Developmental Education in Texas:

Recommendations for Systemic Improvement

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Executive Summary

As efforts intensify to increase participation and success in higher education, the focus sharpens on developmental education as large percentages of students enter college underprepared for its academic rigor. There are substantial and systemic challenges facing developmental education according to any credible measure. Systemic challenges require systemic responses in order to be effective and sustainable.

Towards this end, this executive summary contains recommendations formulated by the Higher Education Policy Institute (the Institute) for policy, practice, and research to systematically enhance the capacity of Texas public higher education institutions to provide effective developmental education. The recommendations stem from a symposium of national experts convened in the fall of 2008 as well as a review of the literature.

At the core of the recommendations are promising practices that are considered state-of-the-art. These are explained in more detail in this document, but the basic characteristics are included below. Note that many of these practices are artifacts of any well-functioning education system at any level, which suggests that the success of developmental education depends in part on the overall capacity of the institution to serve the needs of all students.

- Mandatory assessment of incoming students using a statewide assessment and reporting system that can be used for diagnostic purposes as well as for growth measurement
- Systematic placement of students into appropriate course-based or non-course-based developmental education
- Data-driven decision making that links the broad range of student needs to the appropriate intervention and supports monitoring of student progress
- Enhanced academic advising capacity
- Small learning communities via linked courses as a mechanism of social and academic integration into community colleges
- Effective curricular structure and pedagogy
- High quality faculty and instructors
- Access to high-quality training
- Outreach to K-12 districts to align systems and curriculum

The recommendations included herein stem directly from identified inhibitors to widespread and systemic adoption of the promising practices. One inhibitor is the lack of evidence sufficiently concrete to reliably guide institutional allocation of scarce resources. Although state-of-the-art, the evidence for effectiveness of promising practices is less than scientific and not situated within the Texas context.

In order to determine whether they are indeed "best practices," the Institute recommends two critical roles of evaluation and research. The first role is to develop a robust evaluation strategy for 3-4 demonstration sites that would implement the promising practices. The second role of

research leverages Texas' rich statewide higher education data. The Institute recommends an analysis of these data to identify institutions that have consistently exhibited success or remarkable improvement over time relative to their peers. Once identified, a rigorous qualitative follow-up study should be conducted to identify causal factors of the success.

As the evidentiary basis for promising practices solidifies, a mechanism that facilitates the hard work of dissemination and implementation is necessary. The Institute recommends building a technical assistance infrastructure to facilitate institutional efforts to improve developmental education. The primary goal of the technical assistance would be to work with institutions as they adapt the promising practices to their local needs according to their respective strengths and weaknesses. The technical assistance model should have the capability to address the full spectrum of improvement challenges from pedagogy to organizational structure, offering a range of services from short-term faculty workshops to long-term institutional engagement on data-driven decision making.

Lastly, and perhaps most importantly, the Institute recommends a formula funding strategy that is consistent with the structure and the goals of the promising practices. That is, in addition to the current funding of traditional course-based developmental education, the state should allocate funds based upon student achievement of college-readiness regardless of approach. Such a strategy would incent across-the-board review of practices and encourage adoption of flexible entry/exit programs, thereby empowering institutions to offer solutions that correspond to a broader array of student needs.

Introduction

In 2007 (press release), Secretary of Education Margaret Spellings spoke to business and higher education leaders saying:

> You know as well as anyone that in today's world, a college education is becoming more and more essential to achieving the American Dream. Yet while two-thirds of high-growth, high-wage jobs require a college degree, only a third of Americans have one.

The attainment of a college degree requires that students must possess the skills and capabilities to succeed in the university environment. Currently more students are attending college than ever before, but many are ill-prepared to succeed. To prepare these students for success in college coursework, colleges and universities provide remedial or *developmental education*.

What is *developmental education*? The concept of developmental education has traditionally been restricted to remediation. It has recently developed into an umbrella term for a continuum of interventions for all students with remedial services at one end and learning assistance services at the other (Boylan et al, 1999). In between there exists a range of interventions and support services specifically targeted for First Time in College (FTIC) students. The programs and services along the continuum can be loosely defined within two general categories, course-based and non-course-based developmental education.

Course-based developmental education is normally a semester-long course in the traditional classroom setting. The non-course-based category of developmental education is multifaceted and includes a mix of human and technology-based interventions that can vary in length depending upon the needs of the student. The support mechanisms typically associated with course-based developmental education, such as quality academic advising, are widely recognized as critical to the success of non-course based strategies as well.

Developmental education is inherently complex (Bailey et al, 2008), with multiple permutations across institutions and even across students within an institution. Despite the variation of implementation, there is a remarkable consensus of evidence that it is alarmingly ineffective in Texas and across the country.

In response, the Higher Education Policy Institute (the Institute) at the Texas Higher Education Coordinating Board has embarked upon initiatives to chart the path to improvement. The next section briefly presents the scale of the challenge facing developmental education in Texas and the nation. This is followed by a description of the activities of the Institute in response to the challenges and a description of the recommendations for practice, research, and policy.

The Developmental Education Challenge

At the national level, a recent report estimated that college remediation costs about $2.5 billion annually and that 43 percent of all students at public two-year institutions and 29 percent

of all students at public four-year institutions have enrolled in a remedial course (Strong American Schools, 2008). Unfortunately, students who receive remediation are less likely to obtain a degree or certificate (National Center for Education Statistics, 2004):

> Despite assistance offered through remediation, students enrolled in remediation are less likely to earn a degree or certificate. Regardless of the combination of remedial coursework, students who completed any remedial courses were less likely to earn a degree or certificate than students who had no remediation. While 69 percent of 1992 12th-graders who had not enrolled in any postsecondary remedial courses earned a degree or certificate by 2000, only 30 to 57 percent of those who had enrolled in one or more remedial courses had earned a formal award (p. 63).

The evidence from Texas mirrors the national evidence. The state legislature appropriated $206 million for the 2006-07 biennium. In 2005, only 10 percent of developmental students in Texas achieved college-readiness their first year. The variation in effectiveness varies tremendously across institutions. Among two-year schools, the percent of developmental students who achieve college-readiness in their first year ranges from 1 to 28 percent (Texas Higher Education Coordinating Board, 2005).

Not being college-ready has costs. In Texas, only 20 percent of all underprepared FTIC students earn a certificate or degree within six years, compared to almost 50 percent of prepared students (See Figure 1). Among Texas four-year universities, the percentage of underprepared students who earn a credential ranges from 15 to 72 percent. Among two-year institutions, the percentage ranges from six to 40 percent.

Figure 1: Percent of Texas Students Who Earn a Certificate or Degree. Underprepared Students and Prepared Students.
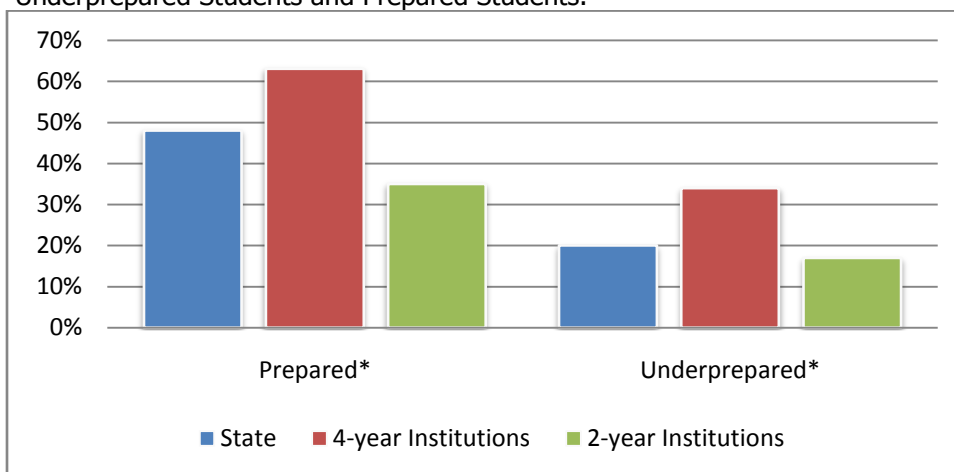
*mean for Prepared and Unprepared students for state, 4-year institutions, and two-year institutions.
Source: THECB Analysis of CBM001, CBM002, and CBM009

The Higher Education Policy Institute Response

Clearly, developmental education faces fundamental challenges which require fundamental, or systemic, responses at multiple levels. To develop recommendations for

improvement, the Institute commissioned a literature review of effective practices and convened a symposium in October 2008 of national experts. The symposium drew upon the expertise of distinguished researchers and practitioners in a variety of fields such as cognitive science and educational policy in addition to developmental education. The recommendations focus first on the core of the challenge: What should be happening at institutions, or *promising practices*? Systemic improvement requires more than just a formulation for promising practices intended for practitioners, but also coordinated changes in policy. The last section, therefore, includes recommendations targeted primarily for policymakers that are intended to facilitate implementation of the promising practices at institutions.

The Core of the Matter: Recommendations for Promising Practices at Institutions

The recommendations for promising practices for developmental education also encompass practices that apply generally to all students at any educational institution at any level. They are included to emphasize that the ability of an institution to improve basic services for any particular group of students depends upon its systemic capacity to address the needs of all students. The recommendations are grouped into preventative strategies and growth strategies. Preventive strategies reduce the number of entering students who are not college-ready and enhance retention of existing students. The growth strategies refer more directly to developmental education.

Preventive Strategies
- Work with local K-12 districts to align curricula and systems around the College Readiness Standards
- Require an orientation session for all students
- Require a *Student Success Course* for all students

Growth Strategies
- Assess incoming students using a statewide assessment and reporting system that can be used for diagnostic purposes as well as for growth measurement
- Place students into appropriate interventions according to level of college-readiness (e.g., course-based, non-course-based such as personalized remediation, tutor-based remediation, intensive summer remediation)
- Utilize contextualized remediation
- Address curricular reform issues (e.g., combine reading-writing remediation when appropriate)
- Create small learning communities via linked courses as a mechanism of social and academic integration into community colleges
- Use supplemental instruction
- Utilize high quality faculty and instructors
- Enhance support
  - Enhance academic advising capacity
  - Include data-driven decision making into all phases of placement, advising, and monitoring of student progress for all students
  - Increase high-quality training for developmental education faculty, instructors, and advisors

Because developmental education has traditionally been viewed as remedial courses, the intent of these recommendations is to recalibrate its scope by including non-course- based developmental education practices and support mechanisms. Figure 2 depicts the path from initial assessment to college coursework within the context of institutional support mechanisms. The goal of developmental education is to systematically diagnose student strengths and weaknesses and prescribe a package of responses appropriate for each student's profile. It is important to note that Figure 2 focuses on academic measurement, intervention, and growth. Not shown, yet equally critical, is a companion flow chart that contains non-academic student support such as financial aid, social services, and employment assistance.

Figure 2: Developmental Education System
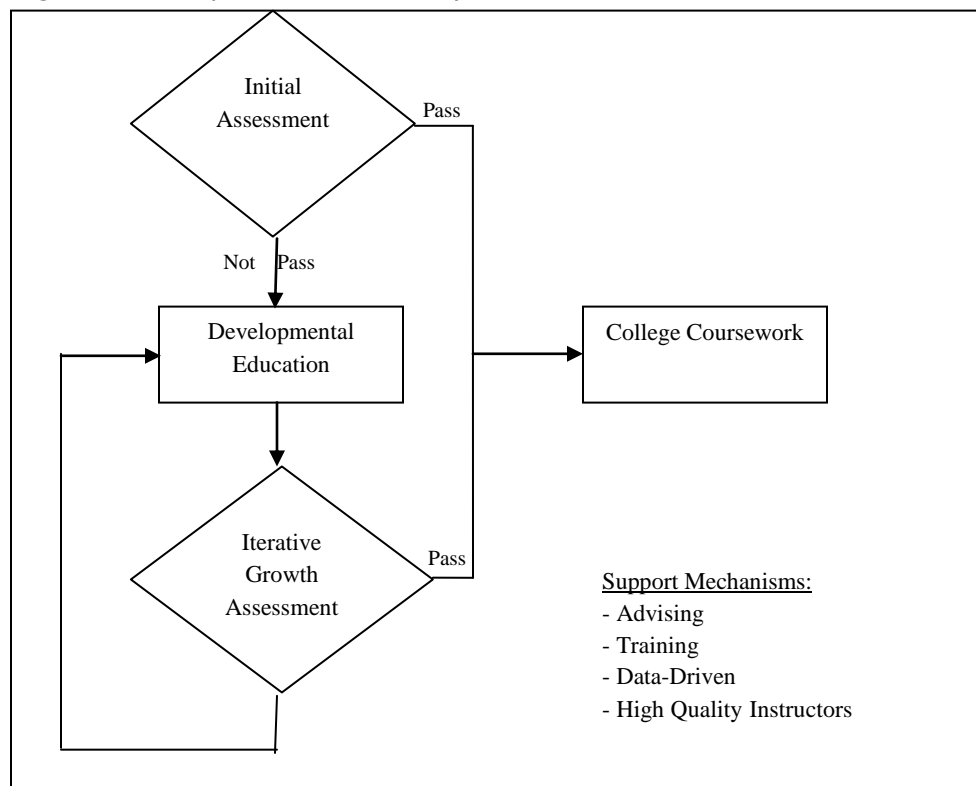
Policy Recommendations

The policy recommendations are formed around the core promising practices which are often in place, but not within a coherent system that approximates Figure 2. A primary goal of the symposium and the review of the literature, therefore, was to identify inhibitors to systemic adoption of these practices by institutions and to identify corresponding solutions that would address these inhibitors. What follows is a set of state-level recommendations and their respective rationale.

Research and Evaluation: From Promising to Best Practices

Although the promising practices included herein are state-of-the-art, their underlying evidentiary base is insufficient for many institutions to use as a basis for allocation of scarce

resources. The Institute, therefore, recommends a central role for research and evaluation to establish concrete evidence. The recommendations include:

- Establish three to four demonstration sites of comprehensive and systemic developmental education.
    - Develop a robust mixed-methods evaluation strategy for the demonstration sites to reliably capture measures of effectiveness and attribute outcomes to programmatic elements and processes.
- Utilize the rich statewide higher education data to identify institutions that have exhibited success or remarkable improvement over time relative to their peer institutions.
    - Conduct in-depth qualitative inquiry of the identified high-performing sites to determine underlying causal factors of success.

Technical Assistance: From Recommendations to Implementation

One inhibitor to implementation of the promising practices is, in part, awareness of the promising practices themselves, but perhaps more importantly awareness of the path to implementation. The identification of promising practices is a critical and necessary first step, but the hard work of their dissemination and implementation often requires outside assistance. Systemic improvement is difficult. It often means change at multiple levels from organizational structure and processes to pedagogy, and requires constancy in vision and purpose across changes in leadership and staff. The external assistance resource would be able to map the path to promising practices based upon institution-specific profiles, strengths, and weaknesses. Examples of activities include the following:

- Create a technical assistance resource that:
    - Conducts on-going workshops for faculty, staff, and leadership
    - Develops peer teams of excellence to encourage collaboration
    - Develops institution-specific roadmaps to systemic implementation of promising practices based upon institutional strengths and weaknesses
    - Develops strategies for collaboration with local K-12 districts
    - Advises institutions on data-driven decision making
    - Advises institutions on evaluation strategies

- Develop a website for Texas Academic Counseling and Advising modeled after the corresponding resource in Florida that:
    - Contains college success strategies to assist in dissemination of successful practice. This should contain online training and resources for high school and college advisors.
    - Assists both high school and college student needs.
    - Allows students to track their own progress, including online availability of student transcripts
    - Contains detailed course and degree planning information and assistance for general education core curriculum for the associate in arts or associate in science degree for students and advisors
    - Gives advisors access to assistance from a state team of experts through chat rooms and other technical means

Funding Formula: Rewarding Growth

Many institutions at the symposium expressed a genuine desire to implement the promising practices but cited a state funding formula for developmental education that is inconsistent with the structure and goals of promising practices. The current formula does not fund innovative non-course-based interventions. This means that institutions have to resort to grants to fund innovations such as accelerated learning and flexible entry/exit programs for specific subpopulations of students within a finite window of time. In direct contrast, systemic and sustained implementation requires reliable and estimable funding over time. In addition to the formula funding strategy currently in place, the state should provide funds based upon student attainment of college-readiness, regardless of approach.

Assessment: A Statewide Assessment and Reporting System

Without reliable and valid measures for student academic preparedness and growth, any educational effort is severely handicapped. The Institute recommends that the state develop one assessment instrument with a reporting capability that provides immediate feedback to practitioners. It is critical that the assessment give accurate profiles of student strengths and weaknesses across all content areas for proper placement purposes. The assessment must also possess the capability to accurately reflect growth. Although important for all approaches to developmental education, flexible entry/exit programs in particular require a quality assessment to measure impact.

The literature clearly links the quality of the assessment system to student behavior and success. A poorly designed assessment regime often subjects students to multiple assessments at different times for different purposes, adding to the confusion which may increase the likelihood that students will self-select themselves out of the enrollment process altogether (Bailey, 2008). Nora and Garcia (2001) found that student's sense of fairness in the assessment and placement in remedial courses was important. Students who reported that their academic ability had been accurately measured and believed that they belonged in developmental program entered their remediation with positive attitudes that were instrumental in affecting persistence attitudes. These findings are consistent with Adelman (2006) and Prince (2005) who found that appropriate placement in the first semester of developmental education influences future student persistence.

Other Policy Recommendations
- Fully implement the College Readiness Standards to better align the public and higher education curriculum and to create a seamless transition between high school and college.

- Legislate a mandatory *Orientation* with required content.

- Make the *Student Success Course* a requirement. The *Student Success Course* needs to have credit-bearing status that does not count toward the 120 semester credit hour limit at four-year institutions.

References

Adelman, C. (2006). *The toolbox revisited: Paths to degree completion from high school through college*. Washington, DC: U.S. Department of Education.

Bailey, T. Jeong, D.W., Cho, S.W. (2008). Referral, enrollment, and completion in developmental education sequences in community colleges. Community College Research Center. Working Paper No. 15.

Behrman, E. (2000, Spring2000). Developmental placement decisions: Content-specific reading assessment. *Journal of Developmental Education*, *23*(3), 12.

Boylan, H.R., Bonham, B.S., White, S.R. (1999). Developmental and Remedial Education in Postsecondary Education. *New Directions for Higher Education 108*, pp. 87-101.

Nora, A. & Garcia, V. (2001). *The role of perceptions of remediation on the persistence of developmental students in higher education*. Refereed research paper presented at the annual meeting of the Association for the Study of Higher Education (November, 2001).

(Press Release) U.S. Secretary of Education Margaret Spellings Engages Business and Higher Education Leaders, Visits 21st Century Academy in New York City. http://www.ed.gov/news/pressreleases/2007/02/02152007a.html

Prince, H. (2005). Standardization vs. Flexibility: State Policy Options on Placement Testing for Developmental Education in Community Colleges. Jobs for the Future. Retrieved January 8, 2009, from http://www.jff.org/Documents/StandardFlex.pdf

Strong American Schools (2008). *Diploma to Nowhere*. Washington DC: Strong American Schools. Retrieved January 8, 2009, from http://www.strongamericanschools.org/files/SAS_Diploma_To_Nowhere_v11_FINAL.pdf

Texas Higher Education Coordinating Board (2005). Developmental Education Statewide Data Profile. Retrieved January 8, 2009, from http://www.thecb.state.tx.us/OS/DevEd/DEData/.

Texas Higher Education Coordinating Board (2008). Texas College Readiness Standards. Retrieved January 8, 2009, from http://www.thecb.state.tx.us/collegereadiness/CRS.pdf

U.S. Department of Education, National Center for Education Statistics. The Condition of Education 2004 (NCES 2004-077), by Wirt, J., Choy, S., Rooney, P., Provasnik, S., Sen, A., and Tobin, R.. Washington, DC: U.S. Government Printing Office 2004.