

**Senate Higher Education Committee
Interim Report**

January 2023

SENATOR BRANDON CREIGHTON, CHAIR
SENATOR ROYCE WEST, VICE CHAIR



SENATOR BRIAN BIRDWELL
SENATOR CESAR BLANCO
SENATOR BORIS L. MILES
SENATOR ANGELA PAXTON
SENATOR DREW SPRINGER
SENATOR LARRY TAYLOR
SENATOR JUDITH ZAFFIRINI

SENATE HIGHER EDUCATION COMMITTEE

January 10, 2023

The Honorable Dan Patrick
Lieutenant Governor of Texas
P.O. Box 12068
Austin, Texas 78711

Dear Lieutenant Governor Patrick:

The Senate Higher Education Committee hereby submits our interim report, including recommendations to the 88th Legislature.

The Committee met on May 10, 2022 to address four interim charges, as well as monitor two pieces of legislation. The Committee took testimony and considered guidance from higher education institutions, state agencies and other postsecondary stakeholders. This report reviews several topics, including enrollment trends, workforce education programs, research funding and an update on Senate Bill 1102 and House Bill 3767 from the 87th Legislature.

We appreciate your leadership and trust the recommendations in this report will help guide our discussions next session.

Respectfully submitted,

Handwritten signature of Brandon Creighton in cursive script.

Senator Brandon Creighton, Chair

Handwritten signature of Royce West in cursive script.

Senator Royce West, Vice Chair



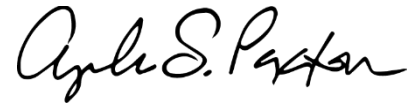
Senator Brian Birdwell



Senator César Blanco



Senator Borris L. Miles



Senator Angela Paxton



Senator Drew Springer



Senator Larry Taylor



Senator Judith Zaffirini

Acknowledgements

The Senate Higher Education Committee thanks the following for their assistance, advice, and support during and leading up to the interim hearing, as well as for their contributions in the writing of this report:

Texas Higher Education Coordinating Board
Texas Education Agency
Texas Workforce Commission
Texas Public Universities, Community Colleges, and Systems

Patsy Spaw, Secretary of the Senate
Marian K. Wallace, Deputy Chief of Staff, Lieutenant Governor's Office
Chris Duke, Education Policy Advisor, Lieutenant Governor's Office
Scott Caffey, Senate Committee Coordinator
Austin Osborn, Senate Sergeant-at-Arms
Senate Media
Texas Legislative Council
Senate Publications and Printing

The Committee would also like to extend appreciation to stakeholder groups and legislative staff for their involvement during the interim hearing and writing of this report.

Please direct any questions to:

Senator Brandon Creighton, Chair
Senate Higher Education Committee
P.O. Box 12068
Austin, TX 78711

Interim report developed by:

Abigail Johnston, Committee Clerk
Joel J. Resendez, Committee Director
Catherine Knepp, K-12 Education Committee Director

Table of Contents

I.	Introduction.....	pg. 1
II.	Charge One: Enrollment Trends	
	A. Testimony / Findings & Analysis.....	pg. 3
	B. Recommendations.....	pg. 12
III.	Charge Two: Workforce Education	
	A. Testimony / Findings & Analysis.....	pg. 13
	B. Recommendations.....	pg. 20
IV.	Charge Three: Teaching and Health Care Workforce Participation	
	A. Testimony / Findings & Analysis.....	pg. 21
	B. Recommendations.....	pg. 24
V.	Charge Four: Funding Permanent University Fund	
	A. Testimony / Findings & Analysis.....	pg. 25
	B. Recommendations.....	pg. 34
VI.	Charge Five: Monitoring	
	A. Testimony / Findings & Analysis.....	pg. 35
	B. Recommendations.....	pg. 40

Introduction

On April 4, 2022, Lieutenant Governor Dan Patrick issued the following interim charges to the Senate Higher Education Committee:

1. **Enrollment Trends:** Study the postsecondary enrollment trends across all sectors and levels of higher education in Texas, with a review on specific challenges to enrollment. Consider the impact the COVID-19 pandemic has had on direct high school-to-college enrollment, first-time college enrollment, transferability, and retention rates, as well as the overall impact on community college enrollment. Make recommendations on specific methods to address disparities and pandemic impacts relating to enrollment trends in order to achieve Texas' higher education goals in building a Talent Strong Texas.
2. **Workforce Education:** Evaluate state efforts to support access to work-based learning and microcredential opportunities, including apprenticeships, industry-based certificates and certifications, as well as competency-based education. Assess the potential benefits of expanding access to work-based learning, apprenticeships, microcredentials, and industry-based certifications that are aligned to workforce needs and provide in-demand workforce skills and competencies. Evaluate existing resources and programs at institutions, the Texas Higher Education Coordinating Board, the Texas Education Agency, and the Texas Workforce Commission to support these opportunities and ultimately reach Tri-Agency goals. Consider recommendations to standardize these programs in order increase postsecondary degree completions.
3. **Teaching and Health Care Workforce Participation:** Review financial aid and scholarship opportunities in Texas related to teaching, health care, and law enforcement, and examine methods to increase participation in these and other high-demand fields. In particular, study the participation rates of the Math and Science Scholars Loan Repayment Program, the Peace Officer Loan Repayment Program, and

the Nursing Corps Loan Repayment Program, and make recommendations on ways to increase participation rates in each area.

4. **Funding Permanent University Fund:** Review the history and use of the Permanent University Fund for the University of Texas at Austin and Texas A&M University, and explore the creation of a new legacy fund to address the needs of all other higher education institutions in Texas. Make recommendations on methods to streamline other existing research funds and finance research academic institutions in Texas.

5. **Monitoring:** Monitor the implementation of legislation addressed by the Senate Committee on Higher Education passed by the 87th Legislature, as well as relevant agencies and programs under the committee's jurisdiction. Specifically, make recommendations for any legislation needed to improve, enhance, or complete implementation of the following:
 - Senate Bill 1102, relating to the establishment of the Texas Reskilling and Upskilling through Education (TRUE) program to support workforce education;

 - Senate Bill 3767, relating to measures to support the alignment of education and workforce development in the state with workforce needs, including the establishment of the Tri-Agency Workforce Initiative.

Charge 1 - Enrollment Trends

Study the postsecondary enrollment trends across all sectors and levels of higher education in Texas, with a review on specific challenges to enrollment. Consider the impact the COVID-19 pandemic has had on direct high school-to-college enrollment, first-time college enrollment, transferability, and retention rates, as well as the overall impact on community college enrollment. Make recommendations on specific methods to address disparities and pandemic impacts relating to enrollment trends in order to achieve Texas' higher education goals in building a Talent Strong Texas.

Testimony

The Senate Higher Education Committee heard testimony regarding this charge on May 10, 2022. Invited testimony was presented by the following individuals:

- Dr. Harrison Keller, Commissioner, Texas Higher Education Coordinating Board
- Dr. Kenyatta Lovett, Managing Director of Higher Education, Educate Texas
- Dr. Mike Flores, Chancellor, Alamo Colleges District
- Dr. Tamara Clunis, Vice President for Academic Affairs, Amarillo College
- Dr. James Hurley, President, Tarleton State University
- Dr. Jaime Taylor, President, Lamar University

Findings & Analysis

Sector	2019 Enrollment	2020 Enrollment	Fall 2019 to Fall 2020 % Change	2021 Enrollment	Fall 2020 to Fall 2021 % Change	Fall 2019 to Fall 2021 % Change
Public Universities	657,985	667,046	1.4%	665,213	-0.3%	1.1%
Public Community Colleges	707,259	627,825	-11.2%	616,537	-1.8%	-12.8%
Public State and Technical Colleges	20,810	23,106	11.0%	25,818	11.7%	24.1%
Health-Related (all types)	29,735	30,528	2.7%	31,548	3.3%	6.1%
Independent Colleges and Univ	125,918	125,373	-0.4%	127,090	1.4%	0.9%
Total	1,541,707	1,473,878	-4.4%	1,466,206	-0.5%	-4.9%
<small>Source: CBM001, Accountability System</small>						

Figure 1.1 - Enrollment Trends at Texas institutions of higher education, Fall 2019 through Fall 2021.

Dr. Harrison Keller, Commissioner of the Texas Higher Education Coordinating Board (THECB), began his testimony by displaying the Fall 2021 enrollment trends—depicted in Figure 1.1—to convey where the state is at a year after the initial pandemic disruptions, as institutions begin to recover from its effects. Fall 2021 enrollments were up at health-related institutions, independent institutions, public universities and the Texas State Technical Colleges, however, overall higher education enrollment was down in Texas. This overarching trend was primarily due to the decline in enrollment at community colleges. According to Commissioner Keller, community college enrollment dropped by 11.2-percent between 2019 and 2020, then another 1.8-percent in Fall 2021. The latest data shows community colleges are down by about 12.8-percent since 2019— that equates to more than 90,000

students. State labor market data indicates that many of the students who have dropped out are opting to work instead.

Initially this might suggest strength in the economy. However, when students are abandoning their postsecondary endeavors and opting instead for jobs that have fewer opportunities for upward mobility, they become much more vulnerable to being displaced and unable to advance in their careers in the future. According to the Commissioner, over the last two years, more than 70-percent of unemployment claims processed by the Texas Workforce Commission (TWC) were from those who did not have any educational credentials beyond a high school degree. Only about 3-percent of those claims were from individuals with a bachelor's degree. These numbers suggest postsecondary students who consider dropping out entirely to enter the workforce would instead benefit more from simultaneously working and taking college courses— even if they are enrolled only part time.

Based on the preliminary 2022 data the Commissioner and the THECB have received from institutions, there does not appear to be a lot of improvement in postsecondary enrollment in Texas so far. Enrollment remained relatively flat for four-year institutions, while community colleges are down about 2.5-percent from last spring. This is not very surprising given the current strength of the Texas economy. Historically, community college enrollment trends have tracked with unemployment rates so as unemployment rates decrease, so does community college enrollment.

According to Commissioner Keller, both academic and workforce programs have been declining over the past decade at community colleges. The only net growth has been in dual credit programs. Key policy decisions that align incentives around dual credit have increased enrollment in the dual credit programs, but the state has not aligned those incentives around workforce education programs. Therefore, Texas has lost ground in workforce programs over the past decade.

Another point the Commissioner emphasized was that over the past couple decades, public two-year institutions enrolled the majority of higher education students in Texas, and the pandemic changed that. Beginning in Fall 2020, for the first time since 2000, public four-year universities make up the majority of postsecondary enrollments. Although the state's high school population is growing, the percentage of Texas high school graduates enrolling in Texas higher education has been declining over the past several years. The pandemic drove those direct-college enrollments down even further, to just under 45-percent of student enrollment in a Texas public institution in Fall 2020. If out-of-state enrollment were included, this data would look a lot more promising. However, it is ideal for the state to have more Texas students enroll in Texas higher education institutions, begin their careers in Texas, and therefore keep the talent in the State of Texas.

With these statistics in mind, the data Commissioner Keller presented next was even more troubling. About 17-percent of the 2019 top 10-percent high school graduates who applied to a Texas public university were not found enrolled in any Texas or out-of-state institution of higher education. Overall, the data shows there is a larger percentage of minority students who fall in this category, as indicated

in Figure 1.2. According to Commissioner Keller, this is something he and his team have been working closely on addressing. This includes creating new scholarship opportunities for high-achieving, low-income students.

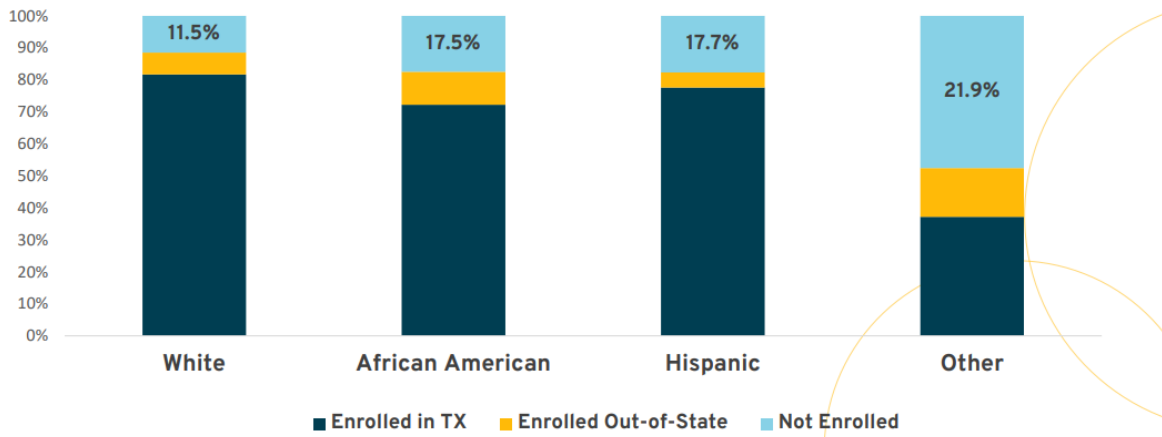


Figure 1.2 - College enrollment trends for students in Texas.

The Texas economy is currently accelerating faster than anyone expected, and therefore workforce needs are changing. The most recent estimates from the THECB indicate that by 2030, 62-percent of all jobs in Texas will require some postsecondary education— that is, some form of training beyond a high school diploma. The accelerating pace of change in the Texas economy through the pandemic made updating the state’s 60X30TX Higher Education Strategic Plan— which at the time of Commissioner Keller’s appointment was 60-percent of Texans ages 25 to 34 have a college credential by 2030— even more critical. The THECB— along with its non-profit partner, the Texas Higher Education Foundation— launched a project about 18 months prior to the hearing to review and update the state’s higher education goals to better reflect what Texas needs from its colleges and universities. This work was done alongside hundreds of stakeholders such as higher education leaders, employers and policymakers. Through this work, a clear vision has been made for how Texas can lead the nation and build an even better talent strong Texas, which is the namesake for this bold vision: ‘Building a Talent Strong Texas’.

This updated plan is not backing off of any of the initial goals in the plan, but instead raising the bar on those goals. The 60X30TX plan was adopted in 2015 and included ambitious goals for educational attainment, increasing completion of postsecondary credentials and reigning in student debt. However, according to Commissioner Keller, the plan did not make a very strong connection between postsecondary education, the Texas economy and its workforce. Therefore, Building a Talent Strong Texas is designed specifically to ensure Texas will be competitive in the global economy by 2030 and beyond. The updated plan includes new goals for educational attainment to include mid- and late-career workers, new focus on postsecondary credentials of value that align with workforce needs while keeping student debt low, as well as new goals for bolstering research and innovation.

The Commissioner went on to focus on the ‘postsecondary credentials of value’ piece of the updated plan. Postsecondary credentials of value focus on a positive return on investment, while accounting for cost earnings and debt. Texas is the first state to condition its goals for producing higher education credentials on the value of those credentials based on individual earnings. According to Commissioner Keller, Texas grew in population by nearly 4 million people over the past decade, with communities of color accounting for more than 95-percent of that growth. With that information in mind, Commissioner Keller emphasized that the ambitious goals this new plan proposes cannot be achieved without advancing equity and addressing some of the issues outlined previously with enrollment patterns.

The Governor’s Emergency Education Relief fund (GEER) has helped the Coordinating Board make strategic investments in financial aid, targeted grants to support reskilling and upskilling of displaced workers, support for transfer students and fund seed capital for the new Texas Leadership Scholars program– which is focused on high-achieving, low-income students.

Commissioner Keller concluded his remarks by acknowledging the scale of the challenges the State of Texas is facing– students, colleges and universities, employers and communities. With those challenges comes an opportunity for these stakeholders to work together to expand educational and economic opportunity across the state and accelerate the pace of innovation.

On the same panel, Dr. Kenyatta Lovett from Educate Texas spoke about high school to postsecondary enrollment. According to Dr. Lovett, students’ family income is correlated not only to college completion, but also access to and enrollment in postsecondary education. Low income students are typically not as successful at completing college programs, but COVID-19 demonstrated that it is not only financial hardships that contribute to the difficulty in getting those students connected to postsecondary education. Dr. Lovett went on to describe the concept of “summer melt”– which refers to the moment of doubt that coalesces during the time between when a high school student graduates and when they enroll in postsecondary education. Due to the effects of the COVID-19 pandemic, that summer melt period has been extended over the past two years and resulted in the enrollment declines Commissioner Keller described previously.

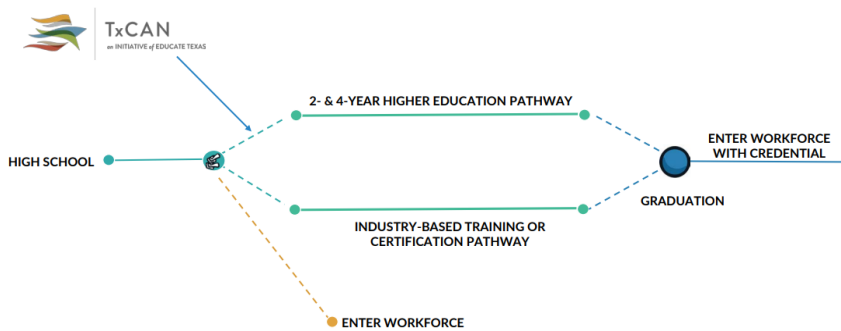


Figure 1.3 - Traditional student pathways

The ideal pathway for a high school student is to graduate, receive advising, enroll in postsecondary education, then graduate and get a job– as depicted in Figure 1.3. However, the pathway for many students is not linear and

includes stop-outs, such as to work or taking care of family. Dr. Lovett went on to describe the Texas College Access Network. The Network is made up of leaders from local areas and communities in Texas, focused on ensuring students have the support necessary to get into college. Many times, as Commissioner Keller mentioned, students are making the difficult choice between starting a career immediately or going to college. Unfortunately, more and more students are opting to work immediately after high school over enrolling in college for a myriad of reasons. According to Dr. Lovett, the state should begin thinking about ways apprenticeships and work-based learning opportunities can improve postsecondary enrollment and provide that demographic of students with the resources they need to help them be successful in college.

According to Dr. Lovett, through its work during the COVID-19 pandemic the Texas College Access Network (TxCAN) realized three things regarding the pathway depicted in Figure 1.3: 1) the challenges around enrollment existed prior to COVID-19, they were just magnified by it; 2) during the pandemic, there was no real connection for the more vulnerable demographic of students between graduating from high school and getting to college; and 3) the mission did not change, but an adjustment to the circumstances had to be made, as in-person interactions were not possible for students. Future Focused Texas was an initiative TxCAN used during the pandemic to leverage the power of counseling and advising experts to intervene, knowing there would be challenges regarding COVID-19 and enrollment across the state. Future Focused Texas was centered on three major things: 1) virtual engagement and how technology is used to engage students and keep them on the pipeline to getting into college; 2) virtual advising and how students are given the steps to get into college; and 3) development and capacity for counselors and how they are equipped with the knowledge of the myriad of postsecondary options students have today. More than 500 communities were engaged in the Future Focused Texas effort, and nearly 1,500 professionals were involved in supporting students to get them to college.

Dr. Lovett said this initiative has sparked a lot of energy and ideas on how the state can craft interventions to get beyond the 45-percent college-going rate— ideally increasing it to 75-percent. He concluded by noting the key best practices taken from the campaign that could help the state reach this goal: 1) continued alignment from the three agencies— Texas Education Agency, THECB, Texas Workforce Commission; 2) leaning into the work of HB 3 from the 86th Regular Session— particularly College, Career, and Military Readiness Bonus Funds— to support students; and 3) expanding engagement of employers and technology in efforts to increase successful postsecondary transition.

Senator Creighton brought up the point that the most successful business leaders in the country are touting that higher education is not necessary. He asked the panelists how the state is working to fight that narrative with the continued goal of 60-percent of the population obtaining a postsecondary credential by 2030. According to Commissioner Keller, THECB is standing up a project now to determine what the drivers are that keep students from enrolling in college— particularly perceptions first-generation students have. “My Texas Future” is an initiative THECB has developed with additional partners that will curate advising tools— including information on wage and job

opportunities. The idea is to somehow shift the narrative these business leaders are spreading. Instead of students hearing that postsecondary education is not necessary for everyone, perhaps students should be hearing that a ‘four-year degree’ is not necessary for everyone or that not everyone needs to enroll in college full time. Commissioner Keller emphasized that the data is absolutely clear— almost everyone is going to need credentials and training beyond high school in order to get a job and advance in their careers. Institutions need to have more flexible programs available to give students more options. The Coordinating Board is currently working with institutions, employers, and other partnerships to have a ‘both/and’ structure for students versus an ‘either/or’.

Senator Creighton proceeded to ask what the state should expect from the 2021-2022 school year extrapolated from current data. Commissioner Keller explained that universities are predicting higher enrollment. Some community colleges have been softening on their academic programs but increasing their workforce education programming. Therefore, the state may be seeing recovery on that side because people are reskilling and desiring those short-term programs. An urgent issue for the next session will be how to align incentives around workforce education.

Senator Miles asked if there has been any advancement in enrollment of minority communities. Commissioner Keller said THECB is working with an emerging research university to deploy what he referred to as a ‘Leadership Scholars’ program to award four-year scholarships to cover room and board costs. According to Commissioner Keller, this is a starting point, but he would like to come back to the legislature to further this process.

Senator Miles followed up by asking how the Coordinating Board works to address existing disparities among minority students. Commissioner Keller responded by highlighting a few key issues. The first is better identifying high potential students earlier in the pipeline and supporting those students. The second issue is advising to ensure support for students. Ideally, there needs to be a combination of well-trained advisors and technology-enabled resources such as texting with students to connect them with resources. The third key issue is policy innovations that ensure smooth transitions from high school to college. Finally, there is a need for strategic allocations of financial aid that are more predictable for students so they know their resources will be there for them. Many first-generation students think college is out of reach, so according to Commissioner Keller, there needs to be more predictable financial aid resources to support students all the way to graduation.

Senator Miles asked why university marketing departments are not being used to do more outreach in minority communities. Dr. Lovett responded by emphasizing that advising high school students in their junior year of high school is oftentimes too late. The conversation about going to college needs to start as early as sixth grade, particularly for students who may not otherwise consider postsecondary education, such as minority students. There should be a continuing conversation about post-graduation plans throughout high school and even beforehand.

Senator Paxton asked about the top 10-percent automatically-admitted students who are not engaging with higher education that Commissioner Keller mentioned in his testimony. Who are these students, and where are they going instead? According to Commissioner Keller, these students are disproportionately low-income students and students of color. The lack of enrollment for these students is both for Texas and those going out-of-state. Institutions from out-of-state recruit heavily in Texas, but there are more African American students in Texas choosing not to attend college at all than enrolling out-of-state. One of the good things about the inter-agency partnerships and partnerships between institutions is that THECB can now scale programs that will impact many more students.

Senator Springer asked what best practices community colleges are attempting in order to retain students. Commissioner Keller said a lot of the drop in community college enrollment has to do with what is happening in regional economies and what is happening with regards to population. Texas has added four million people in the last 10 years while half of the counties across the state have declining populations. Historically, individual colleges have been responsible for recruitment and outreach campaigns. For example, HoustonCommunity College has created coordinated marketing efforts that have much better effects. According to Commissioner Keller, the THECB will be rolling out a website called 'My Texas Future' to drive most traffic there for higher education inquiries. Senator Miles followed up by asking what types of institutions were hit the hardest during the pandemic. According to Commissioner Keller, it was the 'broad access' institutions, where many low-income Texans attend.

Following testimony from Commissioner Keller and Dr. Lovett, a panel of four institutions— a combination of four- and two-year colleges— were called up to give their perspective from the field. Two of the four invited institutions have seen overall enrollment increases since the COVID-19 pandemic. Each college provided an overview of the enrollment trends they have seen at their college over the past two years, and ways they have worked to mitigate negative or maintain positive trends.

Dr. Mike Flores, Chancellor of Alamo Colleges, began his testimony by citing enrollment trends Alamo Colleges has seen over the past three school years— 67,000 students in 2019, 68,000 in 2020 and 64,000 in 2021. Dual credit and continuing education students decreased most significantly at Alamo Colleges over the past two years. In Fall 2019, Alamo Colleges District and its partners began AlamoPromise— a program that ensures access to education for all local, eligible graduating seniors by providing for the cost of tuition and mandatory fees for up to three years.¹ According to Dr. Flores, AlamoPromise has increased the college-going rate of participating high schools from 42-percent to 46-percent, and each high school has increased college enrollment by 17-percent.

Dr. Flores also said Alamo Colleges aligned with House Bill 5, from the 83rd Legislature, through Alamo Institutes, developing over 1,500 career pathways and maps. They have connected each of their students with an academic advisor, with one advisor per 300 students (versus the national average of 1-to-900). Their average time to degree is a little under four years, with many of the students only

¹ [About AlamoPROMISE](#)

enrolling part time. All the interventions Dr. Flores spoke about are implemented at scale across all colleges in the Alamo College System.

Dr. Tamara Clunis, Vice President of Academic Affairs at Amarillo College, followed Dr. Flores on the panel. According to Dr. Clunis, Amarillo College has a clear focus on student success, retention and recruitment. Amarillo College never closed during the COVID-19 pandemic, instead focusing on providing resources for students. During the pandemic, Amarillo College experienced the lowest withdrawal rate in the college's history. College leadership had every employee making phone calls to ensure students' needs were met. To meet the needs of parents, Amarillo College used buildings on campus as ad-hoc childcare co-ops. Dr. Clunis said enrollment is down 2-percent from the start of the pandemic. The college is using alternative pipelines to recover lost enrollment, as well as offering 12-week credentials to those who wish to up-skill or re-skill.

Dr. James Hurley, President of Tarleton State University, said enrollment at his institution has increased over 7-percent since the start of the pandemic. Per affordability, the institution has invested three million dollars into Tarleton Promise— a grant that covers the remainder of a student's costs after his or her other scholarships and grants are applied.² Additionally, the reskilling grants were significant for Tarleton. Tarleton's retention rate in Fall 2021 was 67.95-percent, and at the time of the hearing, retention was trending at 74.51-percent. Dr. Hurley attributed this success to Senate Bill 1295, from the 87th Legislature, which provided funding for Comprehensive Regional Universities such as Tarleton State University. Dr. Hurley challenged the committee to consider base funding. Tarleton saw significant growth, but their overall funding went down due to the Legislature not funding enrollment growth the past several sessions. Due to this lack of funding increase, the institution also saw a decrease in funding for full-time employees. According to Dr. Hurley, Tarleton State University is projected to be the eighth fastest-growing regional institution in the country.

Dr. Jaime Taylor, President of Lamar University, completed the panel with an overview of the growth his institution saw over the past two years. According to Dr. Taylor, there are two aspects of what occurred at Lamar University before and after the COVID-19 pandemic. Prior to COVID-19, enrollment from 2014 to 2019 remained relatively flat, but saw a substantial 7-percent increase in Fall 2020. African American student enrollment increased 14-percent and Hispanic enrollment increased 16-percent during the disruption caused by the COVID-19 pandemic. Graduation numbers for African Americans increased by 16-percent and Hispanics by 34-percent. Lamar University also maintained a strong six-year graduation rate during the pandemic.

Dr. Taylor believes much of this success can be attributed to Lamar University's online infrastructure. Prior to the pandemic, Lamar had been making strong strides in freshman retention, with a 68-percent retention rate. During the pandemic, college leadership implemented a number of student support measures. Incoming freshmen in Fall 2020 were hit hard by not only the pandemic, but by hurricanes and the 2021 ice storm. Fall-to-fall freshman retention fell to 56-percent. This can be attributed to a

² [Financial Aid | Tarleton State University](#)

lack of engagement opportunities for that group of students during their first year of college. Overall, Lamar University offers innovative programs aligned with the economic drivers of Southeast Texas that have the ability to reach minority students.

Recommendations

1. Explore creating incentives for business and industry to provide apprenticeships and work-based learning opportunities to improve enrollment and provide the demographic of students who are more susceptible to drop out of school to work with the resources they need to complete a postsecondary credential.
2. Remove barriers to and increase support for wrap-around services (ongoing career advising, financial aid, child care assistance, career supports, etc.) for adult learner students to ensure their long-term completion and success.
3. Examine ways to increase partnerships between higher education institutions and school districts among counselors and academic advisors in order to provide better information for students.

Charge 2 – Workforce Education

Evaluate state efforts to support access to work-based learning and microcredential opportunities, including apprenticeships, industry-based certificates and certifications, as well as competency-based education. Assess the potential benefits of expanding access to work-based learning, apprenticeships, microcredentials, and industry-based certifications that are aligned to workforce needs and provide in-demand workforce skills and competencies. Evaluate existing resources and programs at institutions, the Texas Higher Education Coordinating Board, the Texas Education Agency, and the Texas Workforce Commission to support these opportunities and ultimately reach Tri-Agency goals. Consider recommendations to standardize these programs in order to increase postsecondary degree completions.

Testimony

The Senate Higher Education Committee heard testimony regarding this charge on May 10, 2022. Invited testimony was presented by the following individuals:

- Dr. Harrison Keller, Commissioner, Texas Higher Education Coordinating Board
- Mike Morath, Commissioner, Texas Education Agency
- Bryan Daniel, Chair, Texas Workforce Commission
- Mike Midgley, Vice Chancellor of Instruction, Austin Community College
- Mike Reeser, Chancellor & Chief Executive Officer, Texas State Technical College
- Dr. Ramanan Krishnamoorti, Chief Energy Officer, University of Houston
- Dr. John Hurtado, Interim Director, Texas A&M Engineering Experiment Station

Findings & Analysis

Mike Morath, Commissioner of the Texas Education Agency (TEA), opened the panel up with an overview of existing strong pathway programs at the K-12 level that best equip students for the workforce or further postsecondary credentialing. The three programs Commissioner Morath covered were: Industry-Based Certifications (IBCs), Career and Technical Education (CTE), College, Career and Military Readiness (CCMR) and the College and Career Readiness School Models (CCRSM).

Industry-Based Certifications

According to the TEA website, the purpose of IBCs is to identify pathways that best prepare students for success in whatever postsecondary path they choose: the workforce, the military or higher education.³ The certifications offered are currently organized in 14 ‘Career Clusters’ that contain 53 statewide and 8 regional ‘programs of study’. These programs of study address occupations that are high-wage, high-skill and in high demand. Students follow a specific sequence of courses throughout high school that lead to a Level 1 Certification in the selected program of study by their senior year.

³ [Industry-Based Certifications | Texas Education Agency](#)

Career and Technical Education

Career and Technical Education (CTE) programs offer students a sequence of courses with coherent and rigorous content that will best prepare them for a career in their chosen field of study.⁴ Beginning in the 2021-2022 school year, CTE allotment weights were adjusted for each full-time equivalent student enrolled in a CTE program of study to be based upon the level of program of study, applying to grades seven through twelve. The adjusted weights correspond as follows:

- Weight of 1.1 for CTE courses not in an approved program of study.
- Weight of 1.28 for levels one and two CTE courses in an approved program of study.
- Weight of 1.47 for levels three and four CTE courses in an approved program of study.

Career, College and Military Readiness Outcomes Bonuses

The College, Career, and Military Readiness Outcomes Bonuses (CCMR OB) were established with House Bill 3, by the 86th Legislature. Annually, an ISD receives additional funding for each graduate who demonstrates readiness for a career, college or the military above a certain threshold percentage. The allotment of money depends on the demographic of students. An ISD earns \$5,000 for each economically disadvantaged CCMR student who graduates above the first 11-percent of economically disadvantaged graduates and \$3,000 for each non-economically disadvantaged CCMR student who graduates above the first 24-percent of non-economically disadvantaged graduates. Additionally, an ISD earns \$2,000 for each CCMR graduate enrolled in special education.

	\$ / Award	School Year 2019-20 #	School Year 2019-20 \$	School Year 2020-21 #	School Year 2020-21 \$	School Year 2021-22 # (prelim)	School Year 2021-22 \$ (prelim)
Economically Disadvantaged Graduates	\$5,000	21,403	\$107,015,000	21,743	\$108,715,000	22,871	\$114,355,000
Non-Economically Disadvantaged Graduates	\$3,000	48,823	\$131,469,000	35,295	\$105,885,000	45,831	\$137,493,000
Special Education Graduates	\$2,000	869	\$1,738,000	881	\$1,762,000	865	\$1,730,000
Totals		66,095	\$240,222,000	57,919	\$216,362,000	66,095	\$253,578,000

Figure 2.1 - Cumulative College, Career & Military Readiness Outcomes Bonuses. At the time of the hearing, the current school year had not yet ended. According to available preliminary numbers for the 2021-22 school year, Texas school districts accumulated a total of \$253,578,000 in CCMR bonuses.

⁴ [Career and Technical Education | Texas Education Agency](#)

College and Career Readiness School Models

According to Commissioner Morath, the College and Career Readiness School Models (CCRSM) are innovative partnerships between a school district, community college and one or more local employers. CCRSM include: Early College High Schools (ECHS), Pathways in Technology Early College High Schools (P-TECHS), and Texas Science, Technology, Engineering and Mathematics (T-STEM).

Commissioner Morath gave the example of Weslaco ISD's CTE Early College High School, established in 2014, which offers students degrees in Precision Manufacturing, Diesel Mechanics and Welding. According to Morath, 71-percent of early-completion associate degrees are completed at ECHSs, as opposed to P-TECHS, T-STEMs, or through dual credit, which combined account for the remaining 29-percent.

Dr. Harrison Keller, Commissioner of the Texas Higher Education Coordinating Board (THECB), opened invited testimony on this charge with an overview of workforce programs offered at Texas higher education institutions (Figure 2.2).

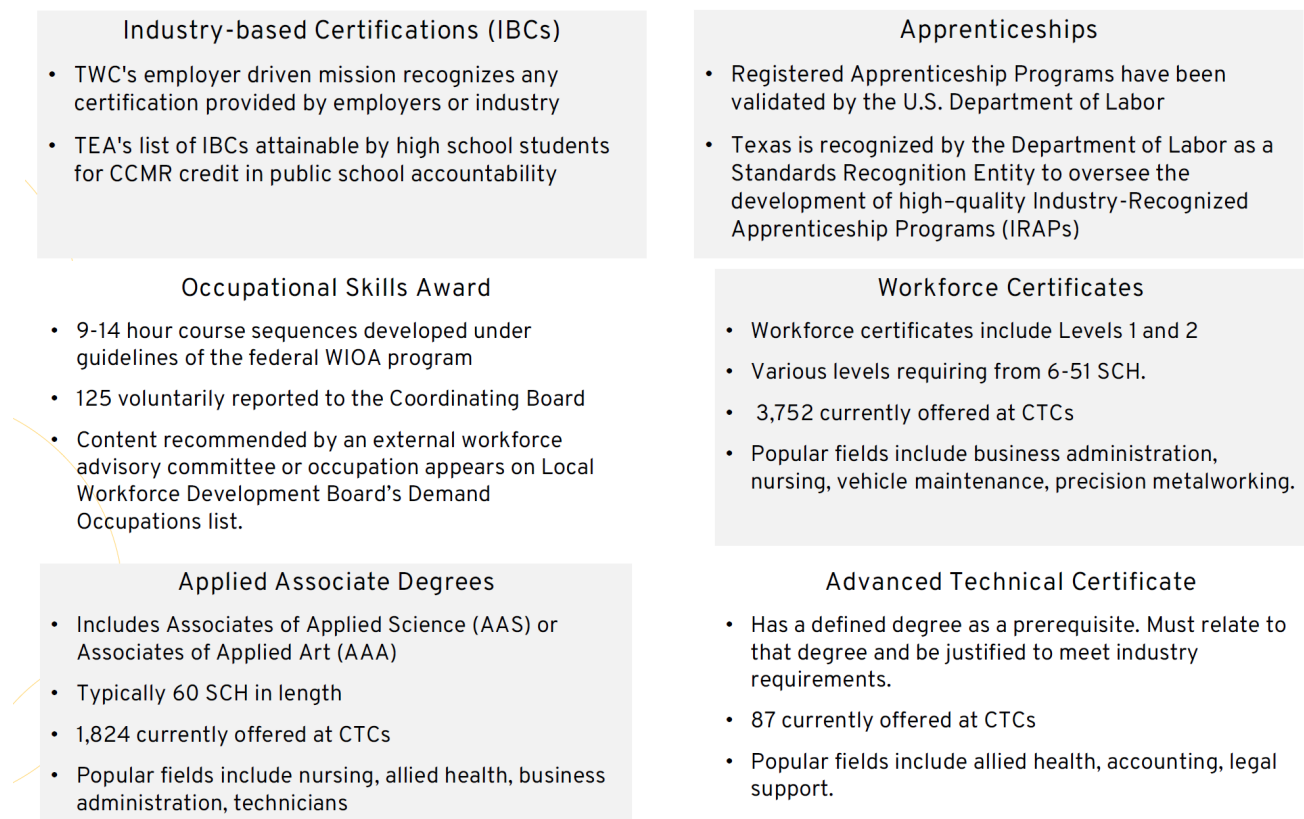


Figure 2.2 - Workforce credentials offered in Texas postsecondary institutions.

Workforce Education

Generally, workforce education, or non-credit, programs are developed by institutions in close cooperation with business and industry partners. A workforce education credential consists of a coherent sequence of courses designed to prepare students for employment in a given career field.

Over the past couple of years, through the Governor’s Emergency Education Relief (GEER) funds, THECB awarded grants to 10 consortia and 33 individual institutions to support the development or expansion of short-term, industry-recognized credentials that incorporate skills and knowledge required by high-demand careers.

Work-Based Learning

The Strengthening Career and Technical Education for the 21st Century (Perkins V) Act defines work-based learning as “sustained interactions with industry or community professionals in real workplace settings... that are aligned to curriculum and instruction.”⁵

In April 2022, THECB awarded \$4.8 million to 23 Texas public universities and colleges for work-based learning opportunity grants: Austin Community College, Dallas College, South Texas College, Tarleton State University, The University of Texas at Arlington, The University of Texas at Austin, The University of Texas at San Antonio, University of Houston-Clear Lake, University of North Texas, Texas A&M University-Corpus Christi, Palo Alto College, The University of Texas Permian Basin, The University of Texas at Tyler, Texas Woman’s University, Angelo State University, Texas Southmost College, Texas State Technical College, Blinn College District, Collin County Community College, University of Houston-Victoria, and Texas A&M University-San Antonio. The goal of these grants is to strengthen the education-to-workforce pipeline through the development of more robust internship and apprenticeship programs.

According to Commissioner Keller, in order to strengthen existing internship programs the following goals should be considered: convert non-paid internship programs to paid internships, increase the number of students participating in paid internships, increase wages for students currently participating in paid internships, and provide financial support to interns with demonstrated need.

In order to strengthen existing apprenticeship programs the state should consider the following: support training costs, provide financial support to students with demonstrated need, expand Registered Apprenticeship Programs, develop pre-apprenticeship programs, encourage participation from non-traditional student and employer populations, and expand faculty development in high-value career and technical training credential pathways.

Bryan Daniel, Chairman of the Texas Workforce Commission (TWC), gave his testimony at the end of the panel. Chairman Daniel provided an overview of the programs TWC offers to businesses, institutions and students to ultimately help bolster the Texas workforce.

⁵ [Work-Based Learning | Texas Education Agency](#)

According to Chairman Daniel, apprenticeships provide both classroom instruction and on-the-job paid work experience. The Texas Workforce Commission recently launched two major statewide apprenticeship initiatives to address the middle-skills gap: Critical Skills Registered Apprenticeships and Healthcare Registered Apprenticeships.

Critical Skills Registered Apprenticeships are designed to support apprenticeships in specific high-demand, high-wage, middle-skills careers, requiring some education beyond a high school diploma but less than a four-year degree.⁶ Automotive service technicians/mechanics, production machinists, assemblers and fabricators, and logistics management and supply chain analysts would all fall under this category.

Healthcare Registered Apprenticeships are designed to offer employers an innovative approach to hiring and training future healthcare staff by expanding opportunities for students who wish to pursue career pathways to Registered Nurse certification and other healthcare fields.⁷

The Skills Development Fund (SDF) provides training grants to private businesses for the upskilling and/or reskilling of new or incumbent workers through partnerships with local public/technical colleges, workforce development boards, and the Texas A&M Engineering Extension Service (TEES).

Finally, Chairman Daniel noted that TWC supports the attainment of IBCs by working with TEA and THECB on dual credit programs, connecting participants to Eligible Training Providers and launching statewide initiatives, such as Metrix Online Learning Platform, that help Texas residents improve skills needed for better employment opportunities.⁸

The proceeding panelists were leaders or practitioners in workforce education, who provided the Committee with examples of successful work-based learning and micro-credentialing programs at their respective institutions.

Mike Midgley, Vice Chancellor of Instruction at Austin Community College (ACC), began the panel with insight into how ACC develops their long- and short-term credentials. According to Mr. Midgley, ACC bases their technical programs on regional demand, labor market information, as well as needs expressed directly to the institution by specific companies in the area, such as Tesla. A key component of ACC's short-term training programs is the stackable pathways they have created in order for students to continue progressing in their chosen field of study.

Mike Reeser, Chancellor and Chief Executive Officer of Texas State Technical College (TSTC), spoke about how TSTC aligns itself to the needs of Texas employers. Chancellor Reeser emphasized that

⁶ [TWC Invites Applications for Critical Skills Registered Apprenticeships](#)

⁷ [TWC Dedicates \\$15 Million to Healthcare Apprenticeship Programs to Address Industry Labor Shortages](#)

⁸ [Skills Enhancement Initiative Career Tools | Texas Workforce Commission](#)

this type of alignment needs to be an institution-wide initiative and cannot be done by a singular department or function. In 2011, TSTC transitioned from traditional formula funding to an innovative outcomes-based funding formula, unique to TSTC, established by the Texas Legislature. Since then, Chancellor Reeser said TSTC has continuously asked two questions of its mission in order to most efficiently garner funding from the state: 1) Does TSTC as an institution place people in jobs in Texas?; and 2) What are the earnings of TSTC graduates their first five years after graduation? These two questions not only make TSTC market-focused but require TSTC to focus on industry that is at the top of the market.

According to Chancellor Reeser, TSTC relies on three functions to best equip the system for success. First of all, TSTC houses a senior labor market economist, who allows TSTC to be strategic in its programming decisions by constantly monitoring statewide and regional market data, then turning that data into tangible information. Secondly, TSTC views employers as their ‘customers’– students with valuable marketable skills who graduate from TSTC are the ‘product’ being sold to employers. Therefore, TSTC highly values face-to-face time with employers. Finally, TSTC is the host of the Center for Employability Outcomes (C4EO)– a research, development and commercialization division focused on optimizing student employability. C4EO allows TSTC to look at jobs with industrial employers and define discrete work skills that drive the competencies students will need in the field. These jobs are constantly updated and allow TSTC to better keep track of the programs they offer.

Dr. John Hurtado, Interim Director of Texas A&M Engineering Experiment Station, gave an overview of the Texas A&M Engineering Experiment Station (TEES). According to Dr. Hurtado, TEES is a state agency that provides Texas with research, workforce development and technology transfer to industry. Dr. Hurtado’s testimony primarily focused around the workforce development element. TEES engages industry and serves those from all generations– pre-K-12, college students and those already in the workforce.

Dr. Hurtado informed the committee that the pre-K-12 program is called ‘Spark!’ and is designed to inspire young students to pursue engineering and to train educators how to fold engineering concepts into curriculum. The college program is called ‘Bachelors+ Certificate Program’ and is a nine-week summer program designed to provide additional skills for students as they prepare to enter the workforce. The Bachelors+ Certificate Program works in partnership with TSTC campuses across the state. Finally, the workforce program is called ‘TEES Edge’. TEES Edge is a workforce pipeline that provides professional upskilling, reskilling and training opportunities for those already in the workforce. TEES Edge is designed to provide high-wage employment opportunities for those in the Rio Grande Valley Region.

Dr. Ramanan Krishnamoorti, Chief Energy Officer at the University of Houston (UH), completed the panel with an update on the work University of Houston– a four-year institution– is doing in the micro-credentialing space. According to Dr. Krishnamoorti, the State of Texas lost 100,000 jobs in

the oil and gas sector from 2014 to 2019. After the pandemic, the state lost another 100,000 jobs in the same sector. Because of this loss, many companies in the oil and gas industry are struggling to find adequately-trained individuals because the technology has shifted in the industry.

According to Dr. Krishnamoorti, UH has assembled a 25-member energy advisory board from all the best energy companies in Houston and has built partnerships with trade organizations such as Independent Petroleum Association of America (IPAA) and Texas Oil & Gas Association (TXOGA). Dr. Krishnamoorti articulated that the energy sector changes every three to five years, not to mention the energy transition happening throughout the nation today. Therefore, these two things combined make regular reskilling and upskilling paramount to the industry.

With assistance from the relationships it has built with industry, Dr. Krishnamoorti said UH now offers six micro-credentialing programs that were adapted to address these very issues in the energy industry. Each credential is three weeks long and co-taught by academic experts and subject matter experts from industry. All credentials are stackable with a 98-percent completion rate. Eventually, these micro-credential programs will be taken completely online, expanded to other UH institutions and integrated with existing degree programs.

Recommendations

1. Explore establishing measurable outcomes for workforce programs at Texas public institutions of higher education in order to produce workforce-aligned credentials including non-credit workforce programs and support for at-risk demographics of students. The Legislature should also consider how four-year institutions can offer more flexible programming for students, particularly for those students who need to simultaneously work, parent, or tend to a family emergency.

2. Provide incentives for expanded partnerships between postsecondary entities with private industry and postsecondary entities with each other, in order to more efficiently meet regional and statewide workforce demand and provide greater opportunities for their students.

Charge 3 – Teaching and Health Care Workforce Participation

Review financial aid and scholarship opportunities in Texas related to teaching, health care, and law enforcement, and examine methods to increase participation in these and other high-demand fields. In particular, study the participation rates of the Math and Science Scholars Loan Repayment Program, the Peace Officer Loan Repayment Program, and the Nursing Corps Loan Repayment Program, and make recommendations on ways to increase participation rates in each area.

Testimony

The Senate Higher Education Committee heard testimony regarding this charge on May 10, 2022. Invited testimony was presented by Ken Martin, Chief Operating Officer & Chief Financial Officer, Texas Higher Education Coordinating Board.

Findings & Analysis

Ken Martin led the testimony on this charge with an overview of loan repayment programs the Texas Higher Education Coordinating Board (THECB) offers that aim to grow the amount of teachers and medical personnel in the State of Texas. According to Mr. Martin, loan repayment programs incentivize a post-graduate to work in a field that is deemed ‘in-demand’ by the state. This includes teachers, physicians, nurses and the like. The loan repayment programs offered by THECB provide loan repayment to the loan issuer for an individual working in the given field. Eligibility requirements, length of service and award amounts may vary for each loan repayment program. Mr. Martin gave an overview of the Nursing Faculty Loan Repayment Program, Physician Education Loan Repayment Program, Loan Repayment Program for Mental Health Professionals, Teach for Texas Loan Repayment Program, Math and Science Scholars Loan Repayment Program, and the Peace Officer Loan Repayment Assistance Program, which can be found below.

Nursing Faculty Loan Repayment Program

The Nursing Faculty Loan Repayment Program (NFLRP) improves access to nursing education programs by encouraging qualified nurses to serve as faculty at eligible Texas institutions of higher education. An applicant must hold a master’s or doctoral degree in nursing, be licensed by the Texas Board of Nursing, and have been currently employed for at least one year as a faculty member of a nursing program at a Texas public or private, non-profit institution of higher education. Nurses may qualify for up to \$7,000 a year for each year of full-time employment, with a maximum of five years. To date, the Coordinating Board has been able to fund all eligible nursing faculty that have applied. During Fiscal Year 2019, 224 recipients benefited from the NFLRP, receiving an average award of \$6,818. The program was limited to renewal applicants during the 2020-21 biennium due to budget reductions. The application period for the 2021-22 academic year began in June 2022.

Physician Education Loan Repayment Program

The Physician Education Loan Repayment Program (PELRP) encourages qualified physicians to practice medicine in a Health Professional Shortage Area (HPSA) to provide health care services to recipients under Medicaid and the Texas Children's Health Insurance Program (CHIP). Applicants agree to provide four consecutive years of service in a HPSA or at a correctional facility operated by the Texas Juvenile Justice Department or Texas Department of Criminal Justice. To be eligible, a physician must practice an approved primary care specialty and be a fully-licensed physician. Maximum award amounts range from \$30,000 for the first year of service to \$60,000 for the fourth year. Total payments may not exceed indebtedness. For Fiscal Year 2019, 226 recipients benefited from the program. Participants received an average award of \$34,689 and had an average indebtedness of \$217,598.

Loan Repayment for Mental Health Professionals

The Loan Repayment for Mental Health Professionals encourages qualified and eligible categories of mental health professionals to practice in a Mental Health Professional Shortage Area (MHPSA) and provide mental health care services to recipients under Medicaid and CHIP. Approved applicants agree to provide five consecutive years of service in a MHPSA or at a correctional facility operated by the Texas Juvenile Justice Department or Texas Department of Criminal Justice. Maximum award amounts vary based on specialty and the participant's total indebtedness. For Fiscal Year 2019, 128 recipients benefited from the loan repayment program. Participants received an average award of \$6,007 and had an average indebtedness of \$199,500.

Teach for Texas Loan Repayment Program

The Teach for Texas Loan Repayment Program recruits and retains certified classroom teachers in certain shortage fields and communities. Applicants must either be certified to teach in a critical shortage teaching field (i.e., bilingual/English as a second language, career and technical education, technology applications and computer science, mathematics, and special education) or teach in a community experiencing critical teacher shortage as determined by the Texas Education Agency. Approved applicants may receive up to a maximum of \$2,500 per year of full-time teaching service in an eligible field or community.

Math and Science Scholars Loan Repayment Program

The Math and Science Scholars Loan Repayment Program encourages teachers who demonstrate high academic achievement as math or science majors to teach math or science for at least four years in Title I public schools in Texas. To be eligible for conditional approval, a teacher must have completed an undergraduate or graduate program in mathematics or science with a cumulative GPA of at least 3.0. The individual must be certified under a probationary teaching certificate to teach mathematics or science in a Texas public school and have secured employment as a full-time math or science teacher in a Title I school at the time of application. Recipients commit to eight years of service, the first four of which must be at a Title I school in Texas. Since 2019, the subsequent four years may be at either a Title I school or any other Texas public school. The current maximum award is \$10,000 per year.

For Fiscal Year 2019, five recipients benefited from the Math & Science Scholars Program. Participants received an average award of \$4,997 and the average indebtedness was \$29,949.

Peace Officer Loan Repayment Assistance Program

The Peace Officer Loan Repayment Assistance Program assists qualifying peace officers with the repayment of eligible student loans. To qualify, an individual must meet the definition of “peace officer” under Article 2.12, Texas Code of Criminal Procedure, and have been initially appointed as a full-time peace officer on or after September 1, 2019. The officer must have earned at least 60 semester credit hours at an eligible Texas institution of higher education in Texas, be currently employed and have completed at least one year of employment as a full-time peace officer in Texas. Peace officers may qualify for up to \$4,000 a year in student loan repayment for a period of up to five years. The program was first funded in Fiscal Year 2020.

Recommendations

1. Restructure existing loan repayment programs in Texas that seek to bolster the workforce in high-demand fields in order for the loans to most effectively recruit and retain talent in Texas.
2. Review the Math & Science Scholars Loan Repayment Program and consider ways to improve its reach in the state.

Charge 4 – Funding Permanent University Fund

Review the history and use of the Permanent University Fund for the University of Texas at Austin and Texas A&M University, and explore the creation of a new legacy fund to address the needs of all other higher education institutions in Texas. Make recommendations on methods to streamline other existing research funds and finance research academic institutions in Texas.

Testimony

The Senate Higher Education Committee heard testimony regarding this charge on May 10, 2022. Invited testimony was presented by the following individuals:

- Terry Hull, University of Texas System
- Billy Hamilton, Texas A&M University System
- Louellen Lowe, Legislative Budget Board
- Dr. Lawrence Schovanec, Texas Tech University
- Dr. Renu Khator, University of Houston System

Findings & Analysis

Terry Hull, Associate Vice Chancellor for Finance at the University of Texas (UT) System opened the panel up with an overview on the history of the Permanent University Fund, better known as the 'PUF'. According to Mr. Hull, the PUF was established by the Texas Constitution to support the University of Texas System and Texas A&M University System. The PUF consists of 2.1 million acres of land in the Permian Basin region, known as 'PUF Lands', and the PUF Endowment— a diversified investment portfolio that is the accumulated value of mineral income from PUF Lands and accumulated investment returns. The PUF Lands are managed by University Lands, housed within the UT System Administration. The PUF Endowment is managed and invested by The University of Texas/Texas A&M Investment Management Company— both of which are under the authority of the UT System Board of Regents. The corpus of the PUF cannot be spent, but expenses of managing the PUF Land and assets are paid directly from the PUF.

Mr. Hull went on to explain that the Constitution also established the Available University Fund (AUF), which consists of an annual distribution from the total return generated on PUF investments, as determined by UT System Board of Regents, and surface income generated on PUF Lands. Surface income includes grazing and site leases, easements, groundwater sales, wind and solar farms, and mineral sales. Constitutionally, two-thirds of the amount attributable to the AUF are appropriated to the UT System and one-third is appropriated to the Texas A&M University System. The AUF supports construction and other identified capital expenses at institutions in the UT System and specific institutions in the Texas A&M System. The Constitution provides that PUF bond proceeds can be used for purposes such as acquiring land, constructing/equipping buildings or other permanent improvement. PUF bonds may also be used for major repair and rehabilitation of buildings, acquiring

capital equipment, and acquiring library books or other library materials. The Constitution does not permit the UT or Texas A&M University Systems to use AUF for operational expenses at institutions (with the exception of UT-Austin), student housing, intercollegiate athletics or auxiliary enterprises.

Mr. Hull went on to say that the Constitution limits the amount of PUF bonds that may be issued by the UT System, not to exceed 20-percent of the cost value of PUF Investments, with a similar limitation on the Texas A&M University System not to exceed 10-percent. Generally, any proposed use of AUF cannot negatively impact funding support provided to UT Austin, nor bring the PUF's debt service coverage ratio or liquidity level below minimum levels necessary to maintain the System's AAA bond credit rating.

According to Mr. Hull, constitutional limits on PUF distribution to AUF include:

- Distributions to the AUF must be not less than the amount needed to pay the principal and interest due on PUF bonds.
- Distributions to the AUF must provide a stable and predictable stream of annual distributions and maintain the purchasing power of PUF investment assets over time.
- Distributions to the AUF may not be increased if the purchasing power of PUF investments is not preserved over any rolling ten-year period, with the exception of paying off any principal and interest due on PUF bonds.
- Distributions during any fiscal year may not exceed 7-percent of the average net fair market value of PUF investment assets, with the exception of paying off any principal and interest due on PUF bonds.

Mr. Hull informed the Committee that the UT System board's current distribution policy is to increase the prior year's distribution by the average increase in consumer price index (CPI) plus 2.65-percent, with the adjustment intended to preserve the purchasing power and cover enrollment growth at PUF-eligible institutions.

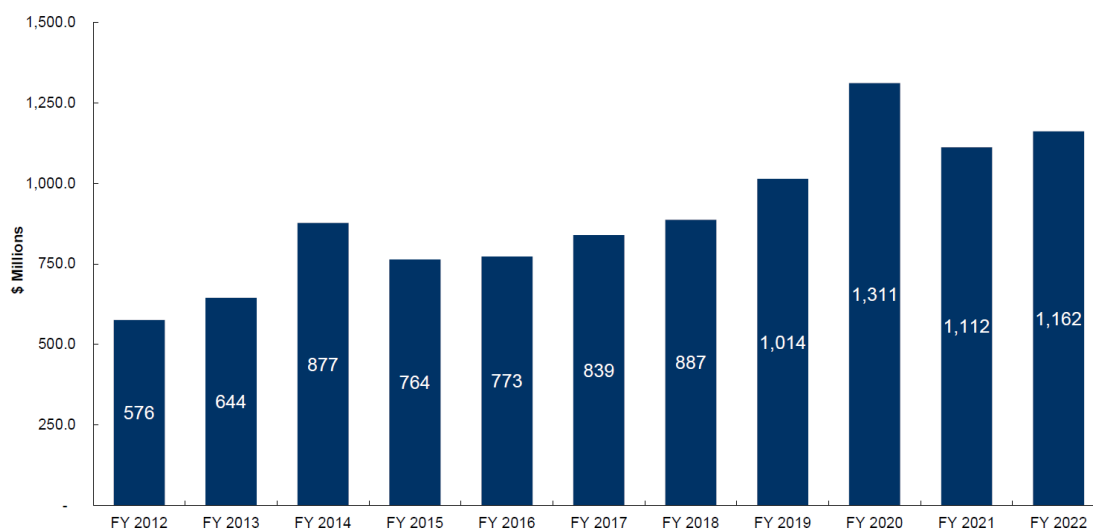


Figure 4.1 - Annual AUF distributions.

Senator Alvarado asked what happens to PUF money utilized to purchase something related to capital construction but then the purchase falls through and that asset ends up being sold. As an example, the UT System acquired \$220 million after selling the land they attempted to purchase in Houston. Mr. Hull informed Senator Alvarado that it would be generally up to the UT System Board of Regents, though they would likely utilize the proceeds to pay off the outstanding PUF debt.

Following Terry Hull’s testimony, Billy Hamilton, Deputy Chancellor and Chief Financial Officer at the Texas A&M University (TAMU) System, provided an overview of how PUF is utilized and distributed at the TAMU System.

System Member	PUF Capital	AUF Support and Maintenance	Higher Education Fund
Texas A&M	x	x	
Texas A&M at Galveston	x	x	
Texas A&M Univ Health Science Center	x	x	
Prairie View A&M	x	x	
Tarleton State	x		
Texas A&M - Central Texas	x		
Texas A&M - San Antonio	x		
Texas A&M AgriLife Research	x		
Texas A&M AgriLife Extension Service	x		
Texas A&M Eng. Experiment Station	x		
Texas A&M Transportation Institute	x		
Texas A&M Engineering Extension Service	x		
Texas A&M Forest Service	x		
A&M System	x	x	
Texas A&M - Corpus Christi			x
Texas A&M - Kingsville			x
Texas A&M International			x
West Texas A&M			x
Texas A&M - Commerce			x
Texas A&M - Texarkana			x
Texas A&M Veterinary Medical Diagnostic Lab			
Texas Division of Emergency Management			

According to Mr. Hamilton, the TAMU System is unique from the UT System in that it is composed of both PUF and Higher Education Fund (HEF) schools (Figure 4.2). Five TAMU System institutions— Texas A&M University, Prairie View A&M, Tarleton State University, Texas A&M Central Texas and Texas A&M San Antonio (plus Texas A&M Galveston and Texas A&M University Health Science Center, which are both extensions of the flagship)— are eligible for PUF capital funding. Also included in PUF capital funding are six A&M state agencies related to engineering and agricultural research— Texas A&M Agrilife Research, Texas

Figure 4.2 - Texas A&M University System PUF and HEF distributions.

A&M Agrilife Extension Service, Texas A&M Experiment Station, Texas A&M Transportation Institute, Texas A&M Engineering Extension Service and Texas A&M Forest Service. These six agencies align with TAMU’s land grant mission. Finally, the Texas A&M System office is also included in PUF Capital funding. Texas A&M University, Prairie View, A&M Galveston, the Health Science Center and the System office all receive annual allocations of the AUF for support and maintenance. The remaining six system universities— Texas A&M Corpus Christi, Texas A&M Kingsville, Texas A&M International, West Texas A&M, Texas A&M Commerce and Texas A&M Texarkana— participate in the Higher Education Fund. Allocations are made to the universities based on a formula tied to semester credit hours at the respective institutions. The remaining two agencies— Texas Veterinary Diagnostic Lab and Texas Division on Emergency Management— depend primarily on state appropriations for capital support.

Mr. Hamilton emphasized that the TAMU System has a strong oversight process for PUF and AUF decisions— which go through the Chancellor’s office and the TAMU System Board of Regents. The

Board establishes performance metrics for each institution, which are reviewed annually. In addition, the Board closely examines the budget decisions of all schools and agencies during annual performance review and Capital Plan Review. This review will cover the current year's use of PUF debt and AUF allocations for support and maintenance. The overall operations— whether institution or agency— answer to and depend on the Texas Legislature. Insofar as the PUF is concerned, the General Appropriations Act includes riders that require annual reporting to the Legislature on the uses of the AUF and the TAMU System's operations and initiatives.

In his concluding statements, Mr. Hamilton provided highlights that demonstrate how the PUF has proven beneficial to the University of Texas and Texas A&M Systems, and therefore the State of Texas. Texas A&M's research expenditures now exceed \$1 billion in areas that are of benefit to the state and national economy, and the A&M agencies are able to provide critical support to the state in times of statewide emergency. Additionally, Prairie View achieved the R2 Carnegie rating this year.

Louellen Lowe, a budget analyst for the Legislative Budget Board, rounded out the first panel with a high-level review of all statewide research funding programs in Texas.

Ms. Lowe began with the Higher Education Fund, or HEF. The HEF was established by a Constitutional Amendment as a general revenue appropriation for institutions who are not eligible to receive proceeds from the Permanent University Fund. The allocation methodology is based on the following four elements: space deficit, facilities condition, institutional complexity and a separate allocation for the Texas State Technical College System. The purpose and use of the HEF mirrors that of the PUF, in that it provides institutional support for certain capital and construction activities on college campuses. The Constitution requires the Texas Legislature to review the HEF every ten years at the end of the decennium— which is approaching in 2025.

According to Ms. Lowe, the Texas Higher Education Coordinating Board implemented an accountability system in 2004 as part of a broader effort to analyze and categorize certain benchmark performance across comparable institutions of higher education. There are currently five peer group designations: Research, Emerging Research, Doctoral, Comprehensive & Master's.⁹ A peer group designation does not automatically ensure an institution is eligible for certain funds, it is simply one of the metrics. Ms. Lowe proceeded with an overview of the following research funds: Texas Research Incentive Program, National Research University Fund, Texas Research University Fund, Core Research Support Fund and Comprehensive Research Fund.

Texas Research Incentive Program

The Texas Research Incentive Program (TRIP) is a matching funds program to help emerging research universities leverage private gifts and donations for research enhancement and faculty recruitment. The eligible matching percentage is dependent on the amount of donations received by an institution. This appropriation is made to the Texas Higher Education Coordinating Board, and the Coordinating

⁹ [University Peer Group Categories - March 2021](#)

Board manages the distributions of this fund. According to the most recent report at the time this report was written, about \$324 million of matching dollars remain unfunded.¹⁰

National Research University Fund

The National Research University Fund (NRUF) is an endowment providing support to eligible emerging research universities. In addition to being designated as an emerging research university in the THECB accountability system, an institution must also have \$45 million in restricted research expenditures in the previous two years before eligibility. They must meet four of the following six criteria: 1) endowments of \$400 million or greater; 2) produce 200 or more PhD's per year; 3) have a selective entering freshman class; 4) have a chapter of Phi Beta Kappa or equivalent; 5) possess high quality faculty; and 6) demonstrate commitment to high-quality graduate education. There are currently four institutions that are eligible for these distributions: Texas Tech University, University of Houston, University of Texas at Dallas and University of Texas at Arlington. University of Texas at San Antonio fulfilled four of the six optional criteria in Fiscal Years 2021 and is eligible for fund distribution in the coming Fiscal Year, pending a required audit by the State Auditor's Office.¹¹

The next three research funds are all general revenue appropriations that are made directly to the institutions. They were all created in 2015 as a derivative of previous research funding streams. Their purpose, broadly, is to support faculty and boost excellence in instruction and research. Research expenditures are what drive allocations for each of these formulas.

Texas Research University Fund

To receive the Texas Research University Fund (TRUF), an institution must be designated as a research university in the THECB accountability system. They must also have an average annual total research expenditure of more than \$450 million in three consecutive state fiscal years. Texas A&M University and the University of Texas at Austin are the only two Texas institutions who receive TRUF funding.

Core Research Support Fund

The Core Research Support Fund is for institutions designated as 'Emerging Research'– which there are currently eight of: Texas State University, Texas Tech University, The University of Texas at Arlington, The University of Texas at Dallas, The University of Texas at El Paso, The University of Texas at San Antonio, University of Houston, and University of North Texas.¹² These allocations are based equally on the average restricted research expenditures and the average total research expenditures.

¹⁰ <https://www.highered.texas.gov/our-work/supporting-our-institutions/research-funding-in-texas/research-funding-and-programs/>

¹¹ [National Research University Fund Eligibility | Texas Legislature and Comptroller of Public Accounts May 2022](#)

¹² [National Research University Fund Eligibility | Texas Legislature and Comptroller of Public Accounts May 2022](#)

Comprehensive Research Fund

The Comprehensive Research Fund (CRF) provides support to institutions that do not fall under either category. There are 24 of these institutions in Texas that receive this funding. Their respective allocation is based on average restricted research expenditures.

Senator Creighton asked Ms. Lowe for clarification on what ‘auxiliary enterprises’ are. Ms. Lowe replied that auxiliary enterprises are anything institutions can collect a fee for such as intercollegiate athletics and student housing. Auxiliary enterprises are not an eligible use of HEF funding.

Renu Khator, who serves as both the President of the University of Houston (UH) and Chancellor of the University of Houston System, opened testimony for the second panel. In her capacity as President of the institution, Khator provided an overview of the success the University of Houston has seen under their current funding pattern, and the accelerated success they could see with additional funding.

According to President Khator, in 2009, during her first session, there was interest by the Texas Legislature to create additional Carnegie R1 Universities in our state. Several programs were initiated in order to accomplish this goal, which were discussed previously in the hearing. In subsequent Legislative Sessions, there was some additional help that came along the way such as Capital Construction Assistance Projects (CCAPs), the Governor's University Research Initiative (GURI) and the Core Research Support Fund. With these funds, UH was able to establish Carnegie’s R1 Research designation in 2011¹³, doubled research funding from \$100 million to \$200 million, and jumped 40 positions in national rankings. The University of Houston now has 21 faculty who are members of the National Academy of Engineers or the National Academy of Science. For context, President Khator informed the committee that when she first began in 2008, there were only three UH faculty with this designation.

With that information in mind, Chancellor Khator made a formal request for the Legislature to invest in a permanent, designated fund for the University of Houston. The Chancellor emphasized that this fund would be in addition to the existing funds they already receive, not as a substitute. The delta between what the University of Texas has received in PUF funds and what UH has received from all the existing programs over the past 10 years is close to \$5 billion. President Khator also requested that the newly-created fund provide maximum flexibility for academic excellence, so UH can provide integrated excellence in research, innovation, entrepreneurship, discovery and workforce development.

This fund would help strengthen Houston’s economy, and that of the state, double funding from federal and industry sources, increase student access and success, and give Texas another university that ranks in the top 50 in the nation.

¹³ [UH Earns Tier One Ranking From Carnegie](#)

Dr. Lawrence Schovanec, President of Texas Tech University (TTU), followed with similar testimony—depicting the success Texas Tech has seen over the years and how additional funding would help the university build on that success.

In May 2012, TTU was notified that it gained eligibility to receive the endowment proceeds from NRUF. In December 2015, TTU gained status as a Carnegie R1 Institution and was recently reaffirmed as such. In 2012, TTU received less than \$50 million in research awards. This past year, TTU received over \$105 million in research awards—more than double the increase—and has exceeded \$220 million in research expenditures. According to Dr. Schovanec, student enrollment, retention and graduation have all increased over the years.

Dr. Schovanec proceeded by referencing the Integrated Postsecondary Education Data System (IPEDS), which provides a look at where students choose to go to college out of state. The IPEDS data shows that, in Texas, there are more students leaving the state than coming into the state. Texas Tech had a negative net migration of over 16,000 students—the second-largest figure in the United States. Dr. Schovanec referred to this dilemma as a ‘brain drain’ issue Texas needs to address.

According to Dr. Schovanec, if Texas were to receive funding proportional to its population at the same rate California does, there would be an additional \$9.5 billion coming into the State of Texas each year. Texas needs research universities at the highest caliber that represent the opportunities and challenges of all regions of the state—from Houston to Lubbock. In order for Texas to reach parity with competing states on research and development, and to retain students and recruit the best faculty, the Legislature needs to invest in higher education in a way that will develop more top-flight, national research universities.

President Schovanec reiterated that a predictable, recurring funding stream would allow Texas Tech to become a top competitor in the nation. This funding would put more resources into growing its student body, graduating students more quickly with less debt, increasing its graduate programs, and investing in faculty who can do research that is critical for the State of Texas.

Dr. Schovanec emphasized that Texas Tech University is already a destination university. Over 70-percent of the student body comes from over 300 miles away, all other 49 states and more than 120 countries. New and additional investments will allow the institution to broaden its reach, provide more opportunities for students and conduct research that benefits Texas and Texans. Overall, further investments in TTU will enable the institution to move towards the goal of becoming a top 50 research university and achieve the benchmarks that characterize Association of American Universities (AAU) institutions.

According to Dr. Schovanec, TTU & UH are two of 20 institutions in the country that share the Carnegie R1 Highest Research Activity status, while continuing to remain Hispanic-serving institutions. A new, predictable, recurring funding stream would strengthen the competitive position

TTU now has, better enable them to educate students, recruit world-class faculty that generate research expenditures, and support the development of initiatives that result in innovation and economic development.

Chairman Creighton asked Chancellor Khator if a legacy fund separate from the PUF would be used only by the flagship or distributed among the other institutions in the UH System. In response, Chancellor Khator referenced funding provided for Comprehensive Regional Universities (CRU) last session. However, that initiative was only funded partially. If funded fully, CRU money could elevate the institutions in the UH System who fall under that category. If the goal for the legacy fund is to create a more top-notch institution, then that funding should go towards the flagship, but only if CRU is fully funded.

Creighton noted how much Texas Tech and UH have accomplished with the money available to them now and asked how much it would take for the two institutions to get into the top 50 in the nation. According to Dr. Schovanec, some aspects of rankings are reputational while some are quantitative or qualitative. It is hard to say exactly how some of these rankings will play out. However, research expenditures need to be expanded significantly. Since NRUF was established, research was doubled with just a modest investment. However, that is evidence that investments in research make a difference.

Senator Springer voiced his concern about setting yet another system up that elevates some institutions but shuts other institutions out. There are other Texas universities, such as University of North Texas and Texas State University, that are on the heels of UH and Texas Tech, who could also utilize the additional funding for expansion. This conversation should center around students in Texas and how to give them all opportunities. If there is a change, we need to think like our founders did— in the long-term— to benefit all Texans.

Senator Creighton asked Chancellor Khator for clarification on what she meant by flexibility being a priority for this new stream of funding. Chancellor Khator said UH would just like the same latitude given to A&M and UT through PUF funding.

Senator Alvarado noted that Texas only has two top-ranked universities, while California has nine, and New York and Florida each have three. For the amount of money the Texas Legislature has given to Texas Tech and UH, the two institutions have always shown a return on investment that the entire state benefits from. Senator Alvarado proceeded to ask that, if UH was to be a recipient of a \$5 billion legacy fund, what plans or ideas that would be utilized for. Chancellor Khator said there is a strategic plan in place. The University of Houston needs a minimum of \$300 million invested now, with some recurring funding, in order to execute a plan that doubles research, increases student success measures, and exposes students to the knowledge of the economy in Texas. The state needs to start thinking not only about getting students into the workforce now but how they can, later on down the line, create new jobs and contribute to the expansion of the state's economy.

Senator Alvarado asked Dr. Khator and Dr. Schovanec to elaborate on what some of the obstacles UH and Texas Tech have faced in becoming top 50 institutions.

Dr. Schovanec said there are eight different indicators the rankers look at. One is funding from the National Science Foundation and the National Institutes of Health. Though Texas Tech's total research expenditures are respectable, they are still low in that area. One thing the Texas Tech System is doing now is promoting collaboration between Texas Tech University and the Texas Tech Health Sciences Center to grow areas of research collaboration within the medical field in order to receive more funding under the Health & Human Services Commission.

Dr. Schovanec continued by saying that the biggest question an institution has to ask when aspiring to become an AAU member is whether the indicators are consistent with its mission. Texas Tech University is very much about access and opportunity and does not want to compromise on that in order to chase a distinction. There are a whole range of investments Texas Tech aspires to make with additional resources, but those investments would be scaled depending on how much financial support was provided.

Chancellor Khator said the student-to-faculty ratio is very large right now. The University of Houston would also use the fund to increase the number of faculty who are in the classroom but who could also do the nationally-recognized research.

Recommendations

1. Examine the creation of an additional and separate research endowment similar to the Permanent University Fund (PUF) that recognizes and builds on the performance and research capacity of institutions not eligible for the PUF.
2. Restructure the Texas Research Investment Program to eliminate the backlog and consider a more efficient method of enabling institutions to partner with private entities for research and development.

Charge 5 – Monitoring

Monitor the implementation of legislation addressed by the Senate Committee on Higher Education passed by the 87th Legislature, as well as relevant agencies and programs under the committee's jurisdiction. Specifically, make recommendations for any legislation needed to improve, enhance, or complete implementation of the following:

- Senate Bill 1102, relating to the establishment of the Texas Reskilling and Upskilling through Education (TRUE) Program to support workforce education;
- House Bill 3767, relating to measures to support the alignment of education and workforce development in the state with state workforce needs, including the establishment of the Tri-Agency Workforce Initiative.

Testimony

The Senate Higher Education Committee received an update on these pieces of legislation on May 10, 2022. Invited testimony was presented by the following individuals:

- Dr. Harrison Keller, Commissioner, Texas Higher Education Coordinating Board
- Mike Morath, Commissioner, Texas Education Agency
- Bryan Daniel, Chair, Texas Workforce Commission

Findings & Analysis

Senate Bill 1102 (87th Legislature)

According to Commissioner Keller, the Texas Reskilling and Upskilling through Education (TRUE) Program was designed to build a talent strong Texas through the creation, redesign, and expansion of short-term workforce training programs developed and provided in consultation with employers in high-demand occupations and lead to certifications or workforce credentials creating pathways to employment.

The TRUE Institutional Capacity Grants, funded through GEER funding, awarded \$26 million in grants for 11 consortia and 35 singular institutions last year with the goal of rapidly creating, expanding, or redesigning short-term postsecondary workforce credentials and training programs in high-demand occupational areas. From those grants came more than 270 credential programs supporting major fields such as patient care, cybersecurity and welding/metalworking.

The TRUE Program received a \$15 million appropriation via American Rescue Plan Act (ARPA) funding in Senate Bill 8, during the 87th Third-Called Special Session. Grants from this program will be awarded on a competitive basis. Public community, technical and state colleges, as well as local chambers of commerce, trade associations, or economic development corporations that partner with institutions are eligible. Awards range from:

- \$50,000 maximum for planning grants;

- \$50,000-\$500,000 for singular institutions; and
- \$50,000-\$1 million for consortia.

House Bill 3767 (87th Legislature)

Mike Morath, Commissioner of the Texas Education Agency (TEA), began with a brief background on House Bill 3767 (HB 3767), which he referred to as the ‘formalization’ of Tri-Agency work between TEA, Texas Higher Education Coordinating Board (THECB), and Texas Workforce Commission (TWC).

In March 2016, Governor Abbott asked the three agencies to collaborate and consider links between education and industry– from early childhood education to certification for adults– that will best help Texas grow in economic prosperity. Commissioner Morath, Commissioner Harrison Keller of THECB and Chairman Bryan Daniel of TWC were tasked with hosting regional meetings, resulting in regularly-published reports. This initiative, along with a set of administrative actions, were formalized into law by the passage of HB 3767 last session.

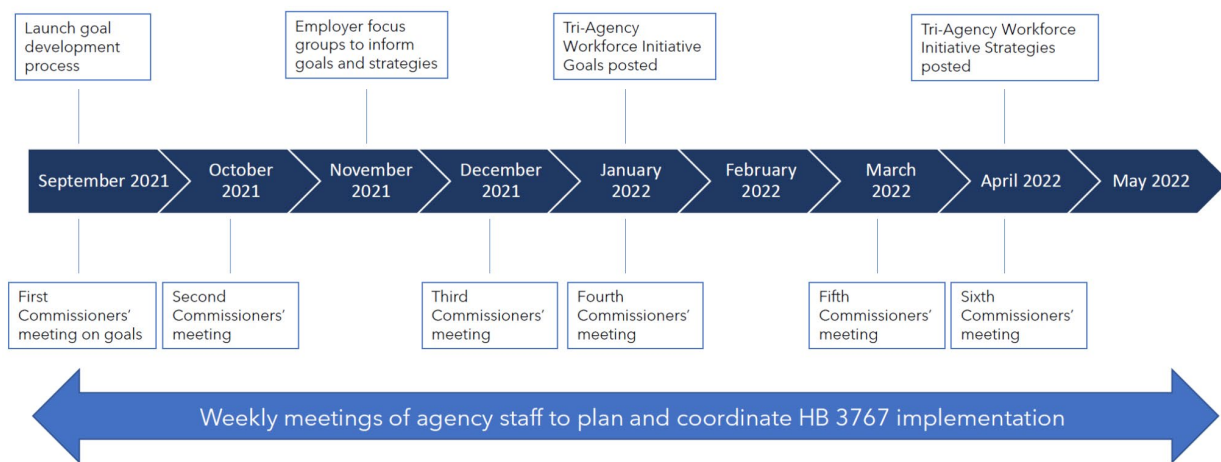


Figure 5.1 - Timeline of House Bill 3767 implementation.

The Tri-Agency’s number one priority is supporting efficient and flexible pathways to earning degrees, certificates, and other credentials linked to high-wage, in-demand jobs. The goal of these pathways is to meet employer needs, expand work-based learning opportunities, and increase reskilling/upskilling opportunities.

According to Commissioner Morth, while the COVID-19 pandemic has disrupted much in all three realms of the three entities, the agencies continue to work in alignment to improve the way they are cooperating and collaborating. The law requires the three agencies to meet once a quarter, though they are currently meeting about once a month, and the three agencies have begun integrating operationally– creating interdisciplinary project teams working towards common objectives.

Commissioner Keller followed Commissioner Morath by providing an overview of the ways in which, beyond knitting together processes and creating consistency across those processes, the three agencies are also working on the most efficient ways to share data amongst each other and with stakeholders. According to Commissioner Keller, Texas houses some of the richest, most extensive K-12 education, higher education and workforce data in the country. However, that data has not been managed in ways that make it readily accessible and useful for shaping effective policy or making institutional decisions.

The THECB, by statute, is the curator who combines the data in a manner that ultimately feeds into the state's education service centers (ESCs). All of the data currently on-hand has been shifted onto a digital cloud with more modern infrastructures and security measures. This data will then be appropriately aggregated and released. Commissioner Keller informed the committee that, the summer following this hearing, the THECB will begin by rolling out a 'privileged data portal' that will be available to institutional leaders and authorized institutional users. The THECB will begin by releasing transfer data on to the privileged data portal. Ideally, this data will provide institutions with the knowledge of where students are getting hung-up in the transfer process and will therefore be as informed as possible when creating seamless transfer pathways for students.

THECB is also working on public data dashboards that will be available to all stakeholders and consist of high-level standardized reports– aligned with the Building a Talent Strong Texas strategic plan. These dashboards will contain data broken down by institution, program, race, gender, income and geography– in order to track what earnings, student debt, and credential production look like over time in the Texas job market. No Family Educational Rights and Privacy Act (FERPA) data will be available on the public portal.

Below is a breakdown of the dashboards and tools THECB is working on as it relates to Tri-Agency objectives:

- Privileged Dashboards– will be available to institutional leaders and authorized institutional users. Aggregated dashboards will be available, including that of TEA and TWC.
- Secure Data Enclave– will be available to authorized institutional users with individual de-identified data, including that of TEA and TWC.
- Credential Library– publicly accessible web-based library of credentials such as diplomas, certificates, certifications, digital badges, apprenticeships, licenses, or degrees awarded by various entities.
- Self-sufficient wage– a regionally-adjusted wage determined for each county. This tool is under development, and stakeholders will be invited to review it and provide feedback.

Additionally, the three agencies have dozens of data-sharing agreements that have been developed over the years and are currently working on what Commissioner Keller referred to as a 'master Tri-Agency data-sharing agreement.' This agreement will create more data transparency between the three agencies, with the stipulation that data will only be accessed by those authorized to access it.

Commissioner Keller concluded his statements by stating that interagency collaboration has focused on coordinating existing data and processes through the Data Modernization Initiative and Tri-Agency Master Data Sharing Agreement. These two programs will work together to streamline data sharing among the agencies, while increasing data security and usability for the public and other stakeholders.

Bryan Daniel, Chairman of the Texas Workforce Commission, closed the panel out with an overview of the “Shared Credential Repository” initiative that the three agencies are working on.

According to Chairman Daniel, another component of HB 3767 was to create a comprehensive library of all the credentials in the State of Texas— from those granted by institutions of higher education to those granted by employers in the workforce. These credentials are currently treated as separate parts in the system of credentials, but the goal is for Texans to have the capacity to compare the credentials they hold with those that are needed for where they would like to be. Chairman Daniel said this comprehensive list should be completed by TWC by September 1, 2022. Once this list is complete, the credentials will then need to be “prioritized” by availability, time to completion, where and how they are offered, and how these credentials will translate in the workforce.

The next logical step in this process would be to give individuals the opportunity to get on a career pathway that best fits their motivation— whether they are currently employed and their goal is to make more money or they would simply like to move closer to family. Chairman Daniel said he believes there is a lot of opportunity to explore upskilling and reskilling for those who have been in the workforce for decades and require continuing education in order to advance in their given field.

Chairman Daniel laid out the competing interests our state is currently faced with. Employers in a fixed location are trying to hire the talent they need to run their business. These employers drive where and how people get hired, but they do not drive the available labor pool. The three agencies hope to help people get a clearer vision of this labor pool with the current initiatives they are collaborating on. From the credential repository to career pathways, TWC is exploring the best methods available to get the message out on these tools.

Chairman Daniel concluded by laying out the final direction given to the three agencies through HB 3767, which is to publish what a self-sustaining wage would be for each county in Texas, adjusted regionally. There are algorithms available to obtain this data, but apparently the best data available exists out of state. However, the data this entity collects for Texas is currently incomplete. Therefore, this entity has allowed the State of Texas to utilize portions of the entity’s algorithm to create one of its own. According to Chairman Daniel, there is something that is concerning to him about a county self-sufficient wage. If the state were to take an average of salaries in a large county, such as Dallas, an accurate picture of what is going on in the micro-economies of each city within that county will not be given. The same would be true for any county across the state— whether rural or urban. This is the reason why regional adjustments are important— in order to best understand the buying power of a given salary in a region. As this tool is developed, there will be a constant sharing of context input.

Senator West emphasized to the commissioners and chairman the need to continue disaggregating the data they are collecting, as well as leaving a record of implementation and metrics used to collect it.

Recommendations

1. Continue to monitor the implementation of HB 3767 (87(R)) and the ongoing collaboration of the Texas Education Agency, Texas Workforce Commission and Texas Higher Education Coordinating Board.

2. Continue the work of the Texas Reskilling & Upskilling through Education program, established by SB 1102 (87(R)), to promote the creation of workforce-focused programs and partnerships that meet regional and statewide demand in Texas.