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The examples of Kentucky, Florida, New York, and the District of Columbia show that states seeking to raise proficiency standards should take the following actions:

- **Reinforce why college and career readiness for all students is the right goal.**
- **Set proficiency standards using empirical data that indicate whether a student is on target for college and career readiness.**
- **Develop—and carry out—a communication plan to prepare the public for a short-term decline in average state scores as a new baseline is being established.**

Communicating College and Career Readiness through Proficiency Standards

By Michelle Croft, Gretchen Guffy, and Dan Vitale

Introduction

One of the promises of public education is that, when students graduate from high school, they are prepared for college or for workforce training. The unfortunate reality is that many students leave high school academically unprepared for college and career. Nationwide, only 39% of 2013 high school graduates taking the ACT® college readiness assessment met more than two of the four ACT College Readiness Benchmarks (in English, Reading, Mathematics, or Science), and nearly one-third (31%) did not meet any.[1]

The need to adequately prepare all students for the next stage in their lives has led a number of states to adopt new educational standards that reflect the expectation that all high school students will be ready for college and career when they graduate. States are in various stages of implementing these standards,[2] and, as part of that effort, are strengthening curriculum, instruction, and assessments to reflect the standards. Because these changes are unprecedented in many cases, how they are communicated to students, parents, educators, and the public is a critical component of this work. In particular, it is especially important to explain clearly the meaning and implications of student performance on new state assessments in the context of college and career readiness.

Background

Results of state assessments are typically discussed in two ways: with respect to a *performance standard* or with respect to a *proficiency standard*. A performance standard (also known as a proficiency level) is distinct from the academic content standards on which the test is based. The performance standard establishes categories of student performance (such as "advanced," "proficient," "basic," and "below basic") along with descriptions of what students who fall within each category are likely to know and be able to do. For example, in the District of Columbia, a student classified as "proficient" in sixth-grade mathematics is able, among other things, to "apply order of operations to numeric and algebraic expressions, convert between different numerical representations, construct a graph, identify an expression for the graph and use the graph to make predictions."[3]

A proficiency standard (also known as a cut score) is the specific score a student needs to achieve on an assessment to be classified into a particular performance category associated with a performance standard. Using the previous example, a sixth-grade student would need to score between 654 and 667 on a scale of 600 to 699 to be considered proficient in mathematics.[4] By meeting the proficiency standard, the sixth-grade student is demonstrating that she is capable applying the order of operations, constructing a graph, and so forth.

The performance and proficiency standards provide the basis for calculating proficiency rates—the statistics most often communicated in the media. The proficiency rates are the percentage of students at or above the proficient performance standard at a particular grade level, school, or district.

With the enactment of the No Child Left Behind Act in 2002, states became responsible for

establishing and reporting performance and proficiency standards. Depending on the applicable performance standards, these levels may not necessarily indicate whether a student is ready for education and training beyond high school. Instead, they can communicate minimum competency (i.e., that students have mastered particular content).[5] In fact, a wide range of state proficiency standards have been determined to be insufficiently rigorous. The National Center for Education Statistics, for example, has released multiple reports mapping state proficiency standards onto National Assessment of Educational Progress (NAEP) proficiency standards.[6] The findings highlight this lack of rigor. For example, there are states with high percentages of students deemed proficient by the state test but who do not meet the NAEP proficiency standard for "basic" performance. With the adoption of more rigorous college and career readiness standards and aligned assessments, it is likely that the evidence for such disparities will only increase, at least temporarily.

This report describes how three states and the District of Columbia have already transitioned their state assessments to reflect college and career readiness and how they have correspondingly determined performance and proficiency standards to match. Lessons learned from these examples may help other states currently negotiating their own transitions. The report also provides recommendations to states about setting proficiency standards that reflect college and career readiness.

What States Are Doing

To date, Kentucky, New York, Florida, and the District of Columbia have transitioned at least portions of their state assessments to measure students' college and career readiness as articulated in their new performance standards. However, only two—Kentucky and New York—changed their proficiency standards to reflect the new college and career readiness content of their state assessments, while the other two did not.

Kentucky and New York: Aligning Proficiency Standards to College and Career Readiness

Upon transitioning to new college and career readiness assessments, both Kentucky and New York opted to reset their proficiency standards to reflect students' level of college and career readiness. The two states used slightly different methods for setting the proficiency standards and were met with different reactions from the public when the new test results were released.

Kentucky

Planning

In 2012, Kentucky was the first state to change its state achievement testing program, the Kentucky Performance Rating for Educational Progress (K-PREP), to measure students' mastery of the Common Core State Standards. To set the new proficiency standards, Kentucky employed a mixture of empirical linking and judgmental standard-setting to determine the scores for four performance levels: novice, apprentice, proficient, and distinguished. To determine the proficient standard in math and reading, a statistical linkage to ACT College Readiness Benchmarks was used.[7] To determine the other three levels, the Kentucky Department of Education used panels of educators to review the questions from easiest to hardest, looked at impact data (i.e., how many students would be classified into each level based on proposed cut scores using prior data), and set the minimum score for the three levels.[8]

Before releasing the scores, the Kentucky Department of Education released the results of a statistical study linking the K-PREP for grades 3–8 and high school to ACT Explore®, an eighth-grade assessment measuring student progress toward college and career readiness.[9] To inform educators and other stakeholders about how proficiency rates would likely change with the new assessment content, the study provided predictions of likely new proficiency rates. The study estimated a substantial difference—a nearly 36-percentage-point drop in both mathematics and reading performance—in the elementary grades in proficiency rates between the old proficiency standard and the newly adopted one. The implication is that while what students actually knew did not change, it would look like there was a drop in year-over-year student performance because students in one year were held to a higher standard than in the previous one.

Results

When the results were released in the fall of 2012, the proficiency rates, as anticipated, were approximately 30 percentage points lower than what they would have been had the assessments and proficiency standards not been changed,[10] and Kentucky was able to place the score change in its proper context by contrasting the new college and career readiness assessments with the previous tests, which the Kentucky Commissioner of Education, Terry Holliday, characterized as "kind of basic skills assessments."[11] As a result of its planning and preparation, Kentucky ensured a relatively smooth transition and state buy-in of the new tests.

New York

Planning

In 2010 New York's State Board of Regents adopted the Common Core Learning Standards,[12] and in 2013 the Board of Regents shifted the state assessments, the New York State Testing Program (NYSTP), to measure those standards in grades 3–8 as part of the NYSTP Common Core Grades 3–8 English Language Arts (ELA) and

Mathematics Tests.[13] The new proficiency standards were set by a statewide panel of 95 teachers, principals, and other educators using a method that, similar to Kentucky's method, involved establishing cut scores after reviewing test questions in easiest-to-hardest order and looking at impact data. The New York impact data included the percentage of New York students who would be college ready using the PSAT/NMSQT and SAT benchmarks.[14] The standard-setting was observed by experts and presented to and approved by the New York Technical Advisory Committee, an independent entity. The New York State Education Commissioner, John B. King, accepted the panel's final recommendations with no changes, and the Board of Regents approved the Commissioner's recommendation.

Results

The results of the April 2013 test administration were announced in August 2013. Scores in English language arts were approximately 24 percentage points lower (55.1% proficient in 2012 compared to 31.1% proficient in 2013) for grades 3–8.[15] Likewise, math scores were approximately 34 percentage points lower (64.8% proficient in 2012 compared to 31% proficient in 2013).

In a New York State Board of Regents press release, Commissioner King emphasized that because of a change in tested content, comparing 2013 results to 2012 was inappropriate. King stated: "The results do not reflect a decrease in performance for schools or students. The new assessments are a better, more accurate tool for educators, students, and parents as they work together to address the rigorous demands of the Common Core and college and career readiness in the 21st century."[16]

Despite this messaging, the score release was met with headlines such as "New York Test Scores Bode Ill for Rest of U.S."[17] and "City Students' Scores Take Dramatic Plunge on New Standardized Tests."[18] New York's message, although similar to Kentucky's, came at a later stage in its process, which could help explain why the results were met with alarmed headlines in the press and negative reactions from educators and parents.

Florida and the District of Columbia: Redesigned Assessments with Misaligned Proficiency Standards

Not all states opted to change their proficiency standards when transitioning their assessments to reflect new college- and career-ready content standards. Florida and the District of Columbia each took an approach different from New York and Kentucky in that, although their tests contain more rigorous content, proficiency standards were not changed to align to the new content. In Florida, the proficiency standard was changed only for a technical reason; in the District of Columbia, changes to proficiency standards were recommended but ultimately rejected.

Florida

Planning

In 2011, the Florida Department of Education announced changes to the Florida Comprehensive Assessment Tests (FCAT) in Writing to better align the test to the Common Core State Standards.[19] Starting with the 2012 FCAT administration, student essay responses would be rated more stringently. Students would be required to use conventions of standard written English as well as demonstrate increased attention to the quality of arguments, including relevant logic and plausible support for claims.[20]

Simultaneous with the changes in the scoring rubric, Florida also decided to change the proficiency standard for the writing test. The reason for the change was practical: the previously used proficiency standard of 3.5 was no longer an obtainable score due to a change in the number of essay raters from two to one.[21] To set the new proficiency standard, the Florida Department of Education used data from 2010 to simulate the impact on proficiency rates when changing the proficiency standard from 3.5 to 4, and found that there would be little impact on proficiency rates.[22] The State Board adopted the Florida Department of Education's recommendation to increase the proficiency standard to 4 instead of lowering it to 3.

Results

However, because the impact data relied on an outdated scoring rubric, the change in both the rubric and the proficiency standard in fact resulted in drastically lower proficiency rates. In grade 4, for example, the percentage of students statewide scoring a 4 or above was only 27% in 2012, compared to 81% in 2011.[23] The State Board of Education held an emergency meeting in May 2012 to discuss the impact of the new writing proficiency standard.

The Florida Department of Education recommended that the State Board of Education reset the proficiency standard to 3.5 as the score would now be possible again due a decision to reinstate two-rater scoring. The Florida Department of Education further stated that, because of the increased rigor of the writing assessment, a 3.5 cut score would be appropriate.[24] Instead, the State Board of Education unanimously passed the motion to lower the cut score to 3.[25]

Using a proficiency standard of 3 increased the percentage of students meeting proficiency standards to prereform levels.[26] Thus, given the Florida Department of Education's decision to increase the rigor of the FCAT writing test while adjusting the proficiency standards in a way that suggests student proficiency rates remain unchanged, the results of the new test may now appear to show that Florida students are better prepared for college and career than they may actually be.

District of Columbia

Planning

The District of Columbia transitioned the ELA portion of the DC Comprehensive Assessment System (DC CAS) assessment to align with the Common Core State Standards in 2012, and it transitioned the mathematics portion in 2013. DC's Office of the State Superintendent of Education (OSSE) conducted a standard-setting review for the 2012–13 school year as a result of the significant changes in the tested content. The standard-setting panel recommended changes to both the ELA and math proficiency standards, but OSSE rejected the panel's recommendations.[27] The rationale for keeping the prior proficiency standard was to maintain comparability of test results across school years.[28]

Results

In July 2013, OSSE announced that mathematics proficiency rates on the 2013 DC CAS had risen 3.9 percentage points since 2012, which the press release characterized as the "Strongest Growth in Scores Since 2008."[29] However, had OSSE adopted the standard-setting panel's recommendation, the percentage of students proficient in mathematics would have been substantially lower: instead of an increase of 3.9 percentage points, OSSE would have reported a decrease of 3.6 percentage points.

OSSE's decision to release the higher results caused an outcry within the community. The *Washington Post* reported that the "math gains officials reported were the result of a quiet decision to score the tests in a way that yielded higher scores."[30] The DC City Council Education Committee chairman, David A. Catania, stated that "honest government would have used the professionally developed cut scores to give children an honest assessment about where they stand."[31] Ultimately, OSSE recalculated the test results following this strong public criticism.[32] Arguably, the original decision not to change proficiency standards caused damage to OSSE that rescinding the decision may not have entirely repaired.[33]

Policy Recommendations

The four examples demonstrate the challenges states face when transitioning to college- and career-ready proficiency standards. Kentucky and New York reset their proficiency standards, acknowledging that the rigor of the assessments had changed and that students were now being judged against higher academic expectations. In so doing, they faced the challenge of contextualizing lower test results for a concerned public, to differing degrees of success. Florida and the District of Columbia chose not to reset their proficiency standards, resulting in significant public backlash.

The examples illustrate the need to properly communicate the criteria against which students are being judged. Simply changing the content of an assessment to reflect college and career readiness is insufficient—and can even be counterproductive—if proficiency standards are not also adjusted to reflect whether students are ready for college and career. Further, the public needs to be informed well in advance about the expected initial effects of changed proficiency standards.

Based on the examples, ACT offers the following policy recommendations to help states more easily navigate the transition to a culture in which student readiness for college and career becomes the "gold standard" by which educational progress is measured:

1. **States should reinforce why college and career readiness for all students is the right goal.** Help students, parents, and other school and community stakeholders understand what college and career readiness means—in particular, why fewer, clearer, higher educational standards are essential, and how increased achievement will lead to more opportunities for individuals. For example, states and districts can specify what college and career readiness means for students by highlighting data that show the relationship between college and career readiness and postsecondary success and/or job opportunities in the state.

2. **States should set their proficiency standards using empirical data that indicate whether a student is on target for college and career readiness by high school graduation.** To ensure that all students are ready for college and career by the time they graduate from high school, it is critical to evaluate the readiness of every student starting in early elementary school and monitor progress during the later years. Empirical data are essential in setting proficiency standards and providing validation evidence to support test interpretations.

   One way of aligning proficiency standards with college and career readiness expectations is to use the likelihood of success in later grades and in college to set proficiency standards for those grades, and then use statistical projection to determine the proficiency standards for earlier grades. For instance, high school information can be used to determine the range of scores on 8th-grade and earlier tests that are associated with the college and career readiness benchmarks on the high school assessments. Regardless of the method used, the most important requirement is to establish how students will need to perform in later grades if they are to be ready for college and career by high school graduation, and then to ensure that the proficiency standards for the earlier grades indicate steady progress toward that goal.

3. **Develop—and carry out—a communication plan to prepare the public for a short-term decline in average state scores while a new baseline is established. Then, look toward longer-term improvements.** Once states have determined how they will measure college and career readiness, they should communicate, in advance, the likely impact on average test scores in the first year that new assessments are administered. Such communication should convey that (1) the expectation of what students must know and be able to do on assessments has become more rigorous and (2) student ability is not suddenly dropping with the shift to the new tests. In a climate in which political pressures are often attached to assessment results, these messages will help ensure that student performance is not only properly described but also placed in the proper context. ■

Notes

1 The ACT College Readiness Benchmarks are scores on the ACT subject tests that represent the level of achievement required for students to have a 50% chance of obtaining a grade of B or higher in credit-bearing first-year college courses in the corresponding subject areas.

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7 Kentucky Department of Education, *Kentucky Performance Rating for Educational Progress: 2011–12 Technical Manual* (Frankfort, KY: Kentucky Department of Education, 2012).

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10 Andrew Ujifusa, "Scores Drop on Ky.'s Common Core-Aligned Tests," *Education Week*, November 2, 2012, http://www.edweek.org/ew/articles/2012/11/02/11standards.h32.html. The 76% of elementary students considered proficient in reading in 2011 dropped to 48% proficient in reading in 2012, and the 73% proficient in elementary math in 2011 dropped to 40.4% proficient in 2012.

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21 Florida State Board of Education, "Approval of Amendment to 6A-1.09981, Implementation of Florida's System of School Improvement and Accountability," agenda for State Board of Education Meeting, May 17, 2011, accessed October 2013, http://www.fldoe.org/board/meetings/2011_05_17/109981.pdf; and Florida Department of Education, "2012 FCAT Writing Changes and Preliminary Results," presentation given to Florida State Board of Education, May 2012, http://www.fldoe.org/board/meetings/2012_05_15/writing.pdf. Prior to 2011, essays were scored by two raters who could rate an essay with a whole number between zero and six. The resulting score was the average of the two ratings. In 2011, the essays were only to be scored by one scorer who was still limited to whole-integer scoring, so a 3.5 was no longer possible.

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