, Nevada removed a metric that was institution specific and developed by the community colleges themselves; the community college presidents wanted this metric option removed because it was too easy to "game." The metric was replaced with a straightforward metric that provides funding for skill certificates of between 9 and 29 credits.

Certain outcome metrics are easier to "game" than outputs themselves. Outcomes defined as rates can potentially be manipulated, such as the IPEDS graduation rate itself. The Nevada System of Higher Education argued against the inclusion of IPEDS graduation rates as a key metric for their performance funding model. They felt that it was too easy to switch students from being degree-seeking to non-degree-seeking when the students dropped out of school, thus artificially increasing graduation rates. However, the schools fought for this measure's inclusion as a performance funding metric and won.

Washington asserts that these data need to be quickly gathered and measured in real time. Massachusetts aims to increase funding and hire a data auditor to test data integrity and quality, thereby ensuring that the standards are uniform and funding is accurately distributed by the metrics.

Focus on Quality

Instead of simply focusing on completion, NCSL encourages states to incorporate student learning measures. This has not yet been widely implemented. Nevada, in an effort to steer clear of simply incentivizing the pursuit of turning institutions into "degree mills," worked toward a quality metric. A performance funding faculty work group came up with the idea of having each of the institutions take the Collegiate Learning Assessment. This is a test from the Council for Aid to Education that looks beyond a mastery of discipline-based information to evaluate critical thinking skills and written-communication skills. However, Nevada campuses do not trust the data output of the test yet and are working toward making adjustments to their quality metric.

The Community College Research Center has determined that policymakers must work hard to protect academic standards when implementing performance funding. They believe that states have many options at their disposal, such as anonymous faculty surveys, statewide data on degree requirements and course grade distributions, and faculty developed general learning tests.[69]

Figure 17: Model Design, Section Overview

	Indiana	Nevada	Tennessee
Include all institutions	Yes	Yes	Yes
Reflect mission differentiation	Metrics different for different types of institutions	Metrics and weights different for different types of institutions	Separate models for 2- and 4-year institutions; uses Carnegie classes to further assign weights
Provide additional funds for success for low-socioeconomic status students	Yes	Yes	Yes
Provide additional funds for success for "minority" students	No	Yes	No
Provide additional funds for success for adult students	No	No	Yes
Provide additional funds for success for remedial students	Yes	No	No
Use student progress metrics (like # of credits completed)	Yes	Yes	Yes
Use simple metrics	Yes	Yes	Yes
Use few variables	Yes, though uses institutionally defined metrics	Yes; 6 main variables	Yes; 6 main variables, though more for community colleges
Use metrics that are difficult to "game"	Yes, though includes institutionally defined metrics and uses IPEDS graduation rate	Yes, though included institutionally defined metrics which was removed for 2015	Yes, though uses IPEDS 6-year graduation rate
Use metrics which focus on educational quality	No	No, though attempting with a faculty initiative	No
Incentivize high-priority fields	Yes	Yes	No
Use growth metrics over aggregate metrics	Aggregate	Aggregate	Aggregate

Focus on High-Priority Fields

NCSL asserts that states must align performance funding formulas with the state's economic and workforce needs. States can accomplish this by providing additional performance funding to those colleges that are graduating students in high-priority fields.

Nevada's model includes an "economic development" metric which is 15% of total funding. Institutions are rewarded for the number of certificates and the number of associate, bachelor's, master's, or doctoral degrees awarded in the science, technology, engineering, and mathematics (STEM) disciplines and for health professionals as identified by NCHEMS. Indiana puts a premium on "high-impact" degree completion for specific degree types that are granted in STEM fields as defined by national standards (using a hybrid of Complete College America and National Science Foundation listings).

Lessons learned #3: Ensure that the outcome measures – and the funding model itself – are simple, but are specific to institutional missions.

FUNDING DECISIONS

How Much Is at Stake?

NCSL indicates that states must put enough money at stake to expect results. Most states are putting aside between 5% and 25% of the states' shares of higher education dollars toward performance funding. Utah has 0.1% of educational funding at stake.

NCHEMS also asserts that states must focus a large portion of their funding toward performance outcomes. "In states where tuition makes up half of institutional revenues, allocation of half the state appropriation to outcomes equates to 25% of institutional revenues – a level still overshadowed by enrollment-driven considerations."[70]

Indiana's model includes 6% of its budget for performance measures in 2015, and the Indiana Commission for Higher Education has recommended 7% for performance funding in 2016 and 8% in 2017. Since each year's performance funding is wrapped into the base-funding formula and thus compounded over time, a large portion of funding for Indiana institutions is the result of present and past performance funding results.

Nevada admits that the safe minimum (which saves institutions from funding reallocation) on each of their outcome metrics is somewhat easy to attain. Their program was implemented as such because Nevada's performance funding is only from a reallocation of funds; no new money has been utilized due to budgetary constraints. However, Nevada expects to reevaluate the program in the coming years and focus more on growth in outcome metrics instead of including easy minimum thresholds.

Tennessee's model was engineered to start where the old model stopped. "Campuses are very reluctant to give up their funding. That is the biggest issue… how much they put at risk."[71] So Tennessee's model was calibrated and weighted to ensure that all institutions began funding where they left off with the old model. All campuses were weighted differently. In subsequent years certain institutions saw increases in their outcome measures and were thus rewarded with funding increases, as other institutions lost funding. When one school made more progress than the others, it received a larger portion of the funding pie while the others received less; or if the pie was made larger with additional state funding, the others simply received a smaller increase. "Every dollar is up for grabs every year." As noted, for many years Tennessee allocated approximately 5% of its funding

based on performance funding. Now the lion's share is based on outcomes. Tennessee says that states should "go big," and not "waste time" on 5, 15, or 25% of funding, since "institutions will respond to incentives."[72]

The Community College Research Center asserts that "basing a very large portion of state funding for higher education on performance indicators" does "raise some cause for concern."[73] This caution is due to the unintended consequences of performance funding detailed previously in this report.

Whatever the level of funding, Dennis Jones maintains that performance funding should not simply be used as a way to increase funding for institutions. Instead, "states should use it as a way to incentivize institutions to focus on state priorities."[74]

Do Not Wait for Allocation of New Money and Employ a Phase-in Approach to Funding

Several states put large portions of their higher education funding toward new performance funding models. Georgia will be allocating all new money through performance. Kansas, Missouri, and Oklahoma models only use the allocation of new state funds. NCHEMS urges states to use existing funds as well as new funding instead of waiting for new funds to come available.

NCSL encourages states to phase in performance funding models "to make the transition easier." For example, a state might want to increase funding by 2% per year for ten years, or 5% per year for five years. NCHEMS agrees that states should employ phase-in approaches. By phasing in funding, states can more easily get buy-in from institutions, and it allows institutions time to ramp up their efforts toward the states' new policy priorities.

Employ Stop-loss Provisions

With performance funding implementation, many stakeholders – particularly the institutions themselves – would not welcome new policies that take funding away from institutions that have received it in the past. One protection against losing too much funding is to exclude maintenance and operations of the facilities from these measures. Nevada secures plant operations and maintenance funding as a hold-over from its former cost reimbursement model. Massachusetts has an "operational subsidy" that acts as a safety net for smaller institutions, though it also has a "stop-loss" mechanism.

Stop-loss provisions are used to protect against large funding decreases. If the stop loss is 2%, the institution would lose no more than 2% per year. At some point the stop-loss could be eliminated, or even increased by a certain percentage each year until reaches the size of the funding percentage. Nevada has a stop loss provision for its first two years.

Lessons learned #4: Put enough funding at stake to truly incentivize outcomes.

Figure 18: Funding Decisions, Section Overview

	Indiana	Nevada	Tennessee
Include large percentage of funding	Medium; with past performance funding included in base performance is *approximately* 1/3 of state funding	Medium, up to 20% of state funding by 2016	Large; over three-quarters of state funding in 2014
Use base funding and new money	Both	Both (with new money when it is available)	Both
Phase-in the funding model over time	Yes	Yes; 5% increase per year for four years	Yes; over three years to a majority of funding
Include a stop-loss measure to protect budgets	No	For first two years	No

NEXT STEPS

Performance funding in Utah may be heading for changes in the near term. Senator Urquhart has begun detailing his new plan for performance funding. A working group of Utah presidents from three public universities developed performance funding recommendations that they provided to the Utah State Board of Regents in November 2014 for approval in January 2015. As proposed, the model would provide funds to institutions based upon their success in three required metrics and one or two of eight optional metrics. The amount of funding would be weighted by each institution's share of Utah's graduates and share of state tax funding. The piece of the funding pie not awarded to institutions resulting from a failure to achieve results would be redistributed to other institutions.

The plan is intended to "incentivize each institution within USHE to improve the quality, access and affordability of higher education in Utah" by encouraging them to achieve placement in the top quartile (75% or better) of their Carnegie peers around the nation by improving at least 10% annually.[75]

Proposed required metrics:

- **Completion** – percentage of students (as reported by IPEDS) graduating within 150% of normal time to degree or certificate.
- **Graduation Map** – improvement in the percentage of full-time equivalent (FTE) students who have signed, by the end of their first semester, a meaningful plan leading to their graduation (or Guided Pathway) (this metric does not use the Carnegie comparison but instead improvement over time).
- **Access** – percentage of degree-seeking undergraduate students with Pell grant support.

Proposed optional metrics (each institution chooses one or two of the following):

- **Affordability** – average tuition and fees collected per FTE student as compared to (that is, lower than) their peers.
- **Retention** – first-to-second year student retention for full-time and part-time students.
- **Math** – percent of students successfully completing a math course leading to successful degree completion or transfer in the first semester.
- **Degrees/certificates** awarded per FTE student.
- **Average wage** earned by Career and Technical Education graduates (certificates and associate degrees).
- **Transfer Conversion Rate** – successful transfers resulting in a degree within 150% of normal time (for community colleges).
- **Research funding** per faculty member (for research universities).
- **Graduate degrees awarded** per tenured faculty member (for research universities)

Would performance funding affect metrics in Utah? As of now, since most models are fairly new, it is difficult to say. Early studies of performance funding have shown no positive impact on six-year graduation rates, though several states currently using performance funding cite improvement in retention and remediation.[76] Indiana states they are seeing such changes as institutions:

- Providing financial incentives to finish on time.
- Offering free summer classes.
- Providing "intensive, often even intrusive" advising that seems to be paying off.[77]

They have also seen increases in the success of most of their performance measures, with a rise in at-risk completion and overall completion of certificate degrees chief among these accomplishments (see Figure 19).

Nevada wanted to throw out the old and try something new. They claim they are already experiencing a change in institutional behavior. They are confident they will have evidence to document success in the coming years.

Figure 19: Indiana Biennium Three-Year Comparisons

	Increase from 2006-2008 to 2009-2011	Increase from 2008-2010 to 2011-2013	Percent Increase
Overall completion	3,681	7,381	101%
At-risk completion	2,431	5,840	140%
Student persistence	16,745	15,052	-10%
On-time completion	754	1,060	41%
High-impact degrees	370	704	90%
Remediation	0	836	n/a

Source: Indiana Commission on Higher Education.

In Tennessee and elsewhere, performance funding has "empowered certain leadership to make extensive changes and for which they saw big rewards;" Austin Peay State University in Tennessee is one of those, which Dennis Jones sees as the "poster child" for performance funding and all of the Game Changers.[78] More broadly, Tennessee asserts that performance funding has resulted in the following:

- State taxpayer funds are more efficiently distributed toward broader public policy goals.
- Outcomes have improved – though Tennessee admits such increases may not be causal.
- An "extraordinary response from campus presidents and leadership and governing boards" through a "refocused energy" and "cultural change" on campuses.[79]

Further, a Tennessee Ford Foundation grant study is looking at the outcomes of Tennessee's funding model. The grant was put in place to look at the effects of performance funding on campus policies and procedures.

Performance funding as it is being implemented is fairly new. Accordingly, it may not have strong proven results in shifting outcomes for years to come. However, making sufficient funding incentives will change institutional behavior. To this end, Utah Foundation has determined that there are four key lessons for Utah to consider when developing its performance funding future.

Lessons learned:

1. Collaborate with all stakeholders to develop the performance funding model.
2. Utilize overall outcomes (or results) as performance measures, not annual goals.
3. Ensure that the outcome measures – and the funding model itself – are simple, but are specific to institutional missions.
4. Put enough funding at stake to truly incentivize outcomes.

The proposals from USHE and Senator Urquhart have been developed and will continue to be developed though the collaboration of many stakeholders. Both proposals are more focused on outcomes than is Utah's current model. Neither model is overly complex at this time. While the Utah Board of Regents has proposed an increase of $5 million for 2015 and the Governor's 2016 budget asks for $15 million, there are few indications as to just how much funding will be at stake – if any – at the end of the 2015 Utah Legislative Session.

In 2013, President Obama announced a plan to create a new rating system for colleges and universities based upon performance and value. This rating system would then tie federal student aid to to success so that better rated institutions received more funds.[80] Utah has a leg up on this plan with its first foray into performance funding. The discussion during the 2015 Utah Legislative Session will likely set the new direction for Utah's performance funding approach.

APPENDIX: CASE BRIEFS

Indiana: Case Brief

Indiana's first performance funding foray was with a research-related metric in 2003 that accounted for approximately 1% of the total higher education budget. Three outcomes metrics – degree completion, on-time graduation, and seamless transfer incentives for two-year campuses – were funded in 2009 at 2.5% of the total budget. With the help of an outside consulting firm, Indiana revamped its performance-based funding metrics to outcome-based measures. By 2015, these metrics will be used to fund 6% or $68 million of Indiana's higher education institutions.

Indiana's model will includes 7% for performance funding in 2016. Since each year's performance funding is wrapped into the base-funding formula, technically over one-third of Indiana's institution funding is the result of present and past performance funding results.

In Indiana, campus outputs are multiplied by a set dollar amount per metric. Over half of Indiana's funding is directed toward degree completion and ensuring that such completion is "on time," which they define as 100% of normal time (two years for an associates and four years for a bachelor's). Those totals are adjusted by the allotted "weight" attributed to each measure based upon the dollars allocated to performance funding. For example, if $10,000,000 is appropriated to performance funding, and a metric category was weighted at 30%, then a total of $3,000,000 would be allotted to the institutions based upon their portion of the total per-unit amount (i.e., the "per-unit amount" is used to represent policy outcomes, not the actual amount of funding per unit measured).

Figure A1: Indiana Institutions' Metrics, Per Unit Funding Amounts, and Weights

	Per Unit Amount	Weight
Overall Degree Completion		30%
One-year certificate	$1,949	
Associate degree	3,898	
Bachelor's degree	7,795	
Master's degree	3,898	
Doctoral degree	1,949	
At-Risk Degree Completion		15%
One-year certificate	1,376	
Associate degree	2,752	
Bachelor's degree	5,503	
High Impact Degree Completion		10%
Bachelor's degree	19,491	
Master's degree	14,033	
Doctoral degree	6,822	
Student Persistence		15%
15 credit hours completed	305	
30 credit hours completed (two-year)	600	
30 credit hours completed (four-year)	765	
45 credit hours completed	1,210	
60 credit hours completed	1,530	
On-Time Graduation Rate		25%
Associate degree	11,461	
Bachelor's degree	22,921	
Institution Defined Prod Metric		5%

Note: Indiana has a "remediation success" metric which is to be implemented to reward English and Math completion at two-year institutions.
Source: Indiana Commission for Higher Education.

Indiana cites these key lessons as universal:

1. Collaborate: institutions "will all hate [performance funding] but if you can get their input and if you assure them that it will be stable and predictable they will be accept it." Keep it simple so stakeholders can understand it.
2. Don't change the metrics or you won't be able to prove your success.
3. "Don't spend too much time trying to make it perfect because it is not perfect; just do it."

Nevada: Case Brief

In 2011, Nevada's legislature required a study of higher education's funding formula. The study – which was completed in 2012 – included a performance funding recommendation. The legislature passed a performance funding bill the following year and began implementing it this year. The State of Nevada

wanted to throw out the old and try something new with dramatic changes. They claim they are already experiencing a change in institutional behavior.

Nevada admits that the safe minimum (which saves institutions from funding reallocation) on each of their outcome metrics is somewhat easy to attain. The program was implemented as such because Nevada's performance funding is only from a reallocation of funds; no new money has been utilized due to budgetary constraints. However, Nevada expects to reevaluate the program in the coming years and focus more on growth in outcome metrics instead of easy minimum thresholds.

Nevada uses different weights for its universities, its state college, and its community colleges. Nevada universities are heavily weighted toward funding bachelor's degrees (see the figure). Unlike Indiana, Nevada includes funding based upon research.
Nevada's top three suggestions for implementation are:

1. States should take the leap and try it; "perfect is the enemy of good."
2. Focus on collaboration.
3. Keep it simple.

Figure A2: Nevada Universities Outcomes and Points, Examples

		University of Nevada Las Vegas		University of Nevada Reno		
	Weights	Points	Weighted Points	Points	Weighted Points	Total Weighted Points
Bachelor's degrees	40%	3,771	1,508	2,412	965	2,473
Master's and doctoral degrees	10%	1,427	143	748	75	218
Sponsored/external research expenditures in $100,000's	15%	497	75	938	141	215
Transfer students w/a transferable associate degree	5%	967	48	1,055	53	101
Efficiency - awards per 100 FTE	10%	26	3	24	2	5
At risk graduates (minority and low income)	5%	2,218	111	770	39	149
Economic development (STEM and Allied Health) graduates	15%	857	129	1,009	151	280
Total weighted points	100%	-	2,016	-	1425	3,441
Distribution of points			59%		41%	100%

Note: Numbers are rounded.
Source: Nevada System of Higher Education.

Tennessee: Case Brief

The State of Tennessee began using performance funding to a limited extent in 1979. They were the first state to link a portion of funding to outcomes, though they did not utilize a large portion of performance funding until recently. In 2009 the governor wanted bold ideas for K-12 and higher education. The result was a "very generic," basic bill that focuses funding on outcomes. The specific details of the implementation were developed by the Tennessee Higher Education Commission.

The model was calibrated so that all schools started out at the previous year's funding levels, which means all campuses were weighted differently in the beginning. Now, "every dollar is up for grabs," and increases in funding are distributed according to outcome success.

Tennessee's method is slightly more complex than Indiana's and Nevada's (see the following table). An institution's final funding is based upon determining its total outcomes measure multiplied by Southern

Regional Education Board's average faculty salary college classifications (see Appendix E for a look at the classifications and salaries in Utah, western states, and the U.S.). Like Indiana, this amount is adjusted to equate to the year's legislative appropriation.

Since the implementation of Tennessee's measures: state taxpayer funds are more efficiently distributed toward broader public policy goals; outcomes have improved – though Tennessee admits such increases may not be causal; and there has been an "extraordinary response from campus presidents and leadership and governing boards" through a "refocused energy" and "cultural change" on campuses.

Tennessee's top suggestions for implementation are:

1. States implementing new performance funding models should be widely collaborative and keep higher education very involved in the process.
2. "Utah is very performance based, instead of outcomes based. Utah should change that approach. Tennessee does not have to worry about targets and goals. Thus, no one can complain that one or another institution's goals are too easy to achieve. Instead, all Tennessee institutions work toward the outcomes; public policy and institutional finances are aligned."Keep metrics simple.
3. Metrics have to be kept in place for several years for the sake of consistency.
4. "Go big;" don't "waste time" on 5, 15, or 25% of funding; "institutions will respond to incentives."

Figure A3: Example of a Hypothetical Four-Year Tennessee Institution's Metrics with Subgroup Premium, Scales, and Weights to Determine the Final Outcome Measure

Metrics – outputs and outcomes determined by policy makers)	Institution Measure-ment of Metrics (points)		Subgroup Premium (points)		Final Institution Measure-ment (points)		Scale (to equalize metrics)		Scaled Measure-ment (points)		Weight (determined by policy makers)		Final Outcome Measure (points)
Students accumulating 24 hours	3,500	+	1,000	=	4,500	÷	1.00	=	4,500	x	2%	=	90
Students accumulating 48 hours	4,000	+	1,000	=	5,000	÷	1.00	=	5,000	x	3%	=	150
Students accumulating 72 hours	4,500	+	1,000	=	5,500	÷	1.00	=	5,500	x	5%	=	275
Bachelor's and associate degree	3,500	+	1,000	=	4,500	÷	1.00	=	4,500	x	15%	=	675
Masters / ed. specialist degrees	1,500	+	0	=	1,500	÷	0.30	=	5,000	x	15%	=	750
Doctoral / law degrees	500	+	0	=	500	÷	0.05	=	10,000	x	10%	=	1,000
Research and service	150,000,000	+	0	=	150,000,000	÷	20000.00	=	7,500	x	15%	=	1,125
Transfers out with 12 hours	1,000	+	0	=	1,000	÷	1.00	=	1,000	x	5%	=	50
Degrees per 100 FTE	25	+	0	=	25	÷	0.02	=	1,250	x	10%	=	125
Sixyear graduation rate	75	+	0	=	75	÷	0.04	=	1,875	x	20%	=	375
											100%		4,615

Notes: 1) Tennessee uses the Southern Regional Education Board's average faculty salary of Carnegie Classification institutions with which to multiply the total final outcome measure; for example, 4,615 X $50,000 would equate to this hypothetical institution receiving performance funding of $230,750,000. (Technically, this final amount is then adjusted to comport with the state's budget allocation.) Maintenance & operations and equipment funding is added to this amount and out of state tuition revenue is removed. 2) The subgroup premium provides an incentive to institutions to diversify student populations.
3) The "scale" used to equalize metrics is akin to the weights determined by policy makers and therefore would also be considered a policy decision.

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Utah System of Higher Education
Utah Valley University
Wasatch Front Regional Council
Webb Publishing
Weber State University
Westminster College