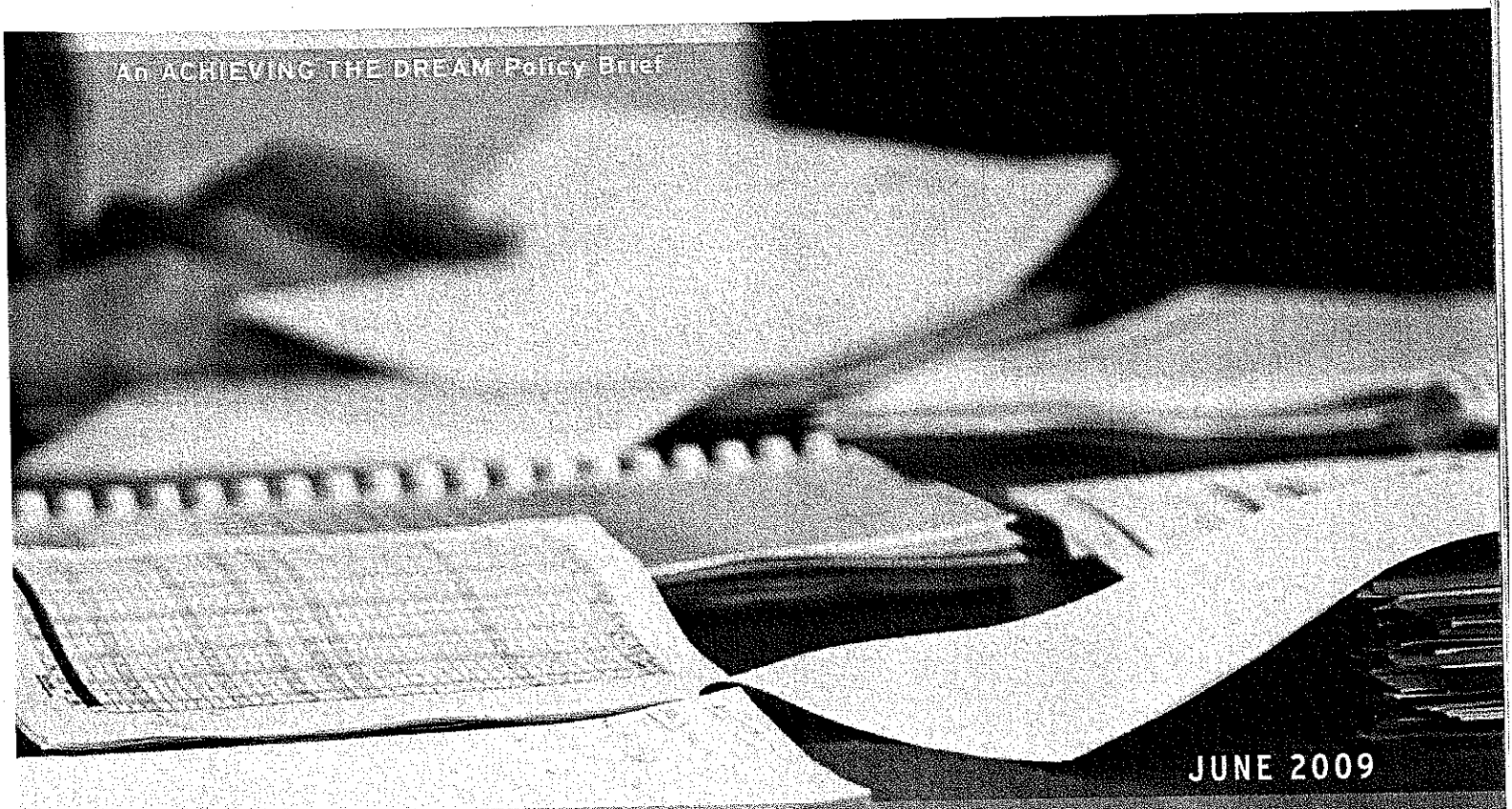
ACHIEVING THE DREAM® COMMUNITY COLLEGES COUNT



An ACHIEVING THE DREAM Policy Brief

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SETTING UP SUCCESS IN DEVELOPMENTAL EDUCATION:

HOW STATE POLICY CAN HELP COMMUNITY COLLEGES IMPROVE STUDENT OUTCOMES

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JOBS FOR THE FUTURE

Table of Contents

Executive Summary.....v

Introduction.....1

Preventive Strategies: Reducing the Need for Developmental Education.....3

Defining and Aligning College-Ready Standards and Expectations.....4

Assessing College-Readiness Early and Acting on the Information.....6

Assessment and Placement: Addressing the Challenge at the College Level.....8

Implementing and Evaluating Program Innovation: Experimenting to Discover What Works.....10

State Funding Support for Innovation in Developmental Education.....11

State Policy Support for Innovation of Institutional Programs.....12

State Support for State-Level Data Systems and Institutional Research Capacity.....15

Performance Measurement: Using Outcomes Data to Inform Policy.....17

Getting the Measures Right.....17

Learning from the Highest Performers.....18

Creating Incentives to Promote and Scale Up What Works.....20

Using Financial Incentives to Reward Performance.....21

Toward a Policy Environment That Promotes Continous Improvement.....22

Endnotes.....23

References.....24

ACHIEVING THE DREAM: COMMUNITY COLLEGES COUNT is a national initiative to help more community college students succeed (earn degrees, earn certificates, or transfer to other institutions to continue their studies). The initiative is particularly concerned about student groups that have faced the most significant barriers to success, including low-income students and students of color. *Achieving the Dream* focuses colleges and others on understanding and making better use of data. It acts on multiple fronts, including efforts at community colleges and in research, public engagement, and public policy. *Achieving the Dream* is funded by Lumina Foundation for Education and eigthteen partner foundations.

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JOBS FOR THE FUTURE. Through research, analysis, action, and advocacy, JFF develops promising education and labor market models, expands successful models in communities across the country, and shapes the policy environment that enables American families and companies to compete in a global economy. JFF coordinates the effort to improve policies in the fifthteen states that are participating in *Achieving the Dream*.

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Setting Up Success in Developmental Education: How State Policy Can Help Community Colleges to Improve Student Outcomes

Executive Summary

Earning a postsecondary credential has never been more critical to getting a job that pays family-supporting wages. Today's students, who understand the importance of education beyond high school, are enrolling in higher education—community colleges, in particular—at record rates. But too many of the students who enroll in community college are not on track for success. Six out of ten must take at least one developmental education course before they can enroll in college-level courses. This decreases their individual chances of ultimately earning a credential. Moreover, it compromises our global economic competitiveness when the nation's education attainment rate goes down.

The large number of students entering community college needing developmental education, combined with the low number of students who complete their developmental requirements and meet college-ready standards within the first academic year, have made this area an *Achieving the Dream* priority for influencing state policies.

Achieving the Dream, a national initiative to improve student success in community colleges, has taken a multipronged approach to improving outcomes in developmental education. This issue brief describes how the fifteen participating states have concentrated their policy efforts on four key areas:

Preventative Strategies: States have a role to play in reducing the need for developmental education: setting and broadly communicating college-readiness standards, providing early assessment opportunities for high school students, and ensuring that high school and college-entrance standards and expectations are aligned.

Assessment and Placement: A carefully thought-out placement-assessment policy is critical to improving developmental education outcomes. A state's approach to placement-assessment policies can make the difference between whether a student who cannot succeed without intervention is well-served. These policies also affect whether students slip through the cracks and are allowed to enroll in college-level courses with little probability for success. Poorly designed state placement-assessment policy can also result in students being placed in developmental education when supports and enrollment in college-level classes would serve them better.

Implementation and Evaluation of Program Innovation: State policy can foster or impede experimentation and testing to find out what approaches to instruction and supports are effective in developmental education. States are able to provide support and resources for institutions to innovate and attempt new interventions. Limited evidence as to "what works" in developmental education, combined with large enrollments and the corresponding expense, suggest that states that are serious about improving outcomes should redouble efforts to identify new strategies and interventions that can increase student and institutional performance in developmental education.

Performance Measurement and Incentives: States have considerable influence over the performance indicators used to measure progress and the impact of state and institutional interventions. To improve outcomes, states and institutions should pay attention to intermediate measures and to milestones that developmental education students must pass en route to final success measures like graduation and transfer. Increasing knowledge of the relationship between intermediate measures and final success (e.g., graduation, transfer, and persistence toward a credential) can inform state incentives to help students meet shorter-term goals. Further, performance incentives can drive institutions to focus on helping their students to meet state developmental education goals.

Each of these state-level strategies has merit. Together they add up to a potentially powerful approach to improving outcomes for students in need of developmental education. Together, the strategies pinpoint problem areas, including the disconnect between K-12 and postsecondary education; spotty assessment and placement practices; and outdated, semester-based instructional delivery designs. The four strategies also address critical gaps in what is known to be effective in developmental education by improving performance indicators and testing and providing incentives to identify and implement new approaches to improvement.

Perhaps most important, sharing results and learning from the effective practices of high-performing institutions can begin to fill gaps in knowledge about what works in developmental education. State policy plays a critical role in developing the conditions to implement these strategies so that underprepared students can remedy their academic deficiencies and get on track to earning the credentials and degrees they need to support their families and contribute to our nation's economic vitality.

Setting Up Success in Developmental Education: How State Policy Can Help Community Colleges Improve Developmental Education Outcomes

Introduction

While community colleges provide people from all walks of life with broad access to credentials and degrees, they are a particularly critical pathway to middle-class earnings for those who are most vulnerable in a knowledge-based economy. Yet for too many first-generation college goers, students of color, and low-income students, access to community college does not translate into a degree or other credential—nor, therefore, to increased income and quality of life. Well over half of the students who begin community college do so unprepared to succeed. Almost 60 percent of community college students take at least one developmental education course (Attewell, Lavin, Domina, & Levey 2006).[1] In some colleges, more than 80 percent of students are referred to developmental education.[2]

In states participating in *Achieving the Dream*, a multiyear national initiative designed to help more community college students complete courses, earn certificates, or transfer to other institutions to continue their studies, 60 percent of students are referred to developmental education. Of those who enroll, only 15 percent complete all of their developmental education requirements within the first academic year. Almost half—46 percent—do not complete any of their developmental education requirements in the first academic year (Clery 2008).

The large number of students entering community college needing developmental education, combined with the low number of students who complete their developmental requirements and meet college-ready standards within the first academic year, have made this area an *Achieving the Dream* priority for influencing state policies. However, state efforts to improve developmental education outcomes are hindered by conflicting evidence about the overall effectiveness of developmental education programs. Some research findings suggest a positive impact for students who take developmental education (Bettinger & Long 2005). Others suggest that

Achieving the Dream: Community Colleges Count is a multiyear national initiative to improve student success at the nation's community colleges, particularly for students of color and low-income students. Jobs for the Future leads the strand of *Achieving the Dream* that aims to influence state and national policy in support of efforts to increase community college student success. This effort is guided by a framework, developed collaboratively by *Achieving the Dream* states, that specifies five high-leverage areas for policy action: public policy commitment to improving student outcomes; data and performance measurement systems; incentives to promote student success; aligned standards and expectations, including K-12 and postsecondary alignment; transfer and articulation; and financial incentives to improve persistence, including need-based financial aid.

students who never enroll in developmental education do just as well as those who complete their developmental education sequence (Attewell, Lavin, Domina, & Levey 2006). Another study suggests that developmental education may decrease a student's chances of success (Martorell & McFarlin 2007).

In the absence of definitive evidence of what works, *Achieving the Dream* colleges are experimenting with approaches to improving developmental education outcomes. At the same time, *Achieving the Dream* states are exploring ways that state policies can help institutions dramatically improve results for students who test into developmental education. These states have adopted a multifaceted approach focused on four broad strategies:

- *Preventive Strategies:* Defining and aligning college-readiness standards and expectations and providing opportunities for students to meet those standards before enrolling in community college;
- *Assessment and Placement:* Developing coherent policies for determining who requires developmental education and what type they require;
- *Implementation and Evaluation of Program Innovation:* Supporting efforts to identify strategies and instructional practices that can improve outcomes, while implementing policy supports that can help bring new evidence-based strategies and practices to scale; and
- *Performance Measurement and Incentives:* Developing better indicators of student success, including indicators that provide a more accurate picture of students' academic weaknesses and rate of progress through developmental education and subsequent college-level courses, using the results to identify and reward institutions that are succeeding.

This policy brief focuses on strategies that *Achieving the Dream* states are using in all four areas to help improve outcomes for students who test into developmental education. It identifies opportunities for *Achieving the Dream* states and others to develop new knowledge about improving outcomes for these vulnerable students. Further, the brief highlights plans for the next phase of *Achieving the Dream* efforts to improve developmental education results. The brief concludes with key areas for state policy action to help students advance through developmental education and enter college-level coursework ready to succeed.

Preventive Strategies: Reducing the Need for Developmental Education

Far too few students are ready to enroll in college-level classes upon entering community college. The magnitude of the problem is difficult to understate: Only 22 percent of all 2008 high school graduates who took the ACT met the college-readiness benchmark, which itself predicts that they have about a 50 percent chance of earning a B or better or about a 75 percent chance of earning a C in entry-level, college-credit-bearing English, mathematics, reading, and science classes (ACT, Inc. 2008). These figures are more troubling when disaggregated by race: only 3 percent of African-American and 10 percent of Hispanic high school graduates met the college-readiness benchmarks.

Consequently, many students need some form of developmental education to fill academic gaps before they can succeed in college-credit courses. More often than not, underprepared students enroll in course-based developmental education.

Developmental Education in Texas: Recommendations for Systemic Improvement

In 2009, the Higher Education Policy Institute of the Texas Higher Education Coordinating Board released a set of recommendations for policy practice and research to systematically enhance the capacity of state institutions to provide effective developmental education. Based on review of the literature and a symposium of national experts, the institute's report emphasized a core set of "state of the art" promising practices. It concluded that the "success of developmental education depends in part on the overall capacity of the institution to serve the needs of all students." The report went on to highlight the following practices:

- Mandatory assessment of incoming students using a statewide system that can help diagnose academic needs as well as track progress over time;
- Systematic placement of students into appropriate course-based or non-course-based developmental education programs;
- 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 professional development for faculty and instructors; and
- Outreach to K-12 districts to align systems and curriculum.

The report emphasizes how the state can be most helpful in supporting improvement. It cites the lack of quality evidence as to what works and recommends *research and evaluation* to test several innovations. The report also recommends using state-level higher education data to identify institutions that have consistently exhibited success or remarkable improvement relative to peers—and to study causal factors of their success.

Two other state roles are recommended: *technical assistance* to help colleges build their capacity to adapt promising practices to local needs; and a *shift in the funding formula* to allocate funds based on student achievement of college readiness, regardless of the particular approach institutions adopt, thereby promoting innovation and more creative solutions.

Source: Higher Education Policy Institute, A Project of the Texas Higher Education Coordinating Board, February 2009

A logical first step toward decreasing the need for developmental education is reaching a common understanding of college readiness around which to align high school exit and college entrance requirements.

This represents a significant cost to states, which appropriate millions of dollars to developmental education courses. It is also costly for students and their families. By delaying entry into college-level courses and prolonging time to a degree, developmental education ultimately postpones access to the increased earnings that result from entering the workforce with a credential.

These costs to students, their families, and states, combined with the limited consensus on what works to improve developmental education outcomes, have led states to place a high priority on efforts to minimize the need for developmental education. This requires states to play a more active role in two important areas:

- *Defining and Aligning College-Ready Standards and Expectations:* Almost every Achieving the Dream states is collaborating across the K-12 and postsecondary education sectors to align high school exit-level to a college-ready standard
- *Assessing College-Readiness Early—and Acting on the Information:* There is growing interest in administering college-readiness placement tests high school juniors and senior prior to high school graduation to determine if they are on track to be ready for college or if remediation is needed to avoid being placed in developmental education.

Defining and Aligning College-Ready Standards and Expectations

How do we know if a student is ready to enroll in college-level work? At the K-12 level, too few states have clearly defined college-readiness standards (Callan et al. 2006; Achieve, Inc. 2006). However, postsecondary educators and systems also bear responsibility: The lack of common readiness standards among community colleges confounds efforts to calibrate course content across multiple levels of developmental education so that, upon completion, students are ready for success in the first year of college.

A logical first step toward decreasing the need for developmental education is reaching a common understanding of college readiness around which to align high school exit and college entrance requirements. Community colleges must actively inform state K-12 college-readiness initiatives from their unique vantage point of serving a disproportionately large number of students who enter college unprepared for college work. State- and national-level college-readiness initiatives are important platforms for community colleges to work with K-12 and other relevant audiences to pinpoint specific content areas where recent high school graduates struggle, and then to help find ways to strengthen student performance in these areas before high school graduation.

Collaborating across sectors will not require new platforms. Community colleges already participate in state and national initiatives: thirty four states, including fourteen *Achieving the Dream* states, currently participate in the American Diploma Project, a national initiative to define college-readiness and align K-12 standards with those of postsecondary education.[3] States must be more deliberate in their efforts to learn from the unique perspective of community colleges. As they are the sector that deals most directly with the disconnect between high school exit standards and college-readiness, their voice must not be lost in the often louder conversation between the K-12 and four-year college sectors.

Texas: Improving College-Readiness to Reduce the Need for Developmental Education

National policy organizations and the K-12 education sector have been the primary drivers of college-readiness deliberations across the nation. Community colleges have participated with varying degrees of involvement and centrality. In Texas, statewide college-readiness discussions have included both formal and advisory participation of community colleges, providing two important and highly visible platforms for community college leaders to share their perspective on the levels of academic mastery and skill development needed for first-year college success.

In 2006, the Texas Legislature passed House Bill 1, sweeping education-reform legislation that requires "vertical" teams of faculty from K-12, community colleges, and four-year institutions to develop and recommend college-readiness standards in English, mathematics, science, and social studies for statewide adoption. In creating a formal, statutorily required role for each sector, Texas was careful to take into account the unique perspective and lessons from each level of education. This allowed community colleges, including *Achieving the Dream* institutions, to directly inform the state regarding the levels of mastery students need in relevant subject areas to be college-ready and avoid developmental education.

In 2007, Governor Rick Perry created the high-level Commission for a College-Ready Texas to support the state's efforts to develop college-readiness standards via HB 1. Again, community college leaders had the opportunity to educate a broad group of stakeholders on college-readiness from the two-year sector's perspective as the "default" service provider for students who test into developmental education. The commission served as a statewide forum for discussion of the skills and content knowledge that students need to master in order to be college-ready upon high school graduation.

The 21-member commission engaged national research and policy organizations, educators, government officials, legislators, members of the business community, and community groups to solicit broad input on defining college-readiness and aligning standards. Richard Rhodes, president of El Paso Community College, an *Achieving the Dream* institution, was one of the members. His appointment provided another statewide platform for the two-year sector as the commission developed recommendations for consideration by the state's commissioners of education and higher education.

Both the vertical teams and the commission submitted recommendations to the Texas Higher Education Coordinating Board. The board adopted college-readiness standards on January 24, 2008 and forwarded them to the State Board of Education to be included in the state's core K-12 curriculum, as required by HB 1.

Other states would do well to create similar opportunities to learn from the experiences of community colleges. In addition, when given influential and highly visible platforms, the two-year sector should be prepared to pinpoint those content areas where high school students experience difficulty and to articulate the specific content and skills students need for a successful transition to college-level courses. Clear communication of standards and expectations is a critical preemptive strike to closing the gap between high school exit standards and college-entrance standards.

A growing number of *Achieving the Dream* states are integrating K-12 and higher education core competencies in math and English

Assessing College-Readiness Early and Acting on the Information

States that seek to decrease the number of students who test into developmental education are also exploring ways to assess student readiness for college-level work before young people enroll in college. A growing number of *Achieving the Dream* states are integrating K-12 and higher education core competencies in math and English, and they are also developing assessments that make it possible to determine which high school students need more help to master these competencies before graduating from high school.

These efforts are influenced by earlier successes in identifying high school students who would benefit from extra assistance, the best known of which is the California State University System's Early Assessment Program.

The core features of that program drive closer integration of K-12 and postsecondary standards:

- College-readiness standards are clearly defined and communicated broadly.
- California public high school graduation criteria and California State University entrance requirements are identical.
- California public high school students take a single state-adopted assessment to meet the requirements to graduate from high school and to enter the California State University system.
- High school students take the state test before their senior year, giving them enough time to address deficiencies before graduation.
- High school students receive supplemental assistance, including tutoring and online support, to help them reach college-ready standards.

College Experience in High School as a Strategy to Increase College Readiness

In a number of *Achieving the Dream* states, opportunities to earn college credit in high school, such as dual enrollment and early college high school, are emerging as strategies to increase student readiness for college and decrease the need for developmental education. Dual enrollment allows high school students, typically juniors and seniors, to take courses while they are still in high school. In some cases, students receive dual credit—that is, credit toward both high school and college course requirements. Early college is an intensive form of dual enrollment: The last years of high school and the first years of college are blended within a single coherent learning program, and high school students can earn up to 60 hours of college credit and, in some cases, an Associate's degree.

Until recently, these college-credit-in-high-school options were pathways primarily for gifted and talented students. However, they are increasingly being designed and implemented as college-readiness strategies and "on ramps" to college for students from groups that are underrepresented in higher education, including students who never envisioned themselves attending college. The power of these options is that students prepare for college by completing college-level courses. In addition to viewing their college prospects differently as a result of earning college credit, students are often motivated by the reduced time and cost required to earn a college credential: they take many courses without paying either tuition or a fee.

An emerging body of evidence, including a study on outcomes in Florida and New York, suggests that dual enrollment improves subsequent college performance (Karp et al. 2008). The preliminary evidence suggests that college credit in high school may be a promising preventive strategy for states looking to increase college readiness and decrease the need for developmental education.

- Teachers receive professional-development supports for teaching to rigorous college-ready standards.

It is too early to gauge the full impact of the Early Assessment Program. An analysis of system wide remediation rates indicates a decline in the overall percentage of students needing any remediation, from 68 percent in 1998 to 56 percent in 2007. However, remediation rates have remained relatively constant since the implementation of the Early Assessment Program California Standards Tests in 2004 (California State University 2008). These results suggest that early assessment warrants further study to determine its efficacy as a strategy to reduce the number of students who test into developmental education.

Regardless, the logic of identifying remedial need early and addressing academic deficiencies prior to college enrollment is intuitive and appealing. A number of *Achieving the Dream* states are implementing early assessment strategies as a preventive measure. Hawaii and Oklahoma have secured proprietary services that help students and their families to plan and track readiness for college, such as ACT's Educational Planning and Assessment program. Florida is making the state-level college-readiness test and remediation opportunities available to high school students, and Washington is developing and implementing a statutorily required early assessment test.

Florida: Early Assessment to Reduce the Need for Developmental Education

In 2008, in an effort to reduce the number of high school students who enter college and test into developmental education, Florida's state legislature passed Senate Bill 1908, requiring that the state's college placement test be made available to high school juniors who intend to go to college. The bill also requires the Florida Department of Education to ensure that students who are not on track to be college-ready have remediation opportunities before graduating from high school and enrolling in college.

To satisfy the legislature's mandate to make remediation accessible to high school students, the Department of Education encouraged collaborative efforts between community college and high school faculty to adapt the community college developmental education curriculum into high school courses designed to lift "off track" students to a college-ready standard before graduation. As of spring 2009, mathematics, reading, and writing remediation courses have been approved by the Florida Department of Education and are available for use by all public high schools. The remediation courses count as 0.5 elective credit toward high school graduation. High school students who complete these courses with a grade of C or better, which includes earning a satisfactory score on a statewide end-of-course exam, are exempt from further testing for remedial need. They are also exempt from having to enroll in developmental education once admitted to a Florida college for up to two years after having completed the courses.

Assessment and Placement: Addressing the Challenge at the College Level

Even with states' best efforts to define college-readiness, align high school exit standards with college-entrance standards, and intervene early to help underprepared students prepare for college-level work, many students still will enroll in college unprepared to succeed. Aligning standards, assessments, and expectations to a college-ready standard and effectively teaching to set standards will take time. In the immediate future, K-12 exit requirements will continue to clash with college-entrance requirements and standards for success, to the detriment of both students, who require more help, and institutions, which already struggle with alarmingly low completion rates, even for college-ready students.

How should states change their policies and programs to help underprepared students entering community college get ready for college-level learning? One important area for attention is the range of policies governing the assessment of new students and whether or not they are placed into developmental education.

Achieving the Dream states have found that assessment and placement policies can be an important lever for improving student outcomes. First developing, then broadly communicating, clear and consistent performance standards needed for success in the first year of college, and then aligning these with high school exit standards, can help increase the number of new students who are academically prepared. Systematizing assessment and placement policies so that standards are consistent from college to college can increase the chances that colleges identify and appropriately place students who need academic intervention. Many students who might benefit from developmental education can avoid enrolling in remedial courses by exploiting inconsistencies and loopholes in state and institutional policies (Perin & Charron 2006). Unfortunately, many of these students do not succeed.

A recent Community College Research Center analysis of the developmental education referrals and completion rates in *Achieving the Dream* colleges found that more than one-third of all students who did not finish their first developmental education course did not go on to complete any college-level courses within three years (Bailey 2009). The failure to complete the first developmental education course actually was more a result of failure to enroll at all, rather than dropping or failing the class.

These results affirm the importance of establishing systematic placement policies to ensure that colleges identify—and serve—students who need developmental education early in their academic careers. The findings suggest that states and institutions should consider whether more prescriptive policies are needed to ensure that students enroll in and complete their developmental education requirements in a timely fashion. At *Achieving the Dream* colleges, students who completed all of their developmental education requirements by the end of the first year were more likely to persist to the second term and the second year (Clery 2008).

Assessment and Placement Policy Reform in Achieving the Dream States

JFF's 2008 policy brief, *It's Not About the Cut Score: Redesigning Placement Policy to Improve Student Success*, explores the experiences of three *Achieving the Dream* states' work to leverage placement-assessment policy to increase community college student success. Connecticut, North Carolina, and Virginia chose to set common placement cut scores for similar reasons, but each state is in a different phase of policy analysis and development. In addition, each faced specific pressures that made its trajectory toward common placement standards unique. The variations in the evolution of their policies illustrate the benefits, challenges, and trade-offs that must be considered when setting placement and assessment policy.

- *Connecticut* is implementing statewide cut scores that the legislature mandated in 2007. Connecticut's experience is a lesson for other states regarding the potential impact on institutions of setting common scores. It demonstrates how states may need to anticipate likely changes in faculty and staff allocation, facilities, and funding. Quite unexpectedly, developing statewide cut scores forced the Connecticut Community College System to acknowledge that it needed to improve the alignment between developmental education courses and gatekeeper courses, all the way transfer-level academic courses.
- *North Carolina* is in the second year of implementing a common cut score policy mandated by the General Assembly in 2006. North Carolina's experience illustrates the iterative nature of setting common cut scores as well as some of the challenges faced when trying to maintain high standards while providing open access. North Carolina's process includes a continuous learning component. Every three years a committee will review outcomes and advise the State Board of Community Colleges on any revisions that may be needed to the state's policy.
- *Virginia* is reviewing its placement cut-scores policy to ensure that it does not have unintended consequences of lowering student success. The Commonwealth is conducting this review in part because its participation in *Achieving the Dream* has intensified scrutiny of how policy decisions affect student outcomes. Virginia's focus on placement cut-scores policy has also led the state to focus more on overall policies governing placement and assessment.

Because of the benefits stemming from clearly defined and consistently applied assessment and placement policies, *Achieving the Dream* states are part of a national trend toward providing more prescriptive guidance to institutions on these important issues.

The most thoughtful states are trying to strike a delicate balance on assessment and placement policy. On one hand, policies that are too permissive allow students to enroll in college-credit courses without adequate preparation or support, setting up both the student and the institution for failure. On the other hand, overly restrictive policies may require students who have a reasonable chance of succeeding without intervention, such as those who fall just below the established cut score for placement into remediation, to enroll in developmental education anyway (Calcagno & Long 2008). This unnecessarily prolongs the amount of time it takes to earn a degree, increases the financial cost to both student and institution, and increases the odds that a student will drop out. Effective state assessment and placement policies will strike a balance between restrictive and permissive rules.

Connecticut, North Carolina, and Virginia: Revisiting Placement Policies to Improve Outcomes

Connecticut, North Carolina, and Virginia are among the *Achieving the Dream* states that have revisited their assessment and placement policies in an effort to increase student success. While each state's approach has been unique, the similarities are noteworthy:

- Each state performed comprehensive analyses, including surveys and validation studies, to determine the impact of placement policies on student outcomes.

This is a logical first step for any state seeking to better understand the impact of its assessment and placement policies on student success.

- Each state brought K-12 and community college faculty together to discuss the skills and competencies high school students need to succeed in college, so that placement-test cut scores could be based on an emerging cross-sector consensus. These conversations required compromises between two groups of faculty: those who insisted that setting the bar high was necessary to ensure academic excellence and those concerned that standards set too high would limit access. States navigating similar terrain should be prepared to help faculty resolve this tension and arrive at a balanced approach that facilitates access while preserving academic excellence.
- Perhaps most important, the states found that engaging in a collaborative process to set placement cut scores was more valuable than determining the cut score itself, because the process requires that K-12 schools and community colleges develop consensus on the level of academic preparation required to succeed in entry-level college courses.[4]

Implementation and Evaluation of Program Innovation: Experimenting to Discover What Works

Given the largely inconclusive results of traditional state and institutional interventions to raise developmental education outcomes, *Achieving the Dream* states and others are testing a variety of innovative approaches to improvement and measuring their results. States' policy improvement efforts in this area have included the following:

- *State funding support for innovation in developmental education:* States play an important role in securing funds to support campus-level efforts to improve developmental education. The California legislature's appropriation for the California Basic Skills Initiative and legislative appropriations for developmental education innovation from Texas's House Bill One (2006) are examples of this type of support.
- *State policy support for innovation of institutional programs:* State funding formulas and semester-based calendaring can create constraints to institutional efforts to innovate. States can provide flexibility to institutions by granting waivers and loosening restrictions to free institutions to innovate.
- *State support for improved state-level data systems and institutional research capacity: Achieving the Dream* states are working to build their data capacity and institutional research capability to more accurately measure student and institutional performance and to better understand the impact of state and institutional interventions.

State Funding Support for Innovation in Developmental Education

One of the largest recent state efforts to encourage institutional innovation is the California Basic Skills Initiative. Since 2006, the California legislature has provided additional funding for community colleges to improve outcomes for students who test into developmental education or basic-skills classes. The Legislative Analyst's Office, a nonpartisan group that advises the legislature, has reported that the 2006-07 Budget Act provided $63 million in one-time funds for basic skills—the bulk of which was allocated to community colleges by the proportion of basic-skills students the colleges served. However, a portion of subsequent funds was devoted to research to identify which basic-skills strategies produced the best results. For example, state funding to colleges for basic-skills programs in 2007 was contingent on their assessment of the degree to which interventions aligned with research findings about effective practices, which a state-funded project categorized and catalogued in 2006.[5] The colleges are implementing specific new programs aimed at increasing student success.[6]

States can play a critical role in ensuring a fertile environment for incubating new and improved ways to deliver developmental education. Traditional developmental education instructional delivery is unlikely to produce the dramatic improvements in outcomes necessary to put many students on solid pathways to postsecondary credentials. New approaches are needed, including new delivery modes, curricular strategies, support services, and tracking systems. Because institutions do not have enough resources to test new ideas and to experiment with new modes of instructional delivery, state resources can accelerate and focus these research and development efforts. State support also is needed for measuring the impact of interventions, a critical step in identifying practices and strategies that produce positive results.

Texas: State Funding Incentives for Developmental Education Innovation

Texas's 2006 education-reform law provided funding for innovation by requiring the Texas Higher Education Coordinating Board to develop incentives for institutions that implemented innovative, research-based initiatives in developmental education. Acknowledging the weak knowledge base on effective strategies, the state set aside roughly $3 million to support a research and innovation agenda to redesign developmental education, improve performance outcomes, and identify and strengthen effective practices.

The state made awards to thirteen institutions to implement innovations, including course redesign projects that use technology to improve learning outcomes while reducing instruction and classroom cost (in collaboration with the National Center for Academic Transformation) and innovations that pair developmental education courses with college-credit courses. The state also funded high school and summer bridge programs to eliminate the need for students to enroll in developmental education in college. Texas is now assessing the impact of these programs. To further support innovation, the Texas Higher Education Coordinating Board has asked the legislature for $30 million for

Texas set aside roughly $3 million to support a research and innovation agenda to redesign developmental education, improve performance outcomes, and identify and strengthen effective practices.

How States Facilitate Institutional Innovation in Remedial Mathematics

One of the most pressing challenges facing community colleges is improving outcomes for students who place into developmental math courses. A JFF policy brief, *Accelerating Remedial Math Education: How Institutional Intervention and State Policy Interact*, looks at efforts in three community colleges, including two *Achieving the Dream* institutions, to revamp their remedial math programming. It focuses on the ways in which state and system policies interact with institutional reform efforts—and how policies can either support or slow institutional change.

- *Housatonic Community College,* an *Achieving the Dream* college in Connecticut, is piloting a self-paced, modularized, competency-based, developmental math course. The course is offered in a lab setting, with open entry and exit so that students can start and finish their coursework at their own pace. State and institutional leaders are looking for ways to overcome obstacles that HCC has encountered related to financial aid and other policies, even as the college is trying to expand this program model more broadly throghout the institution.
- *Community College of Denver* has developed "Fast Start," a developmental education design that enables students to take modules of two different courses in the same semester. This accelerates their progress through both a traditional class setting and a self-paced option. State system policies on managing enrollment data have made it easier for CCD to offer this option.
- *Mountain Empire Community College*, an *Achieving the Dream* college in Virginia, has developed short refresher courses for developmental math students. These courses take less time to complete and cost the student less than more traditional developmental courses. Students can move through more than one of the short courses in a single semester. As in Denver, Virginia's enrollment, financial aid, and student data system policies have been flexible enough to enable Mountain Empire to implement its innovations.

2009-2011 to fund performance incentives that would encourage institutions to improve developmental education outcomes.

State Policy Support for Innovation of Institutional Programs

Another way in which states support institutional innovation is by relaxing policy constraints that prevent institutions from doing things differently. State policies and funding structures often make it difficult for institutions to redesign intervention strategies such as:

- Providing refresher courses or self-paced instruction for students who test near the cut score to minimize the time spent in developmental education;
- Collapsing the developmental education sequence into modules, as opposed to traditional semester-based courses, thereby accelerating time to completion for the lowest-level developmental education students, who must often take up to three semesters to complete their course requirements; or
- Creating open-entry/open-exit courses where students can begin and leave developmental education programs based on competency, independent of the traditional semester schedule. These can reduce the length of time a student is enrolled in developmental education.

Some states are collaborating with institutions to better understand how state policy can assist colleges' efforts to test new ways of delivering developmental education. These states are paying close attention to how state policies and institutional practice interact, and they are identifying changes that need to be made to implement interventions successfully or widely. Waivers or more permanent changes to policies, rules, and regulations that hinder instructional approaches that do not fit neatly within existing policy parameters can be an important state or system-level support for institutional innovation.

What Kinds of Institutional Innovations Should State Policy Support?

While the evidence is not definitive, emerging research on developmental education improvement strategies is identifying institutional innovations that states might want to support and test. State policymakers should consider providing supports to further develop and, where appropriate, scale up evidence-based innovations, such as:

- *Accelerated Developmental Education*: Accelerated programming cuts the time students spend in developmental education and typically features self-paced, computer-based instruction. For example, students in the Community College of Denver's FastTrack program compress two semesters of developmental education into one semester. Such programs require adding flexibility to policies that currently encourage traditional semester-based enrollment reporting for funding and financial aid purposes and traditional semester-based calendaring. "Summer Bridge" and other intensive academic readiness programs designed to accelerate progress through developmental education warrant further policy support to test their effectiveness and scalability. States should also consider policy supports to further test a modular or a la carte approach to eliminating deficiencies in particular subject areas as an alternative to traditional semester-based developmental education courses.
- *Supplemental Instruction/Paired Courses*: States should consider allowing students who test close to the placement test cut score to matriculate in college-level courses, provided they receive adequate academic and social support. There is evidence that supplemental instruction, including tutoring sessions and labs, can help students succeed. An analysis of supplemental instruction programs in 270 U.S. colleges found that participating students received higher course grades, were more likely to earn an A or B grade, and were less likely to earn a D grade, fail, or withdraw. These positive effects persisted when students were disaggregated by field of study (Arendale 2001). A similar analysis of 59 two-year colleges found the same effects (Martin, Blanc, & Arendale 1996). In a more recent study of supplemental instruction in accounting, computer science, biology, and chemistry at LaGuardia Community College, 82 percent of enrolled students earned a successful grade, compared with 52 percent of nonenrolled students. On average, enrolled students also earned higher final course grades (Zaritsky 2001). These results call for careful study of how policy supports might amplify the successful provision and expansion of supplemental instruction.
- *Integrated/Contextualized Developmental Education*: Traditional developmental education instruction is often disconnected from real-world situations, making it difficult for students to connect the relevance of the content to their goals. To remedy this, a number of states are experimenting with linking developmental education content more tightly to students' personal, educational, and workforce-related goals. For example, the Washington State Board for Community and Technical Colleges has developed an Integrated Basic Education and Skills (I-BEST) model, which pairs instructors from Adult Basic Education and English as a Second Language with technical instructors to provide an integrated instructional program of basic skills education and workforce training. The Board is studying results to derive lessons for improving outcomes for students in need of developmental education.
- *First-Year Experience*: Many "college-ready" students struggle in their first and second years of college. Moreover, these struggling students have characteristics similar to those of developmental education students who narrowly miss the cut score. Institutions have responded by designing academic and student services to help these students complete college-level courses. States should consider broadening access to the academic and student services college-ready students receive as an alternative to placing students who score just below the cut score into developmental education (Bailey 2009).

Virginia: State Flexibility in Support of Innovation

Virginia Community College System policies illustrate flexibility that facilitates, rather than impedes, innovation in developmental education. Virginia has a variable-credit structure that makes it easier for institutions to design courses that are more precisely calibrated to students' remedial needs. For students who need only minimal remediation, a college can create a one-credit course; for students with substantial developmental educational needs, a college can create a course of up to six credits.

Virginia also provides flexibility in terms of when courses are submitted for funding, so institutions whose strategies do not fit neatly into the traditional academic calendar and census dates are not penalized for their efforts to redesign developmental education instructional delivery.

Test Drive: Six States Pilot Better Ways to Measure and Compare Community College Performance

Achieving the Dream states have collaborated in developing performance indicators that improve on the measures of community college student and institutional performance that the federal government requires for annual reporting (i.e., the federal Student Right To Know data extracted from the Graduation Rate Survey and reported in the Integrated Postsecondary Education Data System). Federal indicators focus exclusively on first-time, full-time students who complete an Associate's degree within three years. They do not count students who transfer to four-year institutions as successful, nor do they include students who are continuously enrolled and persisting toward a credential after three years.

To address these limitations, Connecticut, Florida, North Carolina, Ohio, Texas, and Virginia formed the Cross-State Data Work Group in 2006 to identify and test a set of performance measures that would provide a more accurate picture of student progress through community college (see *Comparing Community College Performance Measures* below).

These alternative indicators enable states to track results for a larger proportion of their students. In pilot tests, the work-group states measured the outcomes for all community college students, as well as for key subgroups, to measure the rates at which students earned Associate's degrees, transferred, or remained enrolled and making progress toward a degree. A comparative analysis of data from the six states demonstrated a clear link between policy decisions and student outcomes. For example, more Florida students earned Associate's degrees prior to transfer when the state offered incentives for students to earn an Associate's degree by fully articulating courses and by guaranteeing entry for those students into four-year institutions as a junior. Conversely, in Texas, which lacked incentives for students to earn Associate's degrees before transfer, more students transferred to four-year institutions before earning an Associate's degree.

Using this kind of comparative analysis, the work group expects to identify how policy intervention might improve outcomes in developmental education. The next phase of the Cross-State Data Work Group's effort will analyze relationships among completing developmental education requirements, completing subsequent college-level courses, remaining continuously enrolled, and reaching successful outcomes. The work will emphasize identifying early indicators that can show states and institutions whether or not students are on track to a successful outcome. The group also will collect data on more specific populations of students and follow them over time to answer other key questions about outcomes of those placed into developmental education.

Achieving the Dream states will continue to deepen their comparative analyses and peer learning and to disseminate findings to a broad audience. By pursuing two strategies in tandem—developing improved indicators to measure progress for students who test into developmental education, and providing a robust platform for sharing results on performance indicators and success strategies—*Achieving the Dream* states seek to advance the search for state and institutional interventions that can improve student outcomes.

Comparing Community College Performance Measures

	Current Federal Method	Achieving the Dream
Prior enrollment	First-time-in-college students only	Same as federal method
Intent at time of enrollment	Only students seeking a certificate or degree	Same as federal method
Enrollment status	Full-time students only	Full-time and part-time students
Successful outcomes	Earned degree or certificate	• Earned degree or certificate (with or without transfer) • Transferred without award • Enrolled in year six with at least 30 college-credit hours
Time frame	Three years (150% of "normal time" to completion)	Six years
Tracking students who transfer within two-year-college sector	Reporting is based on individual colleges; does not track outcomes of students who transfer to another college; colleges report them simply as "transferred out"	Reporting is based on statewide community college system; tracks outcomes of students within the system (and therefore across community colleges)
Controlling for factors associated with different likelihoods of success	Part-time students excluded from analysis; no disaggregation of results by age at initial enrollment	Disaggregated results by part-time and full-time status and by age at initial enrollment

Source: Goldberger 2008

A number of colleges in the Virginia Community College System are testing innovative instructional-delivery strategies. For example, Mountain Empire Community College's Fast Track program allows students who score just below college-ready on the COMPASS test to take short refresher courses in mathematics. That institution has also condensed course content and begun to offer developmental math courses over shorter periods of time, allowing students to save both time and money as they prepare themselves for college-level math.[7]

State Support for State-Level Data Systems and Institutional Research Capacity

Achieving the Dream states are building their data collection and analysis capacity and using it to answer questions about what works in developmental education and about the effects of particular system- and institution-level interventions. *Achieving the Dream* states have made significant investments in data infrastructure, data warehouses, data marts, technology platforms, and business-intelligence software to provide customizable data reports and query tools to colleges. They have also invested in programming and analytic staff to increase their capacity to process these data and turn them into actionable information at the campus level. The combination of increased infrastructure and increased staff capacity has positioned states to do more sophisticated research on student outcomes and to increase the knowledge base on the impact of state and institutional interventions on developmental education student outcomes. Although the quality and comprehensiveness of state student data systems vary significantly, most *Achieving the Dream* states are improving links across educational sectors and developing strategies to mine data in order to test the impact of particular policies and program innovations.

The use of results from state data research and analysis to inform policy decisions is an important development in policy efforts to support improved outcomes in developmental education. At the system level, a number of states are conducting research that details the impact of assessment and placement policies on student success. States have used their own institutional research offices for these analyses. They have also collaborated with external organizations to conduct validation studies and other longitudinal analyses that illuminate the relationship between outcomes and state- and institutional-level policies, such as placement cut scores. States have linked community college and K-12 data systems to conduct research on the impact of high school course-taking patterns on college success and to measure progress. They have also linked community college data to four-year institutions, the National Student Clearinghouse, and Unemployment Insurance wage records to identify course-taking patterns and credit thresholds for community college students in developmental education who go on to earn credentials, transfer to four-year institutions, or enter the workforce.

Florida: Using State Data to Identify and Promote Promising Innovations

Many students enroll in college without "college knowledge"—that is, without the skills to navigate college, both in and out of the classroom (Conley 2005). To address this, institutions have designed numerous variations on courses that orient students to college life. Despite the popularity of this strategy, there is little evidence as to whether such courses actually help students persist and succeed. To answer the question, Florida turned to its state-level data system.

Achieving the Dream states have made significant investments in data infrastructure, data warehouses, data marts, technology platforms, and business-intelligence software to provide customizable data reports and query tools to colleges.

A number of Florida community colleges now require students who test into developmental education to enroll in Student Life Skills.

The Florida Department of Education's Division of Community Colleges examined the impact of Student Life Skills courses as an orientation to the first year of college. The researchers found that students who completed Student Life Skills were more likely than noncompleters to earn a credential, transfer to the four-year state university system, or remain continuously enrolled after five years (Florida Department of Education 2006). The study also found a surprising result: The positive impact of taking Student Life Skills was not confined to students who tested into developmental education; there also was a positive impact on students who entered community college "college-ready." The results were supported by a subsequent analysis by the Community College Research Center, which used statistical controls to reduce the chances that unmeasured student characteristics influenced the results (Zeidenberg, Jenkins, & Calcagno 2007).

As a result of these studies, a number of Florida community colleges now require students who test into developmental education to enroll in Student Life Skills. In addition, some colleges are considering requiring that all freshmen take the course.

Lessons from Health Care Improvement

One of *Achieving the Dream*'s strengths is the interaction of institutional innovations—and lessons learned from them—with efforts to design and implement policies that support student success. The initiative holds that evidence from local innovation should inform policy, and that smart, data-informed policy should help support, sustain, and expand better practice.

This principle underlies the work of the Boston-based Institute for Healthcare Improvement, which seeks to improve the quality of health care worldwide by working with health professionals to accelerate the measurable and continual progress of health care systems and to encourage breakthrough improvements in the field. Led by Dr. Donald Berwick, the institute draws on his efforts to accelerate innovation and quality improvement in health care.

At the core of Berwick's strategy is the strategic use of data. As he explains:

"There are two kinds of uses of data. You can use data, on the one hand, for judgment—that is, for selection, reward, or punishment. Most of the time when people talk about measurement, they are talking about using data for this purpose. That is not what we are about.

"We at IHI are in the business of the other use of measurement: not for judgment but for improvement. We are interested in fostering a learning process. For instance, let's say you are trying to do a better job in terms of infection control in a hospital. You first have to know what your infection rate is. If you go to our Web site and look under infection control, one of the things you will find is tools and resources that explain how to measure infection levels in your hospital and track them over time. You can also take a course on measurement through IHI in order to learn how to use the measurement process constructively. So we are big on tracking how well you are doing, but it is measurement for the sake of learning and improvement, not for the sake of judgment."

—Excerpted from an interview with Dr. Donald Berwick in the Winter 2009 issue of *Achieving Success*. The full interview is available at: www.jff.org/KnowledgeCenter/Achieving+Success.html

Performance Measurement: Using Outcomes Data to Inform Policy

Performance measurement is the fourth area in which *Achieving the Dream* states collaborate to develop strategies to improve outcomes for students who place into developmental education. This work includes efforts to identify more accurate measures of student and institutional performance, compare results, highlight high performers, and pinpoint underlying policies that are producing promising results (Goldberger 2008).

The next phase of performance measurement will build on these elements with a focus on what works to improve student and institutional performance in developmental education. It includes these major components:

- *Getting the measures right:* Several *Achieving the Dream* states are collaborating to improve developmental education performance indicators as part of broader performance-measurement systems. The goal is to develop a better understanding of the range of developmental education needs, of different types of students, and of the rates at which those students progress through developmental education and subsequent college-level courses.
- *Learning from the highest performers:* Once appropriate measures are selected, the states will share outcome data on these measures in order to identify states that appear to have the strongest results—and to document policies and practices that might lead to such results. Each state will perform a similar comparative analysis of results at the institutional level, in order to identify and disseminate the successful practices of the highest-performing colleges.
- *Creating incentives to promote what works:* The states are collaborating to develop strategies that encourage institutions to adopt and expand evidence-based best practices. These strategies include: establishing clear statewide goals for improved outcomes for developmental education; developing performance indicators to measure progress toward the goals; and developing performance funding that ups the ante and amplifies institutional efforts to reach the goals.

Getting the Measures Right

The first step toward improving performance outcomes in developmental education is to get a firm handle on current student and institutional performance. A critical component is gathering data that illustrate the level of need for developmental education by subject among different student groups—disaggregating the information by income, ethnicity, enrollment status, level of proficiency, and other demographic factors. This also requires a detailed understanding of the rates at which different student groups progress through developmental education and on to college-level courses, credentials, degrees, and transfer to four-year institutions.

Only with this information can institutions develop appropriate interventions, which must be tailored to the needs of different student groups, rather than taking a "one size fits all" approach. For example, intensive developmental education strategies like academic bridge programs might be suitable for younger students who can attend full time, but they would not be a viable strategy for older students who have family and work commitments and can attend only part time.

Once states identify developmental education performance measures and disaggregate them by the appropriate categories, it is important to understand—from a student's early experiences—how much progress various groups are making toward their goals. The *Achieving the Dream* states in the Cross-State Data Work Group are developing intermediate measures to benchmark student progression through developmental education and on to college-level courses. The states are testing four measures:

- Completion of remedial course sequence by developmental education students;
- Enrollment and completion in first college-level math and English courses;
- Pass rate in both remedial and college-level courses; and
- Continuous enrollment from year to year and term to term.

This work includes efforts to determine whether the number of credit hours accumulated within the first and second year indicates a successful student outcome or signals that a student is not on track for success.

Learning from the Highest Performers

After identifying the right performance measures, comparing success rates can allow states and institutions to learn from the achievements of the highest performers. The health care sector, which has made dramatic improvements in customer service and clinical care in recent years, provides an important model. By sharing the practices of high-performing organizations, hospitals and health care centers have reduced waiting times for admission, hospital-acquired infection rates, and even patient mortality rates (Brown 2008; Gawande 2007).[8]

The formula for these dramatic improvements is strikingly simple. Health care professionals came together to study their own practices, shared and publicized measurable results over time, and revised practices and procedures by applying lessons from high performers (*see box, "Lessons from Health Care Improvement," page 16*). This approach can also be a powerful strategy for states and institutions hoping to improve institutional and student performance in developmental education.

Several *Achieving the Dream* states already use comparative analysis of institutional performance to foster discussions about how to accelerate improvement. Some states routinely share outcome data on key performance indicators with different audiences through state-level reports:

- The Florida Department of Education publishes Fast Facts, a series of short summaries of recent research related to the Florida Community College System, as well as Data Trends, a series of longer research reports that compare trends across time.
- The North Carolina Community College System publishes the Data Trends series, which includes system wide analyses of student success measures and institutional comparison data. The system also publishes a Critical Success Factors Report, which includes eight core indicators of student success.
- The Virginia Community College System publishes a bimonthly Student Success Snapshot, which benchmarks all community colleges on a specific success measure.
- The Washington State Board for Community and Technical Colleges regularly publishes Student Achievement Research Reports, which benchmark the state's community colleges on momentum

point measures identified through the state's Student Achievement Initiative.

Other *Achieving the Dream* states share data more publicly by posting results to accountability Web sites that allow users to search for certain outcomes of specific groups and compare them:

- Connecticut Community Colleges publish definitions and outcomes measures on line for student cohorts entering in 2000, 2001, and 2002.
- The Texas Higher Education Coordinating Board posts aggregate data on a set of student success measures for the state's community colleges. The accountability Web site also includes institutional data for the years 2000 and 2005 and institutional targets for the years 2010, 2015, and 2020. Reports are also provided for all two-year institutions on the academic performance of transfer students at Texas public universities and on the employment and additional education pursued by graduates, completers, and nonreturners.

Florida State University's CARE Program

Kevin Carey, the research and policy manager at Education Sector, a Washington DC-based independent think tank, compared the difference in institutions' graduation rates for African-American and white students in order to identify institutions that had small or nonexistent gaps in educational attainment. The results indicated a high degree of variability among institutions—some had large disparities in graduation rates, while others graduated African-American students at an equivalent or higher rate than white students.

One of the high-performing institutions identified was Florida State University. In 2006, Florida State graduated 72 percent of its black students. This was higher than the rate for white students and, in fact, represented the highest such rate recorded by any four-year public institution that year. Carey asked the obvious question: Why?

After visiting Florida State, Carey hypothesized that an institution-wide program targeting low-income, first-generation students was at the heart of the institution's success story. The university's Center for Academic Retention and Enhancement (CARE) had been created to improve student success among these students. It consolidated existing fragmented initiatives focused on this population and provided coordinated, continuous interventions to at-risk students. These include:

- *Early outreach and education*: CARE identifies and recruits potential students from feeder junior high and high schools. Meetings with these students' parents help them understand what it takes for their children to enroll and succeed in college.
- *Assistance with college preparation and application*: CARE runs extracurricular programs that help high school students prepare for the financial-aid and college-application processes, as well as for the SAT and ACT exams.
- *Support during the enrollment and transition process*: CARE works to relax the university's admissions requirements for low-income, first-generation students who agree to participate in their series of academic support programs. This begins with a seven-week residential summer bridge program, where students have the opportunity to adjust to college-level coursework and the campus environment.
- *Supplemental instruction in critical academic areas*: Florida State has identified introductory math courses as an area where students often require additional academic support. CARE funds extra sections of introductory math courses, with capped enrollment, that meet daily in order to ensure that students receive intensive instruction.
- *Ongoing academic support and intervention*: Students enrolled through CARE must use an intensive tutoring lab for a set number of hours per week in order to benefit from academic advisement. This requirement is increased if a student's grades decline. Students' registration depends on satisfying this requirement during the previous term.

Source: Carey 2008; Florida State University 2008.

Creating Incentives to Promote and Scale Up What Works

Identifying high-performing states and institutions is not enough. Once best practices have been documented, they must be disseminated broadly and scaled across institutions in the state. Even evidence-based best practices frequently require incentives for states and institutions to step away from how they usually do business. Successful adoption and scale will require policies that balance carrots and sticks—rewarding institutions that produce results and applying pressure on low-performing institutions to produce better results. Specifically, states benefit from:

- *Focusing institutional efforts on achieving a targeted set of developmental education improvement goals:* For, example by signaling the level of importance of the goals by formally including them in a state-level performance measurement and accountability systems;
- *Disseminating what works:* Spreading successful practices broadly and providing technical assistance to help institutions implement the practices that can help them reach the state developmental education goals;
- *Using financial incentives to reward performance:* Accelerating progress toward the developmental education goals by attaching performance incentives to the goals; and
- *Developing a state-level platform featuring systematic sharing of outcome results to learn from high performing institutions:* This would include developing close communication with the colleges to provide support, work out kinks in implementation, mitigate unintended effects of innovations, and work towards continuous improvement.

Focusing institutional efforts on achieving a targeted set of developmental education improvement goals

One way states signal the importance of state developmental education improvement goals is to include them in their state-level performance and accountability systems. A number of *Achieving the Dream* states are discussing using intermediate measures in their state-level performance accountability systems. Some states already have a version of an intermediate measure in place. For example, Washington measures performance on intermediate measures through its student achievement performance funding, and the accountability system in Texas includes an indicator that measures the level of developmental education need.

Intermediate measures are particularly appealing to states because they provide greater detail on patterns of student progression through developmental education and subsequent college-level courses. They also allow institutions and states to see whether students are on track toward a successful outcome or if early intervention is needed to prevent students leaving the system.

The Cross-State Data Work Group's method of tracking cohorts of students and analyzing their performance on intermediate and final measures of success creates an opportunity for states to identify performance baselines from which to set goals. This method also sets up a potentially powerful developmental education improvement strategy: systematically comparing outcome results to identify, document, and disseminate the evidence-based best practices of the highest-performing institutions.

Disseminating What Works

Efforts to learn from high performers start the conversation by raising questions about the differences in performance of states and institutions that serve similar student populations and yet have dramatically different outcomes. To harness the full impact of this strategy, states need to develop platforms and mechanisms for the routine sharing of successful practices from high-performing states and colleges.

Once states set developmental education goals, they must provide institutions with the support they need to reach them. One of the most important things they can do in this regard is to identify innovations that produce results, share them across the system, and provide technical assistance and expertise to further institutions' efforts to implement best practices. All too often, local innovations stay local. States must make a concerted effort to highlight best practices. There are often vast differences in performance of peer institutions serving very similar types of students (*see box, "Florida State University's CARE Program," page 20*). Institutions need to see that change is possible. It is critical that states vigorously promote what works. The *Achieving the Dream* states have found cross-state peer learning forums to be invaluable to their individual improvement efforts. No doubt institutions also would benefit from opportunities to come together and share results and lessons.

There are many existing avenues that states might use to share innovations, such as president's councils, administrator/faculty committees, and developmental education advisory committees. States can choose from dissemination strategies ranging from statewide conferences, such as the annual *Achieving the Dream* Connections Conference convened by Florida's Department of Education Office for Community Colleges, to less intensive and costly strategies, like smaller work group meetings, webinars, and other technology-based interactions. Whatever the dissemination strategy, it should be driven by results and structured as a continuous learning process.

Using Financial Incentives to Reward Performance

States that want to accelerate institutional efforts toward certain goals can consider financial rewards. The Washington State Board for Community and Technical Colleges is now implementing such an approach. SBCTC identified credit milestones, which they call "achievement points," that research showed resulted in a successful student outcome. SBCTC helped its institutions understand the rationale and the mechanics of the achievement points system during 2006-07—a "learning year." The institutions received "achievement points" for improvements in basic/remedial education, college-level math, subsequent college-level courses, and, finally, credentials and degrees. The colleges' outcomes in the learning year produced the baseline for measuring future assessments. The institutions receive financial rewards, above their base funding, for improvements after the "learning year." During the learning year, each institution received $51,000 in startup funding. In subsequent years, the amount will depend on performance.[9]

Achieving the Dream states are watching Washington's results closely, even though performance funding has not been broadly tested in community colleges and issues are likely to arise. If the right performance measures are in place and institutions have enough support to implement what works, financial rewards amply above base funding may drive institutions to change practices and improve results.

There is modest evidence to validate this sentiment. Responding to the National Field Study survey conducted by the Community

Creating the right mix of performance indicators, goals, funding incentives, and safeguards to prevent unintended consequences will take time to implement and even more time to perfect.

College Research Center at Teachers College, Columbia University, community college leaders confirmed that shifts in funding changed their awareness and influenced their actions on state priorities and goals (Dougherty & Hong 2006). Testing performance funding to improve outcomes in developmental education is an important area of inquiry. *Achieving the Dream* states are focusing on identifying the conditions that are necessary for a performance-funding strategy to work.

As states consider performance funding as part of a strategy to improve outcomes in developmental education, there are important lessons to learn from various attempts at performance-funding over time. At the most basic level, any performance funding strategy must allocate enough funding above the base, and must do so consistently over the long run, so that states and institutions can predict future funding. And while performance incentives should encourage completion of single developmental education courses, they should also motivate institutions to compress the rate at which developmental education students become "college-ready." This suggests that institutions could be rewarded for helping students "skip over" courses and avoiding "seat-time" requirements that do not directly relate to what students need to learn.

States might also consider weighting funding to reward institutions that get results with the most-difficult-to-serve student populations (Jaquette 2006). Finally, for a performance-funding strategy to work, states must develop mechanisms to mitigate unintended consequences like the lowering of standards to achieve the goals (Jaquette 2006). This might include standardization of developmental education entry and exit requirements, standardized end-of-course exams, and strategies to ensure the consistency and quality of courses throughout the system.

Toward a Policy Environment That Promotes Continuous Improvement

Creating the right mix of performance indicators, goals, funding incentives, and safeguards to prevent unintended consequences will take time to implement and even more time to perfect. As a result, a state's efforts to build a comprehensive developmental education improvement strategy can benefit from systematic communication with its colleges toward continuous improvement. This includes careful monitoring of outcome results and the relationships between interventions and outcomes. This will require closer communication between states and colleges than in the past so that the institutions can inform states of the policies and support they need to improve developmental education outcomes, as well as policy barriers that should be removed. Through systematic, ongoing communication states and institutions can work out problems together and continuously revise practices to improve developmental education outcomes.

Endnotes

1. This data is based on the National Education Longitudinal Study of 1988. The percentage of students who take a developmental education course is likely higher because the NELS:88 data set includes only traditional-age students, and not older students who may be returning to community colleges from the workforce.

2. For example, the 80 percent figure is for select institutions participating in the first cohort (2002) of *Achieving the Dream*. It may be influenced by the screening process for the initiative, which sought states with high percentages of low-income students and students of color, both of whom are disproportionately represented in developmental education.

3. The American Diploma Project Network now includes thirty-four states that are dedicated to making sure that every high school graduate is prepared for college or careers. Together, network member states are responsible for educating nearly 85 percent of all U.S. public school students. See www.achieve.org/node/604.

4. For more detailed information on the *Achieving the Dream* state-policy approach to assessment and placement policy, as well as for complete profiles of Connecticut's, North Carolina's, and Virginia's experiences developing placement policies, see Collins (2008).

5. See *Back to Basics: Improving College Readiness of Community College Students, Legislative Analyst Report*, June 2008, page 8 for more information on California Basic Skills funding.

6. For more information, see: www.cccbsi.org.

7. For more comprehensive information on Mountain Empire's Fast Track program and more information on the interaction between state policy and institutional strategies, see Biswas (2007). Zachry (2008), which looks at innovative developmental math programming at several institutions, also emphasizes how state-policy flexibility can promote institutionalization and scaling up of innovations.

8. A Massachusetts hospital, for example, went from having the state's highest adjusted mortality rates for cardiac surgeries in 2005 to being one of the highest-performing hospitals in the nation by putting the cardiac patients together and creating an environment where teams of professional staff could learn from one another's practices (Brown 2008). Similarly, the treatment of cystic fibrosis has been influenced by treatment centers comparing success results and by physicians comparing practices and learning from the highest performing organizations (Gawande 2007).

9. See www.sbctc.ctc.edu/college/e_studentachievement.aspx.

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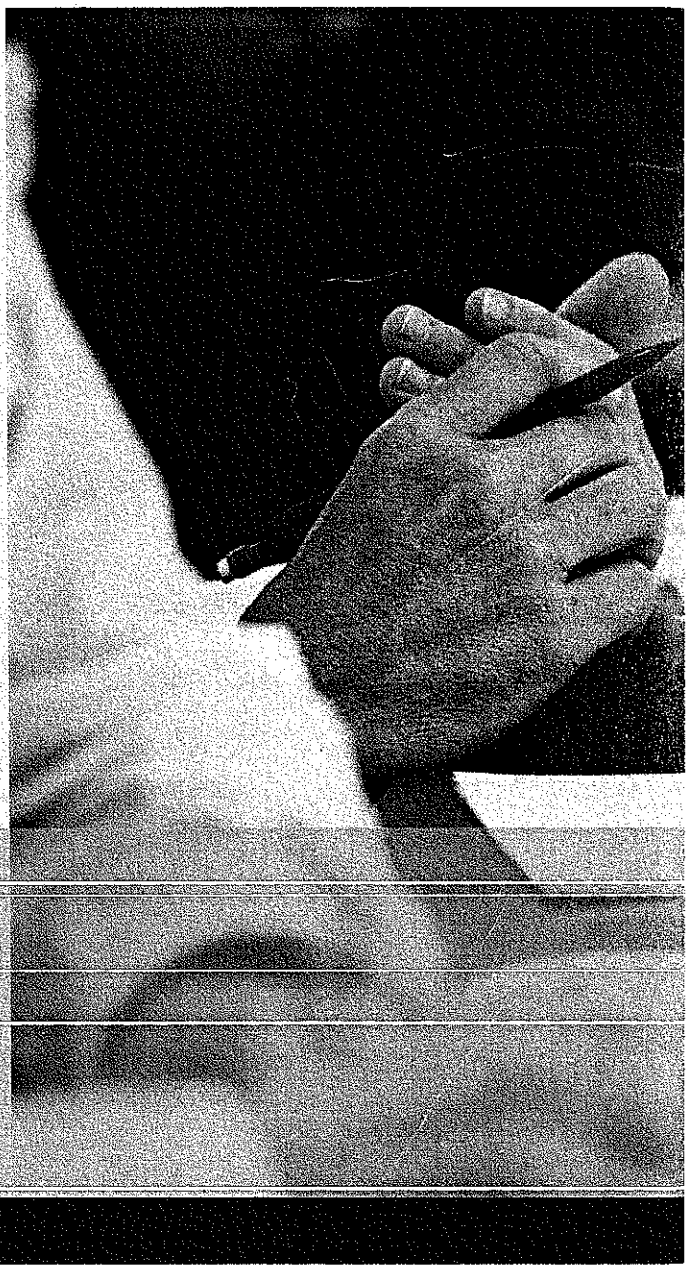

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