

California and the “Common Core”

Will There Be a New Debate About K–12 Standards?

HIGHLIGHTS

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A growing chorus of state and federal policymakers, large foundations, and business leaders across the country are calling for states to adopt a common, rigorous body of college- and career-ready skills and knowledge in English and mathematics that all K–12 students will be expected to master by the time they graduate.

Supporters of the concept assert that such common standards would ensure that students had more opportunities upon graduating from high school, make the country more competitive in the global economy, and allow states to learn from one another and share costs in areas such as textbooks and test development.

The Common Core State Standards Initiative (CCSSI) is an effort led by the National Governors Association and the Council of Chief State Schools Officers to establish such a set of standards. The U.S. Department of Education is promoting the initiative through its Race to the Top (RTT) grant program, which gives points to states that adopt common standards (not necessarily the CCSSI).

In its effort to compete for an RTT grant, California enacted a law in January 2010 that requires the State Board of Education to consider adopting the Common Core as the centerpiece of the state’s K–12 academic content standards. The board will need to consider several questions: Are the Common Core standards better than California’s existing, highly rated standards, and based on what evidence? Should the state endorse *one* set of expectations for all high school graduates? Can California afford to implement the standards and how would it do so? Can it afford *not* to if the vast majority of other states implement them?



Some see room for improvement in the academic expectations that states have set

In the 1990s, a growing number of states began setting out specific expectations for the academic knowledge and skills that all public school students should acquire. In California, these expectations—or academic content standards—generally represented a level of knowledge and skills beyond what most students were mastering and thus were goals for educators and students to work toward. Standards are intended to focus the education system on what students learn rather than inputs in the education process—for example, class size or how the school day and year are organized.

The Common Core is the latest in a series of efforts to create common standards

The federal government encouraged states' efforts to establish content standards in the 1990s. For example, two pieces of federal legislation enacted in 1994—Goals 2000 and the Improving America's Schools Act, the precursor to the No Child Left Behind Act—encouraged states to develop content standards and help students master them.

In addition, the Clinton administration proposed voluntary national tests. However, this proposal met serious political resistance partly because it appeared to some as excessive federal intrusion into education, and Congress ultimately rejected the idea.

Another controversial federal effort was the U.S. Department of Education's funding of groups to develop voluntary standards in English language arts, science, history, civics, geography, foreign languages, and the arts. The goal was the development of documents akin to *Curriculum and Evaluation Standards*, which the National Council of Teachers of Mathematics had published in the late 1980s to define an educational philosophy and curricular direction for math. The work of these groups did not garner consensus because of disagreements over:

- the standards' level of prescriptiveness;
- views of teaching and learning, with some emphasizing the mastery of discrete content incrementally and others believing that knowledge cannot be easily assessed outside a specific context or be broken into separate pieces;

- the subjects that standards should be based on—e.g., social studies broadly versus subdisciplines such as history and civics; and
- specific issues within disciplines—e.g., the teaching of evolution in science and the use of calculators in math.

Although the failure of these two national efforts did not eliminate some education stakeholders' desire to establish a set of standards and tests across states, they influenced federal policymakers' approach to content standards. For example, the current version of the federal Elementary and Secondary Education Act (ESEA), enacted as the No Child Left Behind Act (NCLB) in 2002, conditioned states' receipt of substantial federal funding on establishing standards, annually assessing students' proficiency on those standards, and holding schools accountable for helping an increasing percentage of students demonstrate proficiency each year. The federal legislation left it to individual states to determine the focus, content, and rigor of their K–12 academic content standards. NCLB also allowed states to define what level of performance a student must demonstrate to be considered proficient.

U.S. Secretary of Education Arne Duncan and representatives of several national organizations see the variety of content and performance standards throughout the country as a “crazy patchwork,” with many states having learning expectations that lack rigor, specificity, and focus. The strong standards of California and some other states

notwithstanding, evidence suggests that these concerns have some validity.

Some call the variety of academic expectations among states a “crazy patchwork”

Research has shown that states vary substantially in the content of their standards. For example, in a 2008 study entitled *Is there a de facto national curriculum? Evidence from state content standards*, researchers from the University of Pennsylvania and the University of Wisconsin-Madison found relatively low agreement among states in what material they hope students will master. In their study, Andrew Porter, Morgan Polikoff, and John Smithson describe the results of fine-grain analyses of the specific topics and skills covered in a subset of states' K–8 standards in language arts, math, and science. The analyses were conducted between 2003 and 2007.

When focusing on grades 4 and 8, the research team found low alignment in the English and math content standards of 14 states and in the science standards of 13 states. For each grade and subject, the researchers' calculation of alignment would have yielded a 1.0 if all states had had the exact same standards; however, their analyses yielded average alignments of 0.20–0.27 depending on the grade and subject. To test whether requiring grade-specific alignment was a major cause of the low rates, the researchers looked at standards across all K–8 grades. (For example, they looked to see whether some states covered a particular topic in second grade while

others covered it in first or third grade.) Under this “looser” approach, the rate of alignment increased to 0.33 in science, 0.47 in math, and 0.53 in language arts. Even those increased rates of alignment, however, indicate that states vary considerably in the specific topics they cover in their standards.

Many states' content and performance standards are low in rigor

With state content standards, “rigor” can refer to several different elements. One is the point at which topics are introduced to students—for example, the grade at which the standards call for Algebra I to be taught. Another is the highest level of a subject covered—for example, whether the math standards go through calculus. Also important are the individual standards within a subject area or course, such as whether the standards for intermediate algebra cover just the basics or go into material that will prepare a student for calculus.

Rigor can also refer to the level of performance expected of students when tested on the content standards. For example, a test question on a relatively basic topic could be very subtle, with the correct answer difficult to discern. In contrast, a test item on an advanced topic could have incorrect choices that are obviously not plausible, leaving the correct answer relatively easy to see. In addition, the percent of correct answers required to be considered proficient in a subject could be set at a low, medium, or high level.

Ratings by the Thomas B. Fordham Foundation lend credence to the claim that many states' content standards are not rigorous. The Fordham Foundation believes in raising standards, increasing school accountability, and expanding educational choices for families. In Fordham's 2006 ratings, few states received high marks under the foundation's amalgamated criteria, which pertain to clarity, structure, scope, and rigor. A total of 37 states (and Washington, D.C.) received a grade of C- or lower.

States' performance standards are not uniformly high either. (Some people refer to performance standards as “cut scores,” which are the test scores associated with labels

such as advanced, proficient, basic, or below basic.) Many believe that some states have maintained a low bar because NCLB penalizes schools and districts for repeated failure to make “adequate yearly progress” on the percentage of students deemed proficient on state standards tests.

Data from the Northwest Evaluation Association (NWEA), a nonprofit assessment organization, show that some states make it rather easy for students to be labeled proficient. NWEA analyzed data from 830,000 students in 26 states who took both their respective state exams and NWEA's Measures of Academic Progress (MAP), which covers reading, math, language, and science. Taking into consideration the difficulty of questions asked on both tests, NWEA found that the scores needed to be considered proficient on state exams ranged from the 6th to the 77th percentile on the MAP, with some variation by grade and subject tested.

Some observers think the content and performance standards of some states will not prepare students for the requirements of college and jobs that pay enough to support a family and provide opportunities for advancement. Those with this critical view often couch their concerns in terms of international competitiveness. They say America's ability to succeed in the global marketplace is jeopardized by not producing high school graduates with strong skills and knowledge, particularly in English language arts and math.

The American Federation of Teachers finds many states' standards lacking in specificity

According to both Fordham and the American Federation of Teachers (AFT), many states do not provide teachers with specific enough guidance on student learning objectives. Fordham's 2006 report stated: “Too many states still produce vague platitudes instead of clear expectations.” And AFT's 2008 review of state standards called for clear standards for every grade and subject. Part of its description of “strong” standards stated: “In general, strong content standards provide clear guidance to teachers, curriculum and assessment developers, textbook publishers, and others, so that one person's interpretation

of the central knowledge and skills students should learn at a particular grade will be comparable to someone else's.” In the AFT's ratings, only 23 jurisdictions met its composite criteria for clarity, specificity, and content in at least seven of 12 categories (four subjects—English, math, science, and social studies in each of three grade-span levels—the elementary, middle, and high school levels).

A survey of teachers from across the country (including 3,285 California teachers) indicates that many teachers see room for improvement in the clarity of their state's standards, according to a March 2010 report by the survey's sponsors, the Bill & Melinda Gates Foundation and Scholastic, a for-profit publishing, education, and media company. In the average state, 55% of teachers thought the content standards were not clear enough.

According to the Fordham Foundation and nearly half of classroom teachers, some state standards are not sufficiently focused

In addition to problems with rigor and clarity, some state standards also lack focus—a problem that some refer to as being “a mile wide and an inch deep.” These critics are concerned that when states require too many standards, teachers can cover them only superficially, lessening students' mastery of key skills. Fordham's review of state standards found this to be a common problem: “Kitchen-sinkism is alive and well, as states refuse to make choices and instead develop encyclopedic standards that no teacher could possibly cover in the course of a year.”

The Scholastic/Gates survey also indicated that some states may have an unrealistically high number of standards. The average percentage of a state's teachers who think their state has too many standards is 48%.

And research by ACT, a nonprofit testing and education research organization, provides evidence that *high school* teachers in particular might benefit from clearer signals about which topics should receive priority in their instruction. ACT's 2005–06 national curriculum survey showed that high school teachers in all content areas tend to rate far more topics and skills as “important” or “very important” than college instructors do.

Specifically, secondary teachers rated 47% of high school content very important, while postsecondary faculty rated only 19% of that content similarly. (See Figure 1.)

Unlike many states, California's content standards are generally well-regarded

California has a history of establishing challenging content for schools to impart to students, and the State Board of Education (SBE) has kept in place the rigorous content standards adopted in the late 1990s. Fordham and AFT have given California's content standards high ratings, but many teachers here think the state has too many standards.

California has been a national leader with respect to content standards

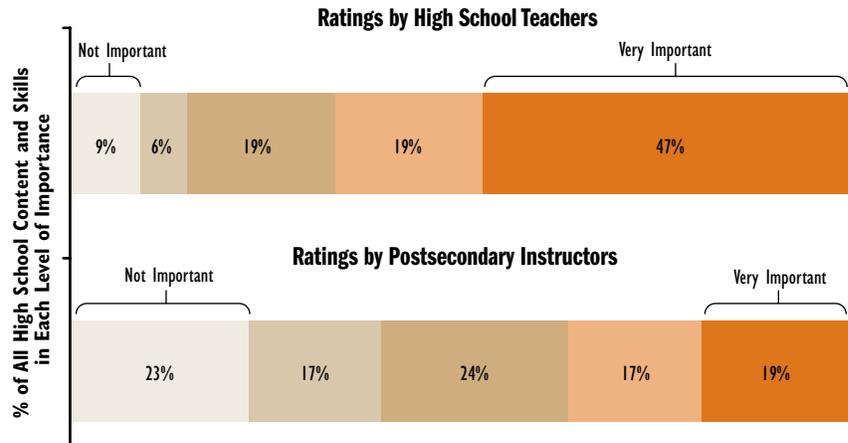
In the late 1980s, California created curricular frameworks in core subject areas that emphasized problem-solving skills and that earned praise across the country. (Curriculum frameworks are intended to guide educators in developing curriculum and publishers in creating instructional materials.) The following several years were somewhat turbulent for the state's academic expectations and assessments, but in 1995, state leaders started California on the path it is now on with respect to academic content standards.

That year, policymakers passed a law requiring the State Board of Education (SBE) to adopt "world class" standards in English language arts, math, science, and history-social science. By late 1998, the SBE had adopted content standards in those four subject areas. Getting there was not always easy, however. Particularly in math, the adopted standards did not have universal support, with some seeing them as overemphasizing skills and underemphasizing conceptual understanding.

Today, the state also has standards in career technical education, English language development, health education, physical education, and visual and performing arts. Between 1999 and 2002, the board also adopted new curriculum frameworks.

During those four years, the SBE adopted instructional materials for kindergarten

figure 1 | High school and college educators disagree about how much of high school material is very important



ACT's 2005–06 national curriculum survey shows that high school teachers consider 47% of high school material to be very important, compared with college educators who think 19% of this material is very important.

DATA: ADAPTED FROM ACT, *Measuring College and Career Readiness: The Class of 2009*, AUGUST 2009.

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through 8th grade based on the frameworks. Before the board adopted materials, teams of experts reviewed them for:

- richness, accuracy, and usability;
- accurately portraying the cultural and ethnic diversity of American society; and
- avoiding commercial content.

The state constitution does not authorize the board to adopt instructional materials for grades 9–12. Instead, districts select their own, using the frameworks and "standards maps" for guidance. (Standards maps show how materials align with the content standards.)

In addition, until recently California funded professional development programs to help teachers and administrators ground their work in the standards. One such program paid for a specified number of days for teachers and instructional aides to receive instructional training. A later program was designed to bring teachers up to speed on recently adopted materials. For principals and vice principals, the state and the Gates Foundation funded a 160-hour training program consisting of three modules centered on instruction and student mastery of the standards.

Finally, the state's assessment and accountability systems evolved from employing an off-the-shelf basic skills exam to using

tests aligned with California's content standards in the four core areas. The accountability system included programs to help struggling schools.

Two organizations rate California's content standards highly

In Fordham's 2006 ratings, California was among just three states to earn "straight A's" in all four core subjects: English language arts, math, science, and world history. (The other two states were Massachusetts and Indiana.) This contrasts with Fordham's average rating of C- for state standards across the nation on all subjects. Fordham rates standards in each of the four core subjects for all K–12 grades collectively.

By comparison, the American Federation of Teachers rates standards for specific grade spans. In *Sizing Up State Standards 2008*, AFT considered standards in the four core content areas (English, math, science, and social studies) in each of three grade-span levels (elementary, middle, and high school). For each of its 12 categories of standards, the AFT provided a yes-or-no rating on whether the standards met the organization's composite criteria for clarity, specificity, and content that support teaching and learning. California, Arkansas, and

Louisiana received 10 positive ratings out of 12. (California's high school English and elementary social studies standards did not meet AFT's criteria.) Only four jurisdictions did better than California: Georgia, Indiana, and the District of Columbia received 11 positive ratings, and Virginia received 12.

Beside California, three states—Georgia, Indiana, and Virginia—did well in ratings by *both* Fordham and the AFT. Like California, those three states placed among the top 10 states in Fordham's rankings and met the AFT's criteria in at least 10 categories. The fact that several states fared well on only one set of ratings, however, provides further evidence of the lack of consensus on standards nationally. For more on that topic, see page 12.

Nearly two-thirds of California teachers surveyed think California has too many content standards

Positive reviews of California's standards by two organizations can give policymakers in Sacramento some confidence that the state's current content standards are of high quality, but the opinions of average teachers are important to consider as well. In the Gates/Scholastic survey, many of the California teachers who responded would like to see the state have fewer content standards. A smaller-than-average percentage of California teachers think the state's content standards need to be clearer or higher. Specifically, the survey data reveal that:

- 64% of California teachers think that the state has too many standards. In the average state in the survey, 48% of teachers expressed that viewpoint. (However, it is likely that many workers across a variety of industries feel spread too thinly.)
- 45% of teachers in California think the state's standards are not clear enough, compared with the average state, in which 55% of teachers said this.
- 7% of California's teachers think the state's content standards are "too low," which is less than the average—13%. In the Golden State, 35% of teachers think the standards are too high, which is substantially higher than the 15% average.

Some see many potential benefits from having a "common core" of standards across states

Notwithstanding the strong standards of a few states such as California, there are powerful entities such as President Barack Obama's administration and a handful of large foundations encouraging states across the country to adopt a common set of rigorous, clear, focused standards.

According to representatives of the Council of Chief State School Officers (CCSSO) and the National Governors Association (NGA), many states are promoting the idea as well. The CCSSO is a nonpartisan, non-profit organization of public officials who head departments of elementary and secondary education in the states, the District of Columbia, and territories. The NGA addresses public policy challenges and provides management and technical assistance to governors. State leaders asked the CCSSO and NGA to coordinate the Common Core State Standards Initiative to develop a set of standards in English language arts and mathematics that states can voluntarily adopt. The Common Core standards are intended to form the centerpiece (at least 85%) of an adopting state's standards in those two subjects, with states being free to supplement the Common Core according to local preferences. For states that adopt the Common Core, the standards are intended to apply to all students and help prepare them for college or careers.

Proponents of the initiative acknowledge that standards alone will not accomplish that goal. They hope the new standards will form a basis upon which states would then build systems of aligned curriculum, assessments, teacher training and preparation, and teacher and student supports. Advocates of the Common Core initiative see several potential benefits of widespread adoption of the Common Core—provided that adopting states develop those aligned systems. For example, supporters believe that if states had the same learning objectives and tested their students similarly, they could compare student achievement among themselves in a valid manner. This would be an improvement over current comparisons

using NAEP (National Assessment of Educational Progress) results because states vary in the extent to which their standards align with NAEP's content. In addition, states' performance against NCLB targets would be much more comparable if the standards taught and tested were more similar among states (assuming some kind of federal accountability system continues).

In addition, Common Core supporters mention several other advantages. If states had the same "core" content standards, students moving from one state to another would enjoy more continuity in their learning than is possible today. States could learn from each other about the best way to help students understand the material. And states could share the cost of creating instructional materials and tests.

According to Common Core supporters, several states would end up with more rigorous standards as a result of adopting the Common Core. And if states put in place all of the components of standards-based reform, they would be able to prepare more students to take on complex, high-paying jobs. The initiative's website puts it this way: "This work presents a significant and historic opportunity for states to accelerate and drive education reform toward the ultimate goal of children—from states across the country—graduating from high school ready for college, work, and success in the global economy." Implicit in this line of thought is that America's economic competitiveness would increase as well.

A related assertion is that more rigorous academic expectations, coupled with appropriate student supports, would narrow achievement gaps between African American, Latino, and Native American students and their white and Asian counterparts.

Finally, the Common Core is intended to identify high-priority content so that schools will help students develop a solid knowledge of the most important topics as opposed to a superficial knowledge of a large number of topics. With content already prioritized by curriculum and content experts, schools with limited time and expertise to make those decisions could concentrate on instruction, argue supporters of the Common Core.



Reaching a common understanding: Structure, players, process, and timeline

The Common Core State Standards Initiative has garnered the participation of 48 states since its official creation in April 2009. Dozens of individuals and organizations are working on the Common Core standards or supporting their creation in some way. The federal Race to the Top program has helped increase interest in the effort, and Common Core supporters can point to recent multistate efforts toward common standards and assessments as examples that bode well for the initiative. California will consider adopting the Common Core standards this summer.

Organizations that support the Common Core State Standards Initiative

The following organizations support the Common Core and are mentioned in this report. The descriptions below are adapted from information on the organizations' websites.

For a complete list of organizations supporting the initiative, see: www.corestandards.org. They are listed as “endorsing partners” and/or as having signed statements of support.

- **Achieve**—Created in 1996 by the nation’s governors and corporate leaders, Achieve is a nonprofit organization based in Washington, D.C., that helps states raise academic standards and graduation requirements, improve assessments, and strengthen accountability. www.achieve.org
- **ACT**—A not-for-profit organization that provides an array of assessment, research, information, and program management solutions in education and workforce development. www.act.org
- **American Federation of Teachers**—A trade union representing more than one million workers in education, health care, and public service. www.aft.org
- **Bill & Melinda Gates Foundation**—A major philanthropic foundation focusing on education and public health. The foundation has provided financial support for the development of Common Core standards, dissemination of information about them, and instructional tools and assessments to aid the implementation of the standards. www.gatesfoundation.org
- **College Board**—A not-for-profit membership association that works on college readiness and admission, guidance, assessment, financial aid, enrollment, and teaching and learning. www.collegeboard.com
- **Council of Chief State School Officers (CCSSO)**—One of the two organizers of the Common Core initiative, along with the National Governors Association. The CCSSO is a nonpartisan, nationwide, nonprofit organization of public officials who head departments of elementary and secondary education in the states, the District of Columbia, and territories. CCSSO provides leadership, advocacy, and technical assistance on major educational issues. www.ccsso.org
- **Council of Great City Schools**—A national organization representing 66 large urban school districts and advocating for inner-city students through legislation, research, and media relations. www.cgcs.org
- **The Education Trust**—The mission of this Washington, D.C.–based nonprofit organization is to promote high academic achievement for all students at all levels—prekindergarten through college. www.edtrust.org
- **The Hunt Institute** (full name: James B. Hunt, Jr. Institute for Educational Leadership and Policy)—This organization, named after a former North Carolina governor, was founded in 2001 as an agency of the University of North Carolina at Chapel Hill. The Hunt Institute works at the intersection of policy and politics, and its mission is to secure America’s future through quality education. www.hunt-institute.org
- **National Association of Secondary School Principals**—Founded in 1916, this organization represents middle school and high school principals, assistant principals, and aspiring school leaders from across the United States and more than 45 other countries. Its mission is to promote excellence in school leadership. www.principals.org
- **National Governors Association (NGA)**—One of the two organizers of the Common Core initiative, along with the Council of Chief State School Officers. Founded in 1908, the NGA represents governors and their senior staff members in Washington, D.C. The association develops and implements solutions to public policy challenges through the NGA Center for Best Practices and provides management and technical assistance to governors. www.nga.org
- **National School Boards Association**—A nonprofit federation of state associations of school boards across the United States. www.nsba.org
- **Scholastic**—A children’s publishing, education, and media company. www.scholastic.com

All but two states are participating

In September 2009, the organizers of the Common Core State Standards Initiative announced that 48 states (all but Texas and Alaska), plus the District of Columbia, Puerto Rico, and the Virgin Islands were participating. However, participation does not necessarily translate to adoption of the standards.

When the final Common Core standards are released (likely in early June 2010), states can choose to adopt them. However, NGA and CCSSO began insisting in late 2009 that if states adopt the Common Core, they are to do so verbatim. And, according to the memorandum of agreement that each participating state has signed, if a state adopts the Common Core standards, it must ensure that they make up at least 85% of its standards in English and math. Thus, a state could adopt the Common Core and add its own standards, provided that those additional standards do not comprise more than 15% of the total standards in each subject. (The memorandum does not specify how that will be measured.) Adoption is to take place in accordance with each state's current procedures and timelines, but not to exceed three years. As described later in this report, the federal Race to the Top program has created an incentive to adopt them much faster than that.

Many have worked on the Common Core initiative

An array of individuals and organizations have helped CCSSO and NGA on the Common Core initiative. The large group of individuals working on the standards themselves include curriculum specialists and content experts from Achieve, College Board, ACT (formerly known as American College Testing), state departments of education, teachers unions, K-12 schools, community colleges, and universities. In addition, representatives of participating states and a variety of stakeholder organizations have shared ideas and informed the effort, including providing feedback on draft standards.

A large number of organizations are also listed on the initiative's website as "endorsing

Key events related to the Common Core State Standards Initiative

April 2009 through April 2010:

- April 17, 2009: The National Governors Association (NGA) and the Council of Chief State Schools Officers (CCSSO) hosted a meeting of 41 states to kick off the initiative.
- July 1, 2009: The initiative unveiled its website, outlined the standards-development process, and announced work and feedback teams for college- and career-readiness standards.
- July 24, 2009: The U.S. Department of Education released preliminary guidance for the Race to the Top grant program, which called on states to develop and adopt common standards and tests based on those standards.
- July–Sept. 2009: Work teams developed a first draft of college- and career-readiness standards in English and math. Feedback groups commented on the draft, and work teams revised it. In August, states and national organizations gave feedback on a second draft. Work teams then revised the standards again.
- Sept. 21, 2009: NGA and CCSSO released draft college- and career-readiness standards for public comment.
- Sept. 24, 2009: Members of the validation committee were announced.
- Oct. 21, 2009: Deadline for feedback on draft college- and career-readiness standards.
- Nov. 10, 2009: Members of the work and feedback groups for K-12 standards were announced.
- Nov. 18, 2009: Final guidance for Race to the Top released.
- Jan. 19, 2009: Phase 1 deadline for applying for a Race to the Top grant.
- March 10, 2010: Another draft of standards released. They combined college- and career-readiness and K-12 standards.
- April 2, 2010: Deadline for public comments on draft standards.
- April 6, 2010: Final guidance for Race to the Top's \$350 million assessment program issued.

Projected schedule after April 2010:

- June 1, 2010: Final ("Phase 2") deadline for applying for Race to the Top grant.
- Early June 2010: Final Common Core standards to be issued.
- June 23, 2010: Applications for Race to the Top's \$350 million assessment program due.
- July 15, 2010: Deadline for California's Academic Content Standards Commission to submit its proposal for new standards to the State Board of Education.
- Aug. 2, 2010: Race to the Top's deadline for states to adopt the Common Core and California's deadline for the State Board of Education's decision.

partners" and/or as having issued statements of support. Examples include the Council of Great City Schools, National School Boards Association, National Association of Secondary School Principals, the United States Army, and several corporations, such as Intel and State Farm Insurance.

The initiative appears to be supported by grants from foundations, plus funds from the National Governors Association Center for Best Practices. A list of specific sources of funding for this initiative is not yet available from the Common Core State Standards Initiative website.

Some of the experts who have publicly expressed skepticism about the initiative—at least an early draft of the Common Core standards—include Alfie Kohn, who has written several books about education and human behavior; Nel Noddings, professor of education emerita at Stanford University; and E.D. Hirsch, a professor of education and humanities emeritus at the University of Virginia. Their commentaries are nuanced, but Kohn and Noddings basically raise questions about the motivations of some of the Common Core supporters, the likelihood of student test scores rising as a result of establishing new standards, and the wisdom of standardization when students vary widely in their needs, goals, and abilities. In contrast, Hirsch zeroes in on the importance of students’ English language competence and disagrees with aspects of the Common Core’s approach to the issue, as indicated by an early draft of the standards. Their critiques can be seen in *Education Week’s* annual Quality Counts publication, published in January 2010. Hirsch announced in March his support of the Common Core based on a later version of the standards.

Teams began developing the Common Core standards in July 2009

CCSSO and NGA announced their plan for a standards-development process in early July 2009. They planned to create two types of standards: 1) college- and career-readiness standards, and 2) grade-by-grade standards. The first type defines the knowledge and skills that students should have when they graduate from high school. The second type specifies what students should know and be able to do within each grade, kindergarten through 12th, in order to ultimately master the college- and career-readiness standards.

Also that month, the initiative’s organizers announced who would be working on the college- and career-readiness standards. For each subject, there would be a work group and a feedback group, for a total of four groups. The work groups developed the standards. And the feedback groups, comprised mainly of university professors, provided subject-matter expertise to a review of drafts.

figure 2 | Several individuals with direct ties to California have helped develop or validate the Common Core standards

A total of 162 individuals worked on the college- and career-readiness standards, grade-by-grade standards, or both. In addition, the validation committee had 29 members, some of whom had also worked to develop the standards or give feedback. The individuals with direct ties to California are listed below by subject and by whether they were a member of a work group, feedback group, or the validation committee. Some people belonged to multiple groups.

English Language Arts Work Group	Math Work Group
Janet Davis, Point Professional Development Adviser, Los Angeles Unified School District	Diana Ceja, Teacher on Assignment, Garey High School (Pomona)
Bobbi Ciriza Houtchens, U.S. Department of Education Teaching Ambassador Fellow (2009); Teacher and English Language Facilitator, Arroyo Valley High School (San Bernardino)	Phil Daro, Senior Fellow, America’s Choice
Michael Kamil, Professor, Stanford University School of Education	Susan K. Eddins, Educational Consultant, Illinois Mathematics and Science Academy (Retired)
Sandy Murphy, Professor Emeritus, University of California-Davis	Wade Ellis, Mathematics Instructor (Retired), West Valley College (Saratoga)
Sue Pimentel, Co-Founder, StandardsWork; English Language Arts Consultant, Achieve	Hung-Hsi Wu, Professor of Mathematics Emeritus, Department of Mathematics, University of California-Berkeley
English Language Arts Feedback Group	Math Feedback Group
Sheila Byrd Carmichael, Education Policy Consultant (and Former Deputy Executive Director of California’s Standards Commission in the 1990s)	Kenji Hakuta, Professor of Education, Stanford University
Kenji Hakuta, Professor of Education, Stanford University	Jim Milgram, Professor of Mathematics Emeritus, Department of Mathematics, Stanford University
Carol Jago, President-Elect, California Reading and Literature Project, University of California-Los Angeles; National Council of Teachers of English	Roxy Peck, Associate Dean, College of Science and Mathematics and Professor of Statistics, California Polytechnic State University-San Luis Obispo
Michael Kamil, Professor of Education, Stanford University	Matthew Ting, Mathematics Instructional Coach, Los Angeles Unified School District
Validation Committee	
Linda Darling-Hammond, Professor of Education, Stanford University	
Kenji Hakuta, Professor of Education, Stanford University	
Jim Milgram, Professor of Mathematics Emeritus, Department of Mathematics, Stanford University	
David Pearson, Professor and Dean, Graduate School of Education, University of California-Berkeley	
Stanley Rabinowitz, Senior Program Director, Assessment and Standards Development Services, WestEd	
Christopher Steinhauser, Superintendent of Schools, Long Beach Unified School District	

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However, the work groups made the final decisions about the content and organization of the Common Core standards, with substantial input from representatives of CCSSO, NGA, and the participating states. Among the 57 individuals who worked in

these four groups, at least seven have direct ties to California—depending on how “direct ties” is defined. (See Figure 2 on page 8.)

The public could comment on a set of draft college- and career-readiness standards in September 2009

Initiative organizers began circulating a draft of the college- and career-readiness standards in late September 2009 for a one-month public comment period. According to CCSSO and NGA, the feedback represented the opinions of more than 1,000 people, including K–12 teachers, parents, professors, district staff, students, and others. The majority of respondents reacted favorably but wanted adjustments.

For the draft English language arts standards, most respondents suggested that the standards be expanded in certain areas, with few people recommending reductions. And a number of people called for the addition of a defined reading list.

In response to the draft math standards, some—especially those connected to higher education—found the standards lacking key content, while many high school teachers were concerned that the standards went beyond topics that students would need to know for their future work. In addition, some people reacted to sample problems, the organization of the standards, and technical accuracy.

A “validation committee” includes six Californians

Shortly after releasing those draft college- and career-readiness standards for comment, the project announced the creation of a validation committee. The members of the committee were nominated by governors and chief state school officers and confirmed by a group of six governors and six school chiefs. The committee of 29 experts in education policy, standards development, and assessment are mostly university professors from the United States, with a few from other countries. In addition, a few validation committee members come from the K–12 ranks—for example, Arizona’s teacher of the year in 2009 and Long Beach Unified School District Superintendent Christopher Steinhauser. The superintendent is one of six Californians on the committee.

The validation committee has been charged with two tasks. First, it is supposed to verify that the Common Core standards are research-based, internationally benchmarked, and aligned with college and work expectations. Second, the committee will verify whether participating states have adopted the new standards.

In November 2009, initiative organizers announced the appointment of 133 people to the work and feedback groups for the grade-by-grade standards. Several had also worked on the college- and career-readiness standards. Of the 133 people, at least 13 have direct ties to California (again, depending on the definition of “direct ties”). Five of those 13 had worked on the college- and career-readiness standards. (See Figure 2 on page 8.)

The effort to finalize the Common Core standards began in April 2010

In early 2010, CCSSO and NGA began soliciting confidential reviews of the next iteration of standards, which combined the college- and career-readiness standards with the grade-by-grade standards. Work groups then revised their drafts substantially in response to that feedback.

On March 10, 2010, CCSSO and NGA released another set of drafts for public comment. In addition to the combined standards, the documents included:

- an introduction that explained how the standards were organized and how they applied to English learners and students with disabilities;
- standards for English language arts and for literacy in history/social studies and science (with three appendices—research regarding key elements of the standards, illustrative texts, and samples of student writing); and
- standards for mathematics (with an appendix to inform the design of high school courses).

CCSSO and NGA gave the public 3½ weeks to review the documents, which totaled about 500 pages. Still, about 9,600 respondents offered feedback. One of the respondents was the Fordham Foundation, which said that the math standards are “rigorous,

internationally competitive standards that earn an impressive A-,” and that the English language arts standards rate a “solid B.” Other respondents commented on specific aspects of the draft standards, with some expressing concern about the organization of math standards beyond grade 8 into “conceptual categories” versus into courses such as algebra and geometry. In addition, some questioned whether the draft Common Core standards would prepare students for Algebra I in 8th grade, which some states require and others encourage. (For more on these topics and their implications for California, see page 13.)

After the April 2, 2010 deadline for public comments, the work and feedback groups set early June 2010 as the target date for releasing the finalized standards. (As this report was being prepared, the final standards had not yet been released.)

In response to the Race to the Top, states put more focus on the Common Core

In late July 2009, as the work teams were beginning their first draft of the college- and career-readiness standards, the U.S. Department of Education (USDE) released preliminary guidance for the Race to the Top (RTT) program. That \$4.35 billion competitive grant program encourages states to initiate or continue reforms in four areas, including standards and assessments. Applying for an RTT grant was voluntary, but the possibility of securing a grant created an incentive for states to align their policies with the program’s objectives.

The RTT preliminary guidance called on states to form consortia to create common standards and to do so quickly. With the vast majority of states already participating in the Common Core initiative when the RTT was announced, focus on the Common Core increased and almost every state ultimately agreed to participate.

The final guidance for the RTT program, issued in November 2009, accentuated the focus on the Common Core by declaring that states applying for RTT grants would earn more points if they belonged to a consortium that included a majority of states. The final guidance also gave more points to applicant states that committed to adopting common

standards by August 2010. With RTT applications due in either January or June 2010, and the final draft of the Common Core expected to be completed some time in the spring, the U.S. Department of Education (USDE) was effectively asking states to commit to something they would have little or no time to review. (For more information on the RTT program, see the box on this page.)

Along with common standards, the RTT creates an incentive for states to develop common assessments based on those standards. The USDE created a \$350 million grant program as part of the Race to the Top to support states' development of "next generation" tests that go beyond multiple-choice questions and require students to complete more complex tasks and apply knowledge in new ways.

The department will provide two types of awards—comprehensive assessment system grants and high school course assessment grants. The first type, for which \$320 million has been earmarked, pertains to tests for grades K–12 that can be used for both school accountability purposes and for helping to improve instruction. And the second grant program, for which \$30 million has been set aside, will support testing rigorous high school content. Its aim is to bring about more uniformity in the rigor of high school courses across states.

In response to the creation of the assessment grant program, several multistate testing consortia began forming in early 2010. However, as this report was being finalized, the field was in flux, with some consortia merging with each other and new ones possibly forming. In late April, two consortia signaled to the USDE a nonbinding intent to apply for a comprehensive assessment grant. And two groups indicated an intent to apply for a high school assessment grant, with one group having a career technical education focus. (See "To Learn More" on page 20.)

Recent multistate collaborations give Common Core supporters confidence

In 2006, the Thomas B. Fordham Foundation queried a bipartisan group of education policy experts to gather input on how a system of national standards and tests might be

California's participation in the Race to the Top grant competition

As part of the stimulus package that federal policymakers enacted in February 2009, the United States Department of Education (USDE) created the \$4.35 billion Race to the Top (RTT) competitive grant program to challenge states to take comprehensive action in the following four areas:

1. Increasing teacher and principal effectiveness;
2. Establishing data systems and using data for improvement;
3. Adopting rigorous college- and career-ready standards and high-quality assessments; and
4. Turning around the lowest-performing schools.

With up to \$350 million in RTT funds set aside for states to develop new assessments, at least \$4 billion in one-time monies will be spread among a small number of states to help them implement reforms in the four areas listed above. If California wins a portion of that \$4 billion, it will likely receive about \$700 million spread over four years, or \$175 million per year. To put that amount in context, total funding for K–12 education in California in 2009–10 was more than \$66 billion.

The RTT program currently consists of two award phases. States could apply in either phase; and if they failed to receive an award in the first phase, they could apply again. Although the program is currently slated to end after the second award cycle, President Barack Obama has proposed making the program permanent.

Having failed to secure a grant in Phase 1, California reapplied in June 2010

In January 2010, California joined 39 other states and the District of Columbia in applying for a RTT grant in the first phase. Sixteen finalists were announced on March 4, 2010. California was not among them. The department has posted feedback and scores for all applications online. States could earn 20 points (out of 500 available for the RTT application) for committing to common standards. Each of the five individuals who reviewed California's application for the USDE gave it the full 20 points for the common standards portion. The reviewers gave California's full application an average of 340 points.

On March 29, the USDE announced two winners, Delaware and Tennessee, for Phase 1. They averaged, respectively, 438 and 440 points for their full applications in the initial review (and 455 and 441 points in their final review, after finalist states gave presentations).

States could review the feedback they received and then reapply during the second phase, for which applications were due on June 1, 2010. In late April 2010, Superintendent of Public Instruction Jack O'Connell announced that California would reapply, but with a different approach. Rather than form a statewide strategy and try to persuade as many districts and stakeholders as possible to sign on, state officials applied in partnership with a subset of districts that are already committed to a reform agenda aligned with RTT goals.

To see California's full Phase 1 application (with appendices), as well as reviewers' feedback and scores, go to: www2.ed.gov/programs/racetothetop/phase1-applications/index.html

designed. In those discussions, two projects came up as examples of previously established multistate collaborations on standards and assessment—the New England Common Assessment Program and the American Diploma Project. Those two efforts have helped pave the way for the Common Core State Standards Initiative.

Four small states have implemented a common standards and assessments program

Five years ago, New Hampshire, Rhode Island, and Vermont began implementing the New England Common Assessment Program (NE-CAP), which administers annual tests in reading, writing, math, and science. (Maine subsequently joined the program.)

Teams of teachers from across the participating states created the content standards that the tests are based on and review proposed test questions to make sure they are aligned with the standards. Teachers also determine cut scores, which define the test's four possible performance levels. Although the NE-CAP involves four small states in close proximity to each other, Common Core supporters point to it as a precedent that bodes well for the more expansive initiative.

The American Diploma Project provides an example of a multistate standards effort

The American Diploma Project (ADP) may provide a more relevant example because it is more similar to the Common Core initiative in scope and structure. Some of the organizations currently involved in, or supporting, the Common Core initiative helped launch the ADP. In 2001, Achieve, the Education Trust, the Fordham Foundation, and the now-defunct National Alliance of Business initiated the ADP to help states align their standards with the demands of college and careers. As a first step, these organizations worked with postsecondary institutions and employers to identify the English and math skills that young people need to succeed in credit-bearing college courses and entry-level jobs that pay enough to support a family and provide potential for advancement.

After identifying a set of benchmark skills, the ADP began four years later working with a network of 13 states to align their high school standards with those benchmarks. California was not among the original 13 states participating in the ADP, but it joined the project in 2008. Today, the network encompasses 35 states. About two-thirds of the participating states have aligned their standards with the ADP's benchmarks, many of them taking advantage of feedback and other support from Achieve and each other.

The ADP has identified "a vital subset" of its benchmark skills that it calls the "ADP Core." In July 2008, ADP published an analysis of English and math standards in 12 states, and math standards only in four additional states. The ADP found that at least three-quarters of the states they

studied had aligned their standards with the ADP Core benchmarks.

Aligning content standards with the ADP benchmarks requires a state to undergo a thorough examination of its K–12 standards, assessments, and accountability systems to make them cohere with the requirements of higher education and employers. In California, decision makers felt confident about the state's K–12 content standards and were reluctant to reopen contentious debates about them. In addition, reviewers for the ADP found that California's content standards already met the ADP benchmarks. Consequently, California's work on the ADP, called the California Diploma Project (CDP), has been relatively narrow. The CDP has focused on creating closer alignment between K–12 standards and the expectations of the state's higher education institutions. The main vehicle for bringing about better alignment between the two systems has been the Early Assessment Program. That program uses tests in English language arts and math to indicate to 11th graders whether they will be prepared to enter college without remediation or need more preparation in high school. (See the box on page 16.)

The ADP standards and a draft of the Common Core standards substantially overlap

An Achieve analysis of the overlap between the ADP standards and a March 10, 2010 draft of the Common Core standards found significant agreement between the two. In math, each set of standards had a few items that the other did not have; but the parallels were strong, with the Common Core standards often building on and extending the ADP's standards. And in English language arts, the Common Core standards met the ADP benchmarks and went beyond the ADP.

However, the American Diploma Project and Common Core State Standards Initiative differ in at least one important respect. Under the ADP, states do not have identical standards. Some states supplement the benchmark standards with additional or more rigorous content, and some vary in how they organize their course sequences. The Common Core initiative does allow states

that choose to adopt the Common Core to add their own standards. However, at least 85% of adopting states' standards in English and math must be taken verbatim from the Common Core. This means that the similarity among states' standards will likely be greater than is found among states participating in the ADP.

California has authorized a commission to review the Common Core

In May 2009, California agreed to participate in the Common Core initiative in principle, but with conditions. A letter signed by Gov. Arnold Schwarzenegger, State Board of Education President Ted Mitchell, and Superintendent of Public Instruction Jack O'Connell stated that California would not commit to adopting the Common Core until state officials had determined that they meet or exceed California's existing standards. In addition, the state would not commit to having the Common Core standards represent at least 85% of all standards in English and math. California officials participated in meetings to provide input to the Common Core standards development process and focused their efforts on pressing for a rigorous final product.

Seven months later, California lawmakers decided that California would put adoption of the Common Core up for decision by the State Board of Education. In January 2010, California enacted legislation requiring the creation of a commission of 21 members, a majority of whom are K–12 teachers, to develop content standards in English language arts and math that are internationally benchmarked and build toward college- and career-readiness. In addition, the Common Core must make up at least 85% of the standards that the commission proposes. (All of those requirements are consistent with the intent of the Common Core initiative.) The law requires the commission to present its work to the State Board of Education by July 15, 2010. After the commission has submitted its proposal, the board has until Aug. 2, 2010 to accept or reject the proposed new standards. The dates were based primarily on the timeline demands of the

Race to the Top competition. If the board rejects the proposal, California's current standards will remain in place.

The legislation calls on the governor to appoint 11 members to the Academic Content Standards Commission and the state

Senate and Assembly to each appoint five. Because the legislation did not take effect until April 12, 2010, commissioners could not be appointed until at least that date. However, not all the appointments to this commission had been made as this report went to press

in mid-May. If commissioners are appointed, they will face the challenging task of developing a thoughtful proposal by July 15.



California must confront several questions in deciding whether to adopt the Common Core

California's State Board of Education is scheduled to soon make an up-or-down decision on whether to adopt the commission's proposal for conforming the state's academic standards to the Common Core. Board members will likely ask, "Are the Common Core standards the right ones?"

The answer may well depend on their view of the Common Core's rigor, clarity, and usability in the classroom. However, the ramifications of adopting or not adopting will probably not be far from their minds. Rejecting the commission's proposal and thus maintaining California's current standards would hurt the state's chances of winning a Race to the Top grant in Phase 2 of the competition. (See the box on page 10.) And there could be other consequences with respect to larger federal funding streams, depending on the outcome of the reauthorization of the federal Elementary and Secondary Education Act (ESEA). However, in the process of accepting the proposal, the board would likely confront questions of how the new standards relate to what California already has in place. If they are significantly different from California's current content standards, questions of implementation costs and timeframe may loom large in board members' minds, especially because of California's continuing fiscal crisis.

Are the Common Core standards the right ones?

Determining what content standards are right for a state is challenging because even experts disagree on what they should include. The Common Core represents one vision for math and English language arts standards, but several others exist. As of March 2010,

the Common Core standards were organized differently from California's. However, when the final Common Core standards are released in early June, they will likely be substantially revised.

Although the structure matters because it affects curriculum design and usability in the classroom, the board's decision will probably focus on the richness and rigor of the Common Core's content—particularly on how it compares with California's standards in Algebra I and II. But the board will also need to wrestle with the fact that California has many different expectations related to high school completion, which depend on a variety of factors including students' post-secondary ambitions. Adding to the complexity of the board's decision is the question of whether the skills and knowledge needed to prepare for college are the same as those needed for "good" jobs that do not require a college degree, as the Common Core supporters assert.

Opinions vary on the proper content of state standards and how to judge their quality

Deciding on a state's content standards is not easy, and opinions vary on this important issue. The American Diploma Project (ADP) represents one attempt to define what students should know and be able to do before graduating from high school, but other organizations have identified different

sets of skills and knowledge. In a February 2010 report, researchers at the Regional Education Laboratory Southwest (RELS) found a low level of agreement between the ADP standards in language arts and three other sets of college-ready standards—namely standards by ACT, the University of Oregon's Center for Educational Policy, and the College Board. According to the report, the percentage of ADP's 62 standards that align completely or partly with standards from the other organizations are the following:

- 34% with ACT's standards. (In other words, about one-third of ADP's standards align completely or partly with ACT's standards.)
- 68% with the University of Oregon's Center for Educational Policy standards.
- 77% with the College Board's standards.

In addition, only 5% of the ADP standards are found in all three of the other sets of standards. In other words, when researchers looked for a near-verbatim match between the individual ADP standards and the standards in the other sets, they found that only 5% of ADP's standards (three of 62) were in all of the other three sets of standards. That portion rises to 27% if the standards with a partial match are counted.

Opinions also vary on how to judge the quality of standards. This can be seen in the ratings of standards by the American Federation of Teachers and Fordham Foundation.

Although the two organizations agree in many cases, they rate a few states, such as Michigan, quite differently. Michigan ranks among the top 15 in AFT's ratings. In nine of 12 areas (four subjects—English, math, science, and social studies—and three grade spans—elementary, middle, and high), Michigan's standards meet AFT's criteria for clarity, specificity, and content. In contrast, Fordham has Michigan in the bottom 12 of its rankings, giving the Wolverine State a grade of D-.

That said, education stakeholders seem to agree that rigor is very important. When states such as Massachusetts and California, which are known for having ambitious standards, decide whether to adopt the Common Core, they will likely focus on how the Common Core compares with their existing standards in terms of rigor. Those two states are not alone, however. In December 2009, before any drafts of the new standards had been circulated in public, the Editorial Projects in Education Research Center (EPERC) surveyed states regarding the challenges that the Common Core effort might impose on them. EPERC found that 14 states were concerned that the Common Core would turn out to be of "insufficient quality, content, and rigor."

The Common Core is organized differently from California's standards

Comparing the rigor of the Common Core with California's existing math and English language arts standards will be a key issue for the standards commission and State Board of Education. If the final Common Core standards are structured like they were in the March 10, 2010 draft, comparing the Common Core with California's standards will be complex because they were organized differently. In particular, California's math standards are organized by grade through 7th grade and then by course—Algebra I, Geometry, Algebra II, Trigonometry, Math Analysis, Linear Algebra, Probability and Statistics, Advanced Placement Probability and Statistics, and Calculus. In contrast, the draft Common Core math standards were organized by grade through 8th grade and then by *conceptual category*—number and quantity, algebra, functions, geometry, and

statistics and probability. The Common Core standards include another conceptual category—modeling—but standards for it are distributed among the other categories. Also distributed throughout are standards that support students' pursuit of careers and majors in science, technology, engineering, and mathematics (STEM) fields. These are more advanced than the college- and career-readiness standards.

Although the Common Core math standards are organized by conceptual category, an appendix to those standards discusses approaches to parsing out the content into courses.

The organizing *labels* of the Common Core math standards do not, *by themselves*, indicate how the standards compare with California's standards in terms of richness of content or rigor. For example, the Common Core "algebra" standards include some of the same material that California's "Algebra II" course standards do. The standards commission will have to compare the specific standards underneath the organizing labels and figure out how to fill any gaps with additional standards when they present their proposal to the State Board of Education. The Common Core standards in English language arts present a similar challenge.

The Common Core's treatment of algebra will be key in any decision by the State Board of Education

The board will likely scrutinize very closely the commission's treatment of algebra in its proposal. California's existing standards encourage the learning of Algebra I in 8th grade. Schwarzenegger has promoted that practice, and his appointees on the board may be reluctant to adopt the Common Core if it does not support Algebra I in 8th grade. In addition, eligibility for admission to the state's public universities requires successfully completing Algebra II, and the board may not support the Common Core if its Algebra II standards do not match California's in rigor.

Some contend that a recent draft of the Common Core does not align with the Algebra I-in-8th-grade practice. One person who holds this view is Ze'ev Wurman, who helped

draft California's current math standards and who has worked in the software industry and for the Office of Planning, Evaluation, and Policy Development in the U.S. Department of Education. In a videotaped interview posted on John Fensterwald's blog, *The Educated Guess*, Wurman stated that the Common Core standards (as drafted on March 10), "do not expect students, really, to study algebra in 8th grade." Organizers of the Common Core have written the standards to address the desire of some states to promote Algebra I for all students in 8th grade while recognizing that some students may need more time. They explain this view in a document posted on the initiative's website. "Myths v. Facts About the Common Core Standards" states the following:

The [Common Core] Standards accommodate and prepare students for Algebra 1 in 8th grade by including the prerequisites for this course in grades K–7. Students who master the K–7 material will be able to take Algebra 1 in 8th grade. At the same time, grade 8 standards are also included; these include rigorous algebra and will transition students effectively into a full Algebra 1 course.

Regarding the Common Core standards for higher math courses, Wurman said: "They are much below the admission requirements for California state universities...the definition of college-readiness does not include the full geometry and Algebra II." If that assessment applies to the final version of the Common Core, the board may be hesitant to adopt it. The "Myths v. Facts" document does not discuss Algebra II in the same way that it explains Algebra I.

California must consider its varying sets of requirements for K-12 students

The Common Core is designed to be a single set of academic content standards that apply to all students, whether they are headed for college or directly to a career path. California's academic expectations are more complex than that. The state's content standards are supposed to apply to all K–12 students, but they are often organized by course, and students can choose from a continuum of

course requirements depending on their post-high school plans. Thus, the amount of California's standards that students must master depends somewhat on their aspirations. The state has different course-taking requirements for high school graduation, eligibility for community colleges, and eligibility for public four-year universities. And to be considered ready for credit-bearing, college-level work—as opposed to simply being admitted to college—students must not only complete courses, but reach a specific level of mastery.

California's K–12 content standards identify specific skills and knowledge that the State Board of Education would like to see a student learn in a given grade or course. The state also drives schools to cover that material by providing curriculum frameworks, adopting K–8 standards-aligned instructional materials (and providing funding for all K–12 schools to adopt such materials), and requiring standards-based assessments for students. In the past, the Legislature also provided funding to encourage standards-aligned professional development for teachers and school leaders. Thus, California's well-regarded academic content standards have been infused into much of the curricula that schools offer.

However, many students are not exposed to significant portions of the standards because they are not required to take courses in all the subjects that the standards cover. This is particularly true in math.

To receive a high school diploma, a student must successfully complete courses in English, math, social studies, science, visual/performing arts or foreign language, and physical education. (Districts can add to these course requirements.) One of the math courses must cover the concepts of Algebra I. California's high school students must also pass an exit exam to get a diploma. However, the exit exam covers only English language arts and math, and students can pass the test even if they miss all the Algebra I questions.

Whether or not students graduate from high school in California, they have a further chance for a public education through the state's community college system. However, students who did not pass the exit exam and do well in their high school courses will

figure 3 | California's high school students must take a more demanding set of courses to be eligible for admission to public universities than to earn a high school diploma

Yearlong Course Requirements for a High School Diploma	Yearlong Course Requirements for Eligibility for California's Public Universities (known as "a-g" requirements)
<ul style="list-style-type: none"> ■ Three years of social studies, including U.S. history and geography; world history, culture, and geography; a semester in American government and civics; and a semester in economics. ■ Three years of English. ■ Two years of math, including Algebra I. ■ Two years of science, including biological and physical science. ■ One year of foreign language or visual/performing arts. ■ Two years of physical education unless exempted. 	<ul style="list-style-type: none"> (a) Two courses in history/social science—one in world history, cultures, etc., and one in U.S. history (or one semester of U.S. history and one semester of civics). (b) Four English language arts courses. (c) Three math courses—through Algebra II or Integrated Math III. Four courses are strongly recommended. (d) Two laboratory science courses in two different disciplines, such as biology, chemistry, or physics. Three courses are strongly recommended. (e) Two foreign language courses in a single language. Three courses are recommended. (f) One visual/performing arts course. (g) One elective chosen from the University of California's "a-g" list.

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probably not be able to start community college taking courses that count toward an associate's degree or eligibility to transfer to a public four-year university in California. Instead, such students may need to begin with nondegree-applicable basic skills courses.

In addition, students who earn a high school diploma having taken just the minimum courses and having earned marginal grades, may also need to do remedial work before earning credit toward an associate's degree or transfer eligibility. This situation is made more complex by the fact that different community colleges use different placement criteria. The community college system is working toward more uniformity in this regard, but progress is slow. This disconnect between high school graduation requirements and postsecondary expectations means that even people who did well in high school may not place into the community college courses they expect to.

To be eligible for admission to the state's public four-year universities, students must

successfully complete courses that go beyond the minimum needed for a high school diploma—for example an additional year of math, including Algebra II. And the University of California (UC) sets a higher bar than the California State University (CSU). To be eligible for admission to UC, students must earn at least a 3.0 average on a 0–4.0 scale in the college-preparatory courses taken during 10th and 11th grades. (Figure 3 above compares the state's high school graduation requirements with the courses required for UC/CSU eligibility.) Again, however, variation in the quality and rigor of high school courses means that even some students who appear prepared for success in the state's colleges may not actually be ready. The California Diploma Project referred to on page 11 and in more detail in the box on page 16 is trying to expand the Early Assessment Program so that the state will send consistent, meaningful signals to high school juniors about their readiness for postsecondary education.

When the State Board of Education compares the rigor of the commission's proposed new standards to California's current academic standards, it may not directly address this gap between the minimum expectations for high school graduation and what it means to be college- and career-ready. However, it is clear that this state's graduation standards are less rigorous than the Common Core expectations in terms of math, at the same time that California's Algebra II requirement for UC/CSU eligibility is at least comparable to the Common Core if not somewhat more demanding.

How Algebra II figures into high school graduation and college eligibility requirements is an issue that many states have grappled with. According to Achieve, as of May 2010, several states have adopted high school course-taking requirements that will prepare graduates for college and careers, which includes four years of rigorous English and math, including content through at least Algebra II. Eight states plus the District of Columbia have made such course requirements mandatory, and 13 states have included those elements in a default curriculum that students take unless their parents excuse them from certain requirements—typically math courses.

Decisions of what to require of high school students are complex partly because of the overarching question of whether college-readiness standards and career-readiness standards are synonymous, as the Common Core initiative asserts.

Is college-readiness the same as career-readiness?

One of the premises on which the initiative is based is that whether desiring to go to college or take a job with good earnings and hope for advancement, all high school graduates need a shared and specific set of skills and knowledge. Many employers and educators accept this premise, but skeptics point to some data that call it into question. The latter point to examples of “middle class” jobs that do not require the type of skills needed for college, and other skeptics say career-readiness involves skills that are in addition to those needed for college. Not

surprisingly, no study has silenced this debate by proving conclusively that a particular view is absolutely correct.

ACT equates the two based on analysis of test scores. A 2006 study by a major testing company offers evidence that career-readiness and college-readiness are similar. ACT compared students' scores on its 1) assessment of skills necessary for success in a certain class of jobs and 2) tests in reading and math for college admissions and placement. ACT analyzed the extent to which the desirable scores on both tests represented comparable skill levels and found them to be similar.

ACT focused on jobs that do not require a bachelor's degree but likely require some combination of vocational training and/or on-the-job experience, or an associate's or higher degree (careers in Job Zone 3 in the U.S. Department of Labor's Occupational Information Network or O*NET). Examples include electricians, construction workers, upholsterers, plumbers, legal secretaries, and forest and conservation technicians. By selecting this class of jobs, ACT essentially defined workforce readiness as workforce training readiness because these jobs require high school graduates to have the foundational skills necessary to learn additional job-specific skills throughout their careers. For 90% of the 120 jobs in Job Zone 3, ACT determined that a person would need to score at least a 5 on a scale of 3–7 on ACT's WorkKeys tests in Reading for Information and Applied Mathematics.

The scores connoting college-readiness are associated with at least a 75% chance of earning a C or better in college-level math and English courses without remediation. Those benchmark scores are 21 on the ACT reading assessment and 22 on the math assessment.

Based on a statistical analysis of the scores of 477,000 high school juniors in Illinois who took both the WorkKeys and ACT college-admissions tests between 2001 and 2004, ACT determined that scoring a 5 on the WorkKeys tests in both reading and math equated to a score range of 19–23 on the college-readiness test in reading, and a score

range of 18–21 on the college-readiness test in math.

Thus, the ACT study shows that in one large state, the reading and math knowledge needed to succeed in a class of “good” jobs and in college-level coursework are similar.

Education researcher Paul Barton disagrees

However, other research brings up questions of whether many recent high school graduates, even with a solid K–12 education, have the choice of entering a good career. Paul Barton, an education writer and consultant who sometimes works for Educational Testing Service, points to data showing that such jobs may not be widely available, and that employers are generally not very willing to hire 18- or 19-year-olds for such work.

In *High School Reform and Work: Facing Labor Market Realities*, published in 2006 by Educational Testing Service (ETS), Barton endorses the need to raise the academic skills of noncollege-bound high school graduates to help them compete for and advance in the higher-paying jobs available to those without a college degree. However, his analysis “does not find support for the proposition that those not going to college need to be qualified to enter college credit courses in order to enter the workforce.”

Barton offers two major reasons in the ETS report. First, although jobs with high projected growth rates will have relatively high educational requirements, those jobs will remain few in number. In other words, there may be far fewer of these “good” jobs than noncollege-bound high school graduates looking for work. Most jobs that do not require a bachelor's degree require only brief or moderate-term training on the job, as opposed to rigorous academic skills.

Second, Barton asserts that employers, except those who rely heavily on teenagers, do not want to hire high school graduates until they are well into their 20s, irrespective of how well they do in school. Barton admits that little current research is available on the minimum age employers set for hiring people into jobs at which adults can make a living, but he states that many employers offering jobs with fringe benefits

and advancement opportunities defer hiring until the potential employees are in their mid-20s—for both high school and college graduates. In employer surveys regarding factors considered in hiring entry-level workers, the candidates' attitude, experience, and recommendations far out-rank performance in school. Recent high school graduates generally lack the experience and recommendations that these employers seek.

In 2009, Barton commented on an early draft of the Common Core standards, not as an employee of ETS but as an interested observer. In his comments, he argued that the ACT study should not have focused on Zone 3 jobs, most of which require some training in vocational schools, related on-the-job training, or an associate's degree, and some of which may require a bachelor's degree. Barton asserted that a better choice for the ACT study—for jobs that students go directly to after high school—would have been Zone 2 jobs, which O*Net says “usually require a high school diploma and may require some vocational training or job-related course work. In some cases, an associate's or bachelor's degree could be needed.” Examples of Zone 2 jobs are automotive body repairer, bailiff, bus driver, court clerk, dental lab technician, and flight attendant. None of those jobs requires rigorous academic skills. And yet, according to Bureau of Labor data, the national median salaries for these positions in 2008 were in the mid-\$30,000s—arguably enough to be considered “middle class” salaries in many non-metropolitan parts of the United States.

The Work Readiness Council identifies many jobs that have lower entry requirements

A separate assessment of work-readiness bolsters Barton's claim about the skills needed for many non-B.A. jobs. The Work Readiness Credential, developed in 2006 by the National Work Readiness Council (WRC), is intended to provide a national certification of qualification for nonsupervisory, nonprofessional positions that may be unskilled or skilled with job-specific abilities learned on the job. Based on sample questions from the WRC assessment, minimum qualification for this class of

The California Diploma Project (CDP) is promoting the adoption of a common indicator of college readiness for the state

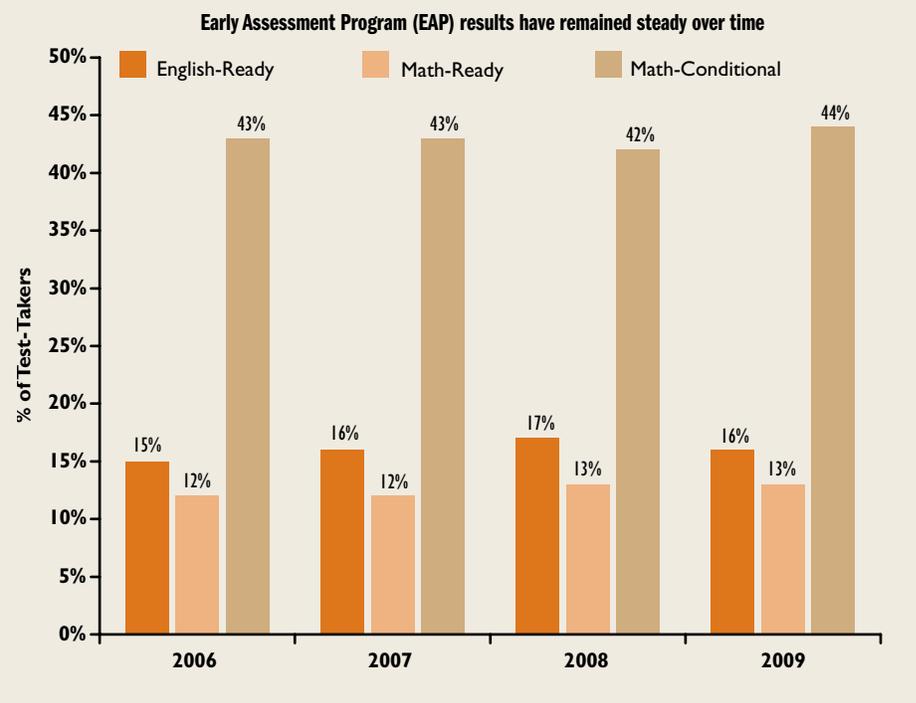
The focus of the CDP is to encourage all of the state's higher education systems to adopt a common indicator of high school students' readiness for baccalaureate-level course work in English and math. The California State University already uses performance on augmented California Standards Tests for this purpose through the Early Assessment Program, and the CDP is trying to spread their use to other postsecondary institutions in California.

Early Assessment Program (EAP)

Many high school juniors whose schools participate in California's Early Assessment Program (EAP) choose to take augmented versions of California Standards Tests (CSTs) in English (including an essay) and math to determine college readiness. The results are used by the CSU system to determine whether students entering their senior year of high school are going to be ready for nonremedial, credit-bearing course work in their first year of college or will need additional preparation. Senate Bill 946, enacted in 2008, also allows—but does not require—community colleges to use EAP tests to exempt students from placement testing beginning in 2009-10. Some colleges are beginning to implement the EAP, and the University of California is analyzing whether the augmented CSTs should be used for its campuses as well. In addition, the Association of Independent California Colleges and Universities is considering such a move.

In English, students receive one of two results: they are either college-ready or not. But in math, students can receive one of three results. They can be determined college-ready, conditional (college-ready if they take a sufficiently rigorous math course their senior year), or not college-ready. However, juniors are only eligible to participate in EAP math testing if they are taking either the Algebra II or the Summative High School Mathematics CST. This latter requirement excludes students who have not yet taken Algebra II by their junior year, which represents a sizable portion of students. A total of 366,949 high school juniors participated in the EAP English language arts test, while only 169,478 juniors took part in the EAP math test in 2009.

As the chart below shows, test results have remained nearly constant from 2006 through 2009.



DATA: EARLY ASSESSMENT PROGRAM (EAP)

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jobs falls well short of college-readiness. Although the WRC assessment is not geared toward the class of jobs that ACT considered, it indicates that many high school graduates would not need college-preparatory skills to succeed at a large swath of jobs—ones that they will likely occupy for several years before moving up the ladder.

The Association for Career and Technical Education offers another view

In an April 2009 paper titled *What is “Career Ready”?*, the Association for Career and Technical Education (ACTE) started with the assumption that the academic skills needed for college- and career-readiness are the same, but asserted that additional skills are necessary to be truly ready for a career. ACTE described three major skill areas in which a person must be proficient: “...*core academic skills* and the ability to apply those skills to concrete situations in order to function in the workplace and in routine daily activities; *employability skills* (such as critical thinking and responsibility) that are essential in any career area; and *technical, job-specific skills* related to a specific career pathway.”

Whether the final Common Core standards promote the employability skills that ACTE referred to was not known as this report went to press. However, Gary Hoachlander, president of ConnectEd, which supports the linking of the classroom with real world experience, thought that the March 10 draft of the Common Core gave short shrift to career-readiness. Hoachlander was quoted in *Education Week* as saying, “It’s difficult to see how career readiness significantly influenced the content here. There is little attention or mention of examples that link more directly to the world of work, to the kinds of problems students will encounter out there, like examples of good technical writing. It’s a glass half full.”

Would implementing the new standards be doable?

If states adopt the Common Core, they will likely encounter substantial

challenges in actually implementing them. In the EPERC survey, states cited the following possible difficulties:

- disruption of ongoing state efforts (17 states);
- misalignment between state and common standards (16 states);
- complex testing and accountability implementation (14 states);
- need to coordinate with other states (7 states);
- timing (4 states); and
- being bound by pre-existing testing contracts (3 states).

Is there enough time?

Although only four states cited timing as a challenge in the EPERC survey, the tight timeline for adopting the Common Core is almost undoubtedly going to pose a challenge for many states. The Common Core initiative itself requires states that adopt the new standards to do so within three years, but states vying for a Race to the Top grant have a strong incentive to adopt the standards by Aug. 2, 2010. A state can wait to adopt them until the end of 2010, but doing so will lead to a loss of points when applying for an RTT grant.

With the release of the final standards expected in early June 2010, states will have relatively little time to meet the RTT’s preferred deadline. States that need to factor implementation issues into their decision to adopt the standards would undoubtedly prefer to take more time than they now have to think through the practical and financial effects on instructional materials, assessments, and professional development. And that does not account for time needed to decide whether to supplement the Common Core with homegrown standards; and if so, what those should be. However, decisions about supplementary standards could probably come after a decision to adopt the Common Core itself.

How much would it cost?

A difficulty associated with adopting the Common Core that was not covered in

the EPERC survey is the potential cost of implementing the new standards. In many states, the implementation would take place in the context of reduced budgets.

Nowhere are resource constraints more of a factor than in the Golden State. California’s spending on K–12 education from state General Fund, local property taxes, and federal sources totaled \$56.8 billion in 2007–08. Two years later, that figure—not including federal stimulus dollars that will soon be gone—totaled \$51.7 billion. And for 2010–11, the governor has proposed further reductions of more than \$2 billion to K–12 education.

In this fiscal climate, California has not budgeted for the cost of implementing new standards. That could potentially include modifying curriculum frameworks, purchasing new instructional materials, providing professional development for teachers and school leaders, and developing new assessments. Even if California could share the cost of some of those activities with other states that had adopted the Common Core, there would still be costs to California in the next few years, a hard thing to contemplate at a time of severe reductions.

Indeed, one of the budget casualties of 2008–09 and 2009–10 was curriculum development and instructional materials adoption. The Legislature prohibited—until 2013–14—the State Board of Education from updating the curriculum frameworks that guide the development and adoption of updated instructional materials. Until the Legislature enacted this prohibition, the State Board of Education was planning to revise curriculum frameworks and adopt instructional materials for math and reading language arts in 2010 and 2011, respectively.

If the State Board of Education adopts the Common Core, the Legislature would likely need to also allow the Board to move more quickly on new frameworks and adoptions. But the degree to which the newly adopted standards diverge from the state’s existing

standards will determine the amount of retooling needed and, thus, the cost of implementing the new standards.

If the new standards align closely with California's existing standards, the state would need to invest few new dollars. Over time, as California's budget situation improved and the state reactivated its schedule for revising frameworks and adopting instructional materials, the board could build minor modifications into the reactivated schedule.

In contrast, the proposed standards could diverge substantially from California's current standards. That would create a need for new frameworks and instructional materials and at least one-time training sessions for existing teachers and principals. The cost to the state in that case could be substantial.

Based on the state's past experience, new curriculum frameworks and instructional materials could cost about \$800 million for English and math combined. In addition, training teachers in both subjects could cost as much as \$765 million, based on an assumption of \$2,500 per teacher per subject and counting teachers both in self-contained classrooms and those that teach single subjects. An additional \$20 million would be needed for training principals to help them in their work as instructional leaders (based on the amount that the state and the Gates Foundation appropriated in 2001–02 for initial training of administrators). Finally, developing tests based on new standards would add a relatively small amount to the total cost, with the exact sum depending on how quickly the new test questions were phased in and whether the state would retain the existing tests' format, which currently contains almost entirely multiple-choice questions. Participation in an assessment consortium could also affect this cost. Thus, an estimate of the total cost of a more comprehensive retooling is about \$1.6 billion over a few years.

In addition, the state's accountability system would need to be adjusted. State-level adjustments would be handled by officials in Sacramento and probably not cost much, but the field might incur costs from

revising systems they have built based on current measures.

Furthermore, the entire high school exit exam program could well require a "reset" if the new standards are substantially different from California's current standards. When a state attaches substantial individual consequences to a standards-aligned test—such as California's high school exit exam, which students must pass to get a diploma—a state must be able to prove that its students had an opportunity to learn the material tested. Thus, the state would need to implement the new standards for at least a few years and go through new field testing and meeting all the requirements of a legally defensible exit exam before it could make the new test a graduation requirement.

[In what timeframe would the new standards be implemented?](#)

To develop a robust standards-based reform program based on the Common Core, a state will need to get several steps right. Fourteen states recognized this in the EPERC survey, citing "complex testing and accountability implementation" as a challenge.

In California's Phase 1 application for Race to the Top funding, the state assumed that the new standards would be substantially different from California's current standards. The application laid out a five-year plan for developing new curriculum frameworks, instructional materials, professional development modules for teachers and school leaders, and new assessments that reflect revised standards. The plan was based on processes refined since the late 1990s, when the State Board of Education adopted California's existing standards.

California did not win a Race to the Top grant in the first application phase, and its approach in the second phase will focus on a subset of districts. However, this does not necessarily mean that its plan for implementing the Common Core would be much different from that discussed in the Phase 1 application. The superintendent of public instruction and the State Board of Education are required to present to the governor and Legislature a plan and schedule

for implementing the Common Core standards. That plan could resemble the state's proposed plan from the Phase 1 RTT application.

As outlined in California's original RTT application, the first step in the plan would be to develop new curriculum frameworks in math and English language arts (ELA). The state's Curriculum Commission, an advisory body to the State Board of Education, would lead this effort. The work would involve focus groups, subject-matter experts, public comment periods, and revisions based on feedback. The application set the target dates for completion as July 2011 for math and December 2011 for English.

The second step would be to develop new K–8 instructional materials based on the frameworks. The Curriculum Commission would be heavily involved in that work also. Consistent with state law, it would oversee a process in which materials undergo:

- a social content review to make sure they accurately portray the ethnic diversity of American society and avoid commercial content;
- a content and usability review by doctorate-level experts, educators, parents, and others; and
- a public comment period.

The goal would be to have instructional materials for math ready for delivery to schools in August 2012 and materials for English in July 2013.

For grades 9–12, the state would build on recently developed practices and networks that provide guidance for districts as they adopt their own instructional materials. A consortium of local education agencies review available instructional materials electronically and post their reviews online for the benefit of other local agencies.

Next in the process would be creation of professional development modules for teachers and school leaders. The modules would be delivered through the state's existing Math and Reading Professional Development Program and Administrator Training Program, as well as through newly formed professional learning communities and online.

Finally, California's initial RTT application reflected a plan to adapt the state

testing and accountability systems to revised standards and a newly developed data system. Under the plan, the changes would take place whether California is part of a multi-state testing consortium or acting on its own. The vision includes building assessments into new instructional materials, which the frameworks have called for since 1999. In

addition, California would develop a bank of test questions that teachers could use to monitor students' progress in an ongoing way and modify instruction as needed. Annual state tests would reflect the new standards, and the new accountability system would, as has been discussed for the existing accountability system, take advantage

of CALPADS, the state's new education database, which is beginning to provide student-level data over time. (CALPADS stands for California Longitudinal Pupil Achievement Data System.)



Whether or not California adopts the Common Core in August, it might want to re-examine its standards

Even if the State Board of Education decides against adopting the Common Core in August, California might want to keep discussions about its content standards open for two reasons. First, the federal government may continue to offer incentives to adopt common standards. Second, changes in technology and the economy may behoove California to revisit its standards.

The federal government will likely continue offering incentives for states to adopt college- and career-ready standards

After the federal Department of Education announces the handful of states that have won Race to the Top grants, the current pressure to adopt the Common Core may be reduced somewhat for the nonwinners. But the Obama administration has signaled that it will continue to encourage states to adopt common standards. One of the main vehicles that Obama's team hopes to use for that is the future version of the Elementary and Secondary Education Act (ESEA), whose current iteration is called the No Child Left Behind Act (NCLB).

President Lyndon Johnson signed the original ESEA in 1965 to support the education of the country's poorest children, and federal policymakers are supposed to reauthorize (revise and renew) the law every five to six years. They last took such action in 2002, so reauthorization is overdue. States and U.S. territories receive more than \$20 billion per year in total through the ESEA—but only if they operate specified programs.

Obama has proposed amending the federal funding conditions to encourage states to adopt college- and career-ready standards. Under the administration's proposal for

reauthorizing ESEA, which is described in *A Blueprint for Reform* (March 2010), states could either adopt something akin to the Common Core or “choose to upgrade their existing standards, working with their 4-year public university system to certify that mastery of the standards ensures that a student will not need to take remedial coursework upon admission to a postsecondary institution in the system....”

If the University of California joins the California State University in fully implementing the Early Assessment Program, this state might claim that it meets the latter criterion. (See the box on page 16 for more on the Early Assessment Program.)

The evolving economy may call for new skills

The question of whether California ought to conform its K–12 content standards to the Common Core is perhaps not the only standards question on the table. Although the fundamental skills and knowledge represented in California's K–12 math and English content standards were meant to have long-term relevance to college and work, they have not undergone a review since they were adopted 13 years ago. Two recent bills, Senate Bill 1097 (2008) and Assembly Bill 97 (2009), both authored by Assemblyman Tom Torlakson, would have authorized such a review. However,

Schwarzenegger vetoed the first bill, and the Senate Education Committee held up the second bill. Without such legislation, the State Board of Education may not revise the standards, according to the Legislative Counsel, a public agency that drafts legislative proposals and prepares legal opinions for the Legislature. If the board does not adopt the Common Core this summer, California's current standards will stand without another review until the Legislature requires the board to conduct one.

As researchers improve their understanding of how students learn, and as technology and the economy evolve, the concepts and skills that are most important for students to learn may change as well. For example, according to *The Jobs Revolution: Changing How America Works*, the top 10 in-demand jobs projected for 2010 did not exist in 2004. Although knowledge of English language arts and math will always be valuable, the priorities within those fields may change over time. Thus, California could be well-served to regularly test its thinking about what material it wants its students to master. In many other states, including Massachusetts, a review of content standards is regularly scheduled. California could establish a similar process by building a standards review into its curriculum framework development cycle.

Finally, global economic forces might compel California to reconsider the varying expectations that it has for its high school graduates. Although it seems safe to assume that there will always be gradations in the level of skills and knowledge needed for various academic and professional options, the high school graduation requirements in this state may be too low, effectively giving students a mistaken impression of what constitutes adequate preparation for adult success.

These are issues that California might face regardless of the State Board of Education's decision on the Common Core, but they are pertinent to that decision as well. The board will need to make informed judgments as to whether the Common Core will give students more of what they need to know for the

future than the state's current standards, and what the implications might be for the state's minimum requirements for all high school graduates. In addition, if the Common Core is substantially different from the state's current standards, the board will need to decide whether adopting it will be worth the disruption to state assessment and accountability systems and to district and school curricula. They will also want to consider the cost to the state if they do not adopt, which could leave California out of step with much of the nation and limit the state's ability to take advantage of the common assessments that are envisioned as integral to the initiative. These are difficult questions, and if the Aug. 2 deadline is to be met, the board will have relatively little time to deliberate and answer them. [1]



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To Learn More

- Watch EdSource's website, www.edsource.org, for updates on the Common Core and the State Board of Education's decision on adopting the new standards. For the works cited and other organizations mentioned in this report, see: www.edsource.org/pub_common-core.html
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- To track the evolving details around the Race to the Top assessment program, see www2.ed.gov/programs/racetothetop-assessment/resources.html and the Curriculum Matters blog at: <http://blogs.edweek.org/edweek/curriculum/>

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Brian Edwards

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