



*Diagnostic Assessment*

# CHALLENGES & OPPORTUNITIES

for the California Community Colleges

## *about this report*

This LearningWorks report was prepared in association with EdSource, a nonprofit, nonpartisan organization engaging Californians on key education challenges. One key goal was to examine the experiences of three other states that have been deeply engaged in developing statewide diagnostic assessments for their community colleges.

This report was developed based on:

1. A review of relevant community college research and reform literature.
2. A review of policy documents from the states and initiatives discussed.
3. Interviews and correspondence with select policymakers, practitioners, and researchers.

A list of people who contributed to the development of this report is presented in the Acknowledgments section at the end. The principal author of the report was Matthew Rosin, Ph.D., senior research associate at EdSource. Matt worked with a team from LearningWorks to develop the report, including Linda Collins, Robert Gabriner and Darrick Smith, as well as Louis Freedberg from EdSource.

LearningWorks was founded by the Career Ladders Project for California Community Colleges, the Research and Planning (RP) Group for California Community Colleges, and the California Community Colleges Success Network (3CSN) to facilitate, disseminate and fund practitioner-informed recommendations for changes at the system and classroom levels, infusing these strategies with statewide and national insights.

LearningWorks is supported by the William and Flora Hewlett Foundation and the Walter S. Johnson Foundation.



# Introduction

In January 2012, the Board of Governors of the California Community Colleges adopted recommendations from the legislatively mandated Student Success Task Force. They included a recommendation that California’s community colleges develop “diagnostic” assessments for use across the system. These would provide detailed information about each student’s specific academic strengths and weaknesses. If implemented, they would be a component of new assessments that all community colleges in the state would use to place under-prepared students into “developmental” English and math courses below the college level.

One goal of this recommendation is for the diagnostic information to enable faculty at individual colleges to make adjustments to their developmental curricula to better serve under-prepared students.

As California takes on this challenge, it can learn from the experiences of several states that have already developed, or are developing, statewide diagnostic tests for their community colleges. These states’ reforms are still in their infancy, and how they will play out over the long term is not yet clear. But their efforts help clarify the crucial issues for California to consider and how the ambitious reforms envisioned by the Task Force might differ from those being undertaken in other states.

This report:

1. Introduces “diagnostic assessment” and why it has attracted attention as a tool for community college reform.
2. Describes how several community college systems—Florida, Virginia, and North Carolina—are developing their own diagnostic assessments.
3. Shows that California’s proposed reforms differ because statewide diagnostic assessments would be developed without prior agreement about how the developmental curriculum should be structured.
4. Discusses practical implications related to the time needed for testing and the resources needed to use diagnostic information effectively.
5. Describes the opportunity that California colleges and K–12 schools have to better coordinate their expectations and assessments for students. Fundamental to this discussion will be the K–12 system’s recent adoption of Common Core State Standards.



## Can diagnostic assessment help improve developmental education in California?

A key challenge for community colleges is that many students are under-prepared for college-level courses in English and mathematics when they enroll. Early assessment of high school students to help them improve their college readiness before getting to college is one important area for reform both in California and nationally. Colleges are also experimenting with a variety of methods for bringing under-prepared students up to speed more effectively.

But attention is also turning to the tests that colleges use to determine how prepared students are in mathematics, writing, and reading. There is growing interest in tests that collect “diagnostic” information about what students do and don’t know when they enroll, so that colleges can provide each student with more focused and tailored support.

### COMMUNITY COLLEGES WRESTLE WITH HOW BEST TO SERVE UNDER-PREPARED STUDENTS

California’s community colleges usually require under-prepared students to take one or more “developmental” courses—sometimes called “remedial” courses—in math, writing, and/or reading. The colleges tend to offer these courses in sequences, and they must decide which courses a student should take first to be most success-

ful—whether a developmental course or an undergraduate-level course such as Freshman Composition, College Algebra, or Calculus.

As in other states, California colleges typically give assessments to incoming students, including placement tests, to sort out who is prepared to succeed in college-level courses in English and math. California requires colleges to use “multiple measures,” such as information from high school transcripts, when assessing a student so that no single test score is the sole basis for placing him or her into a course. In addition, the state has historically required colleges to validate the tests they use locally, such as to ensure that the tests fit the local curriculum.

California colleges use mostly a handful of placement tests to inform these decisions. Popular ones include the College Board’s Accuplacer, ACT’s Compass, the College Test for English Placement (CTEP), and readiness tests developed by the UC/CSU Mathematics Diagnostic Testing Project (MDTP).

Research conducted in the state by the Institute for Higher Education Leadership & Policy points to variation among colleges in how often students are assessed for placement, and how strongly placement recommenda-

tions are enforced. And researchers from WestEd and the University of California, Santa Cruz point out that colleges vary in how they communicate with students about placement testing, their policies for re-testing, and how they take into account other factors such as students’ high school transcripts. (See box on page 25 for citations.)

But clearly, based on these assessments, California’s community colleges conclude that many students are not prepared for undergraduate-level courses. According to a survey of colleges for the state’s annual *Basic Skills Accountability* report (see box on page 25 for citation), only 15% of the students that colleges assessed for fall 2009 placement in math courses qualified for freshman-level mathematics. In addition, 27% of the students that colleges assessed in writing qualified for Freshman Composition.<sup>1</sup>

Of great concern is that large numbers of students drop out of developmental education without reaching their goals. For example, California’s *Basic Skills Accountability* report shows that, among first-time students in 2002–03 who began their study of math in Pre-Algebra—the course generally considered three levels below freshman-level mathematics in California—only 14% ever completed a freshman-level math course by the end of 2009–10.<sup>2</sup>

<sup>1</sup> See Tables C1 and C2.

<sup>2</sup> See Table D1.

Given the stakes, many college leaders are concerned that at least some students arrive with strengths and weaknesses in math, writing, and reading that do not correspond neatly to the semester-length developmental courses that colleges offer. A student directed to Pre-Algebra may only struggle with a portion of the content covered in the class, but must spend valuable time reviewing topics he or she already knows. How commonly this occurs is not clear.

### “DIAGNOSTIC” ASSESSMENT— ONE TOOL FOR COMMUNITY COLLEGE REFORM?

The tests that community colleges across the nation use to place students into courses have a big job to do. They must, as efficiently as possible, summarize each student’s level of preparation in mathematics, writing, and reading, across diverse student populations and widely varying academic preparation. Given the stakes for students, there is increasing debate about how test results are used to place students, the accuracy of these placements, and whether colleges should take into account measures such as high school grades when making these decisions.<sup>3</sup>

“Diagnostic” assessments are increasingly seen as one possible tool for improving colleges’ abilities to help students succeed because they are intended to provide more specific information about what under-prepared students do and don’t know about a subject. Some such tests are available commercially, and some states have been working with vendors to develop their own.

The idea is to provide deeper insight into students’ specific strengths and

weaknesses relative to key competencies that faculty, based on their understanding of their disciplines, believe are essential to make progress toward enrolling in college-level courses. Depending on how college leaders and faculty think about the goals of the developmental curriculum and its relation to students’ later paths through community college, these competencies could be the same for all programs of study that a student might undertake, or they could vary depending on a student’s goals.

Assessing students’ strengths and weaknesses in this way requires time, and can force trade-offs between a test’s efficiency and the information that colleges hope to have at their disposal. This is because the more specific and actionable the information desired, the more diagnostic test items will be required.

There are two main ways that community colleges approach diagnostic assessment. Both assume that colleges have a diagnostic test that fits the local curriculum and provides good information about students’ specific strengths and weaknesses with respect to that content.

#### *Diagnostic Testing For Placement*

One potential purpose of a diagnostic test is to place a student into academic support that focuses on the specific areas of weakness highlighted by the test. For this to work, the narrower topics on which the test focuses must align with the available supports.

For example, if a diagnostic assessment reveals that a student is weak in a particular area of mathematics, he or she can be placed into a small course module that is designed

explicitly to focus on that content. The module might be a supplement to a larger developmental course, or the entire developmental curriculum might be broken up into such modules.

#### *Diagnostic Testing To Tailor Instruction*

Colleges can also provide diagnostic information to faculty to help them tailor classroom instruction, in light of what their students do and don’t understand about the course content.

One helpful example from California’s middle and high schools is the Mathematics Diagnostic Testing Project, or MDTP. MDTP tests have been offered to secondary schools in California since 1982 and are intended to support teachers in helping students move into and through a college-prep math curriculum. The University of California and California State University systems contribute funds to make MDTP tests and support available for free to math teachers. The various tests assess student preparation for math content ranging from pre-algebra to calculus.<sup>4</sup>

MDTP test items are designed so that each wrong answer reveals a particular misunderstanding. For example, a test item might ask students to add two fractions. The possible incorrect answers might distinguish, for example, students who do not realize they need to find a common denominator from students who do this but still answer incorrectly. Based on data about how students perform on various topics, math teachers can focus on common misunderstandings during full-class instruction or break the class up into smaller groups to focus on different needs.

<sup>3</sup> For example, see the box on page 25 for links to research from the Community College Research Center at Teachers College that explores these issues in detail.

<sup>4</sup> MDTP is also used as a placement test by various California community colleges, though the capability of the tests to provide information about how students perform in smaller topic areas and inform classroom instruction directly does not appear to have been used much. For example, in conversation and correspondence with EdSource, MaryAnne Anthony—the community college coordinator for MDTP—described a college that formerly administered the MDTP and used topic area scores to ensure that students entering Calculus had sufficient skill in trigonometry. *Learn more about MDTP here.*

# California's Student Success Task Force

RECOMMENDS STATEWIDE DIAGNOSTIC ASSESSMENTS THAT HELP FACULTY ADJUST THEIR DEVELOPMENTAL CURRICULA LOCALLY

Following months of deliberation, feedback, and revision, the California Community Colleges Student Success Task Force presented recommendations to the system's Board of Governors in January of 2012. (See the box on page 25 for citation.) The board adopted the recommendations after several hours of testimony.

The recommendations call for a "common centralized assessment" in mathematics, writing, reading, and English as a second language (ESL) that provides diagnostic information. Per the Task Force recommendation, a new statewide assessment "must be diagnostic to ensure placement into appropriate coursework and to inform local [faculty] as they design appropriate curriculum."

In other words, one key goal is for information about students' strengths and weaknesses to inform subsequent efforts by faculty to adjust their local developmental curricula, with students' actual needs more clearly in mind. For example, if a college's test data show that students typically do not need remediation in every area covered by a particular course, department faculty may decide to revise the course content or develop more targeted course modules that students take only as needed. Thus, the Task Force's goal that diagnostic

assessments would help ensure that students are placed into appropriate courses assumes that, once local students' needs are better understood, courses or other supports intended to better meet those needs will be developed if they are not already offered.

This approach is in keeping with California's tradition of local control over the developmental curriculum. Developmental course sequences vary in length among California's community colleges. For example, one college's writing sequence might have only two course levels, while another's might have twice as many. An EdSource study found that California colleges commonly offer developmental writing courses three or four levels below Freshman Composition. (See the box on page 25 for citation.)

Colleges also differ with respect to whether they teach developmental writing and developmental reading in separate course sequences or formally combine them to some degree. The same EdSource study found that about half of California colleges have offered developmental writing and reading instruction through separate course sequences in recent years. The rest have offered at least some developmental instruction that explicitly combines writing and reading, though relatively few have done this through a single integrated course sequence.

This diversity provides fertile ground for innovation, but also means local departments will undertake curriculum reform from different starting points. This diversity is also a key reason why colleges have been required to validate that their placement tests fit the local curriculum.

This raises a crucial question for California: can statewide diagnostic tests be an effective lever for improving student outcomes without knowing in advance the developmental curriculum with which they fit or the goals that will drive curricular reform?

The Task Force's proposal is part of a larger suite of recommendations. They call for colleges to require most incoming students to take the assessments, and for the system's Board of Governors to more clearly "define categories of students who should be exempt." Students would also participate in orientation services and develop individual education plans. Those needing additional academic help would participate in additional support to help them succeed, such as a learning community or a "student success course." And because knowing academic content is not all that matters for success in college, the Task Force also recommends consideration of students' "academic behaviors and habits of mind necessary for success in college."

## THE TASK FORCE RECOMMENDATION BUILDS ON MOMENTUM TOWARD A STATEWIDE ASSESSMENT SYSTEM FOR CALIFORNIA COLLEGES

Momentum toward a statewide assessment system for California's community colleges has been building for a number of years.

Recently, the state Chancellor's Office has been advocating and laying the groundwork for a centrally managed system for delivering such assessments via the Internet called CCCAssess. The Chancellor's Office produced a report on the system's feasibility in March 2011. (See box on page 25 for citation.) The report drew, in part, on feedback from 500 faculty members and student services staff on the features they would like to see in a new testing system that colleges could share, if one comes to fruition.

The Student Success Task Force identifies CCCAssess as the vehicle for developing and implementing new diagnostic assessments. CCCAssess is currently on hold with no state funding to support development or maintenance. This year, the Board of Governors is sponsoring legislation to require assessment, orientation, and educational plans for incoming students and provide funding for these services.

Rationales for such a system include that:

1. Statewide assessments would send a unified signal to K–12 schools about the skills and capabilities that community colleges expect when students enter.

2. It would provide economies of scale to reduce the per-test cost of assessing students, with the state paying all or most of the cost rather than colleges.
3. Test scores would be more portable: a student who attends more than one college could use his or her scores anywhere.
4. Students could access practice tests via the Internet. As research from WestEd makes clear (see box on page 25 for citation), students often do not know about the tests, practice for them, or receive any support to do so, and do not realize that a low score can add a year or more of additional math, writing, or reading courses to their schedules.
5. Community college counselors could access other measures of student readiness such as K–12 test scores.
6. The state could collect students' placement test results centrally.

The idea of statewide assessments has often been at odds with California's strong tradition of local control. As recently as January 2008, a task force of the system's Consultation Council—the forum through which local districts advise the state's Board of Governors on policy—described “considerable resistance” to the idea of statewide assessments and did not recommend them at that time. The group cited curricular issues, such as variability in how colleges organize their lower-level developmental curricula, as “the number one impediment

to instituting a common assessment test across the state.” (See the box on page 25 for citation.)

The Student Success Task Force's call for such tests to include diagnostic tools is, in part, intended to provide local faculty a new resource for improving their practice, thus giving them a reason to embrace a statewide assessment.

That said, whether the presence of diagnostic tools makes a statewide assessment more attractive will likely depend on how a department has approached the reform of developmental education to date. Requiring a statewide test could sideline alternative approaches such as self-placement. And some faculty whose departments offer or are experimenting with “accelerated” paths to college-level study fear that diagnostic tests could reinforce the idea that students should remediate discrete skill gaps before they can take on authentic, college-level tasks such as reading full-length works.

These efforts and others to reform how faculty think about the developmental curriculum—acceleration, contextualized learning, and so forth—have both supporters and detractors, and are far from the norm in California. But they raise a broader question about whether diagnostic tests will miss what a student could do if provided a meaningful context and support with which to do it. They also underscore the question of whether statewide assessment reform should precede reform of the developmental curriculum and its goals, and whether proceeding in this way could reinforce approaches to developmental education that some feel are ineffective.





# Lessons and Implications from Early Adopters Florida, Virginia, and North Carolina

**California is not alone** in wrestling with the idea of diagnostic assessment. So too are Florida, Virginia, and North Carolina.

These three states were early participants in the Achieving the Dream initiative, which has supported them in establishing and implementing state reform agendas, and more recently joined the related Developmental Education Initiative. These initiatives also gave leaders in the three states an opportunity to hear about system reforms being undertaken outside their borders.

Florida, Virginia, and North Carolina are each in the very early days of a major effort to redesign how they deliver developmental instruction and assess whether students need it. The ultimate results are not yet known.

These states' respective assessment reforms cannot be transplanted whole cloth to California's decentralized system of colleges. Each was founded on extensive faculty deliberation about the competencies that students need and the goals and design of the developmental curriculum. Indeed, a consistent message from these states' reforms is that much of their value comes from faculty working

together to clarify their goals for developmental education.

But Florida's, Virginia's, and North Carolina's efforts each provide a vision of how diagnostic assessments might function and be used. In addition, their reforms highlight key issues:

1. In each state, the development of diagnostic assessments was based in part on statewide reorganization of the developmental curriculum. In contrast, California's Student Success Task Force proposes that new tests will help faculty retool their curricula later on a local basis.
2. Each state faces trade-offs between efficiency and the time required to get richer information about students' specific strengths and weaknesses. This is an issue that California, with its vast number of students, must decide how to address.

This section provides an introduction to each state's reform, highlights some lessons learned, and discusses implications for California.

**Florida's 28 colleges** serve more than 887,000 students during the year across many kinds of programs. Florida's experience sheds light on how the structure of the developmental curriculum can inform which diagnostic test items are targeted to students, and the practical tradeoffs involved in doing so. The state's reforms are described in detail in a recent report published by Jobs for the Future and in documents published by leaders at the Florida Department of Education. (See box on page 25 for citations.)

In 2008, Florida's "Go Higher, Florida!" Task Force called for a statewide definition of college and career readiness. The task force brought college leaders together with K–12 principals and superintendents to consider how to improve the college readiness of students leaving Florida high schools.

The resulting Postsecondary Readiness Competencies, which postsecondary faculty developed together with K–12 teachers, formed a foundation for further reforms during the past several years, as the chart shows. These include a new placement test, statewide reform of the developmental course sequence, and new diagnostic tests.

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## *Key Florida Reform Directions Since 2008*

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### **DEVELOPED A DEFINITION OF COLLEGE AND CAREER READINESS WITH K–12**

K–12, community college, and university faculty developed Florida's Postsecondary Readiness Competencies (PRCs) in math and English to guide the state's schools. Initially completed in 2008, they were updated in 2010 to reflect Florida's adoption of the Common Core State Standards.

#### **DEVELOPED A NEW PLACEMENT TEST**

Florida developed the Postsecondary Education Readiness Test (PERT) Placement, which was introduced in fall 2010.

The test determines whether incoming students are college-ready in math, writing, and reading or should be referred to one of two developmental course levels in these subjects.

The test is computer-adaptive, which means that students see more or less difficult test items depending on how they perform.

#### **DEVELOPED COMMON DEVELOPMENTAL COURSE SEQUENCES IN MATH, WRITING, AND READING**

College faculty worked together to develop statewide developmental sequences in math, writing, and reading, each with two levels, during the latter half of 2010. The courses, which all colleges will offer as of spring 2012, focus on developmental education competencies that build toward college readiness.

Six colleges have been awarded grants to break these courses into shorter modules, using Developmental Education Initiative funds.

### **DEVELOPED NEW DIAGNOSTIC TESTS FOR STUDENTS WHO PLACE INTO DEVELOPMENTAL MATH, WRITING, OR READING—TWO PER SUBJECT, WITH ONE FOR EACH COURSE LEVEL**

In each subject, Florida developed two PERT Diagnostic tests to determine the specific strengths and weaknesses of students who are placed into developmental courses by the PERT Placement test. One diagnostic test is for students placed into the upper-level developmental course; the other is for students placed into the lower-level course.

The diagnostic tests—which were only recently introduced during the latter half of 2011—are voluntary for Florida colleges. The tests are not computer-adaptive, so that all students taking a given test are assessed on the same content.

# Florida develops a customized assessment system with optional diagnostic components

Florida leaders initially hoped a single assessment could both determine student placement and diagnose students' particular strengths and weaknesses. But this would have required a very long test.

Even without diagnostic components, the PERT Placement tests in math, writing, and reading can take more than three hours to finish altogether—longer than the system's previous assessments—according to the recent report published by Jobs for the Future. The new tests include many more items than does the former one.

Including diagnostic items in the main test would have doubled the time that students who are not college-ready would need to finish, explained Julie Alexander, the interim vice chancellor for Academic and Student Affairs for Florida's colleges, in conversation with EdSource. This is because of the number of test items required to diagnose particular strengths and weaknesses.

As a result, the PERT Diagnostic tests are separate and optional for colleges. Colleges can administer them in any proctored setting, such as a computer lab. A primary goal is for faculty to receive the diagnostic information so they can tailor instruction within the new developmental math, writing, and reading courses. Individual colleges will need to develop systems for providing these results to faculty as part of the normal flow of information.

System leaders currently do not know how many Florida colleges will use the new PERT Diagnostic tests. One

consideration is that each PERT Diagnostic test has the same per-unit cost as each PERT Placement test. As a result, if a college administers both placement and diagnostic tests to a student in all three subjects—math, writing, and reading—the college pays twice as much to assess the student.

One college that intends to use the PERT Diagnostic tests is St. Petersburg College. The college is breaking its developmental courses in math, writing, and reading into smaller modules, and intends to use the PERT Diagnostic tests to place students with particular weaknesses into the appropriate modules as needed.

Martha Campbell, dean of communications at St. Petersburg College, told EdSource that the college is currently using older tools that were already available as part of its instructional software to target the 8-week modules to students. The college has focused first on providing this option to students who score just below the college-ready level on the placement test.

Campbell says she can imagine some key ways in which the PERT Diagnostic could be helpful. For example, Florida high schools are implementing state-approved courses for high school seniors who take the PERT Placement test in 11th grade and are deemed to still need developmental support in math or English. These “transitional” courses are intended to reduce these students' need for remediation when they get to college. Campbell says the PERT Diagnostic could help St. Petersburg College determine which specific competencies

these students still need to work on so that faculty can provide targeted support to help them move on quickly.

St. Petersburg College is one of six colleges to receive a Developmental Education Initiative project grant from the state's Division of Florida Colleges to pilot smaller developmental course modules.

## SOME LESSONS LEARNED FROM FLORIDA

1. Collaboration between post-secondary faculty and K–12 teachers to establish a common definition of college and career readiness can be a first step toward designing broadly useful assessments.
2. Diagnostic assessment adds to the time that incoming students need to take tests. One way to target fewer diagnostic items to a student is to first place him or her into a particular developmental course. A diagnostic test can then dig deeper into the student's specific strengths and weaknesses with respect to the course content.
3. How colleges use diagnostic information about students—even in a system with standardized developmental course levels—may vary depending on whether they offer options for students, such as smaller course modules, that are explicitly designed to act on the information.

**Virginia's 23 colleges** provide courses to nearly 287,000 students during the year. Its recent developmental education reforms in mathematics, though in the very early stages of implementation, provide an example of how redesign of the developmental curriculum can inform the design of a new assessment system. The reforms are described in detail in a recent report published by Jobs for the Future and in documents published by the Virginia Community College System. (See the box on page 25 for citations.)

Data was a key inspiration for the changes. The report released by Jobs for the Future describes how data made visible not only the widespread need for developmental education among Virginia students, but also the need for a close look at how Virginia colleges provide it. For example, in most Virginia counties in the fall of 2006, at least 76% of students who took the state's former placement test in math were deemed unready for college-level work.

The Virginia Community College System convened a Developmental Education Task Force to put forth a new policy framework. One goal was that most students who need developmental courses should spend no more than a single year taking them. In a 2009 report, the Task Force concluded that developmental math and English should be overhauled with a fresh look at the skills and knowledge students need to be successful in higher-level courses.

Virginia tackled mathematics before English, but the logic of reform has been the same for both, as the chart shows. Virginia's approach is to "know the endgame first," said Catherine Finnegan, the state's assistant vice chancellor for Institutional Effectiveness, in an interview with EdSource: first take stock of the developmental curriculum, then design new assessments that align with and can help drive implementation of the curriculum.

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## Key Virginia Reform Directions Since 2009

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### DEVELOPED A VISION FOR RESTRUCTURING THE DEVELOPMENTAL CURRICULUM

Faculty, college leaders and administrators, and others developed general design specifications for a new developmental curriculum, consistent with the reform goals outlined by the state's Developmental Education Task Force.

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*In math, The Critical Point was released in 2010.*

*In English, The Focal Point was released in 2011.*

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### DEVELOPED NEW GUIDES THAT GET SPECIFIC ABOUT THE NEW CURRICULUM

Faculty in each discipline developed a curriculum guide that describes the learning outcomes of the new curriculum and how content is organized.

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*In math, the curriculum guide was released in early 2011.*

*In English, the curriculum guide was released in early 2012.*

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### DEVELOPING NEW ASSESSMENTS ALIGNED WITH THE REDESIGNED CURRICULUM

Faculty specify what's required of a new assessment aligned with the curriculum guide, and work with the vendor to develop it.

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*In math, the new assessment was fully rolled out in fall 2011, for student placement into the new curriculum in spring 2012. The test includes both placement and diagnostic components.*

*In English, a new assessment that integrates writing and reading is under development. The placement test will include a writing sample. However, it will not include diagnostic components.*

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## Virginia implements a new diagnostic assessment for placement in mathematics after redesigning the developmental curriculum

In math, Virginia colleges recently began offering developmental instruction through a series of nine one-unit modules that each focus on a narrow range of math skills and concepts.<sup>5</sup> The modules focus on content ranging from fractions to quadratic equations. Some colleges provide them in a computer lab setting, and others do so in classrooms. There is also a basic skills module that focuses on whole numbers for students who are very unprepared and need Adult Basic Education services.

Which modules students take depends on their assessment results and academic goals. Students take only those modules that focus on math content they still need to learn, as determined by the new assessment.

In addition, students take only the modules required for their particular courses of study. Math faculty came to the conclusion that not all academic goals require the same mathematics background.

1. Liberal arts students are required only to prove mastery of the first five modules, ideally within a single semester.
2. Science, engineering, math, and business administration students are required to fulfill all nine, ideally within two semesters.

3. The requirements for career-technical students vary by program.

The new math assessment that Virginia colleges now use to direct students to the new curriculum is comprised of two interwoven components: a placement component and a diagnostic component.

1. The placement component, which is computer-adaptive, provides a broad estimate of whether a student has mastered the content that is the focus of a particular set of modules.
2. If not, the diagnostic component drills deeper to find out whether the student should be directed to any of those modules for extra work. These diagnostic components are not computer-adaptive, so that students are tested on the same content.

The assessment system focuses first on modules 1–5 and then on modules 6–9, and students' routes through the different test components vary depending on how they perform and their intended program of study. For example, students who have already declared a liberal arts major can stop after being assessed on the first five modules.

In some cases, students who are very unprepared on the initial placement items are given a diagnostic test to determine whether they should be referred to the basic skills module on whole numbers. At the other end of the spectrum, students who prove themselves very well prepared can place out of the first college-level math course and enter trigonometry or calculus directly.

Virginia will assess the results of its math reforms to date, such as their impact on students and staff, during the first half of 2012. Already clear is the importance of training for testing centers on implementing new tests. Also clear is that the new test is longer, though the time required varies depending on how a student performs and his or her program of study. The former off-the-shelf math placement test, which assessed students' math understanding at a more general level, required 20–25 minutes for students to complete. On average, the new math assessment takes 1½ hours.

Virginia's assessment in English is under development. It will not include a diagnostic component, but the placement test will include a writing sample.

Unlike in mathematics, the developmental English curriculum will not be broken into modules. Faculty will teach writing and reading together, and have defined eight learning out-

<sup>5</sup> Modularized instruction has also been a focus of reform at colleges in Tennessee. For example, see the efforts of Jackson State Community College and their implications for assessment, as part of Tennessee's *Developmental Studies Redesign Initiative*.

comes for students' time in developmental English. There will be three paths to college-level College Composition, and Virginia intends that its new English placement test will refer students to these different paths based on the entry-level competencies required for each.

1. Students who score just below the college-ready cut-score on the new English assessment will be accelerated directly into College Composition and simultaneously enrolled in a two-credit “bridge course” for extra support.
2. Students who need a moderate amount of extra work in writing and reading will take a four-unit developmental course. At the end of the term, faculty will recommend whether the student should move on directly to College Composition or enroll in both College Composition and a bridge course.
3. Students who need the most extensive extra work will take an eight-unit developmental course. Again, how students access College Composition at the end of the term—with or without a bridge course—depends on faculty recommendations.

### SOME LESSONS LEARNED FROM VIRGINIA

1. Virginia set out goals for student progress—such as that students should typically spend no more than one year in developmental education—that guided its curriculum and assessment reforms.
2. Virginia first designed new developmental math course modules—to “know the endgame first”—and then designed diagnostic tests to place students into the modules as needed.
3. One way of targeting fewer diagnostic items to a student—and potentially save testing time—is to first use a placement test to figure out whether diagnostic testing on a given range of competencies is warranted. Within such a framework, well-prepared students can place into college-level courses without spending any time on diagnostic testing for lower-level competences.
4. Virginia decided that the math competencies a student needs for later success differ depending on his or her program of study. One implication is that some incoming students are able to spend less time on diagnostic testing, if needed.





**North Carolina's 58 colleges** serve about 850,000 students during the year. The state has not yet implemented a new assessment system, but its proposal for one provides another perspective on how diagnostic testing might take place. (See box on page 25 for more information.)

Like Virginia, North Carolina is tackling math first. Input gathered in 2010 for the system's larger SuccessNC initiative revealed concern about students' poor prospects if they ended up in developmental math courses. Stakeholders believed that students might be better positioned to finish developmental math—and do so more quickly—if they could focus only on the particular skills and knowledge on which they still need to work.

North Carolina's reforms are in their very early days in developmental math, and only just beginning in developmental English. But the process of reform is similar to Virginia's, as the chart shows.

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## *Key North Carolina Reform Directions Since 2010*

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### **DEVELOPED A VISION FOR REDESIGNING THE DEVELOPMENTAL CURRICULUM AND MOVING TO NEW ASSESSMENTS**

North Carolina's Developmental Education Initiative state policy team—composed of appointed faculty, deans, academic and student development officers, college presidents, the superintendent of the state's Department of Public Instruction, and others—approved principles for redesigning developmental courses into modules and moving to diagnostic assessments.

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*In math, redesign principles were adopted in October 2010.*

*In English, redesign principles were adopted in May 2011.*

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### **GETTING SPECIFIC ABOUT THE NEW CURRICULUM**

Faculty nominated from across the state design the new curriculum.

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*In math, draft curriculum modules were completed in the summer of 2011.*

*English to follow.*

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### **DEVELOPING NEW ASSESSMENTS ALIGNED WITH THE CURRICULUM**

At this writing, North Carolina is seeking a vendor for a new diagnostic assessment system.

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*In math, the goal is for a common diagnostic assessment to be available by summer 2013, by which time the new curriculum modules will be implemented across the system.*

*English to follow.*

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# North Carolina calls for an exclusively diagnostic assessment

As in Virginia, developmental math will be offered through small course modules. They address content ranging from operations with integers to radical expressions and equations, and are intended to emphasize conceptual understanding and how math is used in context. Students will exit developmental math at different points depending on which college-level math courses they plan to take. For example, Precalculus will require students to complete more modules than will Statistical Analysis or Applied Mathematics I.

The new math modules will not be implemented statewide until as late as the summer of 2013, though some colleges are piloting them now. Cynthia Liston, North Carolina's associate vice president for Policy Research and Special Projects, told EdSource that her state's modular redesign reduced the size of the developmental math curriculum by about 30%, mostly because faculty identified and eliminated redundant topics among multiple courses.

North Carolina has issued a request for proposals (RFP) to build a new assessment system, first in math and later in English. The primary goal of the new assessment is to collect the information that colleges will need to place students into appropriate course modules.

North Carolina's vision differs from Florida's and Virginia's. In those states, the first step in the assessment process is to broadly estimate a student's level of preparation using a placement test. If a student appears to need extra help,

diagnostic testing of specific strengths and weaknesses related to particular parts of the curriculum can follow.

North Carolina's goal is to go directly to diagnosing students' specific strengths and weaknesses with respect to the various curriculum modules and place students into them as needed, without giving them a more general placement test first. This decision is intended, in part, to reduce the time that many students might need for testing. The decision is also informed by research that shows many students who are placed into developmental classes by a more general placement test would have done well in college-level classes, while others who might be deemed "college-ready" actually do have specific things they still need to work on.

Brad Bostian of Central Piedmont Community College, in correspondence with EdSource, explained that North Carolina's approach could result in more students being identified as needing at least some developmental education. But because the curriculum will be divided into small modules that students take only as needed, many students may need less time to finish it.

The envisioned assessment will take longer for North Carolina students to complete than is currently the case. The RFP specifies that testing should normally take no longer than three-to-four hours for both math and English, including a computer-scored writing sample. This compares with an average of about one hour and 45 minutes overall using the current assessments

for these subjects, though some students need more time.

North Carolina is also exploring how colleges might consider other measures of college readiness, such as high school transcript information, when placing students.

## SOME LESSONS LEARNED FROM NORTH CAROLINA

North Carolina is in an earlier stage of reform than Florida or Virginia, and thus many lessons from the state about diagnostic assessment are not yet known. But North Carolina's ideas already raise important considerations:

1. A state need not take on assessment reform in every subject area on the same schedule. As in Virginia, North Carolina focused on mathematics first.
2. North Carolina hopes to go directly to diagnosing students' specific strengths and weaknesses with respect to key competencies, rather than first administering a more general placement test. This approach makes sense because multiple curriculum modules will be available to act on the information.
3. Similar to Virginia, North Carolina decided that the math competencies a student needs for later success differ depending on which college-level math course a student plans to take.

## California's reforms would develop statewide diagnostic assessments without prior agreement about how the developmental curriculum should be structured

Florida's, Virginia's, and North Carolina's reforms share an important feature: agreement about the structure of the developmental curriculum was key for designing diagnostic assessments that colleges could share. Whether a two-level sequence or a series of small modules, this agreement about the structure of the curriculum provided a common basis for deciding which topics need diagnostic attention, how these topics relate to one another, and even which students should be tested in each of these areas.

The vision of California's Student Success Task Force differs. California would not first revamp its approach to the developmental curriculum and then align new diagnostic tests with a new approach. Rather, faculty would use the information produced by a new diagnostic test, along with other "multiple measures," to retool their developmental courses at a later stage in their own colleges.

This vision respects California's tradition of local control over the developmental curriculum, with developmental course sequences around the state varying in length and with respect to whether they formally integrate writing and reading to some degree. Thus, local departments will undertake curriculum reform, if they

choose, from different starting points. As discussed earlier, for at least some faculty, these starting points will raise questions about the value of a statewide diagnostic assessment, particularly to the extent they worry that statewide assessment reform without clear curricular goals could reinforce approaches to developmental education they feel are ineffective.

California's challenge will be to devise a process whereby representative groups of faculty collaborate and agree on the essential competencies on which diagnostic assessments in their respective fields should focus, granting that their local curricula may address these in different ways. In some cases it may not be obvious at the outset how a college can or should act on the information the diagnostic tests provide.

The Intersegmental Committee of the Academic Senates of California's three public postsecondary systems has developed statements on the literacy and mathematics competencies expected of incoming college students that can inform this conversation. (See box on page 25 for citation.) So too can California's new K–12 Common Core State Standards, discussed later, inform the effort.

Colleges with different approaches to

developmental education may need flexibility to target diagnostic items in the way that best fits their local circumstances. For example, Florida and Virginia target specific diagnostic items to students based on how they perform on placement tests. For California colleges to do the same in the absence of statewide agreement about the developmental curriculum, they would need to be able to target diagnostic items differently.

Ultimately, the worth of the enterprise will hinge on whether local faculty in California *do* use diagnostic information, if available, to make curricular changes that lead to wider student success in their colleges. This will require evaluation of results.

Finally, in light of Virginia's example, another potential topic for discussion is whether the competencies needed to make progress toward enrolling in college-level courses are the same or different depending on a student's preferred program of study. California's Student Success Task Force emphasizes the importance of students declaring a program of study, in order to set out clearer educational pathways and build early momentum in college. California leaders and faculty may wish to consider whether a student's declared program of study should have any bearing on the diagnostic test items that he or she sees.

## *California's community colleges will need to consider the time needed for testing and resources to use diagnostic information effectively*

California's Student Success Task Force acknowledges that it will take substantial resources and coordination of local actors to administer diagnostic assessments broadly, help students develop individual education plans, and provide support services when needed.

The assessment reforms of Florida, Virginia, and North Carolina show that, though diagnostic tests provide more specific information about what students do and don't know about a subject, they come at a price: the extra time it takes for students to take the tests. California's community colleges will need to consider how much time students should spend taking tests and how their campus testing centers will accommodate it.

If departments wish to use diagnostic information to tailor in-class instruction to students' actual needs, col-

leges will also need to establish processes for providing this data to faculty and support them in using it. The CCCAs-  
sessment feasibility report described earlier notes that math faculty largely support this use of diagnostic information, but that some student services professionals worry this could "lend itself to bias against some students." Faculty could also potentially provide diagnostic information to students to help them set and meet clearer learning goals.

If the goal is to help faculty make adjustments or even large revisions to their local curricula as needed, colleges will need to provide institutional research support and time for faculty to review diagnostic data, make sense of it, and evaluate the outcomes of curricular reforms that result. In this work, faculty could benefit from opportunities to find out what other colleges are learning and trying.

### *How do different disciplines view diagnostic assessment in California?*

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According to the statewide Chancellor's Office *report on the feasibility of a statewide assessment system*, many community college math faculty in California are interested in a test with diagnostic capabilities. The report noted that, compared with writing and reading, math skills can be more easily addressed as discrete topics for diagnostic assessment. (This does not mean that everything that matters for success in math, such as the disposition to see mathematics as sensible and oneself as capable in the subject, fits this description.)

The report noted more uncertainty about whether writing, reading, and English as a second language "lend themselves to diagnostic testing to the same degree." Faculty see these skills as tightly interrelated and not always amenable to test items with a single correct answer. Faculty highly value writing samples as a diagnostic tool that could bring these skills together, but these can be expensive to offer, especially if they require time for faculty to grade them. According to the report, faculty expressed interest in a test that bridges writing, reading, and ESL and includes a computer-scored essay feature.

# California's community colleges and K–12 schools have an opportunity to coordinate their expectations and assessments

The decisions that California's community colleges make about a state-wide assessment system will send a signal to K–12 schools about what faculty think matters for college readiness. Ideally, one result would be greater clarity among K–12 leaders and teachers—and among students themselves—about the preparation needed for community college.

Meanwhile, California's K–12 system is also undertaking its own reforms related to college readiness. That makes this a key moment for the K–12 and community college systems to consider how best to bridge their expectations for students and the assessments they use to evaluate performance, and minimize any mixed signals that students who make the transition between the two systems receive. But this will take substantial coordination.

The California Community Colleges Student Success Task Force points to this challenge directly. Its first recommendation is that the state's community college and K–12 systems develop “common standards for college

and career readiness that are aligned with high school exit standards.”

This section provides basic background on the ongoing K–12 reforms, and highlights opportunities for engagement between colleges and schools.

## **CALIFORNIA HAS ADOPTED NEW K–12 CONTENT STANDARDS IN ENGLISH AND MATHEMATICS, AND WILL SOON HAVE NEW STATE ASSESSMENTS**

In 2010, the California State Board of Education adopted new academic content standards in English language arts and mathematics. These lay out what students are expected to know and be able to do at each grade level. The new expectations grew out of the Common Core State Standards initiative, which was intended to develop a set of specific, clear, rigorous standards that states can share. Most states have adopted the Common Core standards in both subjects, often (as in California) with modifications.

A key part of California's transition

to the Common Core is the design and implementation of a new generation of state assessments. To this end, California is a voting, or “governing,” member of the Smarter Balanced Assessment Consortium.

Smarter Balanced is one of two consortia of states to which the U.S. Department of Education awarded competitive grants to develop new assessment systems aligned with the Common Core State Standards. The consortium's goal is to develop tests that provide a basis for school accountability and also help inform and improve instruction. Development of the new tests is in the early days, but Smarter Balanced is moving quickly: the new assessments are expected for the 2014–15 school year.

Smarter Balanced will develop computer-adaptive, summative assessments in English language arts and mathematics in grades 3–8 and 11 that students will take during the spring. The tests are intended to determine the extent to which students are developing capacities they need to succeed in college or career (see chart).

*The summative assessments currently being developed by the Smarter Balanced Assessment Consortium are intended to determine the extent to which students are developing capacities to...*

**IN MATHEMATICS**

1

Explain and apply mathematical concepts and interpret and carry out mathematical procedures with precision and fluency.

2

Solve a range of complex, well-posed problems in pure and applied mathematics, making productive use of knowledge and problem-solving strategies.

3

Clearly and concisely construct viable arguments to support their own reasoning and to critique the reasoning of others.

4

Analyze complex, real-world scenarios and construct and use mathematical models to interpret and solve problems.

**IN ENGLISH LANGUAGE ARTS**

1

Read closely and analytically to comprehend a range of increasingly complex literary and informational texts.

2

Produce effective and well-grounded writing for a range of purposes and audiences.

3

Employ effective speaking and listening skills for a range of purposes and audiences.

4

Engage in research and inquiry to investigate topics, and to analyze, integrate, and present information.

**Claims\* from:**

*Content Specifications for the Summative Assessment of the Common Core State Standards for Mathematics, December 2011 version.*

**Claims\* from:**

*Content Specifications for the Summative Assessment of the Common Core State Standards for English Language Arts and Literacy in History/Social Studies, Science, and Technical Subjects, January 2012 version.*

*\* The Smarter Balanced content specifications describe these instructional goals as “claims” about student competency that the new assessments will seek to confirm. At this writing, the claims for mathematics had not yet been approved formally by the consortium’s governing states.*

**If implemented as envisioned, the Smarter Balanced summative assessments will be a big change from the tests California currently administers. California's current tests, called the California Standards Tests, are composed almost entirely of multiple-choice items.**

In contrast, the Smarter Balanced assessments will gauge student mastery of the Common Core standards through a mixture of:

1. **Selected-response items**, such as multiple-choice questions that ask students to choose from among a given set of options.
2. **Constructed-response items** that require students to develop their own answers. This would include longer items that require students to explain their reasoning.
3. **Technology-enhanced items** that require students to interact with information presented through audio, video, or simulations.
4. **Performance tasks** that require students to respond to a real-world scenario. For example, one sample task describes a family's efforts to figure out how much they saved on their energy bills as a result of new insulation and window sealing. Using the information provided, students must estimate the family's savings and decide whether the new insulation and window sealing

were ultimately cost-effective, and provide evidence for their reasoning.

In addition, although the design has not yet been finalized, Smarter Balanced may offer local educators the option to administer mid-course or "interim" assessments using a collection of test items. Schools could do this voluntarily to provide teachers with more information during the school year about how their students are progressing. The consortium will also provide access to formative assessment tools that schools can use during the year.

Some community college leaders in California initially hoped that these new K–12 assessments—such as the proposed Smarter Balanced interim tests—would provide colleges with helpful diagnostic information about incoming students. But the interim assessments will be voluntary. And even if they were required, Deputy State Superintendent of Public Instruction Deborah V.H. Sigman told EdSource, the tests are not being designed for the purpose of providing such information to colleges. Sigman leads the California Department of Education's District, School, and Innovation Branch, which includes assessment and accountability.

## THE SMARTER BALANCED SUMMATIVE TEST FOR 11TH GRADE COULD PROVIDE A NEW COLLEGE READINESS BENCHMARK

Even so, the new summative assessments are being designed with higher education very much in mind. Smarter Balanced hopes colleges and universities will accept "college-ready" scores on the 11th grade tests as proof that students do not need developmental education. Agreement from higher education institutions to help design the assessments with this in mind was a condition for the federal grant that supports the consortium's work.

California's Early Assessment Program, or EAP, is a model for this. Offered for the first time in spring 2004, the EAP began as a partnership between California State University (CSU), the California Department of Education, and the State Board of Education.

Using expanded versions of several California Standards Tests offered to 11th graders, the EAP provides early feedback to students who choose to participate, in advance of their senior year, about their readiness for college in math and English.

Using the EAP, CSU exempts from

placement testing any student who achieves a college-ready score. As of the end of February 2012, more than 70 community colleges in the state do the same or are considering it in at least one subject.<sup>6</sup> The EAP is not intended to provide diagnostic information: it simply provides an indicator of whether a student is college-ready. But students who are deemed not ready for college can prepare for placement testing by, for example, taking a specially designed course in expository reading and writing during their senior year, if their schools offer it.<sup>7</sup> (One concern is that students who are far behind their peers likely need much earlier interventions to substantially improve their prospects for achieving college readiness.)

In 2010–11, 86% of California 11th graders participated in the EAP for English, and 80% of eligible 11th graders participated in the EAP in mathematics, according to CSU.<sup>8</sup> Because of how the California Standards Tests for mathematics are administered, only 11th graders who have reached at least Algebra II—about half of California 11th graders in 2010–11, according to state testing data—are eligible to participate in the EAP in math. Thus, many students—arguably including many who will need more developmental support in math when they get to community college—cannot receive EAP feedback.

The EAP and the California Standards Tests are based on California’s

old content standards, not the Common Core. The Smarter Balanced 11th grade assessments are intended to provide a new measure of college readiness. Although states and colleges will need to decide how these test scores will be used, one possibility is that students achieving a “college-ready” score would not need to take a placement test when they enroll in college, similar to the EAP. And ideally, interventions offered to under-prepared students during high school would reduce their later need for developmental instruction when they arrive on campus and take a diagnostic test.

For this to work, faculty must be confident that the Smarter Balanced tests focus on what they think is most important. To facilitate higher education involvement, “Higher Education Leads” have been designated for each Smarter Balanced state. This group meets regularly and coordinates higher education involvement from their respective states.

California has three higher education leads: one representing the California Community Colleges, one representing the California State University, and another representing the University of California. A key role of these individuals is to ensure that faculty participate by, for example, giving feedback on test goals and items. In California, leaders from the state’s K–12 and postsecondary systems also meet to coordinate. Potentially, these

connections could create opportunities for community college leaders and faculty, as they look ahead toward their own new assessments, to draw from the expertise of those working on the Smarter Balanced tests.

Whether California will mandate that all community colleges accept the new 11th grade test scores as evidence of college readiness is not clear.

#### **A KEY ISSUE IS WHETHER CALIFORNIA’S COMMUNITY COLLEGES AND SCHOOLS WILL COORDINATE AROUND THE SAME VISION OF COLLEGE AND CAREER READINESS**

Fundamentally at issue is whether California’s community colleges and K–12 schools will share a common vision of college and career readiness.

Some researchers have tried to address whether the Common Core State Standards measure up to the demands of entry-level college courses and workforce preparation programs. For example, David T. Conley and his colleagues asked instructors at four-year and two-year institutions around the nation to rate the applicability and importance of the high school Common Core standards for such courses. The researchers concluded that “students who are generally proficient in the Common Core standards will likely be ready for a wide range of postsecondary courses.” (See box on page 25 for citation.)

<sup>6</sup> See the statewide Chancellor’s Office’s list of *California community colleges accepting EAP scores*.

<sup>7</sup> In 2010–11, about 375 high schools had adopted this course and many others had integrated parts of it within existing courses, according to CSU. See EdSource’s *2011 Resource Cards on California Education*, Card 13.

<sup>8</sup> See <http://eap2011.ets.org/>.

But California’s college faculty and K–12 leaders and teachers must ultimately answer this question for themselves. The Student Success Task Force recommends that the two systems develop “common standards for college and career readiness that are aligned with high school exit standards.” The recommendation is reminiscent of Florida’s effort to develop its Postsecondary Readiness Competencies for college and career readiness.

At stake would be not only the Common Core standards, but also the competencies befitting incoming college students that California’s postsecondary academic senates have already articulated, noted earlier. Bridging these expectations such that neither the K–12 nor the community college systems feel imposed upon by the other will be a key challenge.

If undertaken, the work could raise questions about California’s formal exit standards for high school, and about students’ course-taking patterns in high school. For example, the state’s minimum requirement that students pass Algebra I to graduate from high school falls short of the preparation needed for undergraduate-level mathematics. And even students who pass Algebra II in high school but take time off from studying math can be surprised when they are placed into developmental math. The work could also raise questions about whether college readiness and career readiness are, in fact, the same. Although both are intended outcomes of the Common Core State Stan-

dards, how career readiness should be defined is less clear.<sup>9</sup>

Other aspects of Common Core implementation provide further opportunities for coordinating the expectations of community colleges and high schools. For example, the Student Success Task Force calls on college faculty to work with K–12 to ensure that any new diagnostic assessments adopted for community colleges do not work at cross-purposes with the new standards and assessments that will guide California schools.

In addition, new content standards require new curriculum frameworks, which guide instruction in California schools and set goals for instructional materials. Recent legislation requires the State Board of Education to adopt a new curriculum framework for mathematics by the end of May of 2013, and for English language arts by the end of May of 2014. Community college leaders hope to play a role in developing these curriculum frameworks, according to Sonia Ortiz-Mercado of the statewide Chancellor’s Office.

The State Board of Education will also vote on new English Language Development standards consistent with the Common Core by the end of September 2012. And the California Department of Education is revising the state’s model curriculum standards for career technical education to align these with the Common Core.

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<sup>9</sup> See further discussion in EdSource’s *California and the “Common Core:” Will There Be A New Debate About K–12 Standards?*, which explored key issues in the lead-up to California’s adoption of the Common Core State Standards.





# Conclusion

The California Community Colleges Student Success Task Force identifies diagnostic assessment as a potential tool for improving student success. A fundamental question now facing California is whether statewide diagnostic assessments can be an effective lever for improving student success, especially because the state's community colleges differ in how they structure the developmental curriculum and think about its goals. A closely related question is whether assessment reform, including the design of new diagnostic assessments, should precede reform of the developmental curriculum and its goals.

Also at stake is whether the respective assessment reforms undertaken by California's community college and K–12 systems will be guided by consistent academic goals for students as they move from one system to the next.

California's Student Success Task Force lays out a broad vision for reform of the state's community colleges, including new strategies for assessing incoming students. The reforms being instituted in other states should help inform what California does next. Now the task for community college leaders, administrators, and faculty is to get specific about what new assessments with diagnostic components can and should look like—and about how colleges will use diagnostic information to improve their developmental curricula with the ultimate goal of increasing student success across the system.

# Learn More

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# Acknowledgments

LearningWorks and EdSource thank the following people for their assistance and time during the development of this report. Individuals listed with an asterisk (\*) participated in a 30–60 minute interview by phone, either individually or with colleagues.

**Julie Alexander,\*** Interim Vice Chancellor for Academic and Student Affairs, Division of Florida Colleges, Florida Department of Education

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**Bruce Arnold,** Director for the Mathematics Diagnostic Testing Project (MDTP)

**Rose Asera,** independent researcher and evaluator

**Shanna Autry,\*** Coordinator of Academic Program Support, Division of Florida Colleges, Florida Department of Education

**Brad Bostian,** Director for First-Year Experience, Central Piedmont Community College (North Carolina)

**Cassandra Brown,\*** Coordinator of Postsecondary Readiness, Division of Florida Colleges, Florida Department of Education

**Pamela Burdman,\*** independent consultant

**Martha Campbell,\*** Dean of Communications, St. Petersburg College (Florida)

**Jimmy de la Torre,\*** Associate Professor, Rutgers, The State University of New Jersey

**Bonnie Edwards,\*** Telecommunications and Technology, California Community Colleges Chancellor's Office

**Catherine Finnegan,\*** Assistant Vice Chancellor for Institutional Effectiveness, Virginia Community College System

**Edward Haertel,\*** Jacks Family Professor of Education, Stanford University

**Brice W. Harris,** Chancellor, Los Rios Community College District (California)

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**Sonia Ortiz-Mercado,\*** Student Services and Special Programs Division, California Community Colleges Chancellor's Office

**David Morse,\*** English Department, Long Beach City College (California)

**David Rattray,\*** Senior Vice President for Education and Workforce Development, Los Angeles Area Chamber of Commerce

**Matthew Schultz,\*** Director of Psychometric Services, McCann Associates

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## Credits

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**Design** Donna Choi