

REPORT OF THE TEXAS HIGHER EDUCATION COORDINATING BOARD ON

Higher Education Cost Efficiencies

TO THE GOVERNOR

November 1, 2010

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Texas Higher Education Coordinating Board

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INTRODUCTION

On September 9, 2009, Governor Rick Perry issued an Executive Order (RP73) directing that “the Texas Higher Education Coordinating Board (THECB), in cooperation with Texas public institutions of higher education, undertake a broad and comprehensive review of system-wide opportunities for cost efficiencies.”

It further directed that “based on the findings of this review, the THECB shall develop practices, policies, and recommendations for cost-containment among public institutions of higher education and submit these practices and policies to the governor, the legislature, and public institutions of higher education by November 1, 2010.”

To ensure that the broadest possible array of perspectives would be brought to bear on this assignment, the THECB named an Advisory Committee on Higher Education Cost Efficiencies (Advisory Committee). The Advisory Committee, chaired by Fred W. Heldenfels IV, was composed of two board members of the THECB and eighteen leaders from the state’s business community and all sectors of public higher education.

In carrying out its work, the Advisory Committee met seven times. At most of these meetings, committee members heard from state and national experts, individuals who shared best practices regarding key aspects of the Advisory Committee’s work. Following short presentations, committee members engaged these experts in extensive dialogue, probing more deeply and asking germane questions. Advisory Committee members then engaged in small group discussions at each meeting to compile and prioritize their recommendations for cost efficiencies. Most of these recommendations, including outcomes-based funding and changes to the TEXAS Grant Program, were put forth by the



Advisory Committee; this report represents some enhancements to those recommendations.

Detailed estimated savings and current state practices for most of the recommendations are provided in Appendix A of this report. Advisory Committee agendas, including a list of speakers, the Governor's Executive Order, and a roster of committee members are provided in Appendix B.

EXECUTIVE SUMMARY // Recommendations

FUNDING RESULTS – PAYING FOR PERFORMANCE

Short-term actions:

1. The Legislature should modify the current funding formulas for universities and community and technical colleges in ways that incentivize and reward results (measured by outcomes, e.g., degrees, student milestones) rather than enrollment measures only.

Estimated first-year savings = \$4.1 million

Estimated cost savings over 4 years = \$16.5 million

2. The Legislature should move the Performance Incentive Fund (PIF) into the university Instruction and Operations (I&O) formula using the THECB's recommended outcomes-based methodology for universities. The Legislature should also continue to fund programs designed to increase levels of externally-generated research funds.

Estimated first-year savings = \$341,000

Estimated cost savings over 4 years = \$2.8 million

3. The Legislature should modify the TEXAS Grant Program to prioritize financially needy students who not only complete a rigorous high school curriculum but also achieve at relatively high academic levels.



4. The THECB should provide an analysis so that the Legislature may examine the efficacy of tuition and fee waiver/exemption programs for non-resident students.

Long-term actions:

1. The THECB should undertake an in-depth review of the state's higher education finance mechanisms and recommend changes necessary to align these policies with the state's goals of improved productivity and efficiency.
2. The THECB should conduct a cost/benefit analysis of an Early Commitment Financial Aid Program that provides low-income students in middle and early high school with a guarantee of financial aid for postsecondary education if they meet certain requirements.

CREATING CLEAR PATHWAYS FOR SUCCESSFUL STUDENT OUTCOMES

Short-term actions:

1. The Legislature should enact legislation to create statewide articulation agreements, not just for general education, but in those programs that collectively represent 80 percent of the transfer activity.

Estimated first-year savings = \$15.9 million

Estimated cost savings over 4 years = \$39.9 million

2. The Legislature should enact legislation to limit the length of associate's degree programs to no more than 60 semester credit hours.
3. The Legislature should require that a minimum of 10 percent of all semester credit hours generated on each campus be delivered through means other than conventional on-campus classroom activities such as lectures and seminars.

Estimated first-year savings = \$6.5 million

Estimated cost savings over 4 years = \$50.1 million

4. Institutions of higher education should improve credit hours produced per full-time equivalent faculty member by 10 percent.



Estimated first-year savings = \$102.1 million

Estimated cost savings over 4 years = \$255.3 million

5. The THECB should continue to increase collaboration with the Texas Education Agency (TEA), the State Board for Educator Certification, and public P-12 schools on such issues as improving teacher preparation and quality, promoting the College and Career Readiness Standards, and creating a college-going culture in every public school. Similarly, institutions of higher education should work more closely with local and regional P-12 school systems to improve teacher effectiveness and college readiness. In the long run, higher education can undertake no activity more cost efficient than working more collaboratively with public education to improve college readiness. Finally, two-year and four-year institutions of higher education must collaborate more closely on transfer issues (including two-plus-two programs), college and career readiness efforts, and facilities sharing.

Estimated first-year savings = \$7.8 million

Estimated cost savings over 4 years = \$19.5 million

6. Institutions of higher education should incentivize faculty to intervene more aggressively to assist their students in academic difficulty.
7. The Legislature should require students to file a degree plan after the completion of between 30-36 semester credit hours of coursework. Students should be required to meet with an advisor prior to enrolling in courses not included in their degree plans or before changing degree plans.
8. Institutions of higher education should implement competency-based advancement at both the undergraduate and graduate levels so that students can earn credit towards a credential at an accelerated pace based on work experience and the successful completion of rigorous and relevant assessments. Not all students require 15 weeks or a prescribed number of courses to master a defined body of knowledge.

Estimated first-year savings = \$45.9 million

Estimated cost savings over 4 years = \$459.3 million



Long-term action:

1. Institutions of higher education should identify and adopt tools for measuring learning outcomes. Institutions should be able to demonstrate that their graduates have achieved mastery of disciplinary knowledge and basic intellectual skills such as critical thinking, effective communication, and the ability to synthesize substantial amounts of information and data.

MEETING DEMAND WITH NEW APPROACHES TO DELIVERY

Short-term action:

1. The THECB should exercise its authority to ensure the development of a statewide, user-friendly online delivery system for developmental education and associate degree programs that draw on the best online courses already available, organized under the degree-granting authority of a single public or private entity.

Estimated first-year savings = \$3 million

Estimated cost savings over 4 years = \$30.1 million

Long-term action:

1. The THECB should develop a *strategic growth plan* for meeting student demand and identifying a wide variety of cost-effective delivery models.

Estimated first-year savings = \$14.1 million

Estimated cost savings over 4 years = \$141.5 million

E-textbooks

Short-term action:

1. Institutions of higher education should participate in a pilot study to evaluate the efficacy of e-textbooks in regard to their affordability to both students and institutions, and their impact on student learning.

Long-term action:

1. Institutions of higher education should create effective digital learning environments for students.



MAKING CAPITAL FINANCING MAKE SENSE

Long-term action:

1. Either by legislative action or Governor's Executive Order, the THECB should be directed to develop a recommended approach to capital financing with special attention given to developing an alternative to the use of Tuition Revenue Bonds.

Estimated first-year savings = \$11.5 million

Estimated cost savings over 4 years = \$145.3 million

MAKING PRODUCTIVITY AND CONTINUOUS IMPROVEMENT A CULTURAL CHANGE

Short-term actions:

1. The Legislature should mandate that each institution increase the cost efficiency with which it produces graduates by 10 percent.

Estimated first-year savings = \$98.2 million

Estimated cost savings over 4 years = \$1.96 billion

2. The THECB should create a Statewide Higher Education Continuous Improvement Council (CIC) within the THECB as a mechanism for promoting and institutionalizing efficiencies at all levels – campus, system, and state.
3. Institutions of higher education should adopt and expand established best practices in cost efficiencies already in place at other institutions in Texas.

- a. Degree and certificate efficiencies

- i. The THECB should require institutions of higher education to close down low-producing degree programs.

Estimated first-year savings = \$29.3 million

Estimated cost savings over 4 years = \$73.2 million

- ii. Institutions of higher education should engage in more multi-institutional arrangements for delivering courses, especially those in small majors.



Estimated first-year savings = \$100,000

Estimated cost savings over 4 years = \$1.6 million

- iii. Institutions of higher education should develop class schedules that utilize more hours of the day and days of the week. Increased use of existing facilities should be accomplished before new facilities are approved.

Estimated first-year savings = \$31.6 million

Estimated cost savings over 4 years = \$221.5 million

- iv. Institutions of higher education should more clearly state the expectation that full-time students' course workload is 30 semester credit hours per calendar year.

Estimated first-year savings = \$31.6 million

Estimated cost savings over 4 years = \$221.5 million

- v. Institutions of higher education should adopt a computer-based assessment system for developmental education.

Estimated first-year savings = \$3.9 million

Estimated cost savings over 4 years = \$19.5 million

b. Administrative efficiencies

- i. Institutions of higher education should streamline administrative processes across institutions and set standards for the number of appointed administrative positions and salary levels that are consistent with best practices, such as those noted in Bain & Company's diagnostic report, *Achieving Operational Excellence at the University of California, Berkeley*.

Estimated first-year savings = \$83.4 million

Estimated cost savings over 4 years = \$753.1 million

- ii. Institutions of higher education should expand even further the size of procurement pools in such areas as energy, software licenses, and insurance (both health and property) by creating statewide pools among community colleges and/or universities, similar to those already developed by The University of Texas and Texas A&M University Systems.

Estimated first-year savings = \$5.8 million

Estimated cost savings over 4 years = \$25.1 million



- iii. Institutions of higher education should consolidate and out-source services such as e-mail and other information technology when cost efficient.

Estimated first-year savings = \$7 million

Estimated cost savings over 4 years = \$34.3 million

- iv. The THECB should review the current statewide data system and identify additional information required for decision making and policy analysis in order to create the nation's most user-friendly higher education statewide data warehouse.
- v. The THECB should work with other entities to expand TexShare, the current online library system, to include additional materials as identified by institutions of higher education.

Estimated first-year savings = \$2.6 million

Estimated cost savings over 4 years = \$26.2 million



Early in the deliberations of the Advisory Committee on Higher Education Cost Efficiencies, it became clear that the focus could not be efficiency defined narrowly or merely doing business as usual, only more cheaply.

Rather, the Advisory Committee determined that the focus had to be on *productivity* – achieving better results in the most cost-efficient manner. It was also determined that efficiency could not be defined solely in terms of state funding. Costs to students had to be considered as well; the objective was not to reduce needed levels of state funding by shifting costs to students but to achieve higher performance and better outcomes in the use of funds from all sources.

In 2000, Texas launched its ambitious strategic plan for higher education, *Closing the Gaps by 2015*. The plan focuses on bringing Texas to parity among the ten most populous states in four critical areas of higher education: participation, success, excellence, and research. This plan is one of the first of its kind and has been widely embraced by education, business, political, and community stakeholders across the state. Texas has already been successful at meeting a number of interim targets and has made substantial progress in attaining the ultimate goals of the plan. However, while achieving the goals of *Closing the Gaps* is the essential next step for Texas to drive economic development and improve quality of life, it will not be enough.

While the goals established in *Closing the Gaps* were intended to simply bring Texas to parity with its peer states, the U.S. itself has been falling behind other countries in educational attainment. To position Texas as a global leader in higher education, both in terms of educational levels of its population and excellence, the state must benchmark itself against the best in the world and seek to match that level of performance. In terms of this international arena, this means increasing the number of post-secondary awards (bachelor's degrees,

associate's degrees, and certificates¹) beyond what is called for in *Closing the Gaps*. While *Closing the Gaps* has set the stage and has resulted in momentum and achievement, Texas' subsequent long-term strategic plan will require a longer timeline and a globally competitive set of targets. Failure to succeed in meeting higher expectations will relegate Texas and its citizens to a future far less prosperous than the circumstances Texans currently enjoy.

Given the magnitude of these goals and the current economic conditions, it is highly unlikely that institutions of higher education will receive enough state funding to allow them to continue business as usual. Therefore, institutions of higher education must use their current and future resources much more efficiently and effectively. And as the Advisory Committee determined, public institutions of higher education must not only become more cost efficient, they must align their activities more closely with state goals and needs.

THE BIG IDEAS

The Advisory Committee's ideas fell naturally into five overarching "big ideas." These five categories are:

- ◆ Funding Results – Paying for Performance.
- ◆ Creating Clear Pathways for Successful Student Outcomes.
- ◆ Meeting Demand with New Approaches to Delivery.
- ◆ Making Capital Financing Make Sense – For Both New Buildings and Deferred Maintenance.
- ◆ Making Productivity and Continuous Improvement a Cultural Change.

Institutions and college and university systems should be commended for the wide variety of efficiency improvement activities already underway. Many of the ideas presented during the Advisory Committee's deliberations are already being implemented somewhere in the state's public higher education system. The missing link is a policy environment that actively promotes best practices and that

¹ Certificate programs are workforce programs designed for entry-level employment or for upgrading skills and knowledge within an occupation. Certificate programs can also serve as building blocks for Associate of Applied Science (AAS) degree programs.



can be implemented on the *scale* necessary to achieve maximum efficiency. The solutions necessary to achieve these ideas require action by both the state and institutions of higher education.

In most of the sections that follow is a description of the optimum conditions for cost efficiencies. This is followed by a summary of recommended short-term and long-term actions with corresponding estimates of impacts. See Appendix A for a more complete description of impact estimates as well as descriptions of practices in other states that provide concrete examples of each recommendation.

FUNDING RESULTS // Paying for Performance

The incentives embedded in the funding formulas for institutions of higher education are the most powerful tools available to policymakers seeking to enhance productivity.

This is true whether the policymaker is focused on all state colleges and universities, on systems of institutions, or on individual campuses. The desired state of affairs is one in which:

- ◆ The three major components of budget actions that affect operating budgets – appropriations to institutions, tuition, and students – are treated as a systemic whole.
- ◆ The incentives related to each component are designed to promote both goal achievement and efficiency. For those elements focused on institutions, this means producing results (degree completions, research competitiveness, etc.) in a cost-effective manner. Similarly for students, both tuition and student financial aid policies should encourage preparation and rapid progress toward completion of a program of study while minimizing unnecessary demands on the system (dropping courses, etc.) in the process.
- ◆ The funding mechanisms appropriately reflect not only the mission of different types of institutions but a common focus on state priorities.



RECOMMENDATIONS

Short-term actions:

1. The Legislature should modify the current funding formulas for universities and community and technical colleges in ways that incentivize and reward results (measured by outcomes, e.g., degrees, student milestones) rather than enrollment measures only.
 - a. Allocate 10 percent of state formula funding to universities on the basis of student outcomes (e.g., undergraduate degrees awarded, undergraduate degrees awarded to at-risk students, undergraduate degrees awarded to students in STEM fields, and graduating more students than predicted).
 - b. Allocate 10 percent of state formula funding to community and technical colleges on the basis of student outcomes – in this case, completion of certificates and degrees, and completion of intermediate milestones such as developmental education, the first college-level math and English courses, 15 and 30 semester credit hours, and transfer to a four-year institution.

Approximately 14 states currently have or are planning to have a performance-based funding system for higher education. For example, a recent report by the Institute for Higher Education Leadership and Policy at California State University Sacramento notes that California's community colleges are failing to properly educate the state's future workforce and recommends a new state funding model that rewards community colleges when students complete degrees and transfer.

Estimated first-year savings based on FY2009 costs and enrollments =

\$4.1 million

Estimated cost savings over 4 years =

\$16.5 million



2. The Legislature should move the Performance Incentive Fund (PIF) into the university Instruction and Operations (I&O) formula using the THECB's recommended outcomes-based methodology for universities. The Legislature should also continue to fund programs designed to increase levels of externally-generated research funds, such as the Texas Research Incentive Program, National Research University Fund, Competitive Knowledge Fund. etc.

Estimated first-year savings based on FY2009 costs and enrollments =

\$341,000

Estimated cost savings over 4 years =

\$2.8 million

3. The Legislature should modify the TEXAS Grant Program to prioritize financially needy students who not only complete a rigorous high school curriculum but also achieve at relatively high academic levels. Priority students would have to meet any two of four proposed academic criteria to be first in line to receive a TEXAS grant. Once priority students are served, other students who complete the Recommended High School Curriculum and have financial need would be awarded a TEXAS Grant. A review of data conducted by the THECB indicates that TEXAS grant recipients who meet two of the four proposed academic criteria graduate at twice the rates of those who do not.
4. The THECB should provide an analysis so that the Legislature may examine the efficacy of tuition and fee waiver/exemption programs for non-resident students.

Short-term action recommendations three and four will not necessarily reduce overall spending but will lead to greater efficiency and productivity. Texas must realize a bigger return on its investment in higher education by producing more degrees and certificates per tax and tuition dollar invested.



Long-term actions:

1. The THECB should undertake an in-depth review of the state's higher education finance mechanisms and recommend changes necessary to align these policies with the state's goals of improved productivity and efficiency. The review should consider tuition and student aid policies as well as the mechanisms by which state funds are allocated to institutions. It should also consider allocation of some funds to systems to provide them leverage to promote needed changes within their constituent institutions. However, changing allocation of the funding formulas to be partly outcomes-based is a step that should be taken immediately; this should not wait on the longer-term review.
2. The THECB should conduct a cost/benefit analysis of an Early Commitment Financial Aid Program that provides low-income students in middle and early high school with a guarantee of financial aid for postsecondary education if they meet certain requirements, including successful completion of a rigorous college-prep curriculum.

CREATING CLEAR PATHWAYS FOR SUCCESSFUL STUDENT OUTCOMES

For the Texas system of higher education to function most productively, there must be a clear and efficient pathway by which students can get from whatever their starting point to successful completion of a program of study.

An efficient system is characterized by:

- ◆ A clear statement of and commitment to College and Career Readiness Standards.
- ◆ A statewide developmental education program that is tailored to address specific deficiencies and remove those deficiencies within one year or less.



- ▶ A program of study designed to be completed within four years for a baccalaureate degree and two years for an associate’s degree. With few exceptions, baccalaureate degree programs are no more than 120 semester credit hours in length (in accordance with Texas Education Code, Section 61.0515), and associate’s degree programs are no more than 60 semester credit hours in length.
- ▶ Access by all Texas students to opportunities for acceleration through advanced placement, dual credit, competency-based evaluations, and other test-out options. Incentives should be developed to encourage both students and institutions to participate in these opportunities (a feature that needs to be incorporated into any rethinking of a funding model).
- ▶ An efficient transfer system that maximizes students’ mobility within the Texas public higher education system while encouraging institutional distinctiveness.
- ▶ Access to courses when needed. Students are not prevented from completing programs by an inability to gain access to needed courses.
- ▶ Programs, courses, and institutional policies designed with both student success and efficiency of delivery in mind. Features would include:
 - Programs with fewer options with respect to specific requirements. Fewer options can lead to less student confusion, timelier progress to degrees, and greater coherence of student knowledge.
 - Policies that limit “rework” – dropping courses, taking them multiple times.
 - Courses designed for effective and efficient delivery; for example, using the principles devised by the National Center for Academic Transformation² – principles that have proven to yield better learning outcomes and, typically, 30-35 percent cost savings.

Many of the actions necessary to ensure that students have efficient pathways to credentials are already in place around the state, but a comprehensive, state-wide commitment to the principles and practices indicated above is needed.

RECOMMENDATIONS

Short-term actions:

1. The Legislature should enact legislation to create statewide articulation agreements, not just for general education, but in those programs that collectively represent 80 percent of the transfer activity.

² <http://www.thencat.org/>



Estimated first-year savings based on FY2009 costs and enrollments =

\$15.9 million

Estimated cost savings over 4 years =

\$39.9 million

2. The Legislature should enact legislation to limit the length of associate's degree programs to no more than 60 semester credit hours in length.
3. The Legislature should require that a minimum of 10 percent of all semester credit hours generated at each institution of higher education be delivered through means other than conventional on-campus classroom activities such as lectures and seminars: for example, dual credit, competency based course credit, credit-bearing internships, and online courses. This recommendation is made both to promote more efficient uses of existing campus resources and to ensure that students develop the learning skills that they will need to be successful in the future.

Estimated initial³ year savings based on FY2009 costs and enrollments =

\$6.5 million

Estimated cost savings over 4 years =

\$50.1 million

4. Institutions of higher education should improve credit hours produced per full-time equivalent faculty member by 10 percent. This recommendation reflects the strong belief of the Advisory Committee that targets and benchmarks be established at the state level by the THECB, but that the means by which these goals are achieved must be left to decision makers at the campus and system level.

³ For those estimates that are based upon reduced future costs due to decreased space needs, the savings will be realized as a result of currently planned buildings that would either not be built or at least delayed.



Estimated first-year savings based on FY2009 costs and enrollments =

\$102 million

Estimated cost savings over 4 years =

\$255.3 million

5. The THECB should continue to increase collaboration with the Texas Education Agency (TEA), the State Board for Educator Certification, and public P-12 schools on such issues as improving teacher preparation and quality, promoting the College and Career Readiness Standards, and creating a college-going culture in every public school. Similarly, institutions of higher education should work more closely with local and regional P-12 school systems to improve teacher effectiveness and college readiness. In the long run, higher education can undertake no activity more cost efficient than working more collaboratively with public education to improve college readiness. Finally, two-year and four-year institutions of higher education must collaborate more closely on transfer issues (including two-plus-two programs), college and career readiness efforts, and facilities sharing.

Estimated first-year savings based on FY2009 costs and enrollments =

\$7.8 million

Estimated cost savings over 4 years =

\$19.5 million

6. Institutions of higher education should incentivize faculty to intervene more aggressively to assist their students in academic difficulty. Aggressive interventions might include mandatory student-faculty consultations and either mandatory tutoring or participation in study groups. National surveys of student attitudes indicate that students often fail or drop out of higher



education because they feel alienated from faculty and unconnected to the intellectual life of their institutions, particularly large public institutions.

7. The Legislature should require students to file a degree plan after the completion of between 30-36 semester credit hours of coursework. Students should be required to meet with an advisor prior to enrolling in courses not included in their degree plans or before changing degree plans.
8. Institutions of higher education should implement competency-based advancement at both the undergraduate and graduate levels so that students can earn credit towards a credential at an accelerated pace based on work experience and the successful completion of rigorous and relevant assessments. Not all students require 15 weeks or a prescribed number of courses to master a defined body of knowledge.

Estimated first-year savings based on FY2009 costs and enrollments =

\$45.9 million

Estimated cost savings over 4 years =

\$459.3 billion

Long-term action:

1. Institutions of higher education should identify and adopt tools for measuring learning outcomes. Institutions should be able to demonstrate that their graduates have achieved mastery of disciplinary knowledge and basic intellectual skills such as critical thinking, effective communication, and the ability to synthesize substantial amounts of information and data.



MEETING DEMAND WITH NEW APPROACHES TO DELIVERY

Meeting the state’s education goals and responding to the state’s growing college-age population will require that institutions have the capacity to enroll many more students than they are currently prepared to serve.

If this growth is planned for and accommodated strategically, the result can be a much more efficient system of higher education. Without a *plan for strategic growth* of higher education, Texas will move toward a situation in which the enrollments required to meet goals will simply be unaffordable.

RECOMMENDATIONS

Short-term action:

1. The THECB should exercise its authority to ensure the development of a statewide, user-friendly online delivery system for developmental education and associate degree programs that draw on the best online courses already available, organized under the degree granting authority of a single public or private entity. This online entity will:
 - o Ensure students have the skills needed for successful academic work.
 - o Meet the transfer requirements for both general education and work in the most popular majors.
 - o Implement a “limited course options” (i.e., targeted) approach to meeting transfer requirements.
 - o Implement course design statewide that reflects the best thinking about effective and efficient pedagogy.
 - o Plan for upper-division, university-based courses to be added subsequently.



This recommended delivery system is a short-term priority for several reasons. First, it addresses promptly the lower-division curriculum common across the programmatic interests of additional students. Second, it can be delivered anywhere in the state and is therefore immune to the consequences of over- or under-realization of estimated demand in different parts of the state. Finally, it could be a major step for delivering the type of highly structured programs that have proven to be successful in moving (especially adult and at-risk) students to successful completion of programs.

Estimated first-year savings based on FY2009 costs and enrollments =

\$3 million

Estimated cost savings over 4 years =

\$30.1 million

Long-term action:

1. The THECB should develop a strategic growth plan for meeting student demand and identifying a wide variety of cost-effective delivery models.

The plan should consider the following options:

- o Increasing productivity and capacity of existing institutions.
- o Targeting community colleges as producers of higher education credentials and as partners with the universities to increase success in lower- division course completion and reduce costs.
- o Creating new types of institutions, such as online only institutions (as recommended above based on the University of Maryland University College model), competency-based institutions similar to the new Western Governor's University of Indiana, and no-frills instructional institutions (institutions with few student life amenities and a very structured curriculum).

Estimated first-year savings based on FY2009 costs and enrollments = \$14.1 million; Estimated cost savings over 4 years = \$141.5 million

- o Entering into performance contracts with private (including for-profit) educational providers.



The increasing cost of postsecondary textbooks has raised considerable concern among advocates of affordability in higher education.

In addition to the Governor's Executive Order to examine the cost of instructional materials, HB 4149 (81st Texas Legislature) directed the THECB to conduct a study and make recommendations regarding electronic textbooks (digital versions of textbooks that can either be accessed online or downloaded to a personal computer or an e-reader). The legislation also required the THECB to gather input from student members of the boards of regents. For more background and analysis of these recommendations, see Appendix A.

RECOMMENDATIONS

Short-term action:

1. Institutions of higher education should participate in a pilot study to evaluate the efficacy of e-textbooks in regard to their affordability to both students and institutions and their impact on student learning.

Long-term action:

1. Since textbook sales generate revenue for universities, the switch to e-textbooks could result in a loss of revenue, a challenge in the current budget environment. However, this issue should not overrule considerations that benefit students. Therefore, by 2013, public institutions of higher education should create effective digital learning environments for students that incorporate three critical technologies: mobile computing (e.g., smart phones, netbooks, laptops, and a wide range of other devices that access the Internet using cellular-based portable hotspots and mobile broadband cards); open content (e.g., course materials that are made

available online by a college or university to both students and the general public for free); and e-textbooks.

MAKING CAPITAL FINANCING MAKE SENSE

An approach to capital financing that assures the greatest benefits at the least cost to the state would:

- ▶ Implement a strategic growth plan. Capital investments would be prioritized according to need as determined by space utilization that is efficient, based on benchmarks, and by the THECB's determination that new facilities are necessary to meet demands.
- ▶ Require institutions to spend 2 percent (\pm) of the replacement value of physical plants⁴ on renewal and renovation projects each year. This would not remove the deferred maintenance backlog, but it would stop the already large backlog from getting larger.
- ▶ Replace Tuition Revenue Bonds (TRBs) with instruments that would be both more flexible and more policy-driven. Flexibility can be achieved by giving institutions more leeway in entering into public/private partnerships – assuming repayment obligations within broad policy established by the THECB. Policy prioritization could be accomplished through general obligation bonds issued in accordance with applicable state statutes and THECB rules.

RECOMMENDATION

Implementation of many of the ideas discussed by the Advisory Committee regarding a more cost-effective approach to capital financing will take considerable further refinement and discussion with the legislature.

Long-term action:

1. Either by legislative action or Governor's Executive Order, the THECB should be directed to develop a recommended approach to capital financing with special attention given to developing an alternative to the

⁴ Replacement Value – The value of an institution's overall campus facilities, as determined annually by the Board. The method of calculation is based upon recently approved Board project costs, with adjustments based upon room types and the institution's location within the state. Replacement values for public universities, the Lamar State Colleges, and the Texas State Technical Colleges are calculated only for E&G space. Replacement values for public health-related institutions are calculated for the NASF space. Replacement values are used to measure the validity of construction projects that are submitted to the Board for approval and are not recommended for insurance purposes.



use of Tuition Revenue Bonds. Once developed, this approach should be established in legislation to ensure that capital funds are used in the most efficient and effective ways.

Estimated first-year savings based on FY2009 costs and enrollments =

\$11.5 million

Estimated cost savings over 4 years =

\$145.3 million

MAKING PRODUCTIVITY AND CONTINUOUS IMPROVEMENT A CULTURAL CHANGE

The recommendations presented in the previous sections set the stage for fundamental changes in the way public higher education in Texas performs its core educational mission. They also call for fundamental changes in the relationships between higher education and state government. In short, they call for changes to “business-as-usual.” These ideas covered both curricular and administrative functions within campuses and systems. Most can be accomplished without action by the legislature, although in a few cases legislative “encouragement” might be an asset.

RECOMMENDATIONS

Short-term actions:

1. The Legislature should mandate that each institution of higher education increase the cost efficiency with which it produces graduates by 10 percent (i.e., mandate that each institution decrease the total costs per degree granted by 10 percent). Within this broad mandate, institutions should be free to determine the means to this end most consistent with their circumstances.



Estimated first-year savings based on FY2009 costs and enrollments =

\$98.2 million

Estimated cost savings over 4 years =

\$1.9 billion

2. The THECB should create a Statewide Higher Education Continuous Improvement Council (CIC) within the THECB as a mechanism for promoting and institutionalizing efficiencies at all levels – campus, system, and state. The THECB should provide administrative and logistical support to the statewide CIC. Similar to Ohio’s Efficiency Council, it would be a forum for identifying and replicating best practices. It should also broker collaborative efforts across campuses/systems as appropriate. As a second task, the Council should compile a list of specific areas in which state mandates, policies, or procedures create inefficiencies or excessive costs for institutions. The purpose of this “policy audit” activity is to build a case for regulatory reform that can lead to improvements in effectiveness and efficiency. As a final task, the Council, working with campus and system representatives, should develop a list of measures for collecting data regarding savings generated from efficiency initiatives, set targets for continuous improvement, and report on savings annually to the governor, the legislature, and the public. In short, the mission of the CIC would be to change Texas higher education operations by creating a LEAN culture (i.e., increasing productivity with available resources) across all higher education activities.
3. Institutions of higher education should adopt and expand established best practices in cost efficiencies already in place at other institutions in Texas. Many of the necessary efficiencies can be achieved by expanding practices already being implemented at some level. These include the following:
 - a. Degree and certificate efficiencies



- i. The THECB should require institutions of higher education to close down low-producing degree programs according to established guidelines and procedures.

Estimated first-year savings based on FY2009 costs and enrollments =

\$29.3 million

Estimated cost savings over 4 years =

\$73.2 million

- ii. Institutions of higher education should engage in more multi-institutional arrangements for delivering courses, especially those in small majors.

Estimated first-year savings based on FY2009 costs and enrollments =

\$100,000

Estimated cost savings over 4 years =

\$1.6 million

- iii. Institutions of higher education should develop class schedules that utilize more hours of the day and days of the week. Increased use of existing facilities should be accomplished before new facilities are approved.

Estimated initial⁵ first-year savings based on FY2009 costs and enrollments =

\$31.6 million

Estimated cost savings over 4 years =

\$221.5 million

⁵ For those estimates that are based upon reduced future costs due to decreased space needs, the savings will be realized as a result of currently planned buildings that would either not be built or at least delayed.



- iv. Institutions of higher education should more clearly state the expectation that full-time students' course workload is 30 semester credit hours per calendar year.

Estimated initial⁶ first-year savings based on FY2009 costs and enrollments =

\$31.6 million

Estimated cost savings over 4 years =

\$221.5 million

- v. Institutions of higher education should adopt a computer-based assessment system for developmental education.

Estimated first-year savings based on FY2009 costs and enrollments =

\$3.9 million

Estimated cost savings over 4 years =

\$19.5 million

b. Administrative efficiencies

- i. Institutions of higher education should streamline administrative processes across institutions and set standards for the number of appointed administrative positions and salary levels that are consistent with best practices, such as those noted by Bain & Company's diagnostic report, *Achieving Operational Excellence at the University of California, Berkeley*.

Estimated first-year savings based on FY2009 costs and enrollments =

\$83.5 million

(not including a required first-year investment)

⁶ Ibid.



Estimated cost savings over 4 years =

\$753.1 million

- ii. Institutions of higher education should expand even further the size of procurement pools in such areas as energy, software licenses, and insurance (both health and property) by creating statewide pools among community colleges and/or universities, similar to those already developed by The University of Texas and Texas A&M University Systems.

Estimated first-year savings based on FY2009 costs and enrollments =

\$5.8 million

Estimated cost savings over 4 years =

\$25.1 million

- iii. Institutions of higher education should consolidate and out-source services such as e-mail and other information technology when cost efficient.

Estimated first-year savings based on FY2009 costs and enrollments =

\$7 million

Estimated cost savings over 4 years =

\$34.3 million

- iv. The THECB should review the current statewide data system and identify additional information required for decision making and policy analysis in order to create the nation's most user-friendly higher education statewide data warehouse.
- v. The THECB should work with other entities to expand TexShare, the current online library system, to include additional materials as identified by institutions of higher education.



Estimated first-year savings based on FY2009 costs and enrollments =

\$2.6 million

Estimated cost savings over 4 years =

\$26.2 million

CONCLUSION

Most of the recommendations made in this report ultimately will have to be implemented at the campus level. That is where courses are taught, students are served, and administrative decisions are made. But campus-level leaders need a statewide policy environment that provides incentives for necessary changes. Further, some changes can only be made at the state level: for example, no campus or system can unilaterally make the kinds of decisions required to implement the recommendation made in the section entitled “Meeting Demand with New Approaches to Delivery.” The THECB and the Advisory Committee on Higher Education Cost Efficiencies believe that the greatest productivity gains will be realized by actions taken jointly and cooperatively at the state and campus level.



Appendices are available on THECB website:

<http://www.thecb.state.tx.us/acce>

