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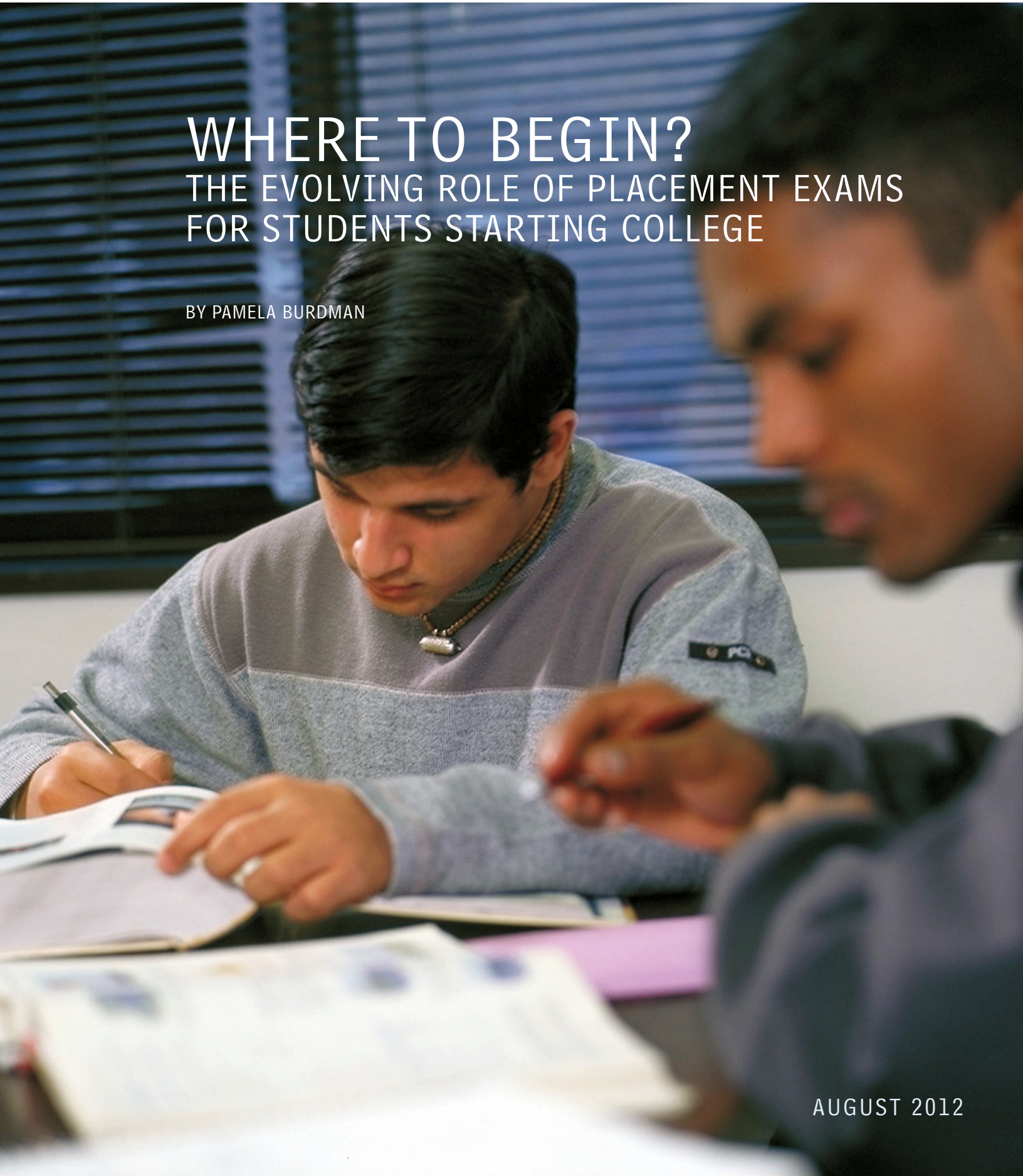

WHERE TO BEGIN?
THE EVOLVING ROLE OF PLACEMENT EXAMS FOR STUDENTS STARTING COLLEGE

BY PAMELA BURDMAN

AUGUST 2012

Achieving the Dream, Inc. is a national nonprofit that is dedicated to helping more community college students, particularly low-income students and students of color, stay in school and earn a college certificate or degree. Evidence-based, student-centered, and built on the values of equity and excellence, Achieving the Dream is closing achievement gaps and accelerating student success nationwide by: 1) guiding evidence-based institutional change; 2) influencing public policy; 3) generating knowledge; and 4) engaging the public. Conceived as an initiative in 2004 by Lumina Foundation and seven founding partner organizations, today Achieving the Dream leads the nation's most comprehensive non-governmental reform network for student success in higher education history. With nearly 200 colleges, 100 coaches and advisors, and 15 state policy teams—working throughout 32 states and the District of Columbia—Achieving the Dream helps 3.75 million community college students have a better chance of realizing greater economic opportunity and achieving their dreams.

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MDC's mission is to help organizations and communities close the gaps that separate people from opportunity. It has been publishing research and developing programs in education, government policy, workforce development, and asset building for more than 40 years. MDC was the managing partner of Achieving the Dream: Community Colleges Count for six years and was responsible for its incubation as a national nonprofit. It is also the managing partner of the Developmental Education Initiative.

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The Developmental Education Initiative consists of 15 Achieving the Dream community colleges that are building on demonstrated results to scale up developmental education innovations at their institutions. Six states are committed to further advancement of their Achieving the Dream state policy work in the developmental education realm. Managed by MDC with funding from the Bill & Melinda Gates Foundation and Lumina Foundation, the initiative aims to expand groundbreaking remedial education programs that experts say are key to dramatically boosting the college completion rates of low-income students and students of color. The innovations developed by the colleges and states participating in the Developmental Education Initiative will help community colleges understand what programs are effective in helping students needing developmental education succeed and how to deliver these results to even more students.

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ABOUT THE AUTHOR

Pamela Burdman is a Chicago-based consultant working with foundations and nonprofits on efforts to improve college readiness and success. She has worked as a journalist, foundation officer, and policy analyst, with an emphasis on higher education policy in California and nationally. As a program officer for four years with The William and Flora Hewlett Foundation, she developed and implemented the foundation's grantmaking strategy to improve student success in California's community colleges. She began her career as a staff writer at the *San Francisco Chronicle*. Her articles have appeared in *The New York Times*, *San Jose Mercury News*, *San Francisco Chronicle*, *Sacramento Bee*, *Salon*, *Lingua Franca*, *Change*, *National Crosstalk*, and the *Far Eastern Economic Review,* as well as publications by the Institute for College Access and Success and the Spencer Foundation. She is the author of the JFF report *Testing Ground: How Florida Schools and Colleges Are Using a New Assessment to Increase College Readiness*.

ACKNOWLEDGMENTS

In addition to participating in JFF's May 2012 convening on assessment, numerous community college leaders and state officials made themselves available for follow-up inquiries to help ensure this policy brief would be accurate and up to date. In particular, the author would like to thank Brad Bostian of Central Piedmont Community College for his admirable patience in responding to inquiries about North Carolina's practices and Shanna Smith Jaggars of the Community College Research Center for addressing questions about research findings. I also thank Lara Couturier, Richard Kazis, Gretchen Schmidt, and Katrina Reichert of Jobs for the Future for their dedication and collaboration.

WHERE TO BEGIN?

THE EVOLVING ROLE OF PLACEMENT EXAMS FOR STUDENTS STARTING COLLEGE

EXECUTIVE SUMMARY

For years, colleges have used placement exams to determine whether to deem incoming students "college ready" or assign them to developmental education. But emerging information reveals the tests have little correlation to students' future success, casting doubt on their use even as the high stakes for students of taking remedial courses become clear. Educators are rethinking whether the tests are fair and wondering if their traditional use constitutes a barrier to college completion.

For many states, efforts to strengthen the college readiness of high school graduates and improve college completion rates have created pressure to develop a coherent statewide policy framework for placement assessment. Systems are exploring reforms that range from adopting new tests and deemphasizing test scores to creating new policies for test preparation and administration. As they do, they seek guidance and models.

In spring 2012, Jobs for the Future convened state officials and community college leaders—including representatives from the Achieving the Dream, Developmental Education Initiative, and Completion by Design state policy networks—to discuss research and innovations in placement and assessment and how they might help improve outcomes for students traditionally served by developmental education. Supplementing those discussions with interviews and analysis, *Where to Begin?* explores the various ways states and systems are grappling with new, sometimes confusing, information about placement exams as part of broader student success initiatives.

RESEARCH CHALLENGES ASSUMPTIONS

While changes in placement testing policies have come about through a variety of motives and mechanisms, many have been informed by new research. A plethora of studies on a range of topics related to student success has chipped away at many assumptions long shaping thinking about college readiness, creating a new narrative about how best to serve students.

While the traditional narrative casts placement exams as low-stakes tests that help students by ensuring they take the appropriate classes, the new narrative emphasizes the role of colleges in facilitating student progress toward graduation. The reform narrative, which underscores the high-stakes nature of consigning students to noncredit remedial sequences with unclear effectiveness, is comprised of five key elements:

Placement exams are high-stakes tests. Research challenges the traditional notion that placement exams are low-stakes tests, affecting at most a few courses a student takes. In fact, placement into a developmental course can affect a student's entire educational trajectory, putting additional barriers in the way of a college education.

The effectiveness of traditional developmental education is unclear. Students placed into developmental classes are unlikely to complete college. That has been considered the result of poor preparation, but there is increasing scrutiny about whether the developmental experience improves student outcomes.

Accelerating some students through or out of developmental courses seems promising. According to early evaluations, some experiments with condensing students' time in developmental courses have led to better outcomes for some students.

Placement exams are weak predictors of success in gateway courses. In fact, high school grades do a better job. Of particular concern are findings that many students required to take remedial classes could have succeeded in college-level coursework.

Math and English assessments provide at best a narrow picture of students' readiness for college. Placement tests do not measure many of the skills needed for college success—including persistence, motivation, and critical thinking. And only some students need most of the assessed math skills.

The system of placing and remediating students appears to have veered away from its intended goals. Still, it is one thing to realize this and another to determine how changes in placement policies and exams figure into broader

developmental reforms. Three broad categories of innovations are being explored: downplaying the tests; changing the tests; and supporting students around the tests.

DOWNPLAYING THE TESTS

While no state has stopped using placement tests altogether, many are making them less prescriptive or becoming less stringent about requiring students to be assessed. This downgrading takes several forms:

Multiple measures: In most states, test scores constitute the only basis for assigning students to remedial classes. Systems are now implementing or considering adding high school grades and other measures.

Test waivers: While waiving placement tests based on high SAT or ACT scores has been common, systems are considering high school performance and other additional grounds for placing students directly into college-level courses.

Also being explored are practices such as mainstreaming students into college-level courses with extra support, basing placement on students' academic goals, and allowing them to make their own placement decisions.

CHANGING THE TESTS

Several states are considering new assessment instruments to bolster efforts to improve students' preparation in high school as well as their outcomes in college. Systems are seeking several key features in these assessments and looking past off-the-shelf assessments to those that are customized for each state.

Customized assessments: Several states are adopting assessments aligned with their curricula.

Diagnostic assessments: These could offer more information on students' strengths and weaknesses than traditional cutoff scores. However, states vary in how they define "diagnostic."

Colleges and systems are also exploring whether they can better help students by assessing cognitive strategies (e.g., critical thinking, problem solving) as well as non-cognitive factors (e.g., persistence, motivation).

SUPPORTING STUDENTS AROUND TESTS

Concerns about high developmental education enrollments also drive changes in policies related to test preparation and testing conditions. Systems and colleges are exploring strategies to ensure that rusty skills or a bad day do not relegate students to remedial courses they may not need.

College-readiness tests and courses in high school: Some systems have adopted programs or policies for eleventh graders to take college placement tests, based on the theory that the tests send a signal to high schools about the preparation students need.

Other test preparation assistance: Many students do not realize the high stakes of placement tests; also, severe placement errors are common. These facts suggest that some students could bypass developmental education if they brushed up their skills in math or English. Colleges experimenting with this approach report early success.

THE NEXT ROUND OF RESEARCH

As colleges and systems make choices—on their own or as a result of legislative mandates—the field will need greater understanding about how the new policies are implemented as well as about their results. Key questions for researchers include:

- Are the new customized assessments more predictive of student performance than the off-the-shelf tests of the past?
- Do efforts to better prepare students and increase awareness of the high-stakes nature of placement tests lead to higher scores and better predictive value?
- What strategies best serve underprepared students?

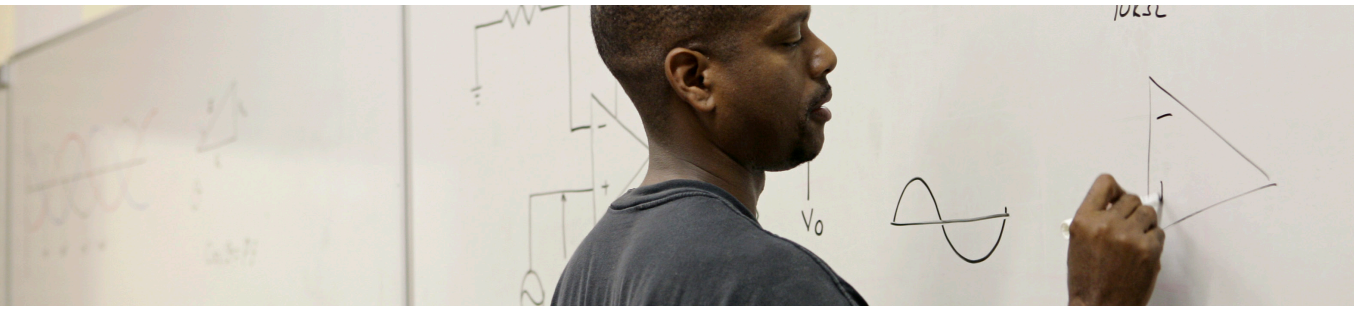
SHIFTING GROUND: RESEARCH REVELATIONS SHAKE UP REMEDIAL REFORM

REPEATEDLY, POLICYMAKERS HAVE QUESTIONED THE VALUE OF COLLEGE-LEVEL DEVELOPMENTAL EDUCATION. RE-TEACHING HIGH SCHOOL MATERIAL TO COLLEGE STUDENTS SOUNDS LIKE A POOR USE OF TAXPAYER DOLLARS AND STUDENT TIME, WHATEVER THE REALITY. THE NEGATIVE CONNOTATION OF ITS MORE COMMON NAME—REMEDIAL EDUCATION—DOESN'T HELP. YET, DESPITE ITS LOW ESTEEM AND ATTEMPTS TO ABOLISH IT, REMEDIAL EDUCATION CONTINUES TO BE A FIXTURE OF PUBLIC HIGHER EDUCATION, ITS UNDERLYING STRUCTURE REMARKABLY UNCHANGED. IN MOST STATES, STUDENTS ENROLLING IN PUBLIC HIGHER EDUCATION TAKE PLACEMENT EXAMS, AFTER WHICH LARGE NUMBERS OF THEM ARE ASSIGNED TO REMEDIAL COURSES.

Consider the City University of New York's high-profile attempt to phase out remedial instruction, beginning in the mid-1990s. Since then, the overall proportion of entering students requiring developmental education has only risen.[1] The difference is that today's students must take developmental courses at two-year, not four-year, campuses. At CUNY and elsewhere, remedial education policies may have changed, but the underlying reality has stayed the same: Large and growing proportions of incoming college students require developmental courses, and increasingly, community colleges bear responsibility for serving them. At two-year colleges nationally, some 60 percent of recent high school graduates and 42 percent of all students take remedial or developmental courses (Bailey 2009; Parsad & Lewis 2003).

More recently, these grim statistics have driven new initiatives aimed at strengthening student success: On the one hand, adoption of college-readiness standards in K-12 by many states is intended to improve the preparation of students before they reach college, reducing the need for remediation. On the other hand, higher education institutions, policymakers, and foundations intent on improving college graduation rates are investing in redesigning the very developmental education sequences that present a barrier for so many students.

However, just as these efforts to tackle developmental education from both ends appear to be taking root, the ground is shifting in altogether new ways, creating fissures in some of the bedrock assumptions underlying developmental education. With education reformers keenly focused on remedial education, new research using longitudinal data systems questions the efficacy and fairness of the very tests on which the system of remedial education relies.



Rather than a support to ensure that students take the courses they need, testing policies could pose an unnecessary obstacle to student progression. How colleges and systems react to this new knowledge could redefine the role of developmental education for years to come—or speed up the demise some have long advocated.

Those responses are playing out as higher education officials strain to keep pace with the winds of reform. In most states, the conversations center on community colleges, though some also involve four-year institutions. With most states adopting the new Common Core State Standards as well as new goals for college attainment, addressing developmental education is becoming a statewide imperative with little time to waste.[2]

Traditionally, placement policies in most states were determined at the institution level, and often practices varied widely. More recently, pressure to develop a coherent placement assessment policy framework has made placement policy a state-level issue in a growing number of states, with college systems involved in Achieving the Dream among the leaders of this trend (Collins 2008). The reforms that systems are exploring range from adopting new tests and deemphasizing test scores to creating new policies for test preparation and administration. And system leaders are eagerly looking for guidance and models from other states.

THE REFORMS THAT SYSTEMS ARE EXPLORING RANGE FROM ADOPTING NEW TESTS AND DEEMPHASIZING TEST SCORES TO CREATING NEW POLICIES FOR TEST PREPARATION AND ADMINISTRATION. AND SYSTEM LEADERS ARE EAGERLY LOOKING FOR GUIDANCE AND MODELS FROM OTHER STATES.

This interest was on display in spring 2012 when Jobs for the Future convened state officials and community college officials in Boston. Representatives from the Achieving the Dream, Developmental Education Initiative, and Completion by Design state policy networks discussed the latest research and innovations in placement and assessment and their role in improving outcomes for students traditionally served by developmental education. (*See the inside front cover for information on these initiatives*.)

Where to Begin? supplements JFF's meeting with additional interviews and analysis to explore the various ways states—and especially community college systems—are grappling with new and sometimes confusing information about placement exams. They are experimenting, innovating, and changing direction, even as economic challenges loom large. The report also highlights some of the choices and tradeoffs that education policy leaders seeking a rational college placement system ultimately will need to face.

SOUL SEARCHING: TESTS BECOME A FOCUS OF INNOVATION

For years, public colleges and universities have used placement exams to determine whether to deem incoming students "college ready" or assign them to remedial courses. But emerging information reveals that the tests have little correlation to students' future success, casting doubt on their use even as the high stakes for students of taking remedial courses are becoming clear. The idea that tests with modest predictive validity could be inhibiting students' progress is giving pause to many educators who have long put their faith in them. They are rethinking whether the tests are fair to students and wondering if their traditional use actually constitutes a barrier to improving college completion.

Among the North Carolina Community Colleges, soul-searching about the supremacy of test scores is well under way. Like individual colleges and college systems in many states, North Carolina has developed goals for improving college completion. As part of the SuccessNC initiative, the state's community colleges set a target of increasing the percentage of students who transfer, complete credentials, or remain continuously enrolled after six years.

As an early Achieving the Dream state that went on to join the Developmental Education Initiative, North Carolina already had a policy team working toward the ultimate goal of improving completion rates of students requiring developmental education. As part of that effort, the system commissioned a study of the efficacy of test scores and high school grades for placing students into developmental education. "We had known for a while that the placement test scores probably weren't the best measure," said Van Wilson, the system's associate vice president for student learning and success. Like most college systems in the country, though, North Carolina was basing most placement decisions on those very scores.

Despite the cognizance that, like admissions, placement should not be based on test scores and high school grades alone, college leaders were unprepared for what the study, conducted by the Community College Research Center (CCRC), found: It showed that high school grades were a much better predictor of student success in college than placement test scores. In addition, up to one-third of students were found to be "severely mis-assigned" using placement test results, and that error rate could be cut in half by using high school grades instead of test scores (Belfield & Crosta 2012).[3]

"When the results of that study were delivered to the presidents, chief academic officers, system office administrators, and faculty on the [Developmental Education Initiative] state policy team, their jaws just dropped," said Wilson. They weren't sure whether to keep the test, change it, or replace it with high school grades.

That news came toward the end of 2011, amid a flurry of activity at North Carolina colleges related to college readiness and success. Faculty teams around the state were redesigning developmental math courses as part of the system's involvement in the Developmental Education Initiative. Leaders at five colleges were developing plans for new pathways to maximize students' chances of completing credentials as part of the new Bill & Melinda Gates Foundation-funded Completion by Design initiative. And conversations were ongoing with both K-12 and the University of North Carolina system about creating seamless pathways that spanned the entire education system. Changing the college system's placement exam could unsettle all of these projects. But keeping it meant that those efforts would be based on a foundation that seemed to college leaders less and less sound.

Around the same time, officials in other states were also in various stages of weighing or implementing changes to their placement exams:

- In Connecticut, a Democratic state senator was contemplating introducing legislation for the 2012 session that would strike an even stronger blow to placement exams. As part of an effort to increase the number of Connecticut residents with a college degree, Senator Beth Bye was working on "open access" legislation that would bar colleges and universities from offering any remedial courses and potentially eliminate placement testing altogether.
- Both Florida and Virginia's community college systems were implementing new, customized placement assessments developed with faculty input and aligned with each state's curriculum. In each case, the new test had become a central element in the system's developmental education reform efforts (Burdman 2011; Asera 2011).

- The Texas Higher Education Coordinating Board was responding to a legislative mandate to adopt a single readiness standard for college-level work in the state's community colleges by soliciting proposals from vendors to develop a new placement test.
- In California, following passage of a law to create a common statewide community college placement tool, a legislatively mandated student success task force was recommending that the common instrument provide the ability to diagnose the academic needs of students. (However, neither the legislature nor the task force had identified funding for a new test.)

MOTIVES AND MECHANISMS

Changes to community college system placement exams or placement policies have been motivated by a variety of priorities and initiated via a range of mechanisms. Here are some examples:

Motives for changing placement policies generally relate to improving success for underprepared students (or better preparing students for college). They include an interest in:

- Better alignment with a system's curriculum (e.g., after curriculum redesign);
- Better alignment with K-12 (and the ability to send clear signals);
- A common standard across colleges;
- Diagnostic information to assign students to developmental education modules;
- Diagnostic information to improve instruction in developmental education generally; and
- Interest in more accurate placement (i.e., better predictive validity).

Mechanisms or strategies for bringing about change often begin with system or legislative interest in student success. Change may come via a policy mandate or through the establishment of a commission or task force that involves college leaders and instructors in recommending new policies. Examples include:

- A state-level commission (Florida);
- A system-level initiative or committee (Virginia, North Carolina);
- State legislation (Texas, Connecticut); and
- A legislatively mandated, system-level task force (California).

RESEARCH CHALLENGES ASSUMPTIONS

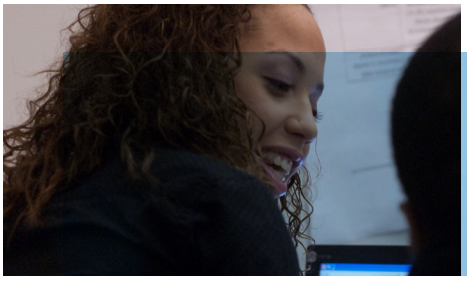
While changes in colleges' placement exam policies have come about through a variety of motives and mechanisms, new understanding about the exams themselves and the placement process has informed these decisions. Since 2004, when foundations began investing in Achieving the Dream along with other community college reform initiatives, two-year colleges have been the focus of a plethora of research studies on a range of topics related to student success. In that time, evidence has chipped away at many of the assumptions that have long shaped colleges' thinking about college readiness. As these findings seep into the consciousness of faculty and administrators, a new narrative about how to serve students with weak preparation is emerging.

The new narrative sees the role of colleges as facilitating student progress toward graduation. This presents a direct challenge to the traditional notion of colleges enforcing standards to prevent unworthy students from enrolling or earning degrees. The traditional narrative casts placement exams as low-stakes tests that are by and large helpful to students by ensuring that they take the appropriate level classes. The reform narrative underscores the high-stakes nature of consigning students to noncredit remedial sequences with unknown effectiveness, especially in light of new evidence that many of those students might do just as well or better without remediation.

Currently, the traditional and reform narratives both have adherents within higher education.[4] However, with attention to graduation and attainment rates rising, the reform line clearly is attracting attention. It is comprised of five key elements that derive from the research literature:

- Placement exams are high-stakes tests.
- The effectiveness of traditional developmental education is unclear.
- Accelerating some students through or out of developmental courses seems promising.
- Placement exams are weak predictors of gateway course success; high school grades do a better job.
- Math and English assessments provide at best a narrow picture of students' college readiness—and some assessed skills may not be needed by many college students.

THE NEW NARRATIVE SEES THE ROLE OF COLLEGES AS FACILITATING STUDENT PROGRESS TOWARD GRADUATION, PRESENTING A DIRECT CHALLENGE TO THE TRADITIONAL NOTION OF COLLEGES ENFORCING STANDARDS TO PREVENT UNWORTHY STUDENTS FROM ENROLLING OR EARNING DEGREES.



RESEARCH WRITES A NEW NARRATIVE ABOUT PLACEMENT TESTS	
TRADITIONAL NARRATIVE	**REFORM NARRATIVE**
Placement exams are low-stakes tests.	Placement exams are high-stakes tests.
Developmental education helps underprepared students succeed in college.	The effectiveness of traditional developmental education is unclear.
Students cannot successfully skip recommended developmental courses.	Accelerating some students through or out of developmental courses seems promising.
Placement exams predict whether students can succeed in college-level classes.	Placement exams are weak predictors of gateway course success; high school grades do a better job.
The math and English skills assessed by placement exams (and taught in remedial courses) are critical to college success.	Math and English assessments provide at best a narrow picture of students' college readiness—and some assessed skills may not be needed by all college students.

PLACEMENT EXAMS ARE HIGH-STAKES TESTS

The notion that a single test score should not be used to make high-stakes decisions has been a standard of the testing industry for years.[5] In making admissions decisions, for example, selective colleges at a minimum tend to look at students' test scores and high school grades. Research has long shown that high school grades do a better job of predicting how students will fare in college than do admissions tests (Geiser & Studley 2003; Geiser & Santelices 2007).

When it comes to course placement at less selective schools (many of which do not use admissions tests at all), tests have dominated. Until recently, most colleges have used cutoff scores in English and math to determine whether students are college ready or to place them into multiple levels of developmental education. For some systems, those cutoff scores are set by state policy, reinforcing their importance for colleges. With little research on the topic, it has been easy to view college placement as a low-stakes issue. Whether a student has to take an extra course or even a few never seemed as important an issue as, say, which colleges he or she could attend.

Recent research challenges that assumption. A study by CCRC found that nearly one-third of students assigned to developmental education did not complete their developmental sequence because they never enrolled in a developmental course—not because they could not handle the coursework. Roughly another 10 percent—students who were required to take more than one developmental course—passed at least one course but did not take the next course in the sequence (Bailey, Jeong, & Cho 2010).

This suggests that placement into a remedial course (and in particular a sequence of courses) may have a significant impact on students' trajectories by placing additional hurdles in their way. Additional research by WestEd reveals that many students have no idea that the exams could lengthen their pathways toward a degree. "Students in California's community colleges generally experience assessment and placement not as a process for which they begin preparing in high school, but as a single event—a one-shot deal, with pivotal consequences, for which many feel uninformed and underprepared," wrote the authors (Venezia, Bracco, & Nodine 2010). Like colleges, students have assumed the stakes are low, the test merely a formality. In effect, whether for students or for colleges, placement exams until recently have been high-stakes tests masquerading as low-stakes tests.

THE EFFECTIVENESS OF TRADITIONAL DEVELOPMENTAL EDUCATION IS UNCLEAR

Longitudinal studies are showing that students who are placed into developmental classes have a very low likelihood of ever completing college. While that has been considered the result of poor preparation (and possibly a discouraging or "cooling out" effect of low placement), there is increasing scrutiny about whether the developmental experience improves student outcomes. Several studies have found that students taking developmental courses fare no better in terms of transfer or degree outcomes than similar students who do not take the courses. And in one case, reading in

Florida, assignment to remediation actually had a negative effect on those outcomes (Bailey 2009).

These studies do not provide evidence that remedial education does not work. Another explanation could be that colleges are not placing the right students into the courses. However, the research does raise serious questions. As a review of the research noted, "Developmental education costs students, the colleges, and the public sector real resources, and in any case it exists to strengthen the outcomes for students—concluding that developmental students do as well as similar students who go directly into college courses is not good enough and suggests that remediation wastes money and time" (Bailey 2009).

Though there have been few studies on teaching in remedial courses, one recent study suggests a need to improve instruction. According to research in California by W. Norton Grubb and colleagues, the courses typically involve "drill and practice . . . on small sub-skills . . . that most students have been taught many times before, in decontextualized ways that fail to clarify to students the reasons for or the importance of these sub-skills" (Grubb, et al. 2011b). Grubb notes that there is some evidence supporting more student-centered pedagogical approaches such as learning communities, contextualized instruction, and Reading Apprenticeship, and that many other innovations being pursued have not been fully evaluated (Grubb, et al. 2011c).

ACCELERATION STRATEGIES LOOK PROMISING

Concerned about increasing completion rates, colleges around the country are experimenting with various ways of accelerating students' progress by condensing their time in remedial courses. And research is beginning to show that these programs have promise. Students who are placed into shorter remedial sequences (versus longer sequences covering the same material) are more likely to take and pass math and English gatekeeper courses, according to research at the City University of New York, Chabot College, and Community College of Denver. Among the explanations for the better results are: accelerated sequences have fewer exit points and, therefore, fewer chances for diversion or discouragement; exposure to more rigorous coursework may help motivate students; and the students may have been under-placed by test scores, meaning they are required by either college- or state-level policy to take remedial classes even though they could have succeeded in college-level coursework (Hodara & Jaggars 2012; Jaggars 2012).

COLLEGES AROUND THE COUNTRY ARE EXPERIMENTING WITH VARIOUS WAYS OF ACCELERATING STUDENTS' PROGRESS BY CONDENSING THEIR TIME IN REMEDIAL COURSES.

In addition, some programs that place students into college-level courses—and provide them with structured supports—such as the Accelerated Learning Program at the Community College of Baltimore County, appear successful and cost-effective for students who test into the highest level of developmental education (Jenkins, et al. 2010). Yet the research is preliminary. "While the empirical basis for acceleration is not as strong as is desirable, existing evidence suggests that there are a variety of models of course redesign and mainstreaming that community colleges can employ to enhance student outcomes," according to a recent review of the research literature (Edgecombe 2010). In addition, the research does not point to strategies for serving severely underprepared students. Still, early experiments appear promising enough that reformers are embarking on a plethora of initiatives that will, in turn, ideally provide new data for researchers.

PLACEMENT EXAMS ARE WEAK PREDICTORS

With all that evidence accumulating, there was already significant questioning about common practices for remedial placement. The new narrative was further strengthened with the release of a literature review showing the weakness of the evidence for placement exams, followed by the publication of two quantitative analyses showing that they are weak predictors of college success (Hughes & Scott-Clayton 2011; Belfield & Crosta 2012; Scott-Clayton 2012).

Of particular concern were findings that many students are "under-placed." As with the North Carolina study, the newly published analyses found that, compared to placement test scores, high school grades used alone would increase the success rates of those going directly into college-level courses, reduce the severe error rates in terms of students who appear under-placed, and increase rates of immediate college-level success. The findings apply to both math and English but are more pronounced in English, where test scores explained less than 2 percent of the variation in freshman English grades. The most recent study found that combining high school grades with test scores offered the best predictive value, a finding that mirrors what researchers have been saying for years about admissions tests (Geiser & Santelices 2007).

Likewise, studies have found that faculty's biggest complaint about assessments is that they provide no diagnostic information to help instructors understand students' strengths and weaknesses. "We're taking someone who may have had a bad day and making them take three semesters of remediation," one faculty member told researchers (Grubb, et al. 2011a).

ASSESSMENTS PROVIDE A MYOPIC PICTURE OF COLLEGE READINESS

Historically, placement test scores have been a proxy for students' college readiness. But increasingly the field is realizing that college readiness is not a cutoff score (or two).[6] Besides the limitations of tests for measuring students' competency in math and English, colleges are beginning to embrace a more robust understanding of college readiness. Typically cited is David Conley's definition, which grew out of a study involving 400 university faculty and staff identifying the skills that students need for college success. Through subsequent research, the definition has been refined into what Conley now calls the Four Keys to College and Career Readiness (Conley 2007, 2012). At best, standardized tests measure two of the four, as shown in the table below. Educators and policymakers are increasingly interested in psychosocial or non-cognitive factors—that is, behaviors such as academic persistence and motivation that shape students' ability to learn.[7] Under a more expansive definition of college readiness, the portion assessed by placement tests appears narrow indeed.

FOUR KEYS TO COLLEGE AND CAREER READINESS

KEY	DESCRIPTION	MEASURABLE BY STANDARDIZED TESTS?
Key Content Knowledge	Terms, facts, concepts, ideas, etc.	Yes.
Key Cognitive Strategies	Strategies such as hypothesizing, analyzing, evaluating, organizing, communicating	Yes—but not all placement exams assess these.
Key Learning Skills and Techniques	Skills and behaviors including persistence, motivation, goal setting, note taking (similar to non-cognitive skills or social-emotional learning)	Not really. Assessments exist to measure some aspects (but tests used to assess math and English skills do not measure). High school GPA is considered a good proxy.
Key Transition Knowledge and Skills	Postsecondary awareness (e.g., application and financial aid processes; course selection and academic planning) and skills (previously called College Knowledge)	No. Tests used to assess math and English skills generally do not measure.

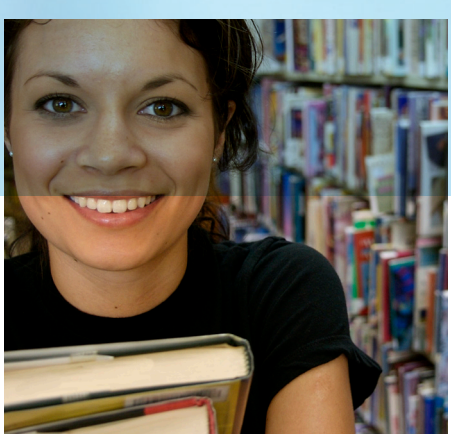
SOURCE: Conley 2012.

And even within the content areas assessed by the tests, there are growing questions about whether the tests' content aligns with the math skills that students need. The greatest concern is in math because of the great obstacle developmental math courses pose to students who are required to take them. The relatively high proportion of students requiring math remediation and the relatively low rates of success in these courses combine to make placement in developmental math one of the biggest barriers to successful college completion.[8]

Until recently, colleges viewed this as a problem requiring more math instruction. More recently, educators are starting to challenge the standard approach to math remediation, starting with the very math that students are expected to learn. There is growing thinking—though far from a consensus—among researchers who study math education that not all students need the science-oriented math curriculum that is still required in many states. As one overview of new developments in the field said:

> Although little systematic work has been published in this area, some studies suggest that less than a quarter of all majors require rigorous preparation in calculus. Moreover, a recent study of the use of mathematics in the workplace found that only about one fifth of jobs—including high-paying white-collar jobs—require more than a deep knowledge of middle school mathematics (Cullinane & Treisman 2010).

Not only is better instruction required, the argument goes, but also a different curriculum—one that emphasizes statistics and quantitative reasoning rather than algebra and calculus. If indeed the science-oriented courses are not necessary for most students to succeed in college and careers, maintaining them as a requirement needlessly holds back large numbers of students. Based on such insights, dozens of colleges around the country are participating in research and development projects with the Carnegie Foundation for the Advancement of Teaching and the Dana Center at the University of Texas. They are redesigning their math curricula into new pathways oriented toward statistics and quantitative literacy, with names such as Statway, Quantway, and Mathways.[9]



NEW DIRECTIONS FOR PLACEMENT EXAMS

The preponderance of evidence suggests that the system of placing and remediating students has veered away from its intended goals. Still, it is one thing to realize this and another to determine how changes in placement exams figure into a broader remedial reform. Developmental education reforms are increasingly being pursued as statewide policy initiatives, not just individual college projects, underscoring the challenges of addressing academic issues such as testing at the state level. Besides the obvious hurdle of developing innovations that administrators and faculty embrace, there is no template for what those innovations should be or how to implement them.

Furthermore, placement exams have a very complicated job. Ideally, they should align with both the higher education curriculum as well as the state's high school curriculum. They need to assess students coming from high school as well as those coming from adult education or the workforce. And, in at least a few states, they identify those students whose skills are not strong enough for developmental education and therefore require Adult Basic Education instead.

PLACEMENT EXAMS HAVE A VERY COMPLICATED JOB. IDEALLY, THEY SHOULD ALIGN WITH BOTH THE HIGHER EDUCATION CURRICULUM AS WELL AS THE STATE'S HIGH SCHOOL CURRICULUM.

Not surprisingly, the response to the emerging research is far from uniform. For some, the accumulation of evidence calls into question the whole enterprise of developmental education and the assessments upon which it hinges. In Connecticut, while legislators did not eliminate placement exams, a new law passed in May 2012 will drastically reduce remedial offerings starting in 2014. Only severely underprepared students will be eligible to take remedial coursework, and it will be limited to one semester.

For others, it suggests reforming the existing system rather than eliminating it altogether. North Carolina college leaders decided that the success of their ongoing innovations would be in doubt if colleges continued to rely on their existing placement tests. "Our presidents were very clear that with the data that they had received from CCRC they did not want to continue the practice of misplacing students," recalled Wilson. "That was our starting point to know we had to start doing things differently. We were jeopardizing the success of so many students because the tools we were using were not effective."

The Developmental Education Initiative team that reviewed the placement study recently decided to commission a new test that will be better aligned with the state's curriculum as well as ongoing reforms. The system has signed a contract with the College Board to develop a customized diagnostic assessment that goes beyond multiple-choice items to include interactive questions designed to assess performance and proficiency.

But at least as important as replacing the test itself, the system is considering changes to how colleges use the test for placement.[10] A multiple measures committee of the Developmental Education Initiative team is looking at high school grades and other measures that the system might ask colleges to use in addition to test scores. The team is also wondering how non-cognitive factors can be weighed.

Around the country, states and colleges are asking similar questions. While the new assessments may have attracted the most attention, systems are also adopting practices to reduce the weight of test scores or change the conditions under which students prepare for or take the tests. Many of these decisions have been influenced by the emerging research.

Three broad categories of innovations are being explored, and states may be considering changes in one, two, or all of these categories:

- Downplaying the tests;
- Changing the tests; and
- Supporting students around the tests.

DOWNPLAYING THE TESTS: SYSTEMS REDUCE RELIANCE ON PLACEMENT SCORES

While no state system has eliminated the use of placement tests, many are making them less prescriptive or becoming less stringent about requiring students to be assessed. This downgrading of test scores takes several forms.

MULTIPLE MEASURES

In most states, test scores have been the only basis for assigning students to remedial classes (Collins 2008; Hughes & Scott-Clayton 2011). Test companies' long-time caution to use other measures in addition to test scores along with the recent research evidence have combined to make the idea of multiple measures one of the most common reforms that systems are adopting or considering. How to do so is most obvious for recent high school graduates, while measures for nontraditional adult learners are less well-developed.

The California community college system has long used multiple measures. Under a 1991 settlement of a civil-rights lawsuit, colleges are not supposed to use a test score as the sole factor in requiring a student to take remedial courses. According to a survey, at least 45 of the state's 112 colleges embed questions within their computerized assessment asking about students' experience in the subject, self-reported high school grades, and other relevant experience (Venezia, Bracco, & Nodine 2010). While some colleges automatically factor the responses into the test score algorithm, others use them primarily if a student challenges his or her placement into remedial education (Bunch, et al. 2011). "It's non-uniform," noted system Vice Chancellor Patrick Perry. "The vast majority of students are not run through a multiple measures system. They have to go back to a counselor if they don't like their test score."

High school grades are by far the most commonly mentioned supplemental measure. However, one of the greatest barriers to using these and other multiple measures is a technical one. Few states have fully operational K-16 or P-20 data systems, and even those that do often experience time lags that prevent colleges from accessing students' high school records in time to influence a placement decision. They also lack automated systems that allow advisors or faculty to view test scores and high school grades side by side.[11] Another barrier is procedural: the time it takes to vet any changes in policies. Lastly, research has not yet clarified what the shelf life of high school grades should be, and so policymakers looking at adopting such policies are reluctant to consider high school grades for students more than a year or two out of high school.[12]

Systems are in various stages of implementing or considering a range of multiple measures:

Though North Carolina has the technical capacity to access students' high school transcripts, there are practical obstacles. A decision about using those and other measures is being weighed by a multiple measures committee made up of faculty and administrators that is reviewing the research and developing recommendations. "At the highest level, it would require state board action," noted Wilson. "Before it could get to the state board, it would have to go through the presidents and the chief academic officers."

One practice is to use additional measures for students who score just above or below a cutoff score. Earlier this year, New Jersey colleges decided to begin using high school grades to refine placement decisions for students whose ACCUPLACER scores are within the "decision zone." In Texas, Austin Community College has trained instructors to evaluate student essays to refine placement decisions for scores in the gray zone.

Connecticut's new legislation limiting developmental education requires colleges and universities to use multiple measures to determine whether students require college-readiness support.[13] "There are some pilots we will be conducting to begin getting those data in. We'll probably start with the high school grades piece because it's something that we know works really well as a predictor," said Braden Hosch, director of policy and research for the Connecticut State Colleges and Universities. "I have not talked to a single person who objects to using high school information."

TEST WAIVERS

While waiving placement tests on the basis of, say, high SAT or ACT scores has been a fairly common practice, state systems are now looking at additional grounds for placing students into college-level courses without testing. As with multiple measures, these include high school performance.

Two studies in California using data from the California Partnership for Achieving Student Success (Cal-PASS) are making different arguments for waiving testing.[14] The first was based on curricular alignment: Instructors from a San Diego-area high school worked with nearby college instructors to develop a senior-year course to ensure that students were learning the skills the college courses required. Students who completed the high school course were allowed to take freshman English at the community college regardless of their placement score. More than 80 percent passed the course, compared with an average of 68 percent among other students.

The second study involved Long Beach City College, where 90 percent of students from a local unified school district (LUSD) were placing into remedial education, and students were required to complete on average 5.6 semesters of remedial courses. As instructors were considering raising cutoff scores, the study found:

> Students' discipline grades and their overall high school GPA were virtually unrelated to how students were placed into courses at LBCC, but were by far the strongest predictors of performance in our courses. . . . Initial estimates suggest that such a realignment to employ broadly-based, multiple measures to holistically capture the potential of our students to perform college level work could, in the short-term, meaningfully improve success rates, reduce the number of semesters or required development coursework for LUSD students by more than half, and, for example, increase the number of LUSD students eligible for transfer-level English by almost 500% (RP Perspectives 2012).

A statewide research group is now seeking to replicate the study at an additional 22 colleges. A similar finding could influence system-wide policies, said vice chancellor Patrick Perry. "The sands are starting to shift away from the idea that we need one single statewide test," he noted.

The development of Common Core assessments by two multistate consortia is presenting another opportunity for waiving placement tests. Member states of the Smarter Balanced Assessment Consortium (SBAC) and the Partnership for Assessment of Readiness for College and Careers (PARCC) are expected to

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A NEW GENERATION OF ASSESSMENTS FOR K-12

In 2009, the National Governors Association and the Council of Chief State School Officers formed a partnership to develop clear, rigorous, and focused standards for the math and English skills that students need in order to succeed in college and careers. The resulting Common Core State Standards that were released in 2010 have been adopted by 45 states and the District of Columbia. Under the U.S. Department of Education's Race to the Top Assessment Program, two consortia received more than $175 million each in 2010 to develop state-of-the-art assessments to more accurately measure students' learning and enhance instruction. The PARCC consortium is managed by Achieve, Inc. of Washington, DC. It includes 23 member states and the District of Columbia. The SBAC is managed by WestEd and includes 27 member states. (Five states belong to both consortia.)

The assessments being developed by the consortia may present new opportunities for waiving placement exams, though there are many obstacles to doing so. For the K-12 assessments to be credible as measuring "college readiness," they should clearly align with colleges' decisions about whether students require remedial education, and in many states they do not. An additional challenge is that the Common Core is moving high school math toward a single standard of math readiness, while community colleges are migrating toward differentiating standards based on students' program of study.

SOURCE: Center for K-12 Assessment and Performance Management, Educational Testing Service. 2011. "Coming Together to Raise Achievement: New Assessments for the Common Core State Standards."

begin implementing the new assessments in 2014-15. In New Jersey, a task force supported by Governor Chris Christie has recommended that, once the state's end-of-course assessments in English and math are in place, students who pass them will be able to waive placement tests upon entering college.

A new version of the GED, expected to be released in 2014, will include a college-readiness component that its developers say can be used in lieu of a placement test. Other means that colleges may use to waive or supplement testing include assessments of prior learning, military testing, high school exit tests, and other prior experience.

MAINSTREAMING WITH SUPPORT

Evidence showing that some students with test scores below the cutoff can still succeed in college-level courses, particularly if provided with appropriate supports, is shaking up the delivery of remedial education around the nation. In one version of this approach, students who are placed into a course just below college level are "mainstreamed" into college-level classes and provided with additional academic support. According to CCRC researchers, the support needs to be intensive and integrated with the course.

As mentioned above, the Community College of Baltimore County has devised a successful and cost-effective way to "mainstream" students who test just below the college-level cutoff into college-level English courses. The students are provided extra support services in the form of a separate course taught by the English instructor to help students in areas where they are struggling in the college-level course.

Connecticut is making such innovation statewide policy. All but the most underprepared students (as determined via multiple measures) will be placed into college-level courses and provided with additional support. Innovative strategies researched to date have focused on students at or near the cutoff score; since Connecticut's approach may include students with much lower test scores, it is unclear whether mainstreaming will help them.

PROGRAM-SPECIFIC PLACEMENT

Another way in which placement exam cutoff scores are losing their authority is the move toward program-specific placement in mathematics. Swayed by expert arguments that not all students require science-oriented math preparation, some states are moving away from the full remedial math sequence they traditionally required. Students will be required to master only those deficiencies that are relevant to their career goals.

In some cases, this approach overlaps with efforts to break developmental curriculum into small "modules" that cover discrete content areas. The goal of modularization is to streamline students' progress by increasing the efficiency and relevance of remediation. Students are required to take only those areas in which they are insufficiently prepared. In some states, this work aligns with a new, diagnostic form of assessment (described in the next section) that provides a more fine-grained assessment of students' skills. Program-specific placement takes this a step further by comparing students' skills with the requirements for their major. For example, Virginia has a total of nine one-unit instructional modules in math. Humanities majors are required to take—or pass out of—five of the modules, while students pursuing STEM (Science, Technology, Engineering, and Math) majors are required to master all nine (Asera 2011). North Carolina's approach is similar.

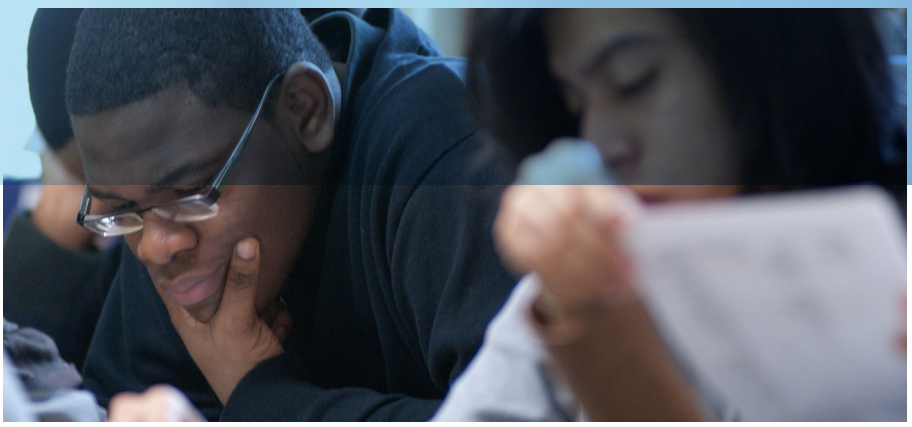
In June 2012, Colorado's legislature authorized the state's higher education commission to differentiate requirements for mathematics based on a student's area of study.

INFORMED SELF-PLACEMENT

Lastly, some colleges have experimented with "informed self-placement" or "directed self-placement": They provide students with information about the content of developmental and college-level courses and how that relates to varying preparation levels. Students can then decide which course seems most appropriate given their skills and academic goals (Felder, Finney, & Kirst 2007).

At least two community colleges in California and one in Oregon have experimented with this approach. Several four-year universities have also tried self-placement, primarily for writing classes. Fresno State University has this explanation on its website: "We do not believe that a single, timed test offers the best indication of your preparedness for a specific English course. Many students do not 'test well.' More importantly, we do not believe that the exam itself represents the experiences of college writing in a way that can be boiled down to a single score."[15]

While there is little independent research on this approach outside of colleges' own research offices, it is of growing interest to college administrators, especially in light of austerity measures. "Directed self-placement could be less expensive than using commercially developed placement tests," wrote Bunch and his colleagues (2011) in a study of ESL assessment. "According to matriculation officials at the one college in our sample that used self-placement for ESL, the practice has proven to be as valid as the test formerly used by the college."



CHANGING THE TESTS: SYSTEMS SEEK BETTER ASSESSMENTS

To bolster efforts to improve student outcomes, several states are implementing or considering new assessment instruments. Driving these changes are two primary concerns: an interest in the potential of placement exams to send signals to high schools about how to better prepare students (Kirst & Venezia 2005); and an imperative to improve outcomes for students in college.

Systems are seeking one or more key features in their new assessments:

CUSTOMIZED OR ALIGNED ASSESSMENTS

Increasingly, systems are looking past off-the-shelf assessments for those that are customized to each state's curriculum. These moves stem from faculty concerns that the test content may not represent the college-level skills that are most important to them. In Florida and Virginia, the first two states to commission a customized test, faculty were heavily involved in working with the vendor, McCann Associates, to articulate their desired learning outcomes and review test items. This may increase the likelihood of faculty embracing the new assessments.

Recently, both North Carolina and Texas have contracted with the College Board to help them develop assessments aligned to their curricula.

DIAGNOSTIC ASSESSMENTS

The community college systems working on customized assessments are also implementing diagnostic assessments, but the definition of "diagnostic" varies. Traditionally, diagnostic assessments were used to provide information to instructors about students' skills in order to help them hone their instruction. Instructors have used diagnostic assessments such as Pearson's MyMathLab within the classroom. However, in some instances, the new diagnostic instruments are functioning to provide finer-grained placements of students based on their skills, but they do not provide information to instructors.

The multiple approaches to diagnosing in turn reflect the variety of ways to structure remedial curricula. For example, as mentioned above, one use of diagnostic assessment is to place students in short modules targeting specific student needs.

In Florida, where the initial plan was for a diagnostic placement assessment, the system ended up with a diagnostic that can be administered after the placement exam. College leaders were anxious to avoid a lengthy test that would result from combining placement and diagnostic functions. A diagnostic tool is aligned to each of the two levels of developmental instruction and will be administered after the placement exam (two is the maximum offered). It also has a separate cost. While the state's customized placement assessment is used statewide, the diagnostic is mandated only for colleges receiving state grants to implement modularized curricula.

Virginia and North Carolina use another approach: building a diagnostic component into the placement assessment. In both states, students' performance on each question in a computer-adaptive assessment determines

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2) AN IMPERATIVE TO IMPROVE OUTCOMES FOR STUDENTS IN COLLEGE.

subsequent question types. In this model, an adaptive instrument first assesses each student's approximate level, then pinpoints her or his specific needs. Rather than face a cut score, students can learn which areas they need to master or which remedial modules, if any, they must take. "The cut score argument has gone away," notes Aris Bearse, Virginia's director of institutional research. "There is no overall score for the test. It just tells you which units you've placed out of."

For Texas, the customized assessment being developed by the College Board will yield a "diagnostic profile" describing each student's strengths and weaknesses for use by advisors and instructors. "The advisor will have a number of options available in order to determine the best way to address the students' deficiencies, as opposed to automatically putting them into a 16-week traditional course," noted Suzanne Morales-Vale, director of developmental education and Adult Basic Education for the Texas Higher Education Coordinating Board.

ASSESSMENTS OF KEY COGNITIVE STRATEGIES

Some assessments look mainly at students' content knowledge, while others go beyond basic content knowledge to gauge students' cognitive strategies. Often, students' math success is limited because they have learned mathematical procedures without mastering the underlying mathematical concepts. The question is not just whether to place students into algebra or pre-algebra but whether students understand mathematical reasoning (Stigler, et al. 2010). Some English instructors are similarly concerned about the limitations of traditional tests, especially when it comes to measuring writing ability.

SOME ASSESSMENTS LOOK MAINLY AT STUDENTS' CONTENT KNOWLEDGE, WHILE OTHERS GO BEYOND BASIC CONTENT KNOWLEDGE TO GAUGE STUDENTS' COGNITIVE STRATEGIES.

The Common Core assessments being developed by two consortia are expected to go further toward assessing these strategies than prior tests did. In North Carolina, the test being designed by the College Board is intended to help the system do a better job assessing skills such as critical thinking. "We don't want to be locked into multiple-choice questions," noted Brad Bostian, who directs the first-year experience program at Central Piedmont Community College and chairs a state policy team on assessment. "We want performative interactive-type questions. For example, items will have to involve reading something and crafting a written response."

NON-COGNITIVE ASSESSMENTS

Colleges and systems are also wondering about the social and emotional factors that figure into college readiness, even though traditional tests do not measure them at all. While the field is not unified about how to define or measure non-cognitive skills or behaviors, tests to assess them do exist. To date, their most common use is by classroom instructors.

Some systems are interested in how such tests might assist with the placement process. For example, the California task force mentioned an interest in assessing "key academic behaviors." Still, educators are just beginning to consider how these assessments might complement their placement strategies, especially given the risk that the use of such assessments could open colleges up to concerns about bias.

In Chicago, Wilbur Wright College has experimented with using ENGAGE, an ACT product designed to measure motivation, social engagement, and self-regulation. Based on research showing a correlation between such scores and students' course outcomes, the Chicago City Colleges are planning to pilot a similar assessment districtwide. While the test is not used directly to determine students' placement in math and English, it may have two primary uses: For students testing slightly below a cutoff score, a high motivation measure can be used to allow them to enroll in the next course level. Also, students with low motivation scores can be offered additional services through the district's early alert program to enhance their chances of success in college.

SUPPORTING STUDENTS AROUND TESTS: SYSTEMS CHANGE PRACTICES AND CONDITIONS

Whether or not new tests are adopted or additional measures are considered, concerns about high remedial enrollments are also driving changes in policies related to test preparation as well as testing conditions. Traditionally, areas such as test preparation programs and retesting policies received little attention at the state level, and practices varied widely even within a state (Venezia, Bracco, & Nodine 2010). Greater awareness of how such practices may influence student progress is changing that. Colleges are interested in ensuring that students receive appropriate preparation in high school, but they also want to make sure that rusty skills or a bad day do not relegate students to remedial coursework they may not need. However, research is needed to determine whether such refinements can reduce testing errors, as some instructors worry that too much support around test taking could impair the accuracy of the assessment.

COLLEGE-READINESS TESTS IN HIGH SCHOOL

For years, individual colleges have partnered with high schools to give their placement exams to juniors or seniors. More recently, this practice has been pursued in a more strategic and systemic way as part of a strategy to help prepare students for college rigor. This approach, based on the theory that college placement tests send a signal to high schools about the preparation students need (Kirst & Venezia 2005), is gaining new salience as states prepare to adopt assessments based on the Common Core State Standards.

The 23-campus California State University was the first higher education system to adopt an early testing strategy, known as the Early Assessment Program or EAP. CSU collaborated with the state's department of education to add a series of questions to the eleventh-grade standards test required of all students. First offered in 2006, the goal was to provide students with an assessment of their college readiness while they still had time to catch up, without burdening them with an extra test. The community college system subsequently joined the program. While the supplemental questions are optional, large numbers of students take the test: In 2010, about 380,000 young people volunteered to take the English test and about 180,000 took the math test. (Only those who take college-preparatory math can take the college-readiness version of the test.) Preliminary evidence suggests that the program may reduce students' likelihood of needing remedial courses by a few percentage points (Howell, Kurlaender, & Grodsky 2010).

More recently, Florida began requiring all high school juniors with certain scores on the state's eleventh-grade standards test to take the community colleges' placement exam. Originally, students took the ACCUPLACER exam, but now they take the college system's new Postsecondary Education Readiness Test (PERT) (Burdman 2011).

As states adopt the Common Core standards and prepare for new federally funded assessments, there is an interest in ensuring that these tests are fully aligned with placement tests being used by higher education institutions. If they are, students found to be college ready on a high school assessment may not need to take another test. Some states have taken steps to address this issue, and many others are contemplating how to do so.

Florida, for example, in developing the PERT exam, made sure to align it with the Common Core standards. New Jersey and North Carolina have said that students passing end-of-course exams will not need to take a placement test. Connecticut is looking at making the high school assessment one of the multiple measures it will use to consider placement. "We want to make sure that higher education buys into and trusts the assessment," noted Connecticut's Braden Hosch.

North Carolina, Florida, and eight other states are participating in Core to College, a foundation-funded initiative to improve alignment between the Common Core and postsecondary standards. North Carolina, for example, intends to convene working groups comprised of K-12 administrators and college faculty and deans to align the new diagnostic placement exams with the ACT tests being used in high school (and, eventually, the new Smarter Balanced Assessment Consortium tests).[16]

SENIOR-YEAR TRANSITIONAL COURSES

One of the most important uses of the eleventh-grade assessment is to identify students who need additional support to pass an English or math assessment—in particular, those students whose skills are not extremely deficient and who could catch up within their senior year. As part of EAP, some California high schools have offered a CSU-designed English course for seniors. Florida also now requires high schools to offer students with low eleventh-grade readiness scores one of several transitional courses aimed at preparing them for college. In addition, the Southern Regional Education Board is developing a set of model transitional courses for use by states.

The senior-year transition course is another form of curricular alignment, similar to the San Diego Cal-PASS project in which students who earn an A or B in the senior-year course vetted by college faculty can take the college-level English course regardless of their placement test score. The main difference is that in the San Diego program, all students in the high school (not just those who did not test as college ready) participate in the course.

TEST PREPARATION ASSISTANCE

Test preparation is not confined to high school students. Students entering college often do not understand how their performance on a placement test could influence their course taking in college. That could lead them to prepare less or to race through the questions (Venezia, Bracco, & Nodine 2010). The prevalence of under-placement also suggests the possibility that some students could score better if they had a chance to brush up. While states have yet to adopt systematic policies, numerous colleges are adopting programs to help students during the enrollment process.

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One strategy is to help students prepare in advance of taking the assessment. Santa Monica College in California offers an online orientation to its placement test. Known as Prep2Test, it explains the content and format of the tests, how to prepare for them, the reasons for them, and the benefits of preparing. According to the online orientation video, the college's assessment center has determined that students who prepared for the exams were 18 percent more likely to place into college-level English and 36 percent more likely to place into college-level math than students who did not prepare.[17]

Another approach is to offer refresher courses for students who took the placement test and scored below college level on the first try. Examples of this include an online tutorial at El Paso Community College in Texas, Housatonic Community College's iMath refresher for Connecticut students who have taken upper-level math, as well as a six-hour refresher in reading, writing, or math at Cumberland County College in New Jersey. Cumberland has found that more than 85 percent of students taking a brush-up course instead of the highest-

level developmental English course ultimately passed college-level English, compared with 71 percent of students who completed the developmental course. The brush-up course costs students $35.[18] In 2011-12, New Jersey students paid roughly $330 for a three-unit developmental class, so the brush-up appears to be getting better results at a lower cost to students.

Related to test preparation, some colleges are rethinking their approach to retesting. College retest waiting periods vary widely: In California alone, they range from 24 hours to three years (Bunch, et al. 2011). Realizing that some students can be served by a quick brush-up rather than a semester-long remedial course, some colleges and systems are relaxing their retest policies. Hawaii community colleges had a four-month waiting period. "Nobody had any historical knowledge of why we had that policy," noted Kamuela Chun of the college system. "We examined it to see if it was really important and decided it wasn't." The policy was eliminated. A California college conducted a study and found that students who retested "had higher success and persistence rates than students who took the placement test only once, leading the college to provide more opportunities for students to retest" (Bunch, et al. 2011).

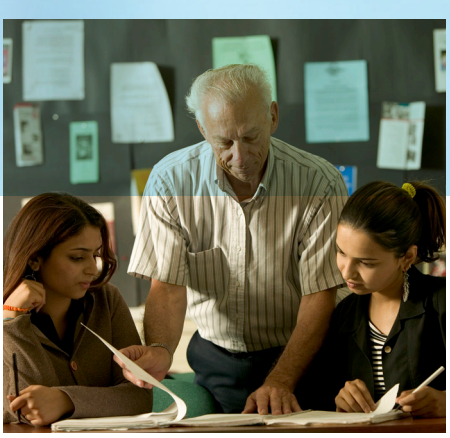
COUNSELING AND ADVISING

A key component of any placement system is the guidance that students receive. Because of this, colleges are taking a hard look at their advisory systems. Particularly given the pressure on student services from budget cuts in most states, some systems are also feeling more pressure to find ways to support colleges' advising functions and help students plan better.

Encouraging advanced planning is one way colleges are seeking to maximize the use of limited advising and counseling resources, notes Tamara Clunis, dean of academic success at Amarillo College in Texas:

> The big problem is not the fact that we don't have enough advisors. It's the bottleneck that happens because we let them all come at the same time. Open entry doesn't have to mean unplanned. If we continue to operate under that system, we're going to have to have 100 advisors. But if we change our culture and have deadlines and distribute intake across a period of time, we could do a better job with the 25 advisors we have.

California's Student Success Task Force recommended requiring all students to develop an education plan and declare a program of study soon after admission. Students who do not follow their plans or fail to declare a program would lose priority status for enrolling in classes, under the recommendations.



THINKING ABOUT INNOVATIONS IN PLACEMENT AND ASSESSMENT

States and systems are in various stages of considering or adopting different approaches to downplaying, revising, or supporting students around placement tests. Their choices relate, in part, to each system's degree of standardization, the role of faculty in the decision-making process, and the priorities of state policymakers. Governance also plays a role—for example, standardization is more likely to be the case in more centralized systems. Whether the decisions are made at a system level or by colleges acting autonomously, key issues are cost, time, and validity.

WHETHER THE DECISIONS ARE MADE AT A SYSTEM LEVEL OR BY COLLEGES ACTING AUTONOMOUSLY, KEY ISSUES ARE COST, TIME, AND VALIDITY.

COST

While test development can be costly, the greatest expense is test administration. That's why McCann Associates charged Florida and Virginia nothing for test development, expecting to recoup its investment by selling test units to colleges. However, tests that are more sophisticated or take longer are also likely to cost more to administer. To the extent that these costs are passed on to students (either directly in terms of testing fees or indirectly in terms of higher tuition), they are a considerable factor for states to consider in changing or adding tests.

In Florida, where low cost was one of the college presidents' three priorities, officials negotiated a very favorable price per test. However, because that state's diagnostic instrument is separate from the placement test, the full package is more expensive. Texas' expected cost for three tests ($11 for math, reading, and writing) exceeds North Carolina's cost for its four tests ($7 for arithmetic, algebra, reading, and writing—and that figure may be lower next year). Though both systems are working with the College Board, the price disparity may relate to the different form of diagnostic each is receiving. North Carolina's diagnostic will simply place students into or out of English and math modules; Texas' will produce a diagnostic profile describing each student's strengths and weaknesses.

TIME

Asking more of placement exams likely means students will also need to sit for longer periods to take the tests.

Traditional placement exams typically take students one to two hours for both English and math. The new assessments seem to take longer. Florida officials say PERT takes students about twice as long as their prior test, ACCUPLACER, which has created wait times at testing centers (Burdman 2011). In Virginia, students take close to two hours just for the new math assessment, according to Aris Bearse. Students with better skills require more time because the adaptive test continues adding questions to cover all nine modules. Once the new English assessment is ready, testing will take even longer.

"When you want to try to diagnose students and help them be able to save time [i.e., in their coursework], isn't it worth a little bit more time on the front end to get a good diagnosis?" asked Jennifer Allman, director of student services for the Virginia Community College System. "But it's been so hard to try to convince people that it has value. It's a whole learning process of trying to reeducate people that it's to their good to take a little longer to take the test."

VALIDITY

As emerging research brings attention to the limitations of placement tests, colleges and systems are starting to think more about how to assess the validity of their tests. Colleges vary in terms of how they validate their placement tests, and it appears that only a handful of states or systems have requirements regarding validation (Fulton 2012).

The predictive validity highlighted by the CCRC studies is only one approach to test validation. Some in the field argue that placement exams are intended to measure readiness, not *predict* students' success, noting that factors other than readiness can affect success. Other approaches to validity include:

- **Content validity:** Is the content consistent with the related courses?
- **Consequential validity:** Do faculty and students think students were placed appropriately? Interestingly, surveys at California colleges routinely find satisfaction levels of 75 percent and higher.[19]
- **Reliability:** Does the test produce consistent results for students who appear to have similar skills?

Even if predictive validity is not the sole measure of a test, the idea that current instruments demonstrate little predictive power is troubling to many. Regardless of what current exams may do, the imperative of increasing graduation rates requires indicators and tools that can be used to enhance success, not just measure readiness in an abstract sense. "As somebody who's worked in academic affairs at the college, I need to have some gauge of how the student will do in these courses," said Braden Hosch. "Can I get them to the right treatment based on what I know about them?"

TENSIONS AND TRADEOFFS

As systems consider these and other factors, clear tradeoffs are inherent in their choices (Jaggars & Hodara 2011). The field is very new, and more research is needed to understand the implementation and effectiveness of the new policies. However, the experience to date points to some issues that colleges will need to weigh (*see box, Placement Policy Decision Checklist below*).

PLACEMENT POLICY DECISION CHECKLIST: BALANCING TRADEOFFS

As outlined by the Community College Research Center, the tradeoffs that colleges often wrestle with in determining their remedial placement policies are those between system-wide consistency and institutional autonomy, between student progression and enforcement of standards, and between efficiency and effectiveness (Jaggars & Hodara 2011). Using that "opposing forces" framework, this checklist highlights some of the issues that college systems need to weigh in determining their placement policies.

The reform narrative discussed in this paper seems to point toward renewed interest in greater consistency and promoting student progression.[20] However, the tension between efficiency and effectiveness is not likely to be resolved easily, given the budgetary constraints facing many states.

CONSISTENCY VS. AUTONOMY		
ISSUE	**SYSTEM-WIDE CONSISTENCY**	**INSTITUTIONAL AUTONOMY**
Alignment with K-12 curriculum and assessments	Placement standards are aligned with K-12 curriculum standards for maximum transparency and consistency designed to decrease need for remediation.	Placement standards are determined by colleges to align with the curriculum in use at the college or system to maximize institutional flexibility and autonomy.
Alignment with general education curriculum	Placement standards are aligned with a common statewide curriculum for maximum transparency, portability, and perceived fairness.	Placement standards are determined by each college to align with its specific curriculum to maximize institutional autonomy.
Alignment between English and ESL	Systems adopt statewide policies on assessing students for ESL vs. remedial English.	Individual institutions determine the relationship between remedial English and ESL and select appropriate assessments.

PLACEMENT POLICY DECISION CHECKLIST: BALANCING TRADEOFFS (CONTINUED)

PROGRESSION VS. ENFORCEMENT		
ISSUE	**STUDENT PROGRESSION**	**ENFORCEMENT OF STANDARDS**
Use of accelerated pathways	Accelerated options allow some students to transition more quickly into college-level math and English.	A lengthy developmental sequence ensures that only the most motivated and successful students reach college-level math and English.
Alignment with Adult Basic Education	Policies make developmental education available for the maximum number of students who do not qualify for college-level courses.	Developmental education floors route a significant proportion of students to adult education (where in some states they may not be better served).
Alignment with student's program or major	Math and English requirements vary by major to minimize barriers to the completion of degrees and credentials.	Math and English standards are enforced across the board, regardless of students' program or major, even if this means more students require developmental education.
Retest policies, refreshers, etc.	Liberal policies include refresher courses and low barriers to retesting in order to maximize student progression. (These may have an efficiency component as well.)	To prevent underprepared students from taking college-level courses without prior remediation, strict policies limit students' ability to brush up or retest.
EFFICIENCY VS. EFFECTIVENESS		
ISSUE	**EFFICIENCY**	**EFFECTIVENESS**
Multiple measures vs. single cutoff score	A single test score most efficiently integrates with college information systems, minimizes use of scarce counselor time, and limits the possibility of human error.	Use of multiple measures enhances the chances that a student will be appropriately placed, and in particular, reduces the chances of under-placement.
Length of test	A short test accommodates a surge of new students at registration and minimizes the deterrent effect–but accuracy suffers.	Longer tests more accurately assess skills, but length may deter students from taking them.
Cost of test (and whether costs are passed on to students)	A lower-cost test is more affordable for colleges (or students if costs are passed on to them).	Higher-cost tests more accurately assess skills but present a financial burden to colleges (or a deterrent for students if costs are passed on).

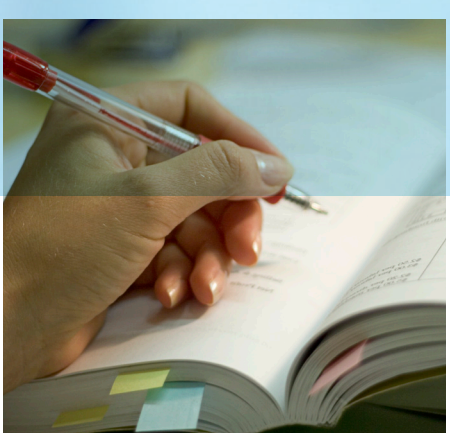
THE NEXT ROUND OF RESEARCH

As colleges and systems make these choices on their own or as a result of legislative mandates, researchers—whether academic, institutional, or faculty researchers—will also need to continue bringing new information to bear. The field will need greater understanding both about how the new policies are implemented and about their results. Some key questions for researchers include:

- Are the new customized assessments more predictive of student performance than the off-the-shelf tests of the past?
- Do efforts to better prepare students and increase awareness of the high-stakes nature of placement tests lead to higher scores and better predictive validity (i.e., fewer severe errors) as some early experiments suggest?
- What strategies can best serve severely underprepared students? Most of the rigorous studies done to date use a quasi-experimental design involving students just above and just below cutoff scores, which means they do not suggest ways of helping students with very low scores.

With such questions unanswered, community colleges are going on their own hypotheses. Currently, systems such as Texas' and North Carolina's are adopting developmental education "floors"—essentially scores below which students will be referred to Adult Basic Education. In most states, adult education was poorly funded even before recent state budget cuts. Assigning additional students there does not bode well as a student success strategy. But accelerating them into college-level courses may not work either.

In the case of Connecticut, remediation will be limited to one semester. While acknowledging that Connecticut's approach may be sufficient for large numbers of students, experts and community college leaders worry about its impact on the most underprepared students. "It is far from clear . . . that one semester of instruction is adequate to prepare students with very weak skills for a college-level course, even with additional supports," CCRC researchers wrote in the *Hartford Courant* recently. "Little is known about how to help the most underprepared students."[21]



A CHANGE OF HEART

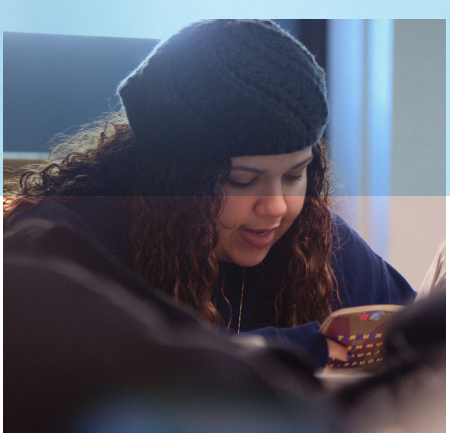
If any state's approach to rethinking its policies in light of new revelations about placement testing is the boldest, it would be Connecticut's. While not completely eliminating developmental coursework or placement testing as originally envisioned, legislation approved in May 2012 will do away with much of it. Most students assessed as less than college ready will be placed into college-level courses and offered additional support. Those whose deficiencies are the greatest will be offered a maximum of one semester of remedial intervention, which must be approved by the state Board of Regents. Rather than changing how colleges diagnose problems, Connecticut is looking to transform their solutions, in light of strong evidence that existing strategies are not coming close to achieving their intended goals.

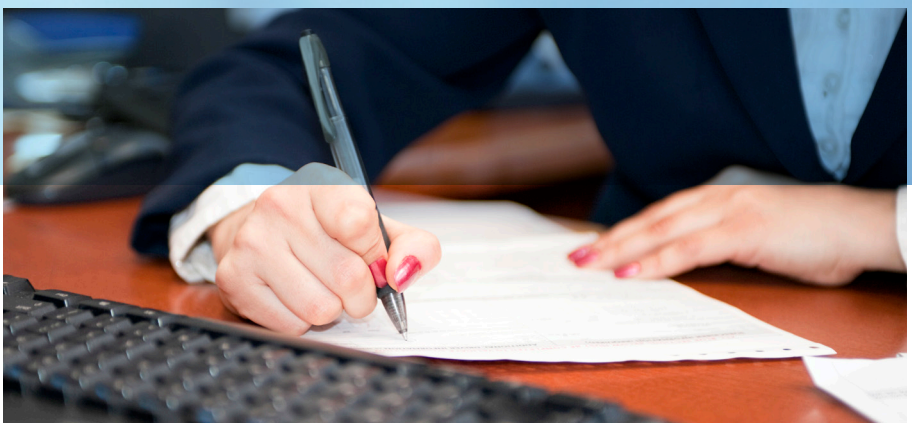
"You're going to see a sea change in terms of what the expectations are," said Braden Hosch. "It is not the expectation that community colleges should be the place where students are parked for four semesters while they are not successful in their coursework."

A similar sentiment drives many of the reforms nationally. While no single approach has emerged as a clear new direction for placement policies, a few themes are evident. As systems redesign—and even reduce—their remedial course sequences, there is considerable interest in aligned assessments with some diagnostic component. It also seems likely that, with multiple measures and Common Core assessments coming into play, there will be a move toward less reliance on placement test results.

This change of heart is similar to one taking place in health care around medical testing. A case in point is a federal task force that recently recommended against routine screens for breast cancer and prostate cancer for certain age groups. Flouting conventional wisdom that preventive screening saves lives, the group reasoned that over-screening comes at significant costs to patients and the health care system. As with the debates over college placement tests, those recommendations have proved controversial, with many organizations and doctors continuing to endorse annual screening.

As the efficacy and cost of the nation's health care system remain pressing issues, there is no doubt that the idea of rethinking the centrality of screening tests in preventive care will play a central role in the conversation. The same seems to be true of college placement tests. "In education as in medicine, the logic behind early detection seems unassailable: Colleges want to catch the underprepared early, so students can get help before they begin to struggle," wrote CCRC's Judith Scott-Clayton in her *New York Times* blog. "But in both fields, evidence is beginning to accumulate that early detection and treatment, in some cases, may harm the healthy more than it helps those truly ailing."[22]





ENDNOTES

[1] According to newspaper reports at the time, 36 percent of all CUNY students and 60 percent of those at two-year colleges required remediation in 1996-97. According to 2011 testimony by CUNY's provost to the New York City Council, 54 percent of new freshmen and 79 percent of those at community colleges required remediation.

[2] For further information on the Common Core State Standards, see http://www.corestandards.org/

[3] Though the study was published in 2012, findings were shared with North Carolina educators beginning in late 2011.

[4] For an interesting discussion of the tensions that underlie the divergent narratives, see Jaggars & Hodara (2010).

[5] The use of multiple sources, avoidance of narrow score differences, and the caution to use tests only for purposes for which they were validated are all elements of The Standards for Educational and Psychological Testing, developed jointly by the American Educational Research Association, the American Psychological Association, and the National Council on Measurement in Education, and of the Code of Fair Testing Practices, developed by testing officials.

[6] For more on this theme, see Collins (2008).

[7] A recent report by the Consortium on Chicago School Research investigates the role of these factors in school transitions, including the transition from high school to college (Farrington, et al. 2012).

[8] For example, a CCRC study using the Achieving the Dream database found that 59 percent of students were assigned to developmental math courses. Of those students, only 33 percent completed the sequence. By contrast, only one-third of the students were referred to remediation in reading, and of those students, 46 percent completed the sequence (Bailey, Jeong, & Cho 2010).

[9] For further information see:
http://www.carnegiefoundation.org/statway
http://www.carnegiefoundation.org/quantway
http://www.utdanacenter.org/mathways/

[10] For a discussion of how the North Carolina Community College System began considering testing policies and procedures through its work in Achieving the Dream, see Collins (2008).

[11] For example, in the college system studied in Scott-Clayton (2012), high school transcript information was available for only about 70 percent of the students tested. States with high numbers of entering students over age 21 would have transcripts for far fewer students.

[12] Researchers with California's Research and Planning Group say that they have found high school grades to be valid predictors for at least five years after high school. A CCRC researcher notes that such grades are very durable predictors of things like income at age 40. However, no research to date has addressed the question in a way that clearly answers questions for education officials implementing changes.

[13] See: An Act Concerning College Readiness and Completion, Public Act No. 12-40, Senate Bill No. 40 (2012). Available at: http://cga.ct.gov/asp/cgabillstatus/cgabillstatus.asp?selBillType=Bill&bill_num=SB-40

[14] Cal-PASS is a voluntary data-sharing partnership among K-12 and higher education institutions in California.

[15] See: http://www.fresnostate.edu/english/undergraduate/firstyear/directed.shtml

[16] See: http://www.smarterbalanced.org/

[17] The online video can be viewed here: http://www.smc.edu/EnrollmentDevelopment/AssessmentCenter/Pages/Prepare-Before-Testing.aspx

[18] These data were provided by CCRC researchers based on interviews they conducted with the college.

[19] Per email communication with the Research and Planning Group of the California Community Colleges, the "threshold for an acceptable satisfaction response rate is 75 percent."

[20] Also see Grubb, et al. (2011a) for an interesting discussion of alignment and assessments.

[21] See: Bailey, Hughes, & Smith (2012).

[22] See: http://economix.blogs.nytimes.com/2012/04/20/are-college-entrants-overdiagnosed-as-underprepared/

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