Defining College Readiness

Where are we now, and where do we need to be?

Multiple catalysts are fueling states' increased urgency to establish a definition of "college readiness:"

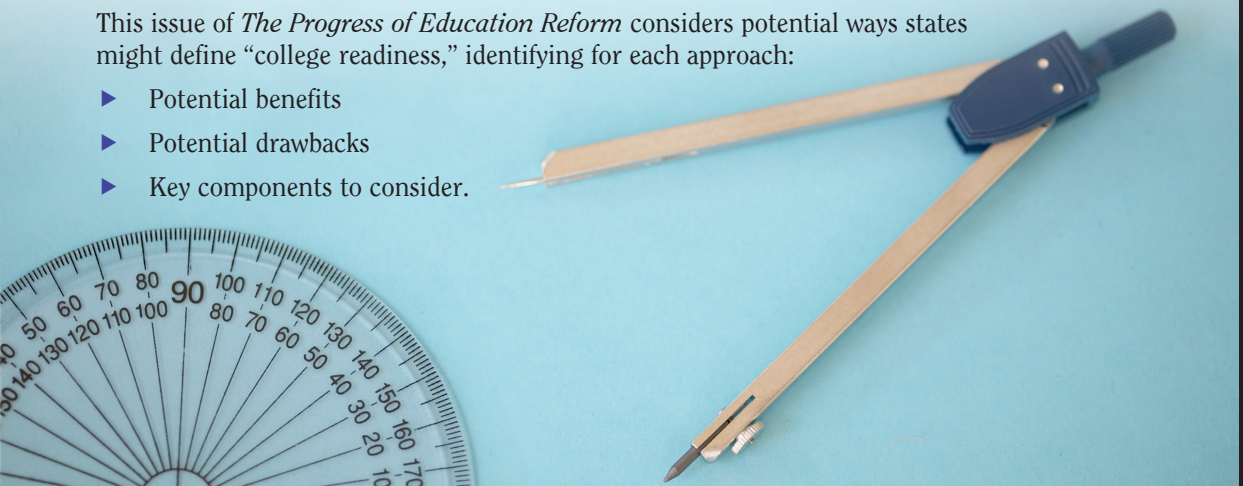
- *Common Core*: Forty-six states and the District of Columbia have adopted the Common Core State Standards, which are "aligned with college and work expectations."[1] Assessments measuring student performance against these standards are under development by two assessment consortia. Twenty-three states and the District of Columbia plan to administer the PARCC (Partnership for Assessment of Readiness for College and Careers) assessment, while 28 states have agreed to administer the Smarter Balanced Assessment.[2]
- *NCLB waivers*: States seeking waivers from No Child Left Behind (NCLB) Act mandates must, among other requirements, adopt "college- and career-ready standards" in reading and math for all students, and develop and administer "annual, statewide, aligned, high-quality assessments, and corresponding academic achievement standards, that measure student growth in at least grades 3-8 and at least once in high school."[3]
- *Race to the Top*: Funds are intended to "encourage and reward States that are … ensuring student preparation for success in college and careers … and implementing ambitious plans in four core education reform areas," including adoption of "internationally-benchmarked standards and assessments that prepare students for success in college and the workplace[.]" Phase 2 state applications were required to demonstrate how funds would "increase the rates at which students graduate from high school prepared for college and careers."[4]
- *High postsecondary remediation rates*: Complete College America (CCA) recently reported remediation rates at two- and four-year postsecondary institutions in 33 states. For students enrolling in higher education directly out of high school, the remediation rate was 53.8% at two-year institutions for the 27 states providing data, and 20.4% at four-year institutions for the 25 data-providing states. This is particularly sobering considering CCA and other data confirm that students requiring developmental coursework are significantly less likely to finish college.[5]
- *Interest in, demand for postsecondary completion*: Numerous recent surveys indicate that the vast majority of high school students expect they will earn a college degree. Projections by the Bureau of Labor Statistics bear out the value of these aspirations, noting a 15.6% increase in job openings requiring a bachelor's degree between 2010 and 2020.[6]

What's Inside

Some states are creating a "college readiness" definition that describes what a student will know and be able to do in such core academic courses as English language arts and math, and that identifies items or benchmarks on state assessments that demonstrate attainment of those skills and knowledge. Other states have adopted what might be considered the opposite approach, identifying a score on a national or state assessment that demonstrates a student has the knowledge and skills to succeed in college.

This issue of *The Progress of Education Reform* considers potential ways states might define "college readiness," identifying for each approach:

- Potential benefits
- Potential drawbacks
- Key components to consider.



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Education Commission of the States

Option 1: Align Performance Expectations with State Standards

Some states have developed performance standards that describe what a student who is "college-ready" should know and be able to do in English language arts and math. These include states that have adopted the Common Core State Standards, as well as states such as Virginia and Texas, which have created their own standards and performance expectations.

Potential benefits of using performance expectations aligned with state standards:

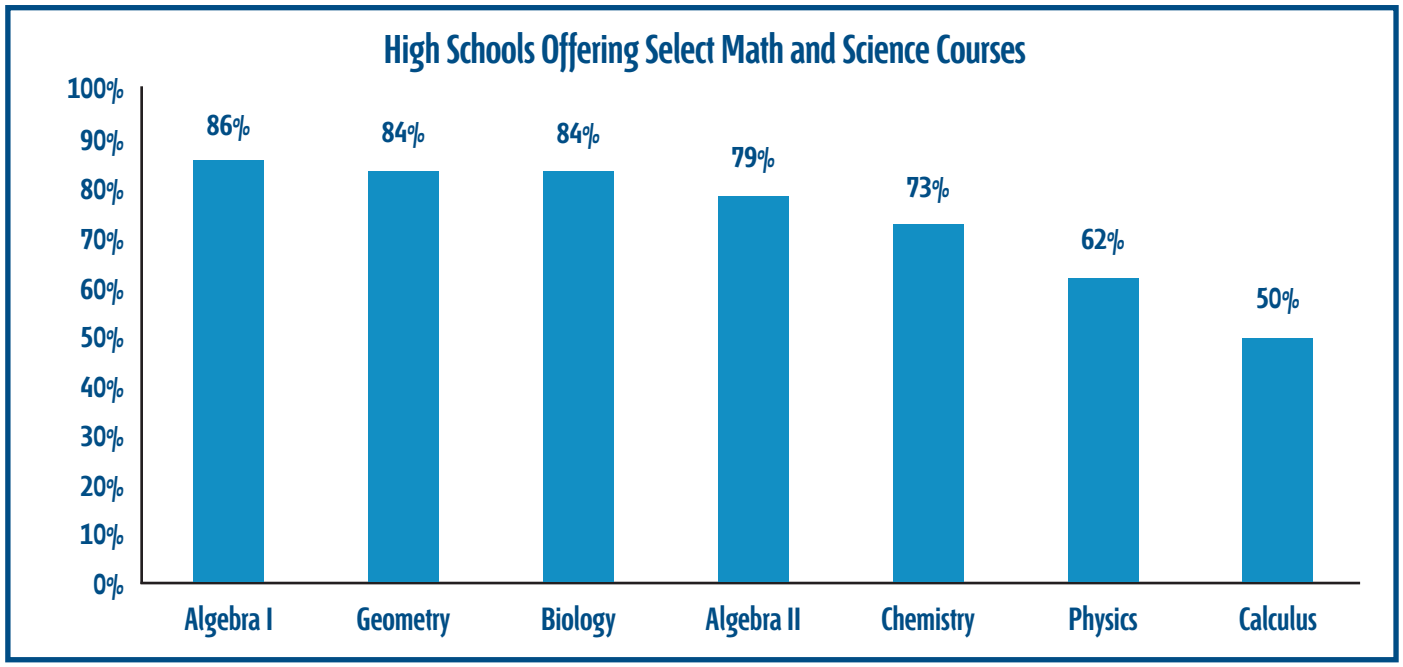
- *Potential to create ongoing instructional focus on college-readiness.* Well-honed performance expectations can help high school teachers target instruction and assignments to make college-readiness an ongoing focus, day after day throughout the academic year.
- *Backmapping to the middle grades.* Performance expectations can also help middle grades teachers understand what expectations lie ahead for their students when they enter high school, and help students be ready to take on those expectations.
- *Bringing all stakeholders to the table.* The process of articulating performance expectations can bring in the stakeholders who need to be at the table — high school and postsecondary instructors and state leadership, and potentially others (business leaders, for instance).

Potential drawbacks of using performance expectations aligned with state standards:

- Vague expectations or those not linked to an agreed-upon, standard measuring stick are a waste of everyone's time. Performance expectations might just as well not exist if they are either:
  1. Not reflected in a common, statewide assessment instrument or other standard means of measuring whether students have attained the measure
  2. Not worded clearly enough to ensure all teachers, students and parents know what is expected of students.

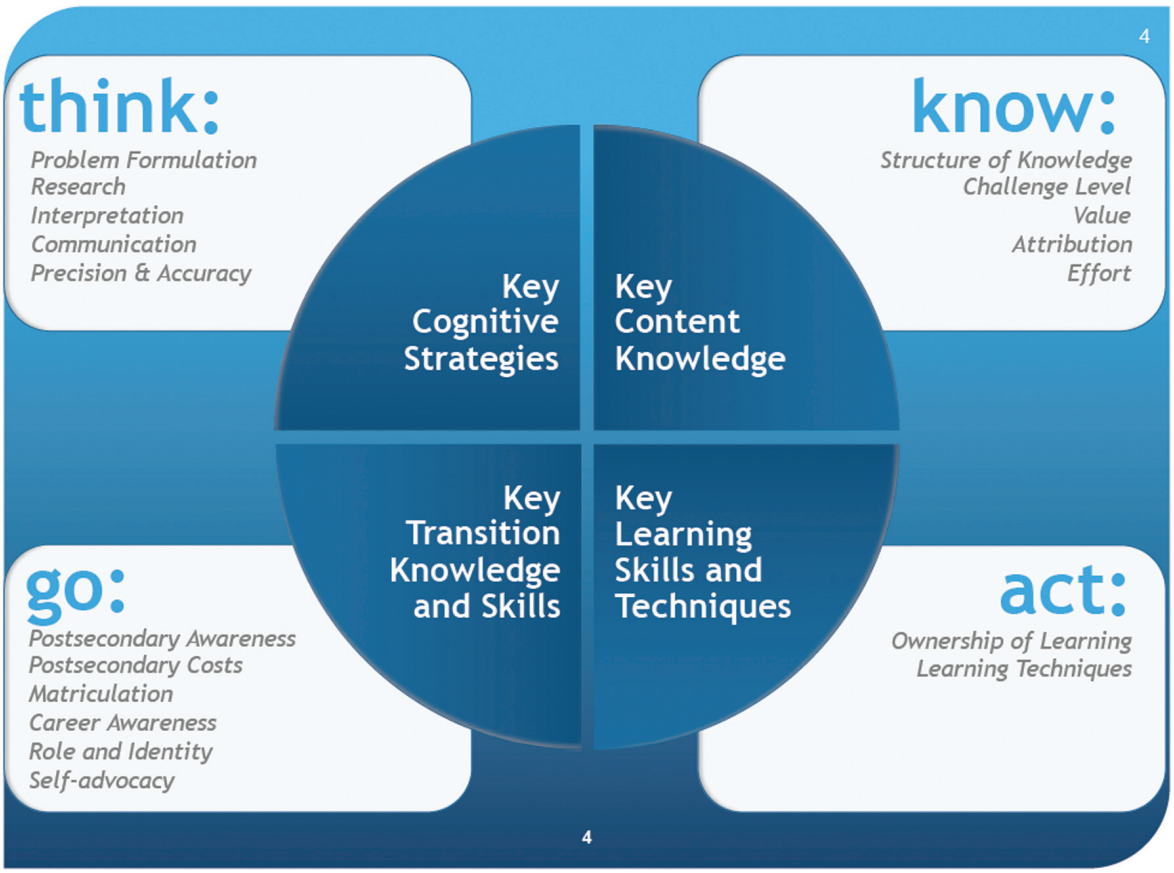
Key policy considerations:

- *Ensure that students have a common means to demonstrate attainment of skills.* This may be through standards-based online assessments scattered across the high school grades and curriculum, or end-of-course exams, or standardized assessments administered in grades 9, 10 or 11. For instance, **Colorado** legislation enacted in 2008 directed the state board and the commission on higher education to "negotiate a consensus and adopt a description of postsecondary and workforce readiness." The state board and commission must then "adopt one or more postsecondary and workforce planning assessments, postsecondary and workforce preparation assessments, and postsecondary and workforce readiness assessments" aligned with the description.[7]



Source: *Civil Rights Data Collection*, (Washington D.C.: Office for Civil Rights, U.S. Department of Education, March 2012), page 6, http://www2.ed.gov/about/offices/list/ocr/docs/crdc-2012-data-summary.pdf (accessed March 9, 2012).

- *Identify skill subsets.* Consider identifying subsets of skills that fall under the larger subjects of English language arts and math. For example, **Virginia's** College and Career Ready English Performance Expectations specify 51 skills students need "to be academically prepared for success in entry-level, credit-bearing English courses in college or career training." Reading, writing and communicating are articulated as three components, with subsets of skills identified for each of the three areas. Under writing, for instance, there are two "Documentation and Ethics" skills articulating that students should be able to use a standard method of documentation, and be able to define plagiarism and cite sources ethically.[8] Similarly, Virginia's College and Career Ready Mathematics Performance Expectations set forth 36 mathematical functions and skills, grouped under "four interacting and overlapping strands that include content in the areas of algebra and functions, statistics, geometry, mathematical analysis, and trigonometry."[9]
- *Ensure teachers "get" the expectations.* Knowledge, skills and performance expectations for them should be thoroughly interwoven into secondary-level teacher preparation programs, and ongoing professional development and evaluation. Online tools such as diagnostic and formative assessments, classroom activities, assignments, etc. should be available to help teachers help students work towards achieving the standards, starting in grade 9.
- *Ensure remediation (if necessary) prior to high school graduation.* **Texas**, for example, has integrated college-ready standards into end-of-course assessments, and requires high school seniors who fall short of college readiness standards on an end-of-course exam to "enroll in a corresponding content-area college preparatory course[.]"[10] Legislation directs the commissioner of education and the commissioner of higher education to jointly develop essential knowledge and skills for college preparatory courses in English language arts, math, science and social studies, as well as end-of-course assessments for each college preparatory course.[11]
- *Include "behaviors."* College-ready knowledge and skills, and performance expectations for them, should express not just academic knowledge and skills, but also David Conley's other "dimensions of college and career readiness" — such as "contextual skills and awareness", "academic behaviors" and "key cognitive strategies" — that are so critical to college success.[12] For example, **Colorado's** Postsecondary and Workforce Readiness Description includes "Learning and Behavior Skills" in nine areas. One of these areas, "Work Ethic," includes seven skills, such as "Manage time effectively" and "Plan and prioritize goals."[13]



Source: David T. Conley, Educational Policy Improvement Center (EPIC), "What Does It Mean to Be College and Career Ready," at *Architecture for Implementing the Common Core Standards: Strategies, Partnerships, and Progress*, slide 4 (Louisville, KY, 2012), https://www.epiconline.org/files/pdf/20120228_SHEEO_ConleyHumphreys.pdf, (accessed March 8, 2012).

Option 2: Establish ambitious cut scores on state assessments

Such scores on state assessments could reflect a level of competence that indicates a high likelihood of success in college-level coursework.

Potential benefits of setting ambitious cut scores on state assessments:

- *(Presumably) testing what students have been taught.* State assessments are aligned to state standards and in the majority of states, will be aligned to the Common Core. Identifying college-ready students using a measure of what students should be exposed to in the curriculum makes sense.
- *Encouraging students to take state tests seriously.* Since the advent of statewide assessment and accountability systems in the 1990s — and perhaps since the advent of computer-scored testing — reports have eddied about students not taking assessments seriously. Sending the message that state assessments "count" as a determinant of whether a person is college-ready may make high school students take state assessments more seriously.

> *Students have high expectations for college, and these expectations have increased over the past two decades. In 1988, 57% of middle and high school students said it was very likely they would go to college. By 1997, this level had increased to 67%. Today, 75% say it is very likely they will go to college.*

Source: *The Metlife Survey of the American Teacher: Preparing Students for College and Careers*. (May 2011). Accessed March 8, 2012, from http://www.metlife.com/assets/cao/contributions/foundation/american-teacher/MetLife_Teacher_Survey_2010.pdf.

- *One test, multiple purposes.* States are already administering assessments to all students for purposes of state and federal accountability. Using such tests as a gauge of whether students are prepared for college creates efficiencies in terms of time *and* money.
- *Support from research.* Saul Geiser of UC Berkeley's Center for Studies in Higher Education cites in his 2008 analysis of nearly 125,000 University of California entrants between 1996 and 2001 multiple advantages of using state assessments to "signal" college readiness, over use of an assessment such as the SAT, which is intended to predict students' likelihood of postsecondary success:
  - *Achievement tests help reinforce the teaching and learning of a rigorous academic curriculum.*
  - *Achievement tests serve an important diagnostic function ... [providing] feedback on the specific areas of the curriculum where the student is strongest and weakest.*
  - *Most important is the message that achievement tests convey to students. A low SAT score sends the message to students that their performance reflects a lack of ability, rather than factors such as unequal access to good schools and well-trained teachers. … A low score on an achievement test means simply that the student has not mastered the specific content. This may be due to any number of factors, including inadequate instructional resources , inferior teaching – or lack of hard work on the part of the student. Achievement tests focus attention on determinants of performance that are alterable, in principle, and are thus better suited to the needs of educational improvement and reform.*[14]

Potential drawbacks of setting ambitious cut scores on state assessments:

- *Benchmarking to high standards essential.* Assessments not fully benchmarked to world-class expectations might provide a false sense of competence.
- *A test taken once shouldn't create a make-or-break situation.* State assessments are a single snapshot in time, and everybody has an off day.

Key policy considerations:

- *Timing is everything.* Pre-college remediation is critical. Assessments should be administered early enough in high school that ample time is available to provide sufficient remediation to students in need. **Florida** has set thresholds on the reading portion of the grade 10 FCAT and on the Algebra I and geometry end-of-course assessments that are required for high school graduation. High schools are required to evaluate every student's college readiness using results from the corresponding component of the common placement test, or from an equivalent test identified by the state board. High schools must then use the test results to identify and require students needing remediation to "complete appropriate postsecondary preparatory instruction prior to high school graduation."[15]

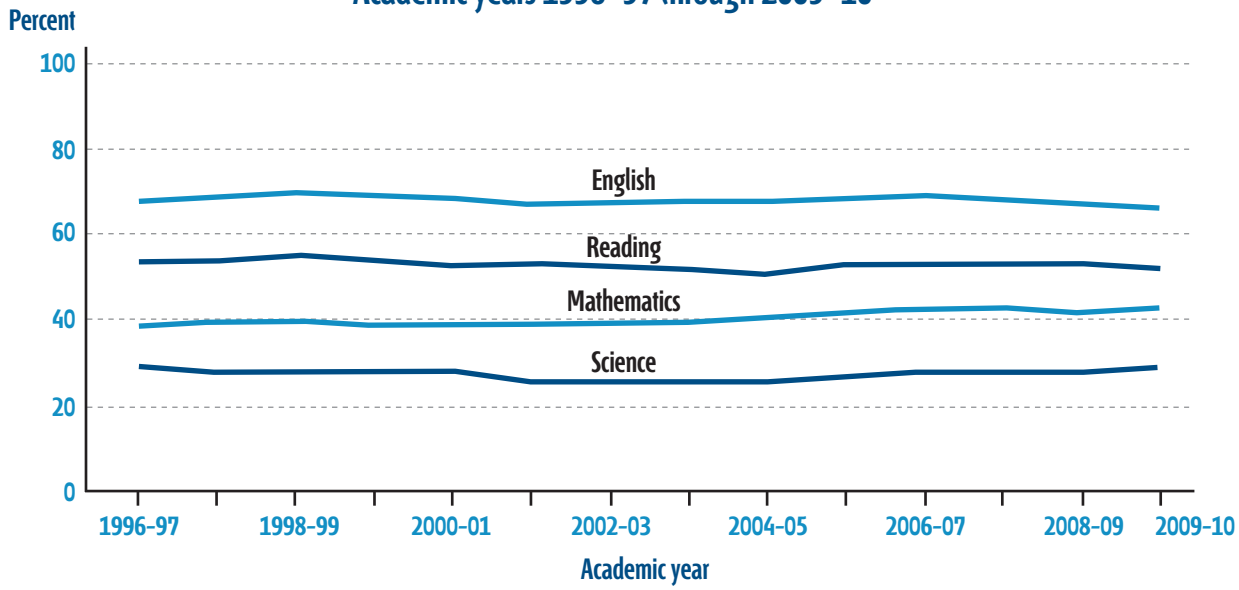
Option 3: Use traditional college admissions or placement tests

Setting a "college-ready" cut score on the English or math subsections of the ACT or SAT, or on national or state-developed college placement exams, is one approach states have taken to define college-readiness. Cut scores on college placement exams are almost universally used by two- and four-year postsecondary institutions to identify students in need of developmental education, but have been criticized by many observers as a tripwire unknown to the vast majority of college entrants, who are unaware that low scores on such exams could require them to complete (and pay for) remedial education before enrollment in credit-bearing coursework.

Potential benefits of using ACT and SAT scores:

- *Well-known.* ACT and SAT are "known quantities" on which acceptable scores signal "college-readiness." Defining college readiness by cut scores on well-known assessments that most four-year college applicants (and some two-year applicants) already take eliminates the "gotcha" factor that placement exams can create.
- *More students taking ACT, SAT.* States are increasingly requiring all students to take the ACT or SAT, thereby eliminating the possibility that less well-informed students (or students who intend to enroll in a community college) will choose not to take these exams. At least 12 states require all high school juniors to take the ACT or SAT, with additional states piloting district-level efforts or anticipated to adopt ACT/SAT-for-all.
- *Opportunity to remediate early.* Assessments administered well before college entry, such as SAT's PSAT or ACT's EXPLORE in 8th and 9th grade, and PLAN in 10th grade, can identify students at risk of not meeting college-readiness benchmarks while there's still time to provide remediation before students sit for the ACT or SAT in 11th or 12th grade.

Percentage of ACT test-taking population meeting college readiness benchmark scores, by subject: Academic years 1996–97 through 2009–10



Note: College readiness benchmark scores are based on the actual performance of approximately 90,000 college students from a nationally representative sample of 98 institutions and represent the level of achievement required for students to have a 50 percent chance of obtaining a B or higher or about a 75 percent chance of obtaining a C or higher in corresponding credit-bearing first-year college courses. These college courses include English Composition, College Algebra, an introductory social science course, and Biology. The Benchmarks are median course placement values for these institutions and as such represent a typical set of expectations. The benchmark scores, out of a total possible score of 36, are 18 for English, 21 for Reading, 22 for Mathematics, and 24 for Science. Estimates are based on all students who took the ACT assessment during their sophomore, junior, or senior year and who graduated from high school in the spring of the respective year shown. Beginning in 2001–02, some states mandated participation in ACT testing for all high school seniors. Prior to that year, the test would have been taken primarily by those students who planned on attending college.
Source: American College Testing Program, *ACT National Scores Report*, 1996–2010.

Table Source: S. Aud, A. KewalRamani and L. Frohlich, *America's Youth: Transitions to Adulthood* (NCES 2012-026). (U.S. Department of Education, National Center for Education Statistics. Washington, DC: U.S. Government Printing Office, 2011), page 45, http://nces.ed.gov/pubs2012/2012026.pdf (accessed March 8, 2012).

Potential drawbacks of using ACT and SAT scores:

- *Senior year without rigorous English and math may negate scores.* Many students take the ACT or SAT in 11th grade. Those who earn "college-ready" scores at that time but who do not take rigorous English or math coursework during their senior year of high school may have forgotten too much to be successful in entry-level courses by the time they reach their first semester of college.
- *Not all ACT subtests have equal predictive power, some research suggests.* Some research has drawn into question the ACT Reading subtest's ability to predict college success. The authors of a 2011 study posit, "In fact … Reading and Science [subtest scores] provide essentially no predictive power regarding college outcomes." (The same study found the ACT English and Mathematics subtests to be "highly predictive of positive college outcomes[.]")[16]
- *SAT may have greater negative impact on low-income and students of color.* SAT critics cite research that the test — intended to "predict" students' likelihood of college success based on measures of capacity to learn, rather than test students' knowledge of academic subjects — is less predictive of the success of low-income and minority students. Geiser notes, "As an admissions criterion, the SAT has a more adverse impact on poor and minority applicants than high-school grades, class rank, and other measures of academic achievement; admissions criteria that emphasize demonstrated achievement over potential ability are more likely to promote educational equity."[17]

Key policy considerations:

- *Consider subtest scores rather than composite score.* While most public universities use ACT or SAT composite scores in making admissions determinations, composite scores can mask low scores in English or math that indicate a lack of college-readiness.
- *Include the Writing section of either ACT or SAT.*
- *Consider differential cut scores.* For example, **Kentucky's** college readiness indicators define cut scores on ACT, SAT, COMPASS and KYOTE (Kentucky Online Testing) math subtests. However, the state sets differential college-ready scores based on whether students are entering liberal arts courses, college algebra or calculus.[18]
- *Require four years of math, including math during senior year of high school.* As noted earlier, students who perform well on an assessment but who do not enroll in challenging coursework in that subject the following academic year may not be truly "college-ready" by the time they reach college. States are increasingly raising graduation requirements to include four years of math, and more states are beginning to specify that a math course must be taken each year of high school, to close loopholes for students who earn high school math credit before grade 9.
- *Require remediation for students who do not meet college-readiness thresholds.* **Kentucky's** graduation requirements note, "If a student does not meet the college readiness benchmarks for mathematics … the student shall take a mathematics transitional course or intervention, which is monitored to address remediation needs, before exiting high school[.]"[19]
- *Set an expiration date on using assessment results.* **Kentucky** provides, "A COMPASS or KYOTE placement test score will be guaranteed as an indicator of college readiness for 12 months from the date the placement exam is administered."

Conclusion

This short report by no means addresses all the possible means to ensure students' college-readiness, and is not intended to provide an exhaustive set of benefits, drawbacks and policy considerations for each approach. Yet a few key points are clear:

- *We're not there yet.* Many states are still working to define college readiness.
- *It's a work in progress.* States that have established college readiness definitions should regularly revisit them to ensure the highest rigor, feasibility and fidelity to implementation.

ECS Resources

Recent State Policies/Activities: College-Readiness
Summaries and links to newly enrolled or enacted legislation and recently approved state board rules from across the states. Updated weekly.
http://www.ecs.org/ecs/ecscat.nsf/WebTopicView?OpenView&count=-1&RestrictToCategory=High+School--College+Readiness

P-20 Blog
ECS' P-20 blog reports on state policy activity and research on improving student transitions across the P-20 pipeline, including improving college readiness.
http://p-20matters.blogspot.com/

At ECS' 2012 National Forum on Education Policy!
The author of this issue of The Progress of Education Reform will lead the July 11 session, "Defining College Readiness: Where Are We Now? Where Do We Go from Here?" and will provide the current landscape of state-level college-readiness definitions, discuss potential benefits and challenges of various aspects of definitions, and propose next steps for states to ensure greater numbers of students complete high school ready for postsecondary education.
http://www.ecs.org/html/meetings.asp

Other Recommended Resources

Reaching the Goal: The Applicability and Importance of the Common Core State Standards to College and Career Readiness
Examines the degree to which the knowledge and skills contained in the Common Core State Standards are applicable to and important for postsecondary readiness.
https://www.epiconline.org/files/pdf/ReachingtheGoal-FullReport.pdf

Endnotes

1 Common Core State Standards Initiative, *About the Standards,* http://www.corestandards.org/about-the-standards, (accessed March 8, 2012).

2 Partnership for Assessment of Readiness for College and Careers, *PARCC States,* http://www.parcconline.org/parcc-states, (accessed February 23, 2012); Smarter Balanced Assessment Consortium, *Member States,* http://www.smarterbalanced.org/about/member-states/, (accessed February 23, 2012).

3 U.S. Department of Education, *ESEA Flexibility* (Washington, D.C.: U.S. Department of Education, September 23, 2011), http://www.ed.gov/esea/flexibility/documents/esea-flexibility.doc, (accessed February 23, 2012).

4 "Department of Education: 34 CFR Subtitle B, Chapter II [Docket ID ED–2009–OESE–0006] RIN 1810–AB07 Race to the Top Fund," 74 Federal Register 221, (November 18, 2009), pp. 59688-59834; "Department of Education: Overview Information; Race to the Top Fund; Notice Inviting Applications for New Awards for Fiscal Year (FY) 2010," 75 Federal Register 71, (April 14, 2010), pp. 19496-19531.

5 Complete College America, *Time Is the Enemy,* (September 2011), http://www.completecollege.org/docs/Time_Is_the_Enemy.pdf, (accessed February 23, 2012); ECS Research Studies database, FAQ: "Dev. Studies/Remedial Ed.: What role does and can it play in college completion?" (n.d.), http://www.ecs.org/rs/SearchEngine/SearchResults.aspx?faq_id=a0870000003JEnGAAW, (accessed March 1, 2012).

6 Bureau of Labor Statistics, *Employment Projections,* "Employment by summary education and training assignment, 2010 and projected 2020," (last modified February 1, 2012), http://www.bls.gov/emp/ep_table_education_summary.htm, (accessed February 23, 2012).

7 COLO. REV. STAT. § 22-7-1008((1)(a) and (2)(a)

8 Virginia Department of Education, *Virginia's College and Career Ready English Performance Expectations* (n.d.), http://www.doe.virginia.gov/instruction/college_career_readiness/expectations/perf_expectations_english.pdf, (accessed March 2, 2012).

9 Virginia Department of Education, Virginia's College and Career Ready Mathematics Performance Expectations (n.d.), http://www.doe.virginia.gov/instruction/mathematics/capstone_course/perf_expectations_math.pdf, (accessed March 2, 2012).

10 TEX. EDUC. CODE ANN. § 39.025(B-2)

11 TEX. EDUC. CODE ANN. § 28.014

12 David T. Conley, *College and Career Ready: Helping All Students Succeed Beyond High School* (San Francisco: Jossey-Bass, 2010), 32.

13 Colorado State Board of Education and Colorado Commission on Higher Education, *Postsecondary and Workforce Readiness Description*, (June 30, 2009), http://www.cde.state.co.us/cdegen/downloads/PWRdescription.pdf, (accessed March 2, 2012).

14 Geiser, pp. 4-5

15 FLA. STAT. ANN. § 1008.30(3)

16 Eric P. Bettinger, Brent J. Evans and Devin G. Pope, *Improving College Performance and Retention the Easy Way: Unpacking the ACT Exam* (NBER Working Paper No. 17119) (Cambridge, MA: National Bureau of Economic Research, June 2011).

17 Saul Geiser, *Back to the Basics: In Defense of Achievement (and Achievement Tests) in College Admissions* (Berkeley, CA: Center for Studies in Higher Education, University of California, Berkeley, July 2008), http://cshe.berkeley.edu/publications/docs/ROPSGeiserBasics-07-10-08.pdf, (accessed March 1, 2012).

18 Kentucky Council on Postsecondary Remediation, *College Readiness Indicators,* (n.d.), http://cpe.ky.gov/NR/rdonlyres/78B3510A-CECD-4157-8F20-3E3499707DAA/0/CollegeReadinessIndicators.pdf, (accessed March 1, 2012).

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