

Lumina™
FOUNDATION

LUMINA ISSUE PAPERS

LINKING APPROPRIATIONS FOR THE TEXAS STATE TECHNICAL COLLEGE SYSTEM TO STUDENT EMPLOYMENT OUTCOMES

by Jeffrey J. Selingo
and Martin Van Der Werf

MARCH, 2016



When the idea of tying appropriations for the public universities in Texas to performance first emerged in the state legislature in 2007, most university leaders opposed any plan that would diminish the influence of enrollment in allocating state dollars. Performance-based funding had been tried in other states, and university leaders heard from their counterparts at institutions elsewhere that problems would inevitably develop with such a model: disputes over which metrics to include, reductions in base budgets, and a race by some universities to game the system to attract additional dollars. But in Texas, there was one exception to the opposition from the higher-education establishment: the state's technical colleges.

The 50-year-old Texas State Technical College System (TSTC), with a little more than 12,000 students on 11 campuses around the state, jumped at the opportunity to prove its worth to lawmakers and the public. At a legislative hearing, the then-chancellor of the system, Bill Segura, pledged to the Texas State Senate Finance Committee that his colleges would be the first in the state to adopt a performance-based system. "I was sitting behind the chancellor when he said it," Michael L. Reeser, the system's current chancellor, recalled. "I took a big gulp, and thought, 'Well OK, here we go.'"

When the idea of tying appropriations for the public universities in Texas to performance funding first emerged..., there was one exception to the opposition from the higher-education establishment: the state's technical colleges. The 50-year-old Texas State Technical College System... jumped at the opportunity to prove its worth to lawmakers and the public.

What made the promise somewhat nerve-racking for Reeser, who was president of the system's West Texas campus at the time, was that the funding measure under discussion would be unlike any other tried before. It would base state funds on the system's economic value to the state, measured solely by the increased earnings of the system's graduates compared with the minimum wage. "Most of the time, you have institutional resistance to such ideas," Rep. Dan Branch, a Republican and chairman of the Texas House Committee on Higher Education, said.ⁱ "But here was an institution pushing for it, and it was the legislators who were left wondering if it would lead to the system being underfunded. It was a real culture shift."

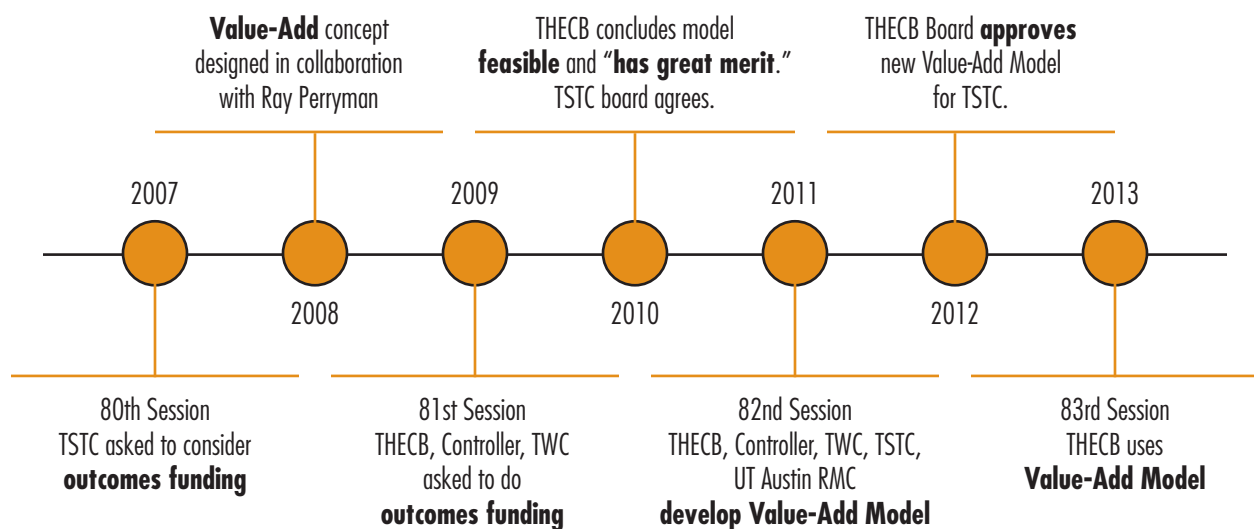
Nonetheless, TSTC did not hesitate to pursue the feasibility of such a model and commissioned Dr. Ray Perryman, a noted economist, to examine the use of earnings data to calculate the economic impact of TSTC to the state. The idea gained momentum and the next step was to involve other state agencies in the process. In 2009, lawmakers approved legislation requesting a feasibility study to be led by the state comptroller with input from the state's higher education coordinating board and TSTC.¹ In its report, issued a year later, the comptroller's office estimated that the lifetime tax revenue generated by graduates of technical associate and certificate programs in the state was \$2.4 billion, about \$10,728 per graduate.ⁱⁱ "What was clear from the report was that technical graduates contribute to the state economy," Rep. Branch said.ⁱⁱⁱ

¹General Appropriations Act, SB 1, 81st Texas Legislature, Section 52 (page III-62), http://www.lbb.state.tx.us/Documents/GAA/General_Appropriations_Act_2010-11.pdf.

“But we needed more of them, and more of them to graduate, and without incentives, that just wasn’t going to happen.”

Following the report the 2011 legislative session directed the development of a value-add funding model. Working with staff from TSTC, Legislative Budget Board, Texas Workforce Commission, the Ray Marshall Center at the University of Texas at Austin’s Lyndon B. Johnson School of Public Affairs, and the Texas Higher Education Coordinating Board, a methodology was hammered out over the next two years before lawmakers approved the concept in 2013.²

In September of that year, the new “value-added accountability funding formula” was put into place. The revised funding formula applies to the academic and instruction (A&I) budget, one of the three pots of state money that the system draws from. The A&I budget is by far the largest of the three budgets, representing approximately 85 percent of TSTC’s formula funding from the state. No longer would the technical-college system be rewarded for simply enrolling more students. Instead, the new model is built on the concept of aligning the state’s investment in TSTC with the estimated total economic benefit that comes back to the state in increased tax revenue produced by former students. The increased tax revenue is determined by the difference in earnings from the state minimum wage. In simple terms, the formula calculates the five-year average salary of former students, subtracts the minimum wage and calculates the value-added tax revenue from the difference. Because the total calculated benefit is split between the state and TSTC, only half of the added value is included in the formula calculations and directly reimbursed by the state. The model inherently protects the state and taxpayers, as former students who only work part-time at minimum wage would actually count against TSTC in the funding model. “The fundamental intent of this effort was about how we could align the funding in ways that would effectively change institutions behavior—such as alignment and right sizing of programs—in ways that would produce even more economic benefit,” Michael Bettersworth, Vice Chancellor and Chief Policy Officer for TSTC, said.^{iv}



²For the 2011 legislation see: General Appropriations Act 2011, HB 1, 82nd Texas Legislature, Section 42 (page III-54), http://www.lrl.state.tx.us/scanned/ApproBills/82_0/82_R_ALL.pdf; For 2013 legislation see: General Appropriations Act, SB 1, 83rd Texas Legislature, Section 11 (page III-210), http://www.lrl.state.tx.us/scanned/ApproBills/83_0/83_0_ALL.pdf

A Next Phase of Funding Higher Education?

The financing model for TSTC represents a shift from performance funding to the next wave of public financing of higher education—outcomes-based funding, specifically the use of new and untapped data sources to track employment outcomes. While the TSTC approach is mostly applicable to similar technical-college systems that serve a specific type of student in rigorously defined technical fields with associate degrees, the general idea of using employment outcomes as one of several measures to reward college performance is gaining some traction among state policymakers.

The TSTC formula has been touted for its simplicity, but it has its limits. Among them are the data limitations found in many states concerning post-graduate outcomes. The Texas Workforce Commission provides the data for the TSTC funding formula and is able to match wage and employment records for approximately 72 percent of former TSTC students.

Nevertheless, the TSTC funding formula is seen as a bellwether because of its boldness. For years, such outcomes-based financing systems have taken into account a variety of factors, mostly related to retention and numbers of graduates, as well as the education of students in high-demand career fields. But recently, the outcome of higher education that most interests lawmakers, students and families is whether college graduates have a job and how much they are earning. In several states, new tools allow prospective students to compare the earnings of graduates of specific institutions and majors. Judging the “return on investment” is no longer confined to financial investments, but now is something that families and policymakers are asking about colleges. “As we shift toward outcomes measures, then the two things that are going to matter the most are, ‘Do the students learn anything?’ and ‘Do the students earn anything?’” Mark Schneider, vice president at the American Institutes for Research and former U.S. Commissioner of Education Statistics, said.^v “Most students who go to college want good wages and high income, and most parents want that. So it has to be a consequential weight” in outcomes-based systems.

While the TSTC approach aligns with the increased interest in what colleges produce for the economy, some college officials worry it places too much emphasis on the career training aspect of higher education. At the same time, the development of the formula’s methodology has exposed how little most states know about where their college graduates end up and how much they earn.

.....

The financing model for TSTC represents a shift from performance funding to the next wave of public financing of higher education—outcomes-based funding, specifically the use of new and untapped data sources to track employment outcomes.

.....

.....

Recently, the outcome of higher education that most interests lawmakers, students and families is whether college graduates have a job and how much they are earning.

.....

.....

The development of the formula’s methodology has exposed how little most states know about where their college graduates end up and how much they earn.

.....

How the Formula Works

While the TSTC formula for measuring value added by graduates seems simple, like all analysis of wages and employment status, it is inherently complex. The technical-college system and the state have created a wide-ranging and remarkably deep database of job information and salaries of graduates from the state's unemployment-insurance program. Employers who are part of that program must report the salaries of their employees every quarter. But on further inspection by state officials, the data were incomplete. The data did not reflect, for example, whether graduates were actually working in the field for which they had received a degree or certificate. While based on the assumption of graduates having full-time employment, the database did not indicate whether the workers were part-time or full-time.

The cohort of students whose outcomes factor into the funding formula includes those who have completed at least nine credit hours and/or attained one of the following credentials: an associate degree, a certificate of completion or a "marketable skills award." But the formula also excludes many students—among them, those students who re-enroll within two years, high-school students enrolled in "dual-credit" courses and those graduates who are unemployed for more than a quarter of the year for which average wages were calculated.

Wages are adjusted for inflation, and the average earned in excess of the minimum wage multiplied by a state-wage-tax factor is deemed to be the "value added" by TSTC. The formula "does not make allowances for factors unrelated to the education received at the TSTC," according to the official description of the funding formula published by the Texas Higher Education Coordinating Board.^{vi} Those factors can include "qualifications" for the job, along with "various economic factors [that] can suppress or elevate earnings."

All funding formulas are built on a set of assumptions. The formula in Texas that bases appropriations on how many credits students are taking (the so-called "contact-hour system"), for example, is based on enrollment on the 12th day of classes, even though many students drop out later in the semester. "We felt it was appropriate for this approach to have some compromises, too," Reeser said.^{vii} One compromise is the formula's foundation: the minimum wage. It's based on the fact that most high-school students can get a job that pays such wages. "We felt that was a reasonable starting point," Reeser said. "Some people argued,

.....
'They could earn more,' but then someone said, 'Yes, but they could be unemployed.' Then they are a negative—they are costing the state money." This being Texas, Jonathan Hoekstra, TSTC's chief financial officer, uses a football analogy to compare the value-added funding system to the contact-hour system. "The contact-hours system rewards you for first downs," he said. "In the value-added formula, you are rewarded

.....
Jonathan Hoekstra, TSTC's chief financial officer, uses a football analogy to compare the value-added funding system to the contact-hour system. "The contact-hours system rewards you for first downs," he said. "In the value-added formula, you are rewarded for touchdowns. First downs are a component in reaching a goal, but not an end in themselves. The goal is touchdowns, and that is what we are rewarded for

.....

for touchdowns. First downs are a component in reaching a goal, but not an end in themselves. The goal is touchdowns, and that is what we are rewarded for."^{viii}

TSTC was met many times with suggestions that it add other data to the formula, but the leaders felt that it made the calculations unnecessarily complicated. At a technical college, the key outcome is that students can perform a job, not how many hours they spent training for it. The formula creates incentives for institutions to "train as many students as possible at the appropriate quality level with available resources," Perryman said. It also potentially reduces costs for students who can move through a program more quickly. Adding more variables, Reeser said, "would make it harder for people to remain focused on our goals."^{ix}

The formula rewards the technical-college system for placing graduates in good-paying jobs, but not necessarily for setting them up in careers. The system is constantly changing course offerings and certificate programs to keep up with the changing needs of industry. While some degrees and certificates are believed to be "long-lasting," Reeser said, "we believe the nature of the workforce going forward will be so dynamic that constant retraining will be required in many, many technical areas."^x

.....
At a technical college, the key outcome is that students can perform a job, not how many hours they spent training for it.
.....

The model measures the direction of outcomes. If TSTC increases placements and earnings of the cohort over five years, then the model recommends increasing appropriated funding. If the outcomes go down, then funding can go down. The formula first went into effect for the most recent academic year, 2014-15, but had limited impact on the level of funding that the technical-college system ultimately received that year. This was in part by design, as the initial implementation of the model was calibrated back to the original contact-hour formula; otherwise the model would have resulted in a large and unrealistic increase in requested funding for TSTC. Appropriation recommendations for higher education are also subject to a complex legislative process in the state. "While there is a funding formula and allocations that drive all that, it is subject to changes by the legislature," Hoekstra said.^{xi} The formulas and the multiple steps the budget must take before approval "have a norming effect," Hoekstra said. "We intended this not to result in a big windfall or in big cuts." Hoekstra said the formula is "still in a transition stage" and that it is possible that it will show greater dividends a few years from now, if the system continues to have success placing students in high-paying jobs.

The 2015-17 biennium budget approved by the legislature appropriated \$94 million to TSTC, a 5 percent increase in funding for TSTC over the prior biennium based on the system's successful graduate outcomes under the first year of the new funding formula.^{xii}

The Effect of the Formula on Technical College Campuses and Students

While the funding formula has had little effect so far on the amount of funding TSTC receives from the state, there is no doubt that the new approach has changed the culture and focus of the entire system. "Under the new formula the focus is all about student success in the workplace. The motives of every partner are aligned perfectly under the new model—the student's motives,

employer's motives (good workers) and TSTC's motives. It's the simple and old adage that you get what you pay for," said Gary Hendricks, Vice Chancellor for Financial and Administrative Services.^{xiii}

Integrated efforts to spur student success

At the highest level, TSTC has focused on streamlining and standardizing processes and student experiences, from administrative structures to direct student supports to programmatic offerings and design. Not least among the efforts spurred by the new funding formula was TSTC's pursuit of a single accreditation for all colleges in the TSTC system. The effort was part of a focus to be more consistent and efficient, such as removing duplication and inconsistencies in processes and programs across various institutions within the system. With these procedures now standardized, there is more coordination across the system to evaluate job market needs and evaluate programmatic mix to ensure that industry demands are more appropriately met. "The other benefit of this holistic approach is a more efficient use of resources that we can redirect toward instructional-based services and programs, a more direct benefit to students," Michael Bettersworth, the systems vice chancellor and chief policy officer, said.

The formula also prompted a major restructuring at TSTC in the creation of the Integrated Marketing Division. This division provides coordinated and targeted supports to students through their entire TSTC experience, from recruitment to placement in a job. "There is now a purposeful focus on how we get students into our programs and get them out, into good paying jobs," noted Edgar Padilla, Senior Executive Director, Industry Relations and Talent Management.^{xiv} Students are being advised more carefully about job options, potential salaries and workplace conditions. Advisors dealing with undecided students are more frequently using assessment tests to measure their interests and skills. "We want to be sure that students aren't constantly switching majors," Reeser said. "That is all on our dime, so to speak."^{xv}

Aligning program offerings and design with industry needs

The sense of urgency created by the funding formula has also reinforced a more intentional partnership with industry, ensuring that TSTC is aligning its program offerings with industry needs and helping to create a supply chain of talent leading directly to jobs.

Deciding which programs to expand and where to curtail enrollment is done through very intentional and personal relationships with industry leaders, as well as the use of workforce analytics such as real-time labor market outcomes. All programs are examined against industry need, allowing TSTC to make informed decisions about programming across the system.

Padilla notes that the focus on employer needs was always present but did not drive decisions. Now the attention is on how to reach and market programs, how to best articulate the value of a technical education, and how to close the skills gap between students and job prerequisites. The use of data analytics is not the only way TSTC analyzes market needs. The system has worked to build strategic partnerships with major industries across the state to better understand specific needs and interpret those needs into programmatic decisions and ultimately student recruitment and advising.

The funding formula, like any formula, drives behavior, Reeser said.^{xvi} For example, if salaries from graduates of a specific program are modest and not increasing substantially, he said, "We would say

'let's see how we can get salaries up. Let's talk with your employers to see if you are teaching the right skills. Do your graduates have the skills employers are really targeting? Should your program be bigger? Should it be smaller? Should we be splitting your program in two?'"

.....
The funding formula,
like any formula,
drives behavior
.....

One Texas employer who works closely with TSTC and employs many of its graduates is Irving, Texas-based Shermco Industries. The company's CEO, Ron Widup, said the new funding formula forces the colleges to prioritize the needs of employers. "Not that they weren't responsive before," he said, "but now they need to listen to us, and hear what we need. Their success is based on that."^{xvii} Shermco works with utility companies to install, test and maintain high-voltage electrical systems. The company has 1,100 employees in the United States and Canada. Much of the work is field-based, working on equipment outdoors and sometimes in remote locations. Widup says he depends on TSTC graduates to do the "hands-on jobs, solving problems in the field." He is constantly recruiting students. The jobs pay well. A new hire can earn a base salary of \$50,000-\$60,000 a year, rising to at least \$70,000 with overtime pay. "In a few years, that person will make six figures," he said.

When it comes to program design, TSTC has many options, including limiting enrollment or "de-activating" programs, if industry demand for graduates or student interest in a program declines. While no programs have been suspended since the new funding formula took effect, enrollment in various programs has shifted in response to market demand. A recent example is the wind turbine industry. TSTC noticed a decline in the number of wind turbines being sited and capped enrollment in related courses in response to this softening demand. Conversely, when a booming oil industry created demand for workers to rebuild tools used in oil patches, TSTC developed and implemented a program to provide students skills to fill this need in partnership with industry. With the recent change in the economic climate for oil and gasoline, however, TSTC is not enrolling any new students in this program, because the jobs will not be there for those students upon graduation. Employment outcomes were always a part of TSTC's culture, but the financial incentive was not as explicit as it is under the new formula, Bettersworth noted.^{xviii} Instead of directing students into a program in a field that was likely to have reduced job opportunities, TSTC can now advise students into programs with both aligned skill sets and increased job demand. The system also has declined to create some programs, including an early childhood development program, because the resulting jobs would be low-paying and not aligned with the economic-development mission of the system.

The funding formula also reinforces efforts to better align program design across multiple programs to better enable student skills can transfer to other, higher demand fields when needed. In addition, the financial incentive to produce successful employment outcomes for students is prompting TSTC to move toward competency-based education more quickly.³ To ensure that program offerings are consistent across the system, TSTC is working to realign the curriculum to ensure that all 11 campuses are teaching competencies in the same way and giving similar information to incoming students about potential careers.

³Competency-based degree programs focus more on what students learn, rather than where or how long the learning takes place. Instead of evaluating student progress on the amount of time spent in a classroom (using the credit hour, which is the default standard for measuring progress), students receive college credit based on their actual demonstration of skills learned. <http://cael.org/what-we-do/competency-based-education>.

In line with the objectives of the new funding formula, competency-based models will enable TSTC to keep program curricula up-to-date faster than ever, more effectively build upon and advance the skills students already have, and get students successfully placed. Such models represent a dramatic change in how TSTC approaches the hiring pipeline, enabling TSTC to look at required skill sets across similar programs or industry needs. The decisions become not just about aligning target occupations but getting better at aligning skills and competencies—ultimately resulting in further flexibility to place students. “The contact hour model was very rigid,” Bettersworth noted. “Shifting toward competencies allows us to more quickly reshuffle which courses are available based on skills needed in the market while still meeting students interests and needs.”

.....

Competency-based models will enable TSTC to keep program curricula up-to-date faster than ever, more effectively build upon and advance the skills students already have, and get students successfully placed.

.....

Student placement

The efforts at TSTC extend beyond program mix and design. Campus career fairs now target specific industries that are actively hiring and that have the most attractive pay packages. “In doing so, we are helping our students to maximize their earnings,” Padilla said. To gauge hiring and income potential, the system employs a variety of approaches, including the analysis of job listings, wage data from state unemployment-insurance databases and expertise from advisory boards. The system maintains an advisory board for each of the programs that it offers.

As the analysis of the funding formula and student placement outcomes unfolded, TSTC identified another priority. Because the formula analyzes student-earning outcomes five years after students leave TSTC, the system needs to know where students are after they graduate. There had always been a placement survey, but its methodology was largely antiquated. Now TSTC needs to be able to triage former students and graduates that are not placed in a job and change that outcome. In response to this noted need, TSTC spent time building engagement channels for the career services department to connect with industry and a more proactive follow-up protocol with students to transition them smoothly into the workforce. “It’s another reflection of the sense of urgency created by the funding incentive. The past year has been spent ensuring all of our practices, from first contact with students to job placement and beyond, are deliberate, proactive and standardized,” Padilla said.^{xix}

The system aims to continuously and strategically respond to the needs of industry and the desires of potential students. When beginning to investigate the current funding formula, system leaders said they considered the impact it might have on different groups of students, such as underrepresented and first-generation college students, but decided such impact wasn’t a factor in how programs would be created or suspended. “By law, we are an open-access institution,” Reeser said.^{xx} “We have to take anyone who comes to us who graduated from high school or has an equivalency. We don’t think this changes who we are.”

Better Data Sources Open a New Wave of State Funding Formulas

For much of the latter half of the 20th century, states primarily have allocated appropriations based on an institution's enrollment. By doing so, states rewarded institutions for increasing access to more state residents. Such a formula also seemed fair: the more students that institutions enrolled, the more it cost them to educate the students, so the more state dollars they would receive. But enrolling more students was not a predictor of ultimate success, and as higher education enrollment grew in the last several decades, state lawmakers started to wonder what their money was buying them, particularly when faced with tighter budgets and statistics showing how few students eventually graduated.

.....
Enrolling more students was not a predictor of ultimate success, and as higher education enrollment grew in the last several decades, state lawmakers started to wonder what their money was buying them.
.....

Performance-based funding got its start in Tennessee in the late 1970s. The first wave of these funding formulas typically consisted of small incentives to encourage colleges and universities to improve their graduation rates. Most of the early performance-funding pilots were small and rudimentary. They were bonus pools that awarded one to five percent of funding based on performance, and they often didn't differentiate between institutions based on mission or the types of students they enrolled. The performance-based systems were focused heavily on degree completion, and didn't offer enough money to give colleges any real incentive to improve. Because of their size and how they were structured, these early attempts at performance-based funding generally rewarded institutions that were already strong, rather than changed the behavior at poorly performing institutions. Further, states did not commit to the financing systems for the long run. Of the 26 states that adopted performance-based funding between 1979 and 2007, 14 scrapped the idea (although two states eventually re-established systems later on).^{xxi} "The biggest killer is a recession," Thomas L. Harnisch, assistant director of state relations and policy analysis at the American Association of State Colleges and Universities, said.^{xxii} "Higher education is the first thing to be cut in a recession, and the bonus pool for performance-based funding is often the first thing on that list."

A second wave of performance-based funding systems developed around 2010. Those funding strategies—in Ohio, Indiana and a new approach in Tennessee, among others—were more flexible than their predecessors. These models, often referred to as outcomes-based funding, have a more explicit connection to states' higher education completion and attainment needs and commonly include measures such as course and degree completion.^{4xxiii} These models also display more refined

⁴"Performance funding" refers to a broad set of policies linking allocation of resources to accomplishment of certain desired objectives. Historically, postsecondary performance funding models were often add-ons or bonuses to base institutional allocations that institutions earned for meeting various goals or benchmarks. Additionally, many of these earlier models included measures focused more on inputs or processes than student progression and outcomes and were not intended to drive increased student completion. Today's outcomes-based funding models similarly seek to motivate and reward progress toward a set of stated goals, but have a direct link to the state's higher-education attainment needs and place primary emphasis on student completion and on narrowing attainment gaps across racial, ethnic, and socioeconomic groups, though they often include measures beyond student progression and completion. Advanced outcomes-based funding models also determine how a significant portion of the state's general budget allocation to institutions is determined (Driving Better Outcomes, HCM Strategists, 2015).

design and implementation features relative to earlier rounds of performance funding, such as weighting various measures differently based on an institution's mission and creating incentives for the success of certain underserved student populations. And the financial formulas are often integrated into the base budgets for colleges and universities, rather than an add-on to spending plans still linked to enrollment.

While these outcomes-based funding models are more explicitly linked to student completion and success, they remain limited in the inclusion of post-graduate outcomes, such as job placement. However, as better data related to higher-education outcomes, including employment and earnings, become more widely available, states are seeking ways to include them in funding models. "Better data make funding systems more fair," Harnish said, "so more people become interested in them." Seven states use employment metrics in some way when awarding appropriations, although in only two (Texas and Wisconsin) are they mandatory, according to the National Governors Association. The biggest problem remains the large gaps in the employment information available in the states. For example, not all states link their data on college graduates and earnings. Salary information comes from unemployment-insurance databases, but does not include graduates who work out of state, for the federal government or who are self-employed. While 36 states have agreed to share their employment databases through the U.S. Department of Labor's Wage Records Interchange System, the exchange is voluntary, and the records contain the same issues as if they were released in-state. Finally, the databases display employers but not occupations of individuals. As a result, they give little insight into whether graduates are employed in the fields for which they were trained. Many of those issues are apparent in the TSTC funding calculation, and those lapses in information have fueled concern with the funding formula.

Filling those gaps in employment data within states and between states remains a major hurdle for more widely using employment outcomes as a measure in outcome-based formulas. But without using graduate earnings in measuring institutional performance, states have no incentive to improve their data collection or share information between states, Schneider, the vice

.....
Filling those gaps in employment data within states and between states remains a major hurdle for more widely using employment outcomes as a measure in outcome-based formulas.
.....

president at the American Institutes for Research, maintains.^{xxiv} The ongoing national discussion of how to properly track college completion, for example, only came after graduation rates were used in funding formulas, and several years after those mechanisms were put in place and seen as inadequate because of how the federal government measures completion. "We've been focused on employment outcomes for only a few years," Schneider said.^{xxv} "If you don't use it, it doesn't get any better. We actually need more experience with this, and the only way we're going to get more experience is by using it." Schneider is working with three states—Colorado, Tennessee and Minnesota—to extract records from the Social Security Administration using IRS data, which cover more people than other national sources of data and cross state lines. "They are willing to run the data," he said, "but whether that happens is still a question. The politics of this are intense."

Indeed, state higher-education officials, even in Texas, wonder how applicable their system is in other states. Raymond A. Paredes, the Texas commissioner of higher education, says the TSTC

formula “represents a particular situation, but not a unique situation.” Employment outcomes as one of several measures in a performance formula is appropriate, but not the only measure unless it’s for an institution much like TSTC.^{xxvi} “I agree with the argument that universities don’t exist exclusively to train people for the workforce,” Paredes said. Elsewhere, higher-education officials worry about linking their success to something that is in some ways out of their control: the economy. When designing a formula, it is important that it be well-balanced, so that no one measure has an outsized influence, Richard Rhoda, executive director of the Tennessee Higher Education Commission, said. Tennessee considers 10 different measures for its funding formula for four-year universities and 11 for the state’s community colleges. It also revisits the provisions of the formula every few years.

As noted earlier, the advancement of data systems and analytics is an important factor not just for states, but also for institutions to understand their outcomes and guide programmatic decisions. Traditional sources of labor market data from state and federal agencies provide states and institutions with broad measures of information. However, these data sources are limited in their usefulness for guiding program development or curriculum improvement.^{xxvii} TSTC has taken steps to leverage more advanced and real-time labor market indicators and data analytic tools to help guide programmatic decisions and better advise students to make more informed choices about which area of study to pursue. The use of these types of data analytics, while not replacing the tried and true method of personal relationships with employers and industry, enhances TSTC’s ability to target specific areas of focus and better understand changing market demographics. The value-added funding formula only reinforces this increased focus on analytics and student outcomes.

Conclusion

The TSTC system has received considerable attention for its value-added accountability funding formula in recent months, with articles in major national publications and panels at higher-education conferences. The approach is novel, even for a college system that was already intensely focused on improving the state’s workforce. Reeser said that while this funding plan works for his college system, it is not appropriate for all colleges.^{xxviii} “Legislators say to me all the time, ‘I can’t wait to take your approach and apply it to the University of Texas, for example,’” he said. “I then underscore the importance of first considering the foundational intentions of each institution and then designing a model that best supports those goals.” While a sole focus on employment is not appropriate for other kinds of institutions, it is arguably important for all institutions. The TSTC system shows it is technically feasible to develop the indicators and incentives that can be incorporated into other OBF approaches.

The effect of the formula also goes beyond dollars and cents. For one, the Texas system showcases the shortcomings of wage and employment data in the states and at the federal level. Without trying to use the data to make decisions about appropriations, there is no incentive to improve data and measurement over the long run. Some two decades after federal lawmakers first mandated the measurement of graduation rates, only now are there serious discussions about how to improve the data—and that comes after a handful of states have used graduation rates for years as a key

component of performance-based funding formulas. Using the employment data in such formulas will prompt important discussions about future improvements in the collection and display of statistics about earnings of college graduates.

The fact that TSTC system leaders didn't immediately dismiss the idea outright also makes the policy unique.

Rather, they were pioneers in the state and, as a result, were able to work with many constituencies to help design a system over several years. Reeser believes that the system has scored important political points that can prove beneficial down the line if budgets get tight, because his formula directly measures the increased value of its graduates. Paredes, the Texas commissioner of higher education, agrees. "Legislators like the idea of funding institutions based on results, and the TSTC system was the only one walking around the Capitol saying they support the idea and they want to be held 100 percent accountable for results," Paredes said.^{xxix} "Forget the particulars of the funding formula for a minute. The fact that the system was a partner rather than an adversary is an important lesson for college leaders everywhere. Lawmakers are tired of hearing excuses."

Some observers of the value-added funding formula fear that it will give the system incentives to eliminate programs that do not consistently produce graduates who go into lucrative professions. System leaders say they are aware of the potentially perverse incentives that the funding formula establishes. They say evaluation of programs depends on more than how it is affecting the funding formula, but the potential income of graduates is unapologetically a factor. "It all goes back to our mission," Eliska Smith, a TSTC provost, said.^{xxx} "If there isn't a high demand and high wages, we shouldn't be doing it."

For the most part, there has been little pushback from faculty members. There are faculty senates on the technical college system campuses that have a statutory role in college governance. However, the system does not have tenure, and, like staff and administrators, faculty members are on one-year contracts. Alejandro Alcoser, the chairman of the Computer System Management Technology department on the system's campus in Harlingen, said^{xxxi} that at a department meeting earlier this year, one faculty member "expressed concern that we would be watering down the curriculum to pass more students. I reassured him we would be making it even more robust than it is so we can produce an even better graduate." Alcoser, who has been with the college system for 20 years, said, "Like anything else, when change is coming, people get concerned." He said all of his faculty are "now really on board with this."

Some two decades after federal lawmakers first mandated the measurement of graduation rates, only now are there serious discussions about how to improve the data—and that comes after a handful of states have used graduation rates for years as a key component of performance-based funding formulas.

The fact that the system was a partner rather than an adversary is an important lesson for college leaders everywhere. Lawmakers are tired of hearing excuses.

Author Bios

Jeffrey J. Selingo

Jeffrey Selingo has written about higher education for two decades. He is a regular contributor to the Washington Post and is author of three books, *College (Un)Bound*, *MOOC U*, and *There Is Life After College*. He is the former editor of the Chronicle of Higher Education. His writing has been featured in the New York Times and Slate, and he has appeared on ABC, CNN, PBS, and NPR. He is a senior advisor and professor of practice at Arizona State University and a visiting scholar at the Center for 21st Century Universities at the Georgia Institute of Technology.

Martin Van Der Werf

Martin Van Der Werf is Managing Director at Georgetown University Center on Education and the Workforce. He has extensive experience researching and writing about higher education, the issues facing the industry, and the changing learning and technology models that are helping to transform it. Marty is a former reporter and editor at The Chronicle of Higher Education, where he was responsible for all coverage of the business and financial management of colleges and universities. Marty is also a freelance writer who has written for Lumina Foundation, the non-profit Ithaka, and other organizations. In fall 2014, he wrote *The Ed Tech Revolution is about to Become the Learner Revolution*, a report on new trends in technology and learning, for Education Design Lab, a Washington-based non-profit.

References

- i D. Branch, personal communication, December 2, 2014.
- ii Texas Higher Education Coordinating Board, "A Feasibility Study: Texas State Technical College System Proposal Returned Value Funding Methodology." August 2010, <http://www.theccb.state.tx.us/files/dmfile/ivefeasibilitystudyreport.pdf>
- iii D. Branch, personal communication, December 2, 2014.
- iv M. Reeser, personal communication, November 24, 2014.
- v M. Schneider, personal communication, November 20, 2014.
- vi Texas Higher Education Coordinating Board, "Texas Technical College System Returned Value Funding Model," July 2013, <http://www.theccb.state.tx.us/reports/pdf/3207.pdf>
- vii M. Reeser, personal communication, November 24, 2014.
- viii J. Hoekstra, personal communication, December 2, 2014.
- ix M. Reeser, personal communication, November 24, 2014.
- x M. Reeser, *ibid.*

- xi J. Hoekstra, personal communication, December 2, 2014.
- xii Texas Legislative Budget Board, HB 1 General Appropriations Bill, 2016-17 Biennium, Conference Committee Report, http://www.lbb.state.tx.us/Documents/Budget/Session_Code_84/HB1-Conference_Committee_Report_84.pdf
- xiii G. Hendricks, personal communication, September 16, 2015.
- xiv E. Padilla, Personal Communication, September 24, 2015.
- xv M. Reeser, personal communication, November 24, 2014.
- xvi M. Reeser, *ibid.*
- xvii R. Widup, personal communication, December 9, 2014.
- xviii M. Bettersworth, personal communication, September 16, 2015.
- xix E. Padilla, personal communication, September 24, 2015.
- xx M. Reeser, personal communication, November 24, 2014.
- xxi Harnisch, T. "Performance-based Funding: A Re-emerging Trend in Public Higher Education Finance." American Association of State Colleges and Universities, Higher Education Issue Brief, June 2011.
- xxii T. Harnisch, personal communication, December 10, 2014.
- xxiii Snyder, M., "Driving Better Outcomes: Typology and Principles to Inform Outcomes-Based Funding Models," HCM Strategists, 2015, <http://hcmstrategists.com/drivingoutcomes/wp-content/themes/hcm/pdf/Driving%20Outcomes.pdf>
- xxiv M. Schneider, personal communication, November 20, 2014.
- xxv M. Schneider, *ibid.*
- xxvi R. Paredes, personal communication, November 13, 2014.
- xxvii Dorrer, John. "Using Real-Time Labor Market Information to Achieve Better Labor Market Outcomes." Lumina Foundation (forthcoming).
- xxviii M. Reeser, personal communication, November 24, 2014.
- xxix R. Paredes, personal communication, November 13, 2014.
- xxx E. Smith, personal communication, December 10, 2014.
- xxxi A. Alcoser, personal communication, December 2, 2014.