



Senate Higher Education Committee

Interim Report

December 2014

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*The Senate of
The State of Texas*

December 17, 2014

The Honorable David Dewhurst
Lieutenant Governor of Texas
P.O. Box 12068
Austin, Texas 78711

Dear Lieutenant Governor Dewhurst:

The Senate Higher Education Committee hereby submits our interim report,
including recommendations to the 84th Legislature.

Respectfully submitted,

Handwritten signature of Kel Seliger in black ink.

Senator Kel Seliger, Chair

Handwritten signature of Kirk Watson in black ink.

Senator Kirk Watson, Vice Chair

Handwritten signature of Judith Zaffirini in black ink.

Senator Judith Zaffirini

Handwritten signature of Royce West in black ink.

Senator Royce West

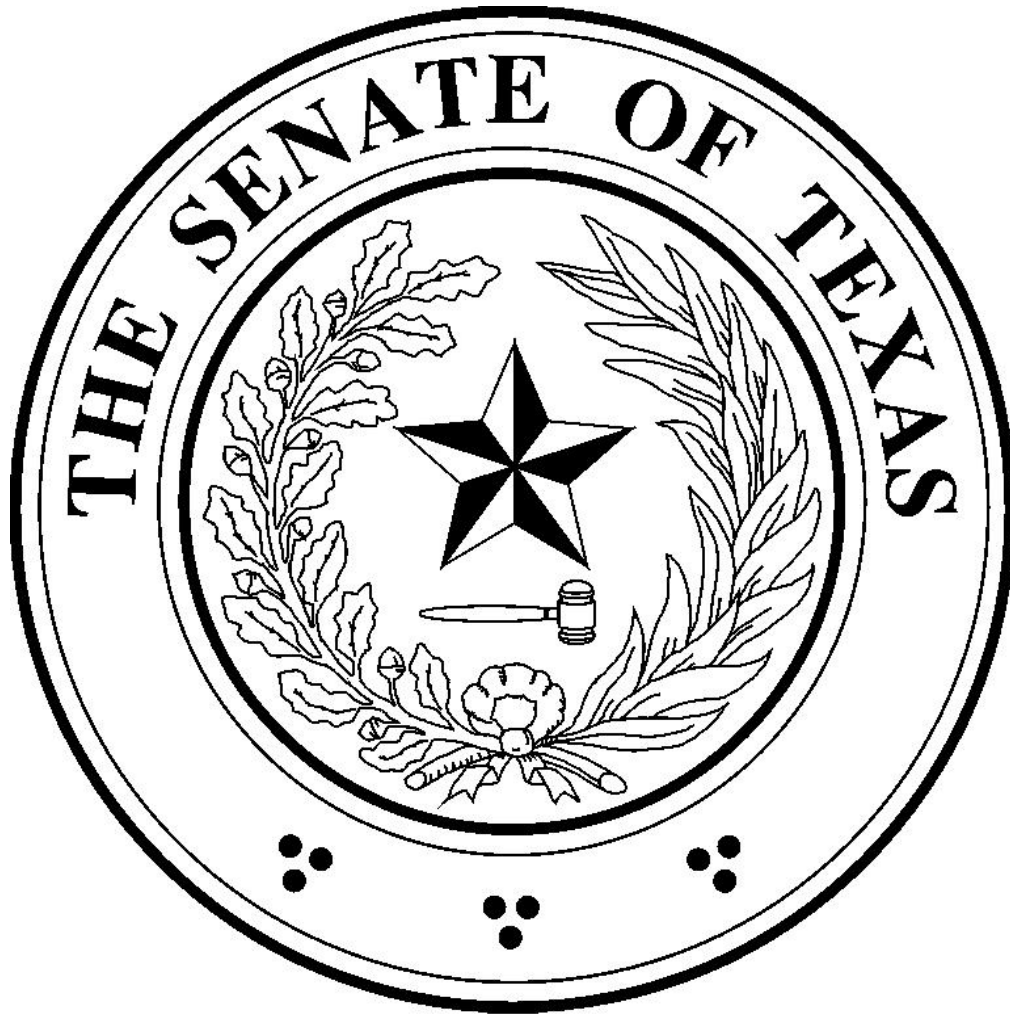
Senator Dan Patrick

Handwritten signature of Brian Birdwell in black ink.

Senator Brian Birdwell

Handwritten signature of Charles Perry in black ink.

Senator Charles Perry



Senate Higher Education Committee

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Contents

Acknowledgements.....	1
Introduction.....	3
Charge One. Closing the Gaps.....	5
Charge Two. Technology.....	13
Charge Three. Monitoring Legislation.....	21
Charge Four. Teacher Preparation.....	29
Charge Five. Dual Credit.....	39
Charge Six. Alignment.....	47
Letters from Members.....	55

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Dewhurst

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Introduction

During the 83rd Legislative Interim, Lieutenant Governor David Dewhurst issued the following six interim charges to the Senate Higher Education Committee:

1. **Closing the Gaps.** Review and evaluate the success of *Closing the Gaps by 2015*, the strategic plan for higher education adopted in 2000. Coordinate with the Higher Education Coordinating Board on the next set of long term goals for higher education and monitor their progress.
2. **Technology.** Study and make recommendations regarding the impact of technology on higher education instruction, including online courses and massive open online courses (MOOCs), and their impact on higher education excellence, cost, and funding requirements.
3. **Monitoring Legislation.** Monitor the implementation of legislation addressed by the Senate Committee on Higher Education, 83rd Legislature, Regular and Called Sessions, and make recommendations for any legislation needed to improve, enhance and/or complete implementation. Specifically, monitor the following:
 - SB 414, relating to a study and report regarding authorizing certain public junior colleges to offer baccalaureate degree programs to address regional workforce needs;
 - SB 62, relating to the vaccination against bacterial meningitis of entering students at public and private or independent institutions of higher education;
 - SB 28 (2011), relating to eligibility for a TEXAS grant and to administration of the TEXAS grant program; and
 - HB 1244 (2011), relating to developmental education and the assessment of student readiness under the Texas Success Initiative and to students enrolled in developmental education at public institutions of higher education.
4. **Teacher Preparation.** Examine and make recommendations regarding improvements in teacher preparation and certification programs to address any misalignment with school district shortages and problems with retaining new teachers.

5. **Dual Credit.** Review and make recommendations regarding the use of dual credit coursework and other secondary school programs for college credit, including the academic rigor of such programs and predictive value for college success.

6. **Alignment.** Examine and make recommendations regarding alignment between high school coursework and expectations in freshman level college coursework. Study the impact of particular coursework, specifically mathematics (including Algebra II) and science courses, as predictors of college readiness and success.

Charge One--*Closing the Gaps by 2015*

Review and evaluate the success of *Closing the Gaps by 2015*, the strategic plan for higher education adopted in 2000. Coordinate with the Higher Education Coordinating Board on the next set of long term goals for higher education and monitor their progress.

Testimony

The Senate Higher Education Committee heard testimony regarding this charge on April 15, 2014. The hearing included invited testimony from the following persons:

- David Gardner, PhD, Deputy Commissioner, Academic Planning and Policy, Texas Higher Education Coordinating Board
- Dustin Weeden, Policy Specialist, Education Program, National Conference of State Legislatures
- Woody Hunt, Chair, Higher Education Strategic Planning Committee
- Larry Faulkner, PhD, Vice Chair, Higher Education Strategic Planning Committee
- Brenda Hellyer, PhD, Chancellor, San Jacinto College
- Sylvia Leal, EdD, Member, Regional P-16 Council, Vice President for Enrollment Management, The University of Texas Brownsville

Findings/Analysis

In 2000, the Texas Higher Education Coordinating Board (THECB) adopted *Closing the Gaps by 2015*, the state's plan to address Texas' long-range higher education needs. This plan was formulated with support from the state's educational, business, and political communities. *Closing the Gaps by 2015* was directed at closing educational gaps in Texas as well as between Texas and other states. This comprehensive plan has four overarching goals: student participation, student success, excellence, and research.

The *Closing the Gaps by 2015* student participation goal was designed to increase participation in higher education. Increased participation is critical toward increasing student success. The goal was to add 630,000 more students at Texas higher education institutions, including career schools, between 2000-2015. Targets for the participation goal were set so that enrollment in higher education institutions would be 5.7 percent of the Texas population.

The state needs approximately 54,000 more students to enroll by fall 2015 to reach the student participation goal. A total of 1,614,650 students participated in Texas higher education in fall 2013. Enrollment is up 575,875 at public, independent, and career institutions since 2000. Although Texas has achieved the participation target of 5.7 percent of the total population, it still remains below peer states. Despite the increase since 2000, total enrollment decreased by 13,943 from fall 2012 to fall 2013. This signaled the first decrease in total enrollment during the *Closing the Gaps by 2015* period.

The growth in participation rates has been uneven among racial/ethnic groups in Texas. African Americans reached the highest rate among the three major groups in 2012, at 7.2 percent of the African American population, outpacing the target; however, the results are mixed for Hispanics. Since 2000, enrollments among Hispanics have more than doubled. Unfortunately, despite the increase in enrollments, Hispanics continue to lag behind set targets. In 2012, the Hispanic participation rate was 5 percent of the Hispanic population, although at its highest rate ever.

Additionally, there is a growing gender gap in Texas higher education. Statewide, 6.8 percent of females participated in higher education in fall 2012, which was 1.7 percentage points higher than for males. That gap has increased slightly since 2000. Males in all three major racial/ethnic groups lag behind females in higher

education participation. Hispanic males had the lowest participation rate among these groups in fall 2012.

Although Texas has met many of the participation targets set by *Closing the Gaps by 2015*, there is room for improvement. The recent decline in student participation signals that challenges still lie ahead. However, the increased enrollment since 2000 illustrates the efforts that have been made by high schools, higher education institutions, businesses, and community leaders to increase higher education participation across the state.

The *Closing the Gaps by 2015* student success goal was established in terms of identifiable outcomes in higher education, resulting from students succeeding in their degree programs and graduating. Success targets for higher education institutions were set for statewide bachelor's and associate's degrees and certificates (BACs), bachelor's degrees, associate's degrees, African American BACs, Hispanic BACs, and doctoral degrees.

The state has already surpassed the *Closing the Gaps by 2015* goal for annual undergraduate credentials awarded. In 2013, 242,823 credentials were awarded. That is well above the target goal of 210,000 credentials awarded per year. Improved graduation rates have helped yield more awards. Further, credentials awarded to African American and Hispanic students are also above targets.

The *Closing the Gaps by 2015* excellence goal was aimed at substantially increasing the number of nationally recognized programs at colleges and universities. The excellence goal was intended to increase the number of nationally recognized programs at each institution of higher education. The state has met its goal of identifying at least one nationally recognized program at each institution. For example, Lamar University's doctoral program in deaf studies and deaf education has achieved national prominence in preparing deaf education leaders. The University of Texas Southwestern Medical Center has achieved recognition in its efforts to research traumatic brain injury research, prevention, and treatment to improve the lives of countless affected veterans, accident victims, and athletes. However, despite national recognition goals being met, there remains room for improvement in terms of increasing the number of nationally ranked institutions.

The *Closing the Gaps by 2015* research goal was intended to increase the level of federal science and engineering research and development obligations to Texas institutions. Also, the goal sought to increase research expenditures by Texas public universities and health-related institutions. The research goal was intended

to highlight the importance for Texas to compete with other states for national research dollars.

The state has surpassed its goal of increasing research expenditures by Texas public universities and health-related institutions. In 2013, the amount of expenditures was \$3.79 billion which exceeded the target goal of \$3 billion by 2015. Although Texas universities and health-related institutions have seen growth, Texas' share of federal science and engineering research and development obligations continue to lag behind its target goal.

As the *Closing the Gaps by 2015* strategic plan comes to an end, a new plan is being developed to continue the goals and achievements that were set forth in the current plan. The THECB created the Higher Education Strategic Planning Committee (the Committee) to develop and discuss initial ideas regarding the next higher education strategic plan. The Committee is comprised of business and academic leaders who are charged with providing advice and making recommendations for the next strategic plan. Over the past few months the Committee has discussed initial strategies to improve and strengthen higher education in Texas.

Woody Hunt, Chair, Higher Education Strategic Planning Committee, recommended that the next set of long-range goals focus on workforce development. Chair Hunt cited a study produced by the Georgetown Center on Education and the Workforce, which states that more than 60 percent of future jobs will require education beyond a high school diploma. When measuring educational attainment, Chair Hunt asserted that the metrics and goals should focus on the workforce population between the ages of 25-64.

According to Larry Faulkner, PhD, Vice Chair, Higher Education Strategic Planning Committee, international benchmarking and remaining competitive with other countries and states should be the standard by which workforce attainment is measured. Dr. Faulkner cited a United States Department of Labor report, which states that a person's earning power is only slightly higher having completed some college, than a person having only obtained a high school diploma. This suggests that emphasis should be placed on completing a higher education credential.

As the new strategic higher education plan is being developed, the Committee should consider focusing on metrics that encourage student completion. Institutions should continue to work on finding ways to make completion and

success rates a priority. Texas' future workforce depends on more students obtaining a postsecondary degree or credential.

Dustin Weeden, Policy Specialist, Education Program, National Conference of State Legislatures, testified that Texas' *Closing the Gaps by 2015* has become the model that other states are following. According to Mr. Weeden, Texas has succeeded in developing effective strategic plans. He recommended that the Legislature be involved throughout the process of crafting the next strategic plan. Furthermore, Mr. Weeden believes that the plan should engage education, business, and political leaders, as well as members of the public. Keeping stakeholders engaged is critical to improve the plan and provide transparency. Finally, Mr. Weeden asserted that the plan should have goals that are clear, objective, and realistic.

Brenda Hellyer, PhD, Chancellor, San Jacinto College, recommended that the plan focus on student success and excellence. First, she stressed focusing on a skilled workforce. Dr. Hellyer illustrated this by demonstrating how San Jacinto College focuses on the petrochemical and maritime industries because of its location and uses these industries as an engine to facilitate student success and excellence. Dr. Hellyer recommended that the next plan take a regional approach and focus on the workforce needs of each region. For example, she discussed how San Jacinto College is taking part in a Community College Petrochemical Initiative, which is a partnership between nine community colleges in the region. Through this partnership, ExxonMobil has donated \$1 million to the area colleges to enhance workplace development and provide educational opportunities.

According to Dr. Hellyer, another focal point should be alignment between higher education and business and industry to identify education and workforce gaps. Dr. Hellyer believes early testing is an important way to identify gaps that exist to ensure students are receiving the proper foundation needed to succeed in college.

Sylvia Leal, EdD, Member, Regional P-16 Council, Vice President for Enrollment Management, The University of Texas Brownsville, recommended that public schools, higher education institutions, and the business community be involved in the student success goals. She also recommended the creation of a repository that would make pertinent information easily accessible to help identify best practices. Having such a repository is one way to improve current sharing gaps that exist between all levels of government.

Finally, Dr. Leal asserted that the next strategic plan continue efforts to ensure that entering college students are college ready. Dr. Leal stressed the importance of improving academic preparation. She suggested that universities provide high school students with degree plans to guide dual enrollment course choices, which may lead to higher degree completion rates.

As Texas moves toward the next higher education strategic plan, it is important for stakeholders to consider the achievements and challenges of *Closing the Gaps by 2015*. The next strategic plan is important to ensure that our higher education institutions provide the best education possible for our students.

Recommendations

The Senate Higher Education Committee makes the following recommendations regarding *Closing the Gaps by 2015* to the 84th Legislature:

01. The Higher Education Strategic Planning Committee should continue to seek input from the Legislature, business community, higher education institutions, and general public in the development of the next strategic plan for higher education.
02. The next strategic plan for higher education should build upon the strengths established by *Closing the Gaps by 2015*, particularly emphasizing metrics that are clear, concise, objective, and feasible. Metrics for the next plan may include: (1) student debt default rates; (2) percentage of undergraduate graduates who are employed or enrolled within 12 months of graduation; (3) graduation of at-risk students; (4) tuition and fees charged compared to peer institutions; (5) increases in enrollment; (6) percentage of Texans that have a postsecondary credential or degree; (7) the number of first-year graduate medical education (GME) positions; and (8) more effective measures of institutional excellence.

Charge Two--*Technology*

Study and make recommendations regarding the impact of technology on higher education instruction, including online courses and massive open online courses (MOOCs), and their impact on higher education excellence, cost, and funding requirements.

Testimony

The Senate Higher Education Committee heard testimony regarding this charge on July 22, 2014. The hearing included invited testimony from the following persons:

- Pamela Quinn, Chair, Learning Technology Advisory Committee, Texas Higher Education Coordinating Board and LeCroy Center Provost, Dallas County Community College District
- Harrison Keller, PhD, Vice Provost for Higher Education Policy and Research, The University of Texas at Austin
- Peter Imbrie, PhD, Director, Undergraduate Education Programs, Engineering Academic and Student Affairs, Texas A&M University
- Melissa Biegert, PhD, Director of Early College High Schools, Austin Community College

Findings/Analysis

Higher education instruction and delivery in Texas, and around the world, has experienced a transition during the past decade. Prior to this transition, digital and online learning was viewed as marginal to traditional classroom based learning. However, higher education has recently shifted towards a greater emphasis on online learning. Institutions such as Harvard, Stanford, and MIT, in addition to leading international institutions, have all embraced new learning technologies, digital learning, and online learning. Many institutions in Texas have followed suit. Technological innovations will continue to be an integral part of the future of higher education.

According to the Online Learning Consortium, there are currently 7.1 million students participating in online learning nationally. Online learning has been the predominant source of higher education growth during the past decade. In fact, about 20 percent of community college and 12 percent of university enrollment in Texas is online. Melissa Biegert, PhD, Director of Early College High Schools, Austin Community College, asserted that higher education institutions need to be flexible by offering more routes to a postsecondary degree or certificate as more jobs are requiring these credentials. Dr. Biegert noted that online learning can be an effective alternative route for many students, especially non-traditional students, to earn a postsecondary credential.

Because institutions across the state are searching for new ways to increase enrollment, while maintaining quality and affordability, technology enhanced education is becoming a viable option. Harrison Keller, PhD, Vice Provost for Higher Education Policy and Research, The University of Texas at Austin, explained how The University of Texas at Austin (UT-Austin), like many other institutions in Texas, has initiatives underway to develop more blended and online courses. For example, UT-Austin is redesigning its large enrollment lower division undergraduate courses to blend classroom instruction and online learning in areas such as chemistry, biology, government, mathematics, English literature, and psychology. Dr. Keller noted how UT-Austin is working with a consortium of Texas colleges and universities and school districts to develop the next generation of lower division courses that are designed for use in multiple contexts, including universities, community colleges, or high schools, where students can receive both high school and college credit. Peter Imbrie, PhD, Director, Undergraduate Education Programs, Engineering Academic and Student Affairs, Texas A&M University, concurred with Dr. Keller in that technology will enable institutions to transform learning in the 21st Century. Texas A&M University is following this

trend and has doubled its enrollment size for engineering by offering interactive online courses. Dr. Imbrie asserted that if stakeholders expect graduates to be leaders and innovators, institutions must utilize technological innovation in higher education instruction by using cutting edge, real world opportunities.

Pamela Quinn, Chair, Learning Technology Advisory Committee, Texas Higher Education Coordinating Board and LeCroy Center Provost, Dallas County Community College District, recommended that the Legislature authorize Texas to join the National Council for State Authorization Reciprocity Agreements (SARA) program. SARA is an agreement among member states, districts, and territories that establishes comparable national standards for interstate offerings of postsecondary distance education courses. The program is overseen by the National Council for SARA and administered by four regional education compacts. To be accepted into a regional state authorization reciprocity arrangement, Texas would have to demonstrate that it is willing and able to meet the criteria for state involvement established in the National Commission report. Texas would have to demonstrate that it has a workable process for authorizing institutions, including at least the following: (1) a willingness to accept institutional accreditation by an accrediting body recognized by the U.S. Secretary of Education as sufficient, initial evidence of academic quality for approving institutions for participation in SARA; (2) a willingness to consider applications from degree-granting institutions of all sectors (public, private non-profit, and private for-profit) and approve institutions that meet SARA standards and agree to SARA processes and commitments; (3) for private institutions, a willingness by the state to accept an institutional federal financial responsibility rating of 1.5 (or 1.0 with justification) as sufficient financial stability to qualify for such participation; (4) a clearly articulated and comprehensive state process for consumer protection in regard to SARA activities, both with respect to initial institutional approval and on-going oversight, including the resolution of consumer complaints; (5) the designation of a “lead agency” to coordinate SARA matters for the state and provide a principal point of contact for resolution of student complaints; and (6) an assurance by the state that it will work cooperatively with other SARA states to enable success of the initiative.

Ms. Quinn asserted that joining SARA will make it easier for Texas students to take postsecondary online courses across state lines. Ms. Quinn noted that the Texas Higher Education Coordinating Board's Learning Technology Advisory Committee supports Texas joining the SARA program. Further, Ms. Quinn stated that if Texas were to join the SARA program, the Texas Higher Education Coordinating Board would be the ideal state agency to solicit and approve

participation in the program from in-state institutions. Although joining SARA requires many steps, including changes in statute, Ms. Quinn emphasized that Texas students would benefit by having the opportunity to take online courses offered by postsecondary institutions based in another state.

Massive open online courses (MOOCs) are becoming more widely offered by Texas institutions. These courses are aimed at unlimited participation and open access via the Internet. In addition to traditional course materials such as videos, readings, and problem sets, MOOCs provide interactive forums that help build a community for students and professors to interact. These open online courses have been an effective marketing tool the past few years to get students "in the door." Dr. Imbrie asserted that MOOCs create affordable learning opportunities for diverse audiences across K-12, higher education, workforce, and the public at large, providing learning and growth experiences.

Dr. Keller explained how UT-Austin has opened some of its MOOCs to anyone around the world, including any high school, community college, or university student. An example would be UT-Austin's Introduction to Psychology course. Approximately 250,000 people from around the world enrolled in UT-Austin's eight open online courses last year in pharmacy, engineering, mathematics, humanities, and fine arts. Although MOOCs are not for college credit, these courses provide opportunities to learn and develop interests.

Even though online learning has gained traction in recent years, there are still concerns related to excellence, cost, and funding. Ms. Quinn stressed that maintaining quality is one major concern. Many instructors and administrators question whether the quality of online courses can be as effective as the traditional classroom setting. Other concerns relate to effectively measuring competencies online and student authentication issues. As online courses continue to be offered statewide, and around the world, these are some of the issues that will need to be monitored moving forward. Ms. Quinn noted that the Learning Technology Advisory Committee at the Texas Higher Education Coordinating Board is monitoring the progression of online learning. Although there are still many questions regarding the effectiveness of online learning, Dr. Keller asserted that the online courses offered at UT-Austin have proven to be successful. Dr. Keller illustrated that failure rates in many of the online courses offered at UT-Austin have been cut in half. Even though online learning is still relatively new in the higher education sector, it may certainly become an effective alternative route for students to obtain a postsecondary degree or certificate. As more students enroll in online courses across the state, and more data become available, these issues will

certainly be examined by higher education educators and administrators, business leaders, and legislators.

Reducing the costs to obtain a postsecondary degree or certificate has become a major focal point for institutions and legislators as tuition and student loan debt continue to rise. Some stakeholders assert that online learning is the solution to this problem. However, there is not enough data to support the theory that online learning results in significant savings to students, institutions, or taxpayers. Some assert that when online courses are properly designed and taught, it is unlikely to result in a major reduction in costs. The support infrastructure for online learning includes faculty, technical help desk, tutoring, access to digital texts and learning materials, and much more. For institutions that add a digital learning layer to existing on-campus learning, there may be some reductions in costs due to a decreased need in physical classroom space while increasing enrollment. However, online learning across the state has not advanced far enough for stakeholders to fully realize the costs and savings associated.

Some higher education institutions argue that they cannot fully embrace online learning due to certain funding constraints. Dr. Keller asserted that although many institutions are undergoing new initiatives related to technology enhanced education, the state's conventional regulatory and funding systems based on contact hours and semester credit hour generation create significant disincentives for technology innovation. Because of this, many institutions that are implementing innovative modes of delivery, such as accelerated online or competency-based approaches, could lose state financial support. Dr. Keller recommended that the Legislature grant the Texas Higher Education Coordinating Board the discretion to partner with institutions to study new alternative funding methods that would encourage institutions to embrace alternative forms of delivery. Encouraging alternative forms of delivery may result in increased enrollment, lower tuition rates, and better access to higher education across the state.

The average student loan debt for graduates of public universities in Texas has risen to over \$24,000. As access to higher education continues to be a topic of discussion, stakeholders should continue to work towards developing alternative methods of delivery to reduce costs. The need for specialized and advanced skills in the workforce increases each day according to business and community leaders. Thus, it becomes critical for more Texans to pursue postsecondary degrees or certificates and advanced knowledge. The impact of technology on higher education should be closely monitored as online learning further develops and is implemented by more institutions across the state.

Recommendations

The Senate Higher Education Committee makes the following recommendations regarding *Technology* to the 84th Legislature:

01. Higher education institutions should continue to monitor the effectiveness of online learning, including massive open online courses, and the financial impact utilizing alternative methods of delivery may have on students, institutions, and the state's workforce.
02. The Legislature should direct the Texas Higher Education Coordinating Board to work with institutions to determine how current funding models impede higher education innovation and make recommendations for alternative funding methods.
03. If the Legislature determines that the state should join the National Council for State Authorization Reciprocity Agreements (SARA) program, the Legislature should work with the Texas Higher Education Coordinating Board and higher education institutions to apply for membership into the program.

Charge Three--*Monitoring*

Monitor the implementation of legislation addressed by the Senate Committee on Higher Education, 83rd Legislature, Regular and Called Sessions, and make recommendations for any legislation needed to improve, enhance and/or complete implementation. Specifically, monitor the following:

- SB 414, relating to a study and report regarding authorizing certain public junior colleges to offer baccalaureate degree programs to address regional workforce needs;
- SB 62, relating to the vaccination against bacterial meningitis of entering students at public and private or independent institutions of higher education;
- SB 28 (2011), relating to eligibility for a TEXAS grant and to administration of the TEXAS grant program; and
- HB 1244 (2011), relating to developmental education and the assessment of student readiness under the Texas Success Initiative and to students enrolled in developmental education at public institutions of higher education.

Testimony

The Senate Higher Education Committee heard testimony regarding this charge on October 13, 2014. The hearing included invited testimony from the following persons:

- Susan Brown, Assistant Commissioner, Planning and Accountability, Texas Higher Education Coordinating Board
- Perry Moore, PhD, Vice Chancellor, Academic Affairs, Texas State University System
- Cary Israel, JD, President, Collin College
- Ray Laughter, Vice Chancellor, Lone Star College System
- Dana L. Watson, PhD, Deputy Chancellor, Academic and Student Services, Central Texas College
- Raymund Paredes, PhD, Commissioner, Texas Higher Education Coordinating Board
- Suzanne Morales-Vale, PhD, Director, Developmental Education and Adult Basic Education, Texas Higher Education Coordinating Board
- Danita McAnally, Chief Planner, Amarillo College
- Jenna Cullinane, PhD, Strategic Policy Lead, The Charles A. Dana Center, The University of Texas at Austin

Findings/Analysis

During the past two legislative sessions, many bills passed that have greatly impacted higher education. As a result, stakeholders continue to research and monitor issues such as offering baccalaureate degree programs at community colleges, adjusting student exemptions for vaccinations against bacterial meningitis, financial aid eligibility, and assessing college readiness.

Senate Bill 414, which passed during the 83rd Regular Legislative Session, directed the Texas Higher Education Coordinating Board (THECB) to study and report its findings with regard to granting public community colleges the authority to offer baccalaureate degrees to address regional workforce needs. The RAND Corporation conducted the study and completed a report on behalf of the THECB. The RAND Corporation focused on five fields of study: nursing, computer and information technology, management in fire sciences, management of production/operations technicians, and health information technology.

Susan Brown, Assistant Commissioner, Planning and Accountability, Texas Higher Education Coordinating Board, provided an overview of the THECB's recommendation to expand the statutory authority for community colleges to offer baccalaureate degree programs. If the Legislature granted community colleges this authority, the THECB recommends that each community college be required to meet a set of criteria prior to offering the degree. This criteria includes meeting the same THECB baccalaureate degree program requirements that universities must meet, preventing the duplication of existing programs, having adequate faculty resources, and demonstrating workforce need. Additionally, any baccalaureate degree program must be based on an existing, successful associate degree program in the same field currently offered by the community college. Each community college must also demonstrate a clear workforce need for a new baccalaureate degree program, which must be approved by the THECB. The THECB additionally recommends that community colleges first seek a partnership with a four-year institution before seeking authority to offer baccalaureate degree programs. Finally, community colleges must meet the current statutory criteria of having at least \$2.5 billion in property valuation at the campus where the baccalaureate degree program will be offered.

Ms. Brown noted that in the field of nursing, four-year institutions expressed particular concerns regarding mission creep, lack of adequate faculty, quality of programs, and duplication of programs. To alleviate these concerns, the THECB recommends requiring new baccalaureate degree programs to review faculty

clinical resources and admission standards. The THECB also recommends that bachelor's of science in nursing degree programs offered by community colleges meet national accrediting standards. Ms. Brown also stated that four-year institutions noted concerns regarding potential programs in applied sciences relating to duplication of existing programs and possible increases in tuition at community colleges. The THECB believes that these issues may be mitigated through proper agency oversight.

Perry Moore, PhD, Vice Chancellor, Academic Affairs, Texas State University System, expressed concerns regarding the possibility of mission creep and harm to existing partnerships between community colleges and four-year institutions. Dr. Moore illustrated how similar legislation in Florida altered the higher education landscape. In 2001, Florida granted community colleges the authority to offer baccalaureate degree programs and has since experienced a significant increase in the number of community colleges offering baccalaureate degrees as well as the number and types of degrees offered. Dr. Moore reiterated that Texas may face a similar fate if the THECB is unable to provide adequate regulation.

Cary Israel, JD, President, Collin College, testified that the nursing shortage in Texas is one reason to allow for the expansion of baccalaureate degree programs. President Israel stated that between 2005-2020, the demand for registered nurses in Texas will rise by 86 percent. He also noted that less than 50 percent of the current nursing workforce has a baccalaureate degree. Allowing community colleges to offer this credential, according to President Israel, would help to alleviate this significant shortage in Texas' workforce.

Student cost is another factor to be considered in the expansion of baccalaureate degree programs. President Israel asserted that neither providing quality faculty nor the THECB's requirements would have a negative impact on student tuition at Collin College. He believes it is important that community colleges are allowed to provide baccalaureate degrees to increase competition and provide students with more educational opportunities.

As the 84th Legislative Session approaches, there will continue to be discussions regarding public community colleges' authority to offer baccalaureate degree programs. Community colleges, four-year institutions, and the THECB should continue to work together on this matter to ensure students remain the top priority.

Senate Bill 62, which passed in the 83rd Regular Legislative Session, amended the bacterial meningitis vaccination requirement for entering college students. State

law now requires entering students under the age of 22 to receive a bacterial meningitis vaccination, unless exempted. SB 62 also requires the Department of State Health Services to create an internet-based exemption process for students seeking an exemption from the requirement.

Ray Laughter, Vice Chancellor, Lone Star College System, testified that SB 62 has had a positive impact on Lone Star College because it has mitigated many of the challenges brought on by previous legislation. According to Mr. Laughter, lowering the age requirement has had a significant positive impact. Creating an internet-based exemption process has also eliminated many challenges community colleges were previously having. Prior to SB 62, students were required to complete exemption forms that were required to be notarized. SB 62 simplified the verification process for both students and colleges.

Dana L. Watson, PhD, Deputy Chancellor, Academic and Student Services, Central Texas College, recommended that the Legislature add an additional exemption for students currently in the armed forces or reserves. According to Dr. Watson, the verification requirement in SB 62 is time consuming and costly to colleges, including Central Texas College. Because active military and reserves personnel are required to have this vaccination as part of their military service, these students should not be required to provide verification as it is an unnecessary burden to the students and colleges.

Senate Bill 28, which passed during the 82nd Legislative Session in 2011, established the Priority Model for the TEXAS Grant Program. SB 28 prioritizes financial aid for students that demonstrate the greatest financial need and meet certain academic criteria. To gain priority status under the Priority Model, students must demonstrate that they are academically prepared by achieving two of the four priority criteria. The Priority Model's criteria are: (1) earn at least 12 hours of college credit (e.g. dual credit, AP), graduate under the Distinguished Level of Achievement High School Plan, or graduate under the International Baccalaureate Program; (2) complete a math course beyond Algebra II; (3) rank in the top third of the high school graduating class, or attain a B average; and (4) achieve a college readiness threshold as determined by the Texas Success Initiative (TSI) or be exempt from the TSI. TEXAS Grants are first distributed to students who meet at least two of the Priority Model criteria. Any remaining funds are then distributed to students who do not meet the Priority Model criteria. All students who receive a TEXAS Grant, whether they are classified as priority or otherwise, still are required to be financially needy.

Raymund Paredes, PhD, Commissioner, Texas Higher Education Coordinating Board, noted that the THECB data illustrate that students meeting the Priority Model criteria are twice as likely to complete college compared to students that do not meet the criteria. According to data provided by the THECB, there has been no significant change in the race, ethnicity, geographic makeup, or socio-economic status of students who receive a TEXAS Grant. In the THECB's legislative appropriations request, it requested an additional \$137.9 million in funding for TEXAS Grants, which would fully fund the program. At this funding level, universities and health-related institutions could make \$5,300 awards to all eligible entering students and returning recipients.

In 2008, there were four assessment instruments used to measure college readiness. Higher education institutions were also allowed to raise college readiness standards above the minimum standards set by the THECB. In 2011, during the 82nd Legislative Session, House Bill 1244 required the THECB to prescribe a single set of standards for college readiness and implement accelerated pathways.

Suzanne Morales-Vale, PhD, Director, Developmental Education and Adult Basic Education, Texas Higher Education Coordinating Board, testified that the new Texas Success Initiative Assessment tool (TSIA) changed how Texas serves underprepared students. The TSIA measures knowledge and skills critical to success as identified by teachers and higher education officials. TSIA includes a diagnostic test to target support services, has an adaptive learning tool, aligns to adult standards, and is inexpensive. For each subject area, the assessment classifies students as one of the following: college ready, needing developmental education, or needing adult basic education.

Dr. Morales-Vale noted that preliminary data demonstrate that students are entering college at similar levels of readiness compared to previous assessments. Less than 1 percent of students taking the TSI were placed in adult basic education for all three subject areas (math, reading, and writing). She also stated that Texas continues to make progress in the number of students that are considered college ready. Danita McAnally, Chief Planner, Amarillo College, explained that although students are at the same levels of college readiness prior to the TSI, developmental education and adult basic education are still critical. Ms. McAnally asserted that a lack of funding makes it challenging for community colleges to effectively provide the resources needed in providing developmental education and adult basic education.

Ms. McAnally also highlighted the importance of programs like Accelerate Texas. Currently, there are 21 community colleges that participate in this program. Accelerate Texas has been instrumental in getting students through the developmental education pipeline. Ms. McAnally recommended that increased funding be allocated to fund similar programs because of the great success these types of programs have had on thousands of students across the state.

Jenna Cullinane, PhD, Strategic Policy Lead, The Charles A. Dana Center, The University of Texas at Austin, explained The New Mathways Project collaboration between The Charles A. Dana Center, the Texas Association of Community Colleges, and all 50 community college districts. The project is a systemic approach to improve success in both developmental and college level math. The New Mathways Project is another example of how colleges are helping students succeed.

Preliminary data show that 50 percent of entering community college students are taking developmental education courses, with many focused on math. After one year in developmental education, fewer than 5 percent of students become defined as college ready. After three years, approximately 18 percent of students meet college readiness standards. These data illustrate that developmental education remains a significant barrier to students successfully completing college. According to Dr. Cullinane, the New Mathways Project has a success rate of more than 50 percent for students that remain in the program for at least one year. Thus, programs like this will continue to be vital to the state's educational needs.

Recommendations

The Senate Higher Education Committee makes the following recommendations regarding *Monitoring* to the 84th Legislature:

01. If the Legislature chooses to provide community colleges with the authority to offer baccalaureate degree programs, in addition to the recommendations of the Texas Higher Education Coordinating Board, it should consider the implications with regards to: (1) formula funding; (2) financial aid programs; (3) exemptions or waivers for tuition and fees; and (4) avoiding duplicative programs.
02. The Legislature should consider not making significant changes to the Priority Model or Texas Success Initiative until additional data become available.
03. The Legislature should consider exempting active military personnel from the requirement to receive the vaccination for bacterial meningitis by signing an affidavit confirming their military status or presenting a valid military identification card.

Charge Four--*Teacher Preparation*

Examine and make recommendations regarding improvements in teacher preparation and certification programs to address any misalignment with school district shortages and problems with retaining new teachers.

Testimony

The Senate Higher Education Committee heard testimony regarding this charge on July 22, 2014. The hearing included invited testimony from the following persons:

- Michael Williams, JD, Commissioner, Texas Education Agency
- Raymund Paredes, PhD, Commissioner, Texas Higher Education Coordinating Board
- Robert McPherson, PhD, Dean, College of Education, University of Houston
- Diann Huber, EdD, President, iTeachTEXAS
- Alex Torrez, PhD, Superintendent, Pflugerville Independent School District
- John Fitzpatrick, Executive Director, Educate Texas

Findings/Analysis

Education is one of Texas' highest priorities. It is critical that the next generation of Texans are well educated and are qualified to fill the future workforce needs of the state. Some of the greatest challenges the state faces in this regard are preparing teachers who are effective at delivering instruction and managing a classroom. As we move toward the 84th Legislative Session, it is imperative that the Legislature work with education leaders throughout the state to provide Texas' teachers with the tools needed to be successful.

There are two overarching categories of educator preparation programs (EPPs) in Texas: (1) the traditional preparation degree program offered at higher education institutions; and (2) alternative certification programs offered by nonprofit or for-profit organizations. According to the National Council for Teacher Quality (NCTQ), nearly 40 percent of Texas' teachers are trained by an alternative certification program. Alternative certification programs are accelerated programs that often serve people looking to change careers and enter the teaching profession.

Raymund Paredes, PhD, Commissioner, Texas Higher Education Coordinating Board (THECB), provided an overview of how successful EPPs operate. He noted that high quality EPPs typically offer substantial field-based classroom training and mentorship as well as education in proper pedagogical framework. He also discussed the variations in retention rates of Texas' traditional preparation programs and alternative certification programs. Citing data from the Texas Education Agency (TEA), Commissioner Paredes stated that, using five years as a benchmark, teachers trained in traditional preparation programs remain in the profession longer than those trained in alternative certification programs.

Commissioner Paredes, citing research by McKinsey & Company and the Organization for Economic Co-Operation and Development (OECD), provided an overview of four key components to retain effective teachers. The first is getting the right people to become teachers through rigorous assessments. Second, there should be a method to provide salary incentives and encourage a general cultural respect for the profession. Another component is allowing teachers to develop skills through training and mentorship programs with experienced colleagues while spending a significant amount of time in the classroom. Finally, employing school principals that provide effective leadership helps retain quality teachers.

Michael Williams, JD, Commissioner, TEA, discussed challenges with recruiting and retaining quality teachers in Texas classrooms. Commissioner Williams

asserted that school districts cannot find enough qualified teachers to keep up with demand, especially in science, technology, engineering, and mathematics (STEM) fields. In addition to low salaries and a lack of prestige held for teachers in our culture, Commissioner Williams believes a lack of support for teachers also contributes to low retention rates. He noted that research-based professional development is a key component to ensuring that teachers are provided the skills necessary to be effective professionals. He suggested that it is critical that Texas provide ongoing support and quality professional development to ensure the best education for Texas students.

Robert McPherson, PhD, Dean, College of Education, University of Houston, added that research has found that teachers reach peak effectiveness after seven years of teaching. This research indicates that it is important to retain teachers for the long-term by providing ongoing support and compensation. Ultimately, retaining quality teachers will be a key to increasing students' educational attainment.

Alex Torrez, PhD, Superintendent, Pflugerville Independent School District, also detailed the challenges of recruiting and retaining teachers in Pflugerville ISD. Dr. Torrez noted that some subject areas, such as health science technology, are difficult to recruit for because they require specialized skills and training, and they may be able to earn higher salaries outside of the teaching profession. He stated that in his discussions with other superintendents, many expressed concerns regarding specific qualifications for teachers in particular subject areas.

There are several key characteristics that all EPPs should have in order to produce quality educators. Commissioner Paredes stated that incorporating field-based training early on in the program is important. This enables teacher candidates to learn about situations that are applicable in the classroom setting. Current law requires that teacher candidates complete 30 hours of field-based training and 15 of those hours must to be in the classroom. As a result, many teachers certified by alternative certification programs may have difficulty managing their classrooms. John Fitzpatrick, Executive Director, Educate Texas, recommended that the Legislature reconsider whether 30 hours of field-based training for teachers in alternative certification programs is sufficient and suggested that increased field-based training would better prepare these teachers.

Dr. Torrez further explained that a critical aspect of teaching is being able to manage students in the classroom, particularly when it comes to discipline. He believes that many new teachers are not adequately prepared to assist students in

different situations. Dr. Torrez asserted that in his experience, many teachers trained in alternative certification programs lack classroom management skills and that this may hinder their ability to manage a classroom.

Texas also should ensure that teachers are capable of teaching up to the rigor of college and career readiness standards. According to the OECD study, students in the United States are generally a year and a half behind in their studies when compared to their peers in the highest achieving countries. Commissioner Paredes asserted that many students drop out of school because the curriculum is not very demanding or interesting. House Bill 1752, passed in the 83rd Regular Legislative Session, created the Texas Teacher Residency Program. This program aims to recruit and better prepare qualified teachers in high demand fields, such as STEM, to ensure the rigor of the curriculum remains on target with college and career readiness standards.

Commissioner Paredes recommended that the Legislature hold both traditional and alternative EPPs to the same rigorous graduation standards. Dr. McPherson added that the Legislature should adopt rigorous statewide accreditation standards that all EPPs must follow. Dr. McPherson testified that this would ensure all EPPs are structured to produce well prepared teachers. Specifically, accreditation by the Council for the Accreditation of Educator Preparation allows for innovation at each program, while also maintaining high standards. Diann Huber, EdD, President, iTeachTEXAS, agreed that requiring a national or regional accreditation for all EPPs would help regulate and improve the quality of all programs.

Commissioner Paredes recommended that EPPs establish strong relationships with school districts to better collaborate and provide support for new teachers. Mr. Fitzpatrick also stressed the importance of collaboration between EPPs and school districts. Mr. Fitzpatrick testified that this would enable teacher candidates to receive the most up-to-date information and techniques for instruction.

There are many different organizations in Texas that run alternative certification programs, including 13 community colleges across the state, several education service centers, five school districts, and a program run by Harris County. Commissioner Williams explained that over the last five years, there have been a growing number of teachers certified by alternative certification programs. However, between 2011-2012, there was a decrease in those numbers. Commissioner Williams believes this was a result of state budget reductions, which resulted in school districts hiring 11,000 fewer new teachers that year.

Additionally, there were 5,000 fewer new teachers coming out of alternative certification programs in 2011.

Commissioner Williams stated that it is difficult for TEA to determine precisely where teacher shortages exist within school districts because of the way data are collected. Currently, TEA is only able to determine that there are shortage areas, but are not capable of sorting the data in a manner that show where specific shortages exist. Because of a lack of data, there are many unanswered questions regarding teacher shortages. TEA should work with the Legislature, THECB, and the Texas Workforce Commission to establish new ways to collect and report pertinent data.

Mr. Fitzpatrick noted that Texas is a national leader in providing alternative routes to teacher certification and increasing accountability requirements for EPPs. Although Texas has high standards pertaining to EPPs, Mr. Fitzpatrick asserted that more must be done at all levels to ensure these programs are producing well prepared teachers. Mr. Fitzpatrick believes that one critical aspect lacking in the state's accountability system is data that reflect teacher success rates. While there are some data collected on EPPs as a whole, the state needs to collect data on each specific program to determine the effectiveness of the teachers they certify. Although Senate Bill 174, passed by the 81st Legislature, established measures to determine the effectiveness of teachers in the classroom, the measures have not been fully implemented.

Dr. Huber also suggested the state take a different approach to using data on teacher retention that are already collected and available. She feels the data collected for traditional EPPs are not accurately analyzed since it only tracks teacher candidates that complete the training program and are then subsequently hired, and does not track the number of teacher candidates that complete the training program but do not enter the teaching profession. For alternative certification programs, Dr. Huber explained that Texas does not calculate retention from the time the teacher candidates receive their probationary certificate, but only calculates it from the time they receive their standard certificate. As a result, the state's calculation of retention for alternative certification program teacher candidates represents one year less than the teacher has actually been in the classroom. She also stated that tracking how quickly each alternative certification program is able to move its teacher candidates from a probationary certificate to a standard teaching certificate would be a useful accountability standard. Dr. Huber proposed to include this measure in the Texas Administrative Code and adjust the current accountability standards. Dr. Huber asserted that while data are provided to

the TEA from EPPs, the data are not analyzed in a way to review the performance of individual certification programs.

As Texas becomes increasingly diverse, Commissioner Williams believes that the state should provide more training to teacher candidates on how to adapt to the changing racial dynamic of classrooms and the unique needs of Texas students. Commissioner Paredes also emphasized the importance of providing teacher candidates with innovative approaches so that they can be successful in classrooms, particularly those with high percentages of diverse student populations. Furthermore, Mr. Fitzpatrick recommended the Legislature implement high-quality training for teachers on how to teach a diverse student population with varying learning needs. Mr. Fitzpatrick suggested TEA develop more defined standards of the skills needed to teach diverse student populations and set a minimum requirement in coursework rules. Mr. Fitzpatrick believes these changes will lead to more meaningful teacher training and positively impact student learning.

Recently, the University of Houston's College of Education was ranked by the NCTQ as one of the top EPPs in the country. Dr. McPherson stated that there are several factors that make their program so successful. He explained that their College of Education has developed close relationships with school districts in the Houston area because collaboration provides many benefits to teacher candidates. These relationships have allowed the College of Education to tailor their program to best prepare teachers for the needs of Houston area schools. This collaboration also makes it easier for teachers to find jobs in the area once they become certified. The College of Education is also fairly selective in its admissions. Because the program only accepts top students, Dr. McPherson believes the teachers that graduate from their program are prepared to succeed in the classroom. The program also provides teacher candidates with six credit hours of student teaching, and most recently implemented a year-long field placement program as a bridge to teacher residencies. Furthermore, The University of Houston requires secondary education teacher candidates to major in a specific subject area that they wish to teach. This provides teacher candidates with a solid background in that subject.

As tuition costs continue to rise at universities, Dr. McPherson asserted that the cost to enroll in a traditional college of education is outpacing the rate of return. He recommended that loan repayment programs be extended beyond teaching in low-income areas. Furthermore, Dr. McPherson stated that teacher salaries should be raised to make the field more desirable. He noted that salaries should be differentiated for high-need subject areas such as STEM, bilingual, and special

education teachers. Doing so may help alleviate the shortages of teachers in those areas. Dr. Torrez also asserted that low salaries contribute to an existing negative perception of the teaching profession. As a result, fewer qualified people enter the field.

Dr. Huber spoke about iTeachTEXAS, her for-profit alternative certification program, and the role of alternative certification programs in Texas. iTeachTEXAS was nationally accredited by the National Council for Accreditation of Teacher Education in 2012 and was the first alternative certification program approved to offer all online courses. Dr. Huber testified that alternative certification programs have grown tremendously since 1980 due to teacher shortages. Currently, alternative certification programs on a national level certify more than 35,000 teachers per year.

Another issue Dr. Huber discussed is the importance of mentoring teachers during their first year in the classroom. The No Child Left Behind Act requires that a teacher "receive, before and while teaching, high-quality professional development that is sustained, intensive, and classroom-focused." Currently, Texas mandates three observation visits to new teachers, as well as mentors provided by the school district, but mentors are often unavailable. Providing support to new teachers is critical, especially those trained in alternative certification programs because these programs do not require as much field-based training compared to traditional programs. Furthermore, Dr. Huber testified that some EPPs do not provide adequate mentorship during a teacher's first year in the classroom. Dr. Huber stated that her program provides a minimum of five formal classroom observations and support from iTeachTEXAS field supervisors, who are retired teachers that work closely with first year teachers. These field supervisors help new teachers develop the practical classroom management skills needed in the profession. Dr. Huber believes that the high retention rate of iTeachTEXAS teachers is in part due to the effectiveness of these field supervisors.

Mr. Fitzpatrick added that teacher candidates should be mentored by experienced, successful teachers throughout field-based training to provide ample guidance and support. Furthermore, Dr. Torrez stated that while school districts aim to provide opportunities for mentorship, more needs to be done. He recommended that more classroom assistance and mentorship be provided by EPPs to first year teachers. Dr. Torrez also suggested that EPPs include an observation period associated with field-based training for teacher candidates.

Currently, the number of field supervisors employed by EPPs, specifically, the ratio of new teachers to field supervisors, is not reported to the state. Dr. Huber believes this information should be annually reported because it allows the state to determine the effectiveness of field supervisors at specific EPPs. With this information, the state could establish a minimum ratio of field supervisors to teacher candidates for alternative certification programs.

As Texas looks to improve education across the state, it is clear that the same standards for rigor, accountability, and preparation need to be consistent among all EPPs. With such a large portion of teachers getting certified by alternative certification programs, there must be uniformity in their training compared to traditional preparation programs. Successful EPPs provide quality professional development and support to ensure teachers remain in the classroom throughout their career. EPPs should continue to work with the Legislature, TEA, THECB, and education stakeholder groups to further enhance these training programs.

Recommendations

The Senate Higher Education Committee makes the following recommendations regarding *Teacher Preparation* to the 84th Legislature:

01. The Texas Education Agency and Texas Higher Education Coordinating Board should develop a set of data that are essential to monitor the effectiveness of teacher preparation programs. Data points may include: (1) the ratio of new teachers to field supervisors at specific EPPs; (2) the length of time it takes a teacher to progress from a probationary certificate to a standard teaching certificate; and (3) teacher retention and success metrics.
02. The Legislature should consider increasing requirements to enter the teaching profession, which may include increasing the minimum grade point average, completing a minimum number of semester credit hours in the subject area in which the person is seeking a certificate, or additional classroom training for all teacher preparation programs.
03. The Legislature should consider a uniform minimum standard that all EPPs should meet, which may include requiring all programs to be nationally accredited.

Charge Five--*Dual Credit*

Review and make recommendations regarding the use of dual credit coursework and other secondary school programs for college credit, including the academic rigor of such programs and predictive value for college success.

Testimony

The Senate Higher Education Committee heard testimony regarding this charge on October 13, 2014. The hearing included invited testimony from the following persons:

- Daniel King, PhD, Superintendent, Pharr-San Juan-Alamo Independent School District
- Bill Holda, EdD, President, Kilgore College
- Ray Keck, PhD, President, Texas A&M International University

Findings/Analysis

In 2006, the Texas Legislature, recognizing the benefit of high school students earning college credit, mandated that Texas students be offered the opportunity to earn at least 12 college hours while in high school. Section 28.009 of the Education Code states that these requirements may be met by offering dual credit for college courses, advanced technical courses, advanced placement courses, and/or international baccalaureate courses. This legislation, in conjunction with state funding support, has created a growing trend towards participation in dual credit courses and other secondary school programs for college credit. In fact, dual credit enrollment has grown from about 18,000 students in 2000 to over 107,000 students in 2013. Most of this dual credit enrollment is provided by Texas community colleges.

The Texas Higher Education Coordinating Board (THECB) defines dual credit as a process by which a high school student enrolls in a college course and receives simultaneous academic credit for the course from both the college and the high school. Most dual credit courses are taught on the secondary school campus to high school students; however, a high school student can also take a course on the college campus and receive both high school and college credit. Dual credit programs are created locally through the process of a college or university partnering with one or more school districts through a memorandum of understanding. This process ensures that the local community is afforded the opportunity to develop the courses and partnerships that best meet the needs of its own students and local workforce.

Texas law allows both school districts and colleges to obtain state funding for dual credit courses. Senate Bill 31, passed in the 83rd Regular Legislative Session, limits state funding for dual credit courses to (1) a course in the core curriculum of the institution providing course credit; (2) a career and technical education course that applies to any certificate or associate's degree offered by the institution providing course credit; or (3) a foreign language course. The state allocates funding to school districts based on students' average daily attendance, and districts can count time spent on dual credit towards this funding formula. Colleges receive state formula funding for contact or credit hours of instruction. Decisions about who pays tuition, fees, and other costs for dual credit courses are made at the local level as determined by the memorandum of understanding. Some school districts pay for the students, either out of local funds or from their high school allotment, while other districts require the students to pay for these courses. Section 54.216 of the Education Code states that public institutions of higher education are allowed to

waive all or part of the mandatory tuition and fees for dual credit courses. Most Texas community colleges waive all or part of the costs associated with dual credit courses, while few universities offer waivers.

Early college high schools (ECHS) are another avenue for students to earn college credit while in high school. ECHS are innovative high schools that allow students least likely to attend college to have an opportunity to earn a high school diploma and up to 60 college credit hours. ECHS provide dual credit at no cost to the students; offer rigorous instruction and accelerated courses; provide academic and social support services to help students succeed; increase college readiness; and reduce barriers to college access. Ray Keck, PhD, President, Texas A&M International University, stated that ECHS are specifically designed to help at-risk students. Texas is below the national average in terms of the percent of adults who have any type of postsecondary credential, and ECHS are an efficient and effective way for students to simultaneously obtain a high school diploma and a higher education credential.

Daniel King, PhD, Superintendent, Pharr-San Juan-Alamo Independent School District, believes that ECHS have had a positive impact on high school graduation, college enrollment, and college degree attainment. In fact, according to a national study of ECHS, 30 percent of ECHS students earn an associate's degree or other postsecondary credential while still in high school. ECHS are succeeding at the state's most daunting challenges and propelling students from underserved backgrounds to graduate from high school and earn postsecondary degrees, outpacing typical outcomes for low income youth, first generation college enrollees, and minority students.

Dr. King asserted that dual credit and ECHS have been effective in Texas because (1) students experience college rigor while in high school; (2) students develop confidence in being able to succeed in college; (3) students see themselves as college students and visualize completing a degree; and (4) college is made more affordable for students and parents. Dr. Keck illustrated data that demonstrate the positive impact these programs have had on students traditionally underrepresented in college; including minority students, males, low income students, first generation enrollees, and students with low grade point averages.

Although dual enrollment has been largely successful, there are still challenges. Bill Holda, EdD, President, Kilgore College, stated that some challenges include a lack of a critical mass, many very small schools, difficulties with transportation to dual credit sites, schedule issues, and student involvement in multiple activities.

Dr. Holda stressed that these challenges can limit dual credit involvement for many students. Even though school districts and colleges obtain state funding for dual credit courses, these courses may still be costly to students. Texas has no state mandate to require school districts or colleges to pay for dual credit textbooks, which may cost hundreds of dollars per book. In most cases, this expense falls on the student and presents a barrier to enrollment, especially in low income households. Some students are also unable to travel to a college campus or other location to attend a dual credit course. Because of the positive effects associated with students earning college credit while in high school, districts and colleges should continue to work together on resolving these issues to ensure all students have access to dual credit coursework.

Dual credit has grown rapidly during the previous decade, and with that growth there have been questions raised about the rigor and consistency of dual credit courses. School districts and colleges use multiple means to ensure quality and rigor of dual credit courses. Dr. Holda asserted that rigor is not a problem because dual credit students use the same learning outcomes, assessment tests, and are subject to the same grading systems as college-level students. Additionally, Dr. Keck stated that students follow a common syllabus for the courses and this helps maintain quality. Dr. Holda explained that many dual credit courses are taught by full-time faculty, and even when high school teachers instruct a course, they must have the proper credentials. State law requires that all dual credit instructors be qualified to teach at the college level. Specifically, Title 19, Part I, Chapter 4, Subchapter D, Rule 4.85(e)(1) of the Texas Administrative Code requires that dual credit instructors be regular college faculty, or must meet the same standards and approval procedures used by the college to select faculty responsible for teaching the same courses at the main campus of the college.

Colleges also are required to supervise the high school teachers that teach dual credit courses to ensure the course remains consistent with that of a college-level course. According to Title 19, Part I, Chapter 4, Subchapter D, Rule 4.85(e)(2) of the Texas Administrative Code, dual credit instructors must be supervised and evaluated using standards equivalent to those used for regular faculty at the higher education institution that is offering the course. As dual credit enrollment continues to increase, school districts and colleges should continually monitor and ensure that the quality and rigor of dual credit courses remain on par with the same courses being offered at higher education institutions.

Dr. King noted that expanding dual enrollment and ECHS programs is likely the most powerful strategy to increase college success. National studies indicate that

participation in dual credit correlates positively with college enrollment, persistence in college, and higher college grade point averages. Dr. King explained how dual enrollment students have better educational attainment. Dual enrollment students: (1) are graduating at rates above the state and national average; (2) are twice as likely to enroll in college after high school; (3) are twice as likely to enroll in a four-year college; (4) are persisting at greater rates; and (5) are 75 percent more likely to graduate from college. Data clearly demonstrate that dual credit attainment is a predictive value for college success.

With more than 50 percent of the entering college freshmen already having received college credit, dual credit coursework and other secondary school programs for college credit are clearly having a positive impact on education in Texas. Thus, it is important that the Legislature, school districts, and higher education institutions continue to support dual credit enrollment and ECHS.

Recommendations

The Senate Higher Education Committee makes the following recommendations regarding *Dual Credit* to the 84th Legislature:

01. Texas school districts and public institutions of higher education should continue to work together to encourage shared usage of equipment and facilities for dual credit purposes.
02. Public institutions of higher education should improve oversight of dual credit programs and include those improvement procedures in their written partnership agreements with school districts, paying particular attention to monitoring and assisting dual credit instructors and ensuring that dual credit courses are rigorous and consistent.
03. The Texas Education Agency, Texas Higher Education Coordinating Board, and Texas Workforce Commission should align data systems and encourage data sharing for more efficient and effective tracking of students to and through college, and then into the workforce.
04. The Legislature should ensure that all Texas students have access to at least 12 semester credit hours of college credit while enrolled in high school.

Charge Six--*Alignment*

Examine and make recommendations regarding alignment between high school coursework and expectations in freshmen level college coursework. Study the impact of particular coursework, specifically mathematics (including Algebra II) and science courses, as predictors of college readiness and success.

Testimony

The Senate Higher Education Committee heard testimony regarding this charge on October 13, 2014. The hearing included invited testimony from the following persons:

- Monica Martinez, Associate Commissioner, Standards and Programs, Texas Education Agency
- David Gardner, PhD, Deputy Commissioner, Academic Planning and Policy, Texas Higher Education Coordinating Board
- Barbara Cargill, Chair, State Board of Education
- Greg Smith, PhD, Superintendent, Clear Creek Independent School District
- Shirley Reed, EdD, President, South Texas College
- Daniel Brown, PhD, Dean, University College, Texas State University

Findings/Analysis

The alignment of high school coursework and college readiness standards is an integral part of student success and helps to ensure that students graduating from high school have the knowledge base necessary to succeed in higher education. For over a decade, Texas has been working with teachers and higher education faculty to bridge the gap between high school and college. The adoption of the College and Career Readiness Standards (CCRS) in 2008 was a significant milestone in this effort. More recently, the implementation of the Texas Success Initiative, a single streamlined standard assessment of college readiness, and House Bill 5 in the 83rd Regular Legislative Session, changing public school accountability, assessment, and curriculum requirements, have also resulted in significant progress. As these initiatives are carried out, there must continue to be discussions on alignment.

Barbara Cargill, Chair, State Board of Education (SBOE), spoke on the Texas Essential Knowledge and Skills (TEKS) used by Texas' public schools as learning standards for each subject. TEKS must denote knowledge and skills that lead to student success. Chair Cargill stated that TEKS must also be clearly defined, written explicitly for each course at every grade level, and be measurable. TEKS must incorporate the latest research and align across all grade levels. Chair Cargill explained that TEKS are the basic skills students must master, while CCRS are skills that require a deeper level of analyzing, questioning, and critiquing.

Currently, work is underway by the SBOE, in collaboration with the Texas Education Agency (TEA), High Performing Schools Consortium, and other stakeholders to revise and streamline the TEKS. Many stakeholders asserted that the scope of the TEKS is too broad and does not allow teachers to properly cover each topic. Chair Cargill agreed that the breadth and depth of the TEKS for some subjects is disproportionate. She explained that the SBOE is working with stakeholders to address these issues. Additionally, the SBOE and TEA have consulted with a curriculum standards expert in hopes of gaining a better understanding to fix these problems. With over 900 core curriculum TEKS from the third grade through the twelfth grade, it is imperative that stakeholders address the scope of the current TEKS.

Most recently, the mathematics and career and technology education TEKS were revised. Chair Cargill noted that TEKS writing committees are made up of teachers, parents, business and industry leaders, and employers, and are tasked to

ensure alignment between the revised TEKS and CCRS. Monica Martinez, Associate Commissioner, Standards and Programs, Texas Education Agency, noted that writing committees use CCRS throughout the revision process. Ms. Martinez also stated that all drafts of the revised TEKS are posted on the TEA website for review by the public before they can be adopted by the SBOE. This enables the public to provide valuable input and creates a more transparent process.

Greg Smith, PhD, Superintendent, Clear Creek Independent School District, described some of the misalignment between TEKS and CCRS as related to Algebra. He stated that the expectations of the old mathematics TEKS required students to learn Algebra I with an emphasis on function-based approaches. In the old Algebra I TEKS, 20 out of the 22 knowledge statements pertained to function-based approaches, while many colleges determine students to be college-ready by a student's ability to solve algebraic problems from equation-based approaches. Chair Cargill explained that in the newly revised Algebra I TEKS, there are now 49 content TEKS in total, and 41 percent of those use the word "function," while 35 percent contain the word "equation." The writing committees aligned the new Algebra I TEKS with the CCRS. The Algebra I TEKS now represent a better balance in teaching functions and equations. Dr. Smith recommended that the TEKS and CCRS be further examined for consistency, specifically in areas concerning instructional approaches and alignment to high school assessments and the Texas Success Initiative. Shirley Reed, EdD, President, South Texas College, agreed, recommending that the SBOE and TEA, along with the Texas Higher Education Coordinating Board, work together on more effective alignment.

As a result of HB 5, Ms. Martinez explained that the TEA is in the process of developing two new mathematics courses as alternatives to Algebra II: Statistics and Algebraic Reasoning. These two courses will be comparable in rigor to Algebra II, teaching many of the same concepts and enable students to be successful on the Texas Success Initiative.

The connections between the TEKS and CCRS are more clearly illustrated in crosswalk documents. These documents show how the two standards interconnect in clusters for each subject and grade level. Crosswalk documents are available on some school district and college websites, and the Achieve Texas College and Career Initiative website. Chair Cargill recommended that the Legislature fund the development of official crosswalk documents that could be publicly viewed on the TEA website. This would provide teachers and other stakeholders with an easily accessible resource on the alignment of these two standards.

David Gardner, PhD, Deputy Commissioner, Academic Planning and Policy, Texas Higher Education Coordinating Board, explained that rigorous coursework in high school best prepares students for college. Moreover, students who earn a distinguished diploma in high school are more prepared for college than those students who do not. Dr. Gardner stressed that rigorous coursework must continue to be a priority in the classroom to more effectively prepare students for college. Additionally, Dr. Gardner asserted that students who take higher level mathematics and science courses in high school, meet college readiness benchmarks at higher rates. Furthermore, students who take higher level mathematics courses in high school earn higher grade point averages in their first year of college and graduate from college in greater numbers.

Quantitative skill development, a significant component of mathematics and science courses, is required of many college majors. Daniel Brown, PhD, Dean, University College, Texas State University, stated that students must continue to take mathematics and science courses throughout high school and into college in order to cultivate quantitative skills. Dr. Brown asserted that curriculum alignment implies content completion without interruption. He also discussed the positive correlation between the highest level mathematics course completed in high school and a student's drive to complete a baccalaureate degree. Dr. Brown explained that students who complete Algebra II are more likely to be admitted to selective colleges, maintain higher grade point averages in college, and complete a postsecondary degree. Moreover, the rigor of Algebra II and higher level mathematics courses in high school also influences student success. Dr. Brown recommended that Texas maintain rigor in the classroom and include a fourth year of science and mathematics, specifically Algebra II, in the high school curriculum.

Communication between high schools and higher education institutions is key in aligning high school curriculum to college readiness standards. Dr. Brown asserted that high school teachers and college faculty must collaborate on content, rigor, and expectations for learning. This is particularly significant for mathematics and science courses. Dr. Smith echoed this point, stating that Clear Creek ISD partners with regional higher education institutions to close any gaps between their curriculum and college readiness standards.

Furthermore, good communication between high school counselors and college advisors is also significant in addressing alignment issues. When students receive consistent guidance in selecting courses throughout high school and college, they can more easily stay on the right path to achieving their goals. Dr. Brown believes this will also help identify students who need support and may prevent students

from dropping out due to academic challenges. Dr. Reed recommended that a formal process be established to cross-train high school counselors and college advisors, promoting better communication, and aiding in dual enrollment advising.

Dr. Brown stated that intentional learning support frameworks also positively influence student achievement, especially in mathematics and science courses. Specifically, Texas State University has developed the Personalized Academic and Career Exploration Center where students receive academic advising, career counseling, and mentorship. Dr. Brown asserted that when high schools and colleges develop and implement these frameworks, outcomes will include increased high school graduation rates, enrollment in higher education institutions, and completion of postsecondary degrees and certificates.

Clear Creek ISD has demonstrated that its students are prepared to enter college, with 92 percent of its 2013 high school graduating class enrolled at a higher education institution. Dr. Smith stated that Clear Creek ISD bases its classroom instruction model on written, taught, and assessed curriculum. When new TEKS are adopted by the SBOE, curriculum is developed and the expectations of students are analyzed as to the content, cognitive level, and the context of the material. Dr. Smith explained that the TEKS are then clustered together to build units of study and CCRS are incorporated into those units. Clear Creek ISD then creates its own assessments that include learning checkpoints for students throughout the year. Both teachers and school principals receive curriculum training and the curriculum's effectiveness is monitored by assessments, teacher feedback, and classroom walk-throughs. Based on Clear Creek ISD's achievements, other school districts should look at their curriculum model to improve student success.

Dr. Reed discussed the strategies South Texas College has implemented to strengthen the alignment between high school and college coursework. Specifically, Dr. Reed mentioned their dual enrollment program, the largest in Texas, as well as their partnerships with school districts in dual enrollment academies and early college high schools. Dr. Reed asserted that these programs have been largely successful. In the 2012-2013 school year, 70 percent of students taking dual enrollment coursework through South Texas College enrolled in a college or university. Students that completed dual enrollment also had higher grade point averages throughout college and graduated from college at a higher rate. This shows that dual enrollment is an effective tool for alignment and student success. Dr. Reed recommended that Texas encourage community colleges to establish dual enrollment programs that best fit the needs of their communities, and

not put in place a one-size fits all program. The more school districts to implement dual enrollment programs, the more opportunities Texas students have to succeed.

South Texas College also partnered with The University of Texas at San Antonio and four area school districts to develop the Texas Pre-Freshman Engineering Program. This summer program offers students academically challenging mathematics courses that emphasize the development of abstract reasoning and problem solving skills. Dr. Reed stated that successful middle and high school students interested in a career in science, technology, engineering, and mathematics join this program to obtain better access to these fields. This is just one example of a program designed to help students get a head start in pursuing a postsecondary degree or certificate.

The alignment of high school curriculum and college readiness standards is critical to the success of Texas' students. State agencies must work together to integrate their databases so stakeholders have pertinent data available to make informed decisions. As Texas monitors the implementation of HB 5 and the Texas Success Initiative, stakeholders must continue to collaborate on this important issue.

Recommendations

The Senate Higher Education Committee makes the following recommendations regarding *Alignment* to the 84th Legislature:

01. Efforts to reduce the number of Texas Essential Knowledge and Skills (TEKS) should be continued and accelerated. This includes both the number of TEKS expected to be taught and the number of TEKS assessed.
02. The State Board of Education, Texas Education Agency, and Texas Higher Education Coordinating Board should develop a crosswalk document detailing the alignment between the TEKS and College and Career Readiness Standards.
03. The State Board of Education should continue to work with industry leaders at all levels and higher education institutions to ensure career and technical education courses are aligned with workforce needs and workforce related credentials.
04. The Texas Education Agency and Texas Higher Education Coordinating Board should work together to identify trends related to students who enroll in college directly from high school and need developmental education. Each agency should produce recommendations to the Legislature based on these trends to reduce the number of students needing developmental education.



Senator Royce West
District 23
President Pro Tempore
2006



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December 17, 2014

The Honorable Kel Seliger
Chairman
Senate Higher Education Committee
Sam Houston Building, Room 320
Austin, Texas 78701

Dear Chairman Seliger:

It has indeed been a pleasure serving with you on the Senate Higher Education Committee. Your leadership and advocacy has afforded me the opportunity to share my perspectives on the higher education issues we were charged with addressing, and for that I thank you.

Although the report provides many positive and forward thinking recommendations that will undoubtedly improve higher education in Texas, I find it necessary to submit a letter outlining concerns that I have with the recommendation associated with the authorization of community colleges offering baccalaureate degree programs.

Senate Bill 414 directed the Texas Higher Education Coordinating Board to study the feasibility for certain community colleges to offer baccalaureate degree programs to address regional workforce needs. I don't believe that the recommendation presented addresses the charge given to us.

The Texas Higher Education system is a very unique and well-oiled machine that is based on each component institution adhering to its mission to address the educational and instructional needs of its students and to serve its community and business stakeholders. State technical colleges provide technical and skills training. Community colleges offer classes, certificates and associate degrees. And, four-year universities provide matriculation from lower division to upper division specialization and a pipeline to graduate and professional schools.

At each level, these higher education components serve different functions and target different student populations and outcomes as well as utilize different resources, facilities and faculty.

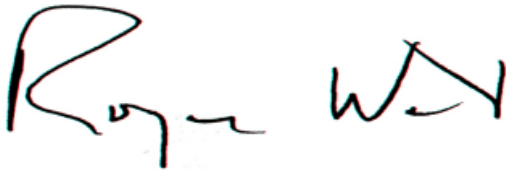
Therefore, any deviation from the current higher education structure that would allow one of the components, i.e., community colleges, to expand their mission would need to be mindful of mission creep, program duplication, accreditation obstacles, higher costs and need for additional state funding, additional faculty needs, impact to

existing higher education institutions in the immediate area, impact to newly created universities in their attendance zone, and the infusion and availability of online education, to name a few.

Substantial financial investments have been made to Texas' four-year universities. Now, in a time of limited resources and increasing need, we need to focus on helping those investments bear fruit, rather than dividing our attention and creating pressure to spread those limited resources more thinly.

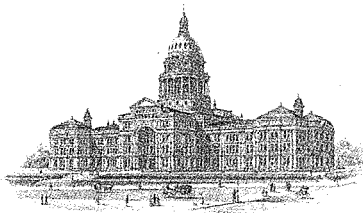
As always, I appreciate your leadership of the Senate Higher Education Committee and your dedication to higher education in Texas.

Sincerely,

A handwritten signature in black ink, appearing to read "Royce West". The signature is written in a cursive, somewhat stylized font. The first name "Royce" is written in a larger, more prominent script, and "West" is written in a smaller, simpler script to the right.

Royce West
State Senator
District 23

The Senate of The State of Texas



BRIAN BIRDWELL

December 18, 2014

The Honorable Kel Seliger
Chair, Senate Committee on Higher Education
P.O. Box 12068
Austin, Texas 78711-2068

Dear Chairman Seliger,

Thank you for your leadership as Chairman of the Senate Committee on Higher Education. It is an honor to serve on the committee with you as we work toward the common goal of improving higher education in the State of Texas. I commend you and your staff on preparing this fine interim report. I am happy to sign the report as it contains many excellent recommendations that undoubtedly will improve both the cost and quality of higher education in Texas. I would, however, like to request that this letter be included in the report, as it contains my concerns regarding recommendation three of charge two in the report.

While it is appropriate to discuss Texas being a part of an organization such as the National Council for State Authorization Reciprocity Agreements (SARA), I would offer two cautions: First, Texas should not participate in any national organization if that organization will directly or indirectly remove decision making authority from the citizens of Texas, Boards of Regents or other government or higher education officials accountable to the citizens of Texas. It should remain incumbent upon the legislature and the Texas Higher Education Coordinating Board to ensure that the standards of any such organization would meet or exceed the commonly accepted standards of the citizens of the State of Texas. Second, such an organization should be carefully vetted to ensure that the organization cannot be used as a vehicle by the federal government to facilitate further federal intrusion into state operation of universities.

Again, thank you for the time and effort you have dedicated to improving our great state. I look forward to working on these and other issues during the upcoming legislative session.

Sincerely,

A large, fluid handwritten signature in black ink that reads "Brian Birdwell".

Brian Birdwell
State Senator
District 22

