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Using assessments to inform 12th-grade interventions and accelerations

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In the 2014-15 school year, 47 states are administering high school assessments to gauge students' mastery of college and career readiness standards in English language arts (ELA) and math. These new assessments represent a departure from prior high school exams that measured acquisition of high school (or lower) content but provided no actionable metric of a student's college and career readiness.

This ECS Education Policy Analysis delves into statewide high school college and career readiness assessments and how states are using them to overcome two persistent challenges – the “wasted senior year” and high postsecondary remediation rates. Seniors identified as not college ready can use their senior year more intentionally, participating in interventions to prepare them for placement into credit-bearing coursework upon postsecondary matriculation. Eleventh-graders demonstrating college readiness can be more accurately and consistently identified and encouraged to more effectively use their senior year by enrolling in advanced coursework, allowing them to earn transferable college credits toward a postsecondary credential or degree.

States should consider making the most of high school college and career readiness assessments by using assessment results to make the senior year more meaningful and to ‘signal’ college readiness.

KEY TAKEAWAYS

Statewide college and career readiness assessments present an opportunity for states to identify students who would benefit from college readiness interventions or advanced coursework in grade 12.

Relatively few states have articulated the scores on these assessments that deem a student college ready or in need of interventions to achieve college readiness by the end of grade 12.

Adopting and implementing meaningful statewide intervention and acceleration policies means making numerous critical decisions on student identification metrics, forms of intervention, curriculum and instructional supports, to name just a few.



Using career and college readiness assessments to inform acceleration or intervention options for students

While 47 states and the District of Columbia are administering high school-level college and career readiness assessments in the 2014-15 school year, relatively few are using the tests to identify students who could benefit from remediation or acceleration opportunities during their senior year.¹

Three main components of state policies – assessments, intervention and acceleration – will be presented in the section that follows. These three components reflect intentional state policies to select or multipurpose high school assessments to help students use the senior year more productively.

Given the research on the critical role of academic momentum in postsecondary completion, and the correlation between lower remedial placement rates and higher rates of postsecondary completion, states making more intentional use of the senior year will likely make progress toward postsecondary completion goals. State and local expenditures on 12th-grade ELA and math courses will be better invested in courses designed to bring students closer to college readiness, or accelerate students already college ready, rather than 12th-grade ELA and math courses that fill up time without any correlation to students' college readiness needs. And when students need fewer (or no) hours of remediation upon postsecondary matriculation, both families and states will reap the benefits as parents, students and taxpayers pay less to complete postsecondary credentials.

This report is intended to accompany ECS' 50-state database on 12th-grade transitions, which includes data points on how states are using college readiness assessment scores in decisions on 12th-grade intervention and acceleration opportunities (see below). The database also indicates whether benchmarks on college readiness assessments are reflected in state college and career readiness definitions, and whether states have policies intended to smooth transitions from high school to postsecondary by applying college readiness assessments in postsecondary admissions and placement decisions. View the full [50-state database](#).

The data points in ECS' 50-state database on 12th-grade transitions include:

Determinations

- ◆ Statewide mandatory assessments with state-adopted "college ready" cut scores.

Intervention

- ◆ Intervention must be offered a student not demonstrating college readiness.
- ◆ Identified students must participate in college readiness interventions.
- ◆ Student retested at end of grade-12 college readiness intervention.
- ◆ Students may take developmental/remedial coursework through dual enrollment programs.

Acceleration

- ◆ Acceleration opportunities must be offered a student demonstrating college readiness.

State college readiness definitions and postsecondary admissions/placement

- ◆ College readiness benchmark reflected in state college readiness definition.
- ◆ College readiness benchmark used in admissions decisions to four-year institutions.
- ◆ College readiness benchmark exempts student from sitting for placement exams upon college entry.

Assessment

To meet federal accountability requirements, states must adopt and implement college and career readiness assessments in ELA and math in one grade in high school. Relatively few states to date have taken the next step of articulating the performance level on these assessments that deems a student college ready or, conversely, in need of interventions to make progress toward or to attain college readiness by the end of the 12th grade.

States have chosen an array of assessments, administered in an array of grade levels, to identify students as college ready.

- ◆ *Statewide college readiness benchmarks:* Eleven states have identified benchmarks on statewide ELA and math assessments that allow a student to demonstrate college readiness.
 - Three states – Oklahoma, Texas and Virginia – use end-of-course (EOC) assessments.
 - One state – Indiana – uses EOC assessments to identify students to take the Accuplacer. Accuplacer scores indicate students who should receive remediation.
 - Three states – Kentucky, Louisiana and Tennessee – use cut scores on the ACT.
 - One state – Arkansas – uses PLAN or PSAT.
 - Three states – Florida, Iowa and West Virginia – use homegrown standardized assessments.
- ◆ *Grade 11:* ACT, WorkKeys and homegrown assessments are typically administered in 11th grade.
- ◆ *EOC assessments:* These are administered whenever a student completes the related course, which may be at any point in high school or even before high school.
- ◆ *Grade 10:* Arkansas administers the PLAN or PSAT in 10th grade. As a result, students may be identified to participate in grades 11 and 12 in interventions to bring them to college readiness, or to participate in accelerated learning opportunities.

Interventions

States that have set college readiness benchmarks on statewide college and career readiness assessments must then determine whether to offer an intervention, the format of the intervention, if they should require a student to participate and whether to retest students for college readiness at the end of an intervention.

- ◆ *Intervention to be offered:* Eight states with college readiness benchmarks on statewide ELA and math assessments require an intervention to be offered to an identified student.
- ◆ *Course format:* In many cases, state policy is unclear if interventions are standalone courses, modules or integrated into existing course requirements.
- ◆ *Student must participate:* Six states – Florida, Kentucky, Tennessee, Texas, Virginia and West Virginia – require identified students to participate in an intervention. Three of these states – Kentucky, Texas and West Virginia – explicitly require a retest after the intervention.

Virginia offers capstone courses in ELA and mathematics for students who are not college ready. The capstone courses include high-interest contextualized content designed to give students an additional boost for competent and successful entry into college and careers.

Acceleration

Setting college readiness benchmarks on statewide college and career readiness assessments presents the opportunity for states to more comprehensively and accurately identify students likely to succeed in advanced course opportunities. These courses may take the form of advanced high school math coursework or opportunities for students to earn postsecondary credit in high school through programs such as Advanced Placement (AP), International Baccalaureate, or academic or career/technical-oriented dual enrollment.

- ◆ *Acceleration to be offered:* In contrast to the eight states that require a college readiness intervention to be offered a student not meeting college readiness benchmarks, only three states – Iowa, Kentucky and Texas – explicitly require districts to offer acceleration to students who have demonstrated college readiness on state assessments.

◆ *How identified:*

- Kentucky identifies students for acceleration opportunities through the EXPLORE, PLAN and ACT assessments. Students who demonstrate a high level of readiness must be counseled to enroll in accelerated courses, with an emphasis on AP classes.
- Kentucky uses ACT to identify students both for acceleration and intervention programs.
- Texas identifies students via special items embedded in EOC assessments.
- Iowa is the only state that requires districts to offer acceleration opportunities but not remediation opportunities. The Iowa Assessment is used to identify students for the Senior Year Plus program, an umbrella program that encompasses dual credit, AP, career academy courses for college credit and Project Lead the Way coursework.

Key considerations for developing intervention and acceleration systems

States should consider making the most of high school college and career readiness assessments by using assessment results to make the senior year more meaningful and signal college readiness to students, parents, K-12 educators and other stakeholders. The section that follows identifies key components states should consider in developing intervention and acceleration systems based on high school college and career readiness assessments.

Bring K-12 *and* postsecondary leaders to the table to define ‘college ready’

It goes without saying that state-level college readiness benchmarks should be designed with input from both K-12 and postsecondary stakeholders in the state. Virginia established its college and career readiness performance expectations in ELA and mathematics through a collaborative process including K-12, postsecondary and business stakeholders (these expectations are not to be confused with the state’s academic content standards, the Standards of Learning).² Texas legislation called for vertical teams of K-12 teachers and postsecondary faculty to recommend college readiness standards and expectations to be integrated into state EOC assessments.³

Find common ground on assessments and cut scores signaling college readiness

It makes sense for states to multipurpose statewide college and career readiness assessments, that is, Partnership for Assessment of Readiness for College and Careers (PARCC), Smarter Balanced Assessment Consortium, ACT, SAT or a homegrown alternative, etc., to identify students needing 12th-grade interventions. Even when using these statewide assessments, various challenges may need to be overcome:

- ◆ Confusion on how performance on statewide high school college readiness assessments aligns to cut scores on placement exams widely used within a state.
- ◆ In the case of new college readiness assessments, a lack of data on how students performing at various levels on the new assessment perform in subsequent entry-level credit-bearing college-level coursework.
- ◆ Individual systems’ or institutions’ reluctance to give up the different assessments they are using to place students into credit-bearing coursework – or to change cut scores already being used to place students.

Kentucky’s approach is one model other states may consider when adopting statewide college and career readiness metrics. Since fall 2012, all public two- and four-year institutions have used the same cut scores across various reading, writing and math assessments to place students into credit-bearing coursework. Kentucky’s approach also is innovative in differentiating minimum cut scores in math based on a student’s first college-level math course – for example, students aspiring to some majors requiring more advanced math skills are held to higher cut scores.

College Readiness Indicators

Readiness Score Area	ACT Score	SAT Score	COMPASS	KYOTE
<i>English (Writing)</i>	English 18 or higher	Writing 430 or higher	Writing 74 or higher	6 or higher ⁵
<i>Reading</i>	Reading 20 or higher	Critical Reading 470 or higher	Reading 85 or higher	20 or higher
<i>Mathematics (General Education, Liberal Arts Courses)</i>	Mathematics 19 or higher	Mathematics 460 or higher	Algebra Domain 36 or higher	College Readiness Mathematics 22 or higher
<i>Mathematics (College Algebra)</i>	Mathematics 22 or higher	Mathematics 510 or higher	Algebra Domain 50 or higher	College Algebra 14 or higher
<i>Mathematics (Calculus)</i>	Mathematics 27 or higher	Mathematics 610 or higher	NA	Calculus TBA

Source: Kentucky Council on Postsecondary Education, *College Readiness Indicators*, <http://www.cpe.ky.gov/NR/rdonlyres/78B3510A-CECD-4157-8F20-3E3499707DAA/0/CollegeReadinessIndicators.pdf>

How did Kentucky possibly manage to get all two- and four-year public postsecondary institutions to agree to the same cut scores for placement purposes? Part of the answer, according to Sue Cain, senior policy advisor at the Kentucky Council on Postsecondary Education (CPE), is that earlier work had laid the groundwork for reaching this shared view of college-ready cut scores. In 1999, long before the 2012 rulemaking setting the statewide college readiness cut scores defined above, statewide work teams began meeting to establish the first statewide benchmarks for college readiness set in regulation. Other aspects also were critical to reaching statewide consensus:

- ◆ *Collaborative rather than top-down approach:* Representatives from each two- and four-year institution were selected by institution presidents. These representatives, often a dean of arts and sciences, were aware of institutional placement guidelines and local data on subsequent course success. They also had the authority to return to their institutions and implement policy changes.
- ◆ *Shared student-centered view of developmental education:* All two- and four-year representatives agreed developmental education should focus on what will limit student time and student cost while supporting student success in entry-level courses.
- ◆ *Data-supported decision making:* CPE staff had statewide data on course success of students based on ACT scores. These data suggested students who had attained these minimum ACT scores would be highly likely to earn an A, B or C in their first credit-bearing postsecondary course in the subject area.⁴

Interventions

So a student has scored below your state's college and career readiness benchmark – now what? Policymakers should consider a number of variables in setting parameters for 12th-grade interventions, as set forth below.

Standalone or other intervention

Most state policies are vague on the delivery model for college readiness interventions, and perhaps intentionally so. This means that state education agency staff must make determinations about effective pedagogy and the time required to bring students to – or closer to – college readiness. Delivery models may include just one or multiple models reflecting differences in the intensity and duration of the intervention. As policymakers encourage and fund 12th-grade interventions, they should consider the relative benefits and tradeoffs of each delivery model:

- ◆ *A standalone course* may provide relative ease of scheduling – teachers and administrators don't need to worry about when a student is going to get in his/her intervention in addition to regularly scheduled courses.

- ◆ *A module or series of modules* may make the most sense for a student scoring just below college readiness who may be in need of just a few concepts. In this case, requiring a student to participate in an entire semester or year of postsecondary remediation is not necessary.
- ◆ *Content integrated into a course designed both for college ready and not college ready 12th-graders* may make most sense in the case of ELA. States typically require high school students to complete four units of ELA, meaning that students identified as not college ready would need to take two ELA courses their senior year if the intervention is delivered only as a standalone course. Integrating college readiness course content into senior year ELA courses may be a more efficient use of time and resources.

If an intervention is designed as a standalone course, states will also need to determine whether a course may fulfill high school graduation requirements in ELA or math, or may be used only to fulfill elective credit requirements. However, content in an elective developmental ELA or math course might be condensed into a single semester.

High-quality curriculum and instructional supports

Regardless of the delivery model, states should ensure the curriculum is high quality, engaging and likely to bring students to (or closer to) college readiness. To do so, states should:

- ◆ *Ensure teacher access to instructional goals and supports:* States should establish clear course goals and curricular guidelines to ensure teachers understand the knowledge and skills students should work toward mastering, and that courses deliver high-quality content to bring students closer to college readiness. Kentucky has developed online resources, curriculum frameworks and guidance for teachers leading senior year transitional interventions, but there is no mandated curriculum teachers must follow. This allows enough flexibility among instructors and district staff to feel ownership of the course. The state has also developed ELA and math pre- and post-tests for units to help both teachers and students gauge progress toward mastery of college ready knowledge and skills.⁵
- ◆ *Include K-12 and postsecondary instructors in the development of interventions:* Virginia, for example, developed its 12th grade capstone course content and pilot courses through postsecondary partners – the College of William and Mary and James Madison University for ELA, and the University of Virginia and Radford University for math.⁶ In both instances, curriculum development was funded through Title II grants.⁷
- ◆ *Integrate real-world applications into college readiness interventions:* Interventions may be more likely to bring students to college readiness if, rather than a “drill and kill” approach, students are engaged and see the real-world applications of course content. Virginia’s capstone courses were intentionally designed to be problem-based courses with real-world problems, intended for students to solve in two minutes or up to two months. Specifically, some modules are problem-based, whereas others are project-based. These terms reflect a continuum of implementing experiential learning, with shorter versions being problem-based and more extensive challenges being project-based, and requiring research, writing letters and emails, gathering data, etc.⁸

Mandate student participation

Several states, including Florida, Kentucky, Tennessee, Texas, Virginia and West Virginia require that identified students participate in interventions. Requiring participation may make sense, as high school students who are not college ready may not understand they are likely to place into non-credit-bearing coursework and the financial and time implications of these placements. Some research suggests identified students will not self-select, even into high-quality interventions. A federally funded analysis published in 2014 examined participation rates and outcomes of Kentucky students taking 12th-grade math and reading transition courses in 2011-12, before transition course participation was made mandatory for identified students. The study found that while transition course pass rates for students identified as “approaching benchmarks” were 94.7 percent in math and 96.1 percent for reading, student participation rates in math and reading transition courses were 28.1 percent and 8 percent, respectively.⁹

In 2014-15, Kentucky debuted an intervention tab in the commonwealth’s student information system that allows the Department of Education, the district and school staff to track student enrollment to ensure each student who did not meet ACT benchmarks is receiving the intervention for which he/she was identified.¹⁰

Retest at the end

Students – especially students testing far below college ready on grade 11 measures – may not necessarily be college ready by the end of a course or intervention. States may consider offering students a post-test at the conclusion of a course or intervention to give 12th-graders a clear sense of whether additional interventions may be needed over the summer or upon matriculation in the fall to be fully college ready. Kentucky offers the Kentucky Online Testing (KYOTE) free of charge in math and reading for use as a final assessment. The commonwealth will also pay for a second administration of ACT or COMPASS during the senior year.¹¹

Advanced learning opportunities

Perhaps because states expect fewer 11th-graders to demonstrate college readiness, relatively few states have explicit policies directing high schools to encourage college ready students to enroll in advanced coursework in 12th grade. However, states would do well to set such policies to ensure college ready students are not discouraged from advanced coursework their senior year.

Advanced coursework may include the next most rigorous course in a math sequence, or AP, academic or career and technical education-oriented dual enrollment courses, or other coursework allowing students to earn high school and postsecondary credit. Kentucky statute, for example, requires that a student who achieves certain scores on the grade 8 EXPLORE, grade 10 PLAN or grade 11 ACT must be counseled to enroll in accelerated courses, with emphasis on AP courses for students demonstrating readiness on the PLAN or ACT.¹²

Developing policies to identify college ready students for accelerated learning opportunities is only the first (and perhaps easiest) step. After adopting these policies, states must take on the next and likely even more challenging step of ensuring course quality and transferability. ECS has recent reports, listed in the Related Resources section, identifying critical policy components to ensure dual enrollment quality and transferability – including the rigor of instructor qualifications and course content – and AP quality and transferability.

ENDNOTES

- 1 Education Commission of the States, *Blueprint for College Readiness: College and Career Readiness Assessments* (October 2014) <http://www.ecs.org/html/educationIssues/blueprint/bphsmain2.asp> (accessed March 6, 2015).
- 2 Virginia Department of Education, *Joint Agreement on Virginia's College and Career Ready Mathematics and English Performance Expectations*, February 2013, http://www.doe.virginia.gov/instruction/college_career_readiness/expectations/joint_agreement.pdf (accessed March 6, 2015).
- 3 T.C.A., Education Code § 28.008, § 39.023(c-4)(1)
- 4 Interview with Sue Cain, CPE, March 9, 2015.
- 5 Interview with April Pieper, Kentucky Department of Education, January 2013.
- 6 Virginia Department of Education, English Capstone Course, (n.d.), http://www.doe.virginia.gov/instruction/english/capstone_course/index.shtml (accessed March 6, 2015); Virginia Department of Education, Mathematics Capstone Course, (n.d.), http://www.doe.virginia.gov/instruction/mathematics/capstone_course/index.shtml (accessed March 6, 2015).
- 7 Ibid.
- 8 Interview with Tracy Robertson and Michael Bolling, Virginia Department of Education, January 2013.
- 9 Christine Mokher, *Participation and pass rates for college preparatory transition courses in Kentucky* (Washington, D.C.: U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory Appalachia, March 2014) 13-14, http://ies.ed.gov/ncee/edlabs/regions/appalachia/pdf/REL_2014009.pdf (accessed March 10, 2015).
- 10 E-mail with April Pieper, Kentucky Department of Education, March 11, 2015.
- 11 Interview with April Pieper, Kentucky Department of Education, January 2013.
- 12 KRS 158.6453(11)(b)

Related ECS resources:

Dual enrollment course content and instructor quality (February 2015): <http://www.ecs.org/clearinghouse/01/17/16/11716.pdf>

Blueprint for College Readiness (October 2014): <http://www.ecs.org/html/educationIssues/Blueprint/Blueprint-intro.asp>

Increasing Student Access and Success in Dual Enrollment Programs – 13 Model State-Level Policy Components (February 2014): <http://www.ecs.org/clearinghouse/01/10/91/11091.pdf>

12th-Grade Transitions database (March 2015): http://www.ecs.org/html/educationIssues/HighSchool/12thGradeYr_intro.asp.

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