



6

GOING ALL IN

LINKING FUNDING TO OUTCOMES AT TEXAS STATE TECHNICAL COLLEGE

/ MICHAEL REESER /

For decades, Texas State Technical College (TSTC) was like most higher education institutions in America. The level of our public support was based upon the Carnegie Unit, more commonly known today as the “credit hour” or “contact hour.” In practice, that meant that our financial well-being was driven by our class enrollment on the official Census Day of each academic term. Why? Not because enrollment on that day predicted course completion or graduation or employment success for our students. But simply because

Texas calculated funding allocations for higher education institutions based upon this single metric.

Since our fiscal viability depended on public funding, the entire college mustered extraordinary effort every term to maximize our enrollment number by the Census Day. The fact that financial frameworks drive institutional focus should surprise no one, but it frustrated our leadership team to see so much energy devoted to a metric that is so far removed from the true benefit the college provides to students and the Texas economy.

When I was appointed chancellor and CEO of TSTC in 2010, my predecessor had recently engaged in a dialogue with key members of the Texas Legislature regarding performance-based funding. At that time, more and more states were pivoting from funding formulas driven by access and enrollment to formulas that rewarded outcomes-based measures such as credit completion, persistence, and graduation rate.

We could see that these new outcomes may be the right ones for certain types of higher education institutions, but they struck us as still too far removed from our vision as a workforce college: *“TSTC will be a leader in strengthening the competitiveness of Texas business and industry by building the state’s capacity to develop the highest quality workforce.”* For more than five decades across our 10 campuses and 9,000 students, our singular objective has been training and placing a skilled workforce with Texas employers.

Our team was eager to partner with the Texas Legislature to develop a funding formula that aligned our public funding with the achievement of our mission. The process



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of developing such a new approach took several years and required contributions from many. A review of that process may be helpful to others who wish to follow our example.

A pilot study conducted in 2009 supported the viability of a new method of outcomes-based funding. It demonstrated that TSTC graduates of associate and certificate programs had generated \$2.4 billion in lifetime tax revenue (~\$10,723 per graduate). Indeed, this study led Rep. Dan Branch, then chairman of the House Higher Education Committee, to conclude, “What was clear from the report was that technical graduates contribute to the state economy. But we needed more of them ... and without incentives, that just wasn’t going to happen.”¹

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¹ Jeffrey J. Selingo and Martin Van Der Werf, *Linking Appropriations for the Texas State Technical College System to Student Employment Outcomes* (Lumina Foundation, March 2016), www.luminafoundation.org/files/resources/linking-appropriations-to-outcomes-tx-1.pdf.

AN UNPRECEDENTED APPROACH TO FUNDING TECHNICAL EDUCATION

This effort began in a 2007 Texas Senate Finance Committee hearing when Sen. Steve Ogden, then chairman of the committee, asked each college and university leader how they felt about outcomes funding.

Most responses were a version of, “We think it’s a great idea!” So, too, was TSTC’s response.

The chairman continued, “How much of your funding are you willing to make contingent upon outcomes?”

Enthusiasm waned. Most answers amounted to “a small amount” or “none at all.”

When asked how much TSTC would be willing to make contingent upon outcomes, the response came without hesitation:

“One hundred percent.”

In fact, this response was so bold and unprecedented that the legislators expressed concern about the financial viability of the college. But TSTC was resolute. After all, we had a half-century of experience in putting people to work. Plus, we were confident in our ability to make the necessary operational pivots to protect, if not improve, our financial well-being under this new system.

Moreover, it was no coincidence that during this same period, for-profit career colleges across the country were coming under fire for spotty records in the employability of their students. So, TSTC found it irresistible to grab the opportunity to bet our funding on our historically strong record of student success in the workplace, thus differentiating ourselves from the for-profit institutions.

Though a funding formula is about money, we knew the biggest hurdle in this new method was the cultural shift that would be needed within the college to pivot our primary focus from maximizing inputs to maximizing outputs. So, going all in with an outcomes-based funding method was the best way to clear this hurdle. Accordingly, we resisted suggestions for splitting the funding formula between enrollment and employment outcomes. TSTC was convinced that an approach that split the funding drivers would also split the operational imperatives within the college, thus jeopardizing the transformation. With that conviction, we advocated for all or nothing.

Through two years of collaboration among TSTC, the Legislative Budget Board, the Texas Workforce Commission (TWC), and the Ray Marshall Center at the University of Texas at Austin's Lyndon B. Johnson School of Public Affairs—and under the guiding leadership of the Texas Higher Education Coordinating Board (THECB)—we developed the first-in-the-nation “value-added accountability funding formula.” In 2013, the legislature adopted the model.



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THE MECHANICS OF THE VALUE-ADDED FUNDING FORMULA

The implementation of the new funding formula was enabled by the Automated Student and Adult Learner Follow-Up System² (ASALFS), authorized by the Texas Legislature in 2003. The system was designed to allow institutions to monitor student workforce outcomes while complying with Family Educational Rights and Privacy Act (FERPA) regulations.

The process to develop the ASALFS was not simple. The legal staff of the THECB determined that the TWC was not an approved educational entity under FERPA, and thus they would/could not share student data with the TWC. Prior to this ruling, the TWC had been conducting college and high school student follow-up based on unemployment insurance (UI) wage record linkages for many years, determining post-exit employment and continuing education outcomes. Citing FERPA, both the Texas Education Agency (TEA) and the THECB ceased to convey student-level data to the TWC. The major sticking point was the conveyance of student Social Security numbers that were necessary to facilitate the wage record linkage process. To overcome this data sharing impasse, the TWC agreed to send UI wage record data to the THECB every quarter. THECB staff then remove the Social Security numbers and replace them with a common student identifier that is also applied to higher education and secondary education completion records to conduct the data linkage exercise. With this new system in place, we could once again generate labor market outcomes data for Texas students.

² “Automated Student and Adult Learner Follow-Up System,” Texas Higher Education Data, accessed February 12, 2021, www.txhighereddata.org/reports/performance/ctcasalf/exitcohorts.

Per the new model, 100% of the formula-driven portion of the state funding allocation would be informed by the following process:

- 1. List of eligible students:** TSTC generates a list of all students who have completed at least 9 semester credit hours as part of a given cohort. This list includes graduates and students who departed without graduating. (It was important to us that all students—not only graduates—informed our funding to eliminate any perverse incentives to “counsel out” students who might not have a positive impact on our workforce data.)
- 2. Generation of workforce data:** Per the data sharing agreement detailed earlier, wage information is analyzed to determine annual wages over five years, adjusted for inflation. The TWC is typically able to match 75% to 80% of the names submitted by TSTC; the remainder are predominantly students who have moved out of state. Wages not reported to the TWC are also not captured.
- 3. Direct and indirect value-added calculation:** Direct and indirect value-added are calculated. Direct value-added is defined as the incremental state tax revenue attributable to former TSTC students’ jobs, calculated as 7% of the difference between a student’s annual wages and a base wage representing a full-time employee earning minimum wage. Indirect value is calculated as 1.5 times direct value.³
- 4. Addition of total value-added over five years:** Direct and indirect value-added are summed together for the five years following departure for all students by campus.

³ This multiplier was selected based on a 2011 U.S. Bureau of Economic Analysis study: Zoë O. Ambargis, Thomas McComb, and Carol A. Robbins, “Estimating the Local Economic Impacts of University Activity Using a Bill of Goods Approach” (BEA Working Papers 0074, Bureau of Economic Analysis).

5. Division between the state and TSTC: Value-added is divided 50-50 between the state and TSTC. TSTC’s share informs its total allocation.

6. Campus-specific calculation: A value-added score is calculated for each campus based upon the proportion of TSTC’s total value-add generated by students from that campus. This proportion then drives the proportion of total TSTC funding assigned to a given campus.

It is worth noting that Texas doesn’t use hard-coded funding formulas for higher education. Rather, the different institutional formulas are used to indicate pro rata share for each institution of the total amounts allocated to the entire higher education sector. However, a growing number of legislators have suggested that TSTC should become the exception to this since the TSTC formula is results-based and not activity-based. Their proposal would mean that TSTC’s funding becomes a fixed amount driven by the formula while other institutions receive their pro rata share from the total allocation for higher education.

THE NEW TSTC

As intended, the new funding formula has transformed the operations of TSTC. For example, decision-making at every level is now driven by the primary question, “How can we put more Texans to work in great paying jobs?” Faculty and administrators alike understand that TSTC students who do not work in well-paying jobs do not generate funding for the college. This new reality created new priorities and practices.

Academic programs have transformed into business units. We’ve built a culture of agile, data-driven analysis, and each business unit now tracks its performance in relation to our common objective using a real-time dashboard of



Each degree or certificate program that we offer is subject to the same standard: “Are you earning your keep?”

key performance indicators. Our new Business Intelligence unit guides the college in seeing the relationships among the skills requirements of the labor market, the learning outcomes contained in our various credentials, and the employment and wage outcomes of our students.

Each degree or certificate program that we offer is subject to the same standard: “Are you earning your keep?” Regularly, we consider diversification, yield, and market trends—and we sunset the bottom-ranked programs and reallocate the recovered resources to create programs that offer more promising career pathways for students. So far, 13 programs closed due to poor earnings and placement outcomes; these programs were in the areas of agriculture, computer maintenance, pharmacy tech, and dental assisting.

The act of closing a program is rare in higher education and certainly not without controversy. But an outcomes-based approach requires making these tough decisions. Phasing out one program while ramping up another is hard work. It can adversely impact enrollment. However, we decided that we would rather take a temporary reduction in enrollment than offer programs lacking a strong employment value for students.

As a result of the closure of those 13 programs, our enrollment dropped by 25%, from 12,000 to 9,000 students. This was a painful but necessary trade-off as we reallocated finite resources to more market-relevant offerings that would see greater student salaries and higher placement rates. In the

long run, enrollment will recover as the competitive value of these new offerings and delivery methods attract more students and employer partners.

The new formula required us to take a more active role in helping our alumni get jobs. No matter how well trained they are, they do not support our financial sustainability until they are employed. Below is a sampling of the new strategies we have implemented:

- **Money-Back Guarantee:** For select programs, students are eligible for a complete refund if they do not have a job within six months of graduation.⁴
- **Rapid Skills Training:** We launched 12 rapid upskilling and reskilling training programs with completion times in as few as seven weeks, with another dozen programs in the works.⁵
- **Bachelor’s+:** Instead of transferring students to a four-year institution, we partnered with flagship university Texas A&M to train undergraduate engineering students in critical workplace skills to boost their employment prospects.⁶

We also learned that a refresh of our product mix was needed. Under the census-based funding formula, our inherent financial incentive was to make every credential as long as possible. After all, more contact hours meant more funding. Today, our credential length is determined by the hiring preference of Texas employers. In a growing number of cases, shorter credentials with deeper specialization

⁴ “Money-Back Guarantee,” Texas State Technical College, accessed March 16, 2021, www.tstc.edu/about/moneybackguarantee.

⁵ “RISE—Rapid Industry Skills and Employability,” Texas State Technical College, accessed March 16, 2021, www.tstc.edu/programslist/rise.

⁶ “Bachelor’s+ Program,” Texas A&M Engineering Experiment Station, accessed March 16, 2021, <https://tees.tamu.edu/workforce-development/professional-education/bachelors-plus.html>.

were preferred over longer, generalized credentials, like associate degrees. So, our product mix has broadened, and the credential length has shortened. For example, a number of students are starting to opt for fast-to-work credentials that take a semester or less to complete.

EARLY METRICS

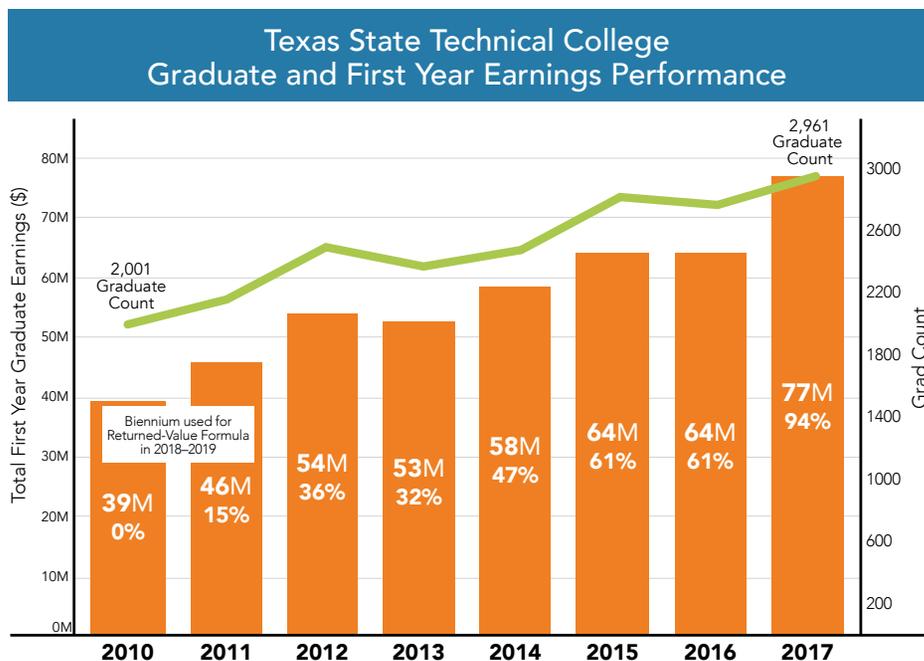
The early results indicate that we are moving in the right direction. Since implementing the new funding method, TSTC graduates have seen a 26% increase in starting wages (\$31,075 in 2009 to \$39,086 in 2017), and the number of students placed in jobs is up 65%, growing from 1,801 to 2,912 for the same period. Placing more students in higher paying jobs has generated a 117% increase in combined graduate earnings and a 45% increase in the administration and instruction formula funding (from the 2014/2015 biennium to the 2020/2021 biennium).

These impressive numbers are not the only benefits seen at the college. As the old saying goes, “Success begets success,” and that notion is at play in our college culture, too. As programs and employees see the growth in student placements and wages realized, their motivation to achieve better results grows. Programs have concluded that their future is determined by factors within their control. This empowerment has led to better faculty and staff engagement.

OVERCOMING STRUCTURAL BARRIERS AND INSTITUTIONAL RESISTANCE TO CHANGE

When we set out our vision, internal and external critics abounded. As TSTC Vice Chancellor Michael Betterworth reflects, “Our administrators are zealously entrepreneurial, and many bring business sector experience and recognition that successful operations must constantly change to stay relevant in evolving environments. That often means calculated risks aimed toward innovative change.” The following are critical challenges we encountered and how we have addressed those challenges.

1. It will be (almost) impossible to get the data you need. As discussed earlier, we were fortunate that the ASALFS was already instituted and enabled access to the necessary data. Without a UI wage record-based student follow-up system, the TSTC funding formula would not have been possible. Texas’ system was deemed to be fully FERPA-compliant and has been replicated by other states. Since the mid-2000s, the processes behind the ASALFS have become almost universal. Practically every state conducts some form of automated student follow-up using UI wage records. Some states, such as Alaska, Louisiana, Indiana, and Nebraska, have even experimented with augmenting state UI records to add variables, such as hours worked and job title, that are not



Data Source: CBM009, CBM00M, TWC UI Wage Records Data Parameters (4 Quarters Only)

Created By: Business Intelligence. Date Updated: 09/24/2020

Authors: Tina Skidmore, Stephanie Vestal, and Dave Huynh

currently included in the federal UI requirement. But, as with most data, the magic is less in the collection and more in the policy-focused application of the data.

2. Even with access to the data, there will be lots of holes, and proving causality will not be possible.

Even after surmounting the obstacles to data access, we found significant holes in the data, such as students who move out of state following graduation and high school students completing dual-credit enrollment. In addition, the data does not reflect whether a student is working in the field of study and cannot assess the extent to which the education received accounts for wages earned. In the absence of a better alternative, we accepted this inherent messiness. We accepted that 20% of our students would likely not be counted. A perfect system? Absolutely not. Overall, though, it achieves its objective: It captures the direction of change in the manner in which we contribute economic value to Texas.

3. But shouldn't higher education have a loftier mission?

It's not just about a paycheck! Detractors frequently argue that higher education should not just be about preparing workers. It should be about cultivating knowledge, developing critical thinking skills, conducting research, promoting the advancement of scholarship, and perhaps even helping students to discover themselves. We would argue that there is great diversity in types of higher education institutions. Would it make sense for a liberal arts college with tenured faculty and a deep commitment to academic freedom to receive funding solely based on workforce outcomes? Of course not. But scholarship appears nowhere in our mission or vision. We are a workforce college, and alignment between funding and mission is essential. So, we focus on maximizing student employability by providing fundamental academic

knowledge, world-class technical training, and critical workplace essentials such as problem solving, critical thinking, teamwork, and communication.

4. Long-time employees may struggle with the changes.

The swift, deep pivot profoundly changed the TSTC ethos. During the early years, some employees who had been with the college for decades expressed concern for the disruption of the TSTC they had come to know. The phases of mourning were common within the ranks. Moreover, many struggled with the new expectations, like higher levels of personal accountability. This discontent manifested in many ways. Turnover was higher, and morale dipped for a while. The keys to persevering through these challenges were immutable commitment of the board and administration and constant communication throughout the organization. The metaphor of "burning the boats" was a helpful one.



It is essential that an outcomes-based funding formula authentically follows the mission of the institution. Funding drivers bring intrinsic and powerful operational incentives.

THOUGHTS FOR OTHER INSTITUTIONS

This unique approach is ideal for TSTC but may be ill-suited for others. However, we imagine that our work may inspire new thinking at other higher education institutions and state governments. This final section contains some concepts that we have found helpful.

Pay for the outcomes that the institution is designed to achieve. It is essential that an outcomes-based funding formula

authentically follows the mission of the institution. Funding drivers bring intrinsic and powerful operational incentives. So, the fundamental intent must be to align funding in ways that would change the behavior of the institution toward the desired outcomes. There is no more important question than articulating, measuring, and paying based upon the outcomes that define success for a given entity.

TSTC's mission is placing skilled technicians with Texas employers. Our formula focuses solely on that. Other institutions may have a broader range of desired outcomes, so their approach should be appropriately broad. The missions of other higher education institutions vary greatly, and it would be a mismatch to establish a payment structure based on earnings if that is not a primary institutional goal. For example, a community college that aims to serve as a pathway to four-year institutions might want to tie payment to transfer rates.

Don't be tempted to iterate too quickly. We decided from the start that we would not make any changes in the formula method for the first five to eight years following implementation. From a change management perspective, a moving target is nearly impossible to hit. Though each legislative session brought additional elements that we wished were different, we believe it is important to hold steadfast to something before considering revisions.

Keep it simple. There is a natural push toward complexity to try to generate a measure that calculates payments in the most precise and nuanced way. Governments want to piece out the specific contributions of the institution, and institutions want to get credit for everything they do. Ultimately, there is nothing more complex than projecting economic and business fluctuations and accounting for human behavior—both of which can influence student placement rates, much of which is out of our direct control. We have no method to parse those earnings that are directly

attributable to our instruction, and there is no perfect instrument for measuring all post-exit earnings gains.

In our case, we also acknowledge limitations in our formula and measurement processes. For example, we recognize that more than 20% of our students are not counted. We recognize that employment rates and wages can fluctuate for economic reasons beyond our control. We recognize that we are getting credit (or blame) for students who may have transferred to other institutions after 9 credit hours. Nonetheless, as much as we love data, we have resisted all efforts to add in other outcomes or increase complexity in our measurement approach. As soon as we measure other things, institutional focus would be divided. We want all our business units to focus exclusively on one goal: Get as many students as possible in well-paying jobs. So, we chose to not let the perfect be the enemy of the good.

Even after we pass the initial five to eight year “freeze,” we will resist trying to complicate the model.

Consider unintended consequences. Performance-based funding can often lead institutions to focus on selecting the easiest-to-serve students. In addition, scholars have documented that it is possible for performance-based funding in higher education to trigger additional compliance costs, a narrowing mission, a reduction in investment in general education, restriction of admissions, weakening academic standards, and a diminished faculty voice in academic governance.⁷ We have kept our mission and enrollment criteria very broad and avoided any efforts to get better results by recruiting more advantaged students. Awareness of these potential unintended

⁷ Kevin J. Dougherty, Sosanya M. Jones, Hana Lahr, Rebecca S. Natow, Lara Pheatt, and Vikash Reddy, “Performance Funding for Higher Education: Forms, Origins, Impacts, and Futures,” *The Annals of the American Academy of Political and Social Science* 655, no. 1 (2014): 163–184.

consequences is helpful in mitigating their potential to derail the objectives.

Prepare for dissent, and make sure you have support from the top. It is inevitable that any leader undertaking this type of sweeping change will face vehement resistance. Therefore, it is necessary to ensure that the board and senior administrators are fully bought in and publicly and privately supportive. Without this type of steadfast backing, our leadership team would have been quickly unemployed, and TSTC would still be funded based upon enrollment, not outcomes.

Obtain and maintain legislative buy-in. From the beginning, the unconventional nature of the formula has proved challenging. It's so different; it requires a constant effort to inform, explain, and remind legislators about the mechanics of the formula. In particular, emphasis must stay on the fact that a performance-based formula works best when funding consistently follows the desired results. The 83rd Texas Legislature in 2015 was the first to fund TSTC based on the new formula. However, two years later, the formula faced its biggest legislative hurdle, one that threatened its stability and ultimate success. During an extremely difficult budget year, the legislature opted to disregard all higher education formulas and simply appropriate the same amount as the previous biennium. Because TSTC's performance metrics had shown dramatic growth, the formula indicated a large increase should have been appropriated to the college. By holding the appropriation level, the effect could have established a historically low and inaccurate benchmark for the formula in future years. TSTC and its champions, both in and out of the legislature, worked diligently to correct this. This collective effort proved successful in the 2019 legislative session. The formula's rates were restored, its integrity was honored, and TSTC received the largest funding increase in its history because it had produced a record level of results.



An outcomes-based funding mechanism serves students only if it leads the institution to use data in savvy new ways, create new student wraparound supports, and build a new performance culture.

As I write this, TSTC's brand has never been stronger in the legislature, and its performance-based formula is often held up as a model for the rest of higher education throughout Texas and beyond.

Go all in. Changing the incentive structure is just the start, and the institution must be prepared to transform how it does business. An outcomes-based funding mechanism serves students only if it leads the institution to use data in savvy new ways, create new student wraparound supports, and build a new performance culture.

THE FUTURE OF TSTC

We knew we would see big challenges when we committed to this novel path. After a decade of extraordinary changes, TSTC is better positioned now than ever before to strengthen the competitiveness of Texas business and industry by building the state's capacity to develop the highest quality workforce. We have established simple, stable, aligned goals and incentives. We have empowered management at all levels to implement innovative business practices. We have increased autonomy and accountability in decision-making.

With the enabling environment established, we are now

prepared to tackle a vast body of work that lies ahead, including transformations that would have been impossible under contact hours. Our conventional rhythm of three annual terms with time-bound classes and schedules will be replaced with competency-based pathways with multi-entry, multi-exit calendars; open labs; flipped classrooms; and “gamified” curricula. Our training environments will be structured in ways that are fashioned like the workplace, not the lecture hall. Soft skills embedded in the training curriculum and training labs will be taught and assessed. Business hours will expand to include nights and weekends and, as a result, nontraditional students will find a friendlier environment. So, too, will those who seek lifelong learning by “dropping in and out” of college whenever their career objectives evolve and new skills are needed.

Students will have payment flexibility, too. Conventional tuition-based plans will be joined by monthly-fee, all-you-can-study plans. Some programs may also offer income share agreement options to students who need to study now and pay later.

By doing these and other things, we plan to lead the nation in producing graduates who have the hard and soft skills necessary to build their careers within Texas’ hottest industries.



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This chapter came from the book *Workforce Realigned: How New Partnerships are Advancing Economic Mobility*.

Learn more at workforcerealigned.org