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Big Changes in How Students are Tested

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Policy Brief

BIG CHANGES COMING IN HOW STUDENTS ARE TESTED

Summary Points:

- The new tests will be aligned with Common Core State Standards and will attempt to track college readiness.
- The new tests will phase out paper-and-pencil in favor of computer adaptive testing. Tests won't take as long, but states will need heavy investment in technology to be able to test all students this way.
- Student learning will be measured using growth models rather than the proficiency models currently in place. Learning will be measured by yearly gains, rather than by a single proficiency cut point.

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For the past decade, school accountability has relied on tests for which the essential format has remained unchanged. Educators are familiar with the yearly testing routine: schools are given curriculum frameworks, teachers use the frameworks to guide instruction, students take one big test at year's end which relies heavily upon multiple-choice bubble items, and then school leaders wait anxiously to find out whether enough of their students scored at or above proficiency to meet state standards.

All this will change with the adoption of Common Core standards. Testing and accountability aren't going away. Instead, they are developing and expanding in ways that aim to address many of the present shortcomings of state testing routines. Most importantly, these new tests will be computer-based. As such, they will potentially shorten testing time, increase tests' precision, and provide immediate feedback to students and teachers.

BACKGROUND: A MOVE TOWARD NATIONAL STANDARDS

In the 1990s and 2000s, states developed academic standards through curriculum and testing. These standards became central to states' education systems, and not without controversy. Though state standards have varied in rigor, content, and clarity over the last couple decades, states have seen a general convergence toward shared national standards. The recent development of proposed Common Core curriculum standards has been front and center in education policy over the last year. For the 41 states who have already adopted the standards (see our earlier policy brief), they will bring with them a new generation of tests currently in development.

The test development is being driven by the US Department of Education's award of $330 million in Race to the Top funds to two groups of states developing the "next generation" of tests, to be introduced in the 2014-15 school year. These two groups are the 26-state Partnership for Assessment of Readiness for College and Careers (PARCC) and the 31-state SMARTER Balanced Assessment Consortium (SBAC). **Arkansas signed on as a member of the PARCC group in July 2010.**

While the two groups are developing slightly different models of tests, their plans are fairly similar in how they aim to improve upon current tests. Most controversially, the tests will aim to measure more higher-order thinking skills than previous benchmark tests. As such, these new tests will represent a transition from content-driven "drill-and-kill" testing to more open-ended methods.

While some educators will applaud the shift, those most focused on content mastery have found cause for concern in the proposals. In addition to the adoption of Common Core, both groups' tests will have more open-ended responses, will be more computer-based than current tests, will require less time, and will be broken up into multiple assessments throughout the year. Teachers should have less concern about a single high-stakes test at the end of the school year, with tests instead being shorter and more frequent. Each test will count for a fraction of students' academic achievement over the course of the school year. Lastly, both groups' proposals have aimed to measure learning through learning growth models rather than the current proficiency models.

Table 1: Summary of PARCC Changes to Current Tests

	Current State Tests	PARCC Proposal
Accountability Metric	Proficiency scores; status model	Student gain scores; growth model.
Alignment with College Readiness	Uneven; depends on state	Will be aligned with standards developed by higher education.
Testing Environment	Paper and pencil	More computer-based and online testing.
Testing Format	Mostly bubble items	More writing and portfolios.
Testing Frequency	Usually once yearly	Multiple smaller assessments throughout the year.

IMPLICATIONS FOR EDUCATORS

As any educator is well aware, changes in testing have the potential to profoundly impact all aspects of education, both inside and outside the classroom. Below are some implications of the new generation of assessments for both levels.

Potentially, the biggest impact both within and beyond the classroom will be the technological changes proposed by PARCC. Inside the classroom, students will be tested at multiple points throughout the year. With the new computer-adaptive format, the results of these tests should be immediately available to students and teachers. Students will quickly know how they performed, rather than waiting weeks. More significantly, teachers will know not only how their students scored on average, but also what portions of the curriculum have been effectively taught, and what portions need reinforcement. Thus the tests, if used wisely by teachers, will help to guide instruction in a way that has been impossible with current formats.

Outside the classroom, the proposed technological changes will cost states a great deal of money to implement. While the $170 million given to PARCC by the federal government for development seems vast, the cost of implementing these changes will be much greater. If states are to take up the group's proposals for more computerized testing, better data organization, and better reporting, they will have to spend large sums on infrastructure and staff as well as the professional development that will be necessary to equip teachers for the new tests. This will require excellent coordination as well as a lot of money.

OTHER IMPLICATIONS:

- **Common Core.** Inside the classroom, teachers will draw content from Common Core standards. Outside the classroom, states will need to provide teachers with thorough and clear frameworks for doing so.
- **Growth Model.** Inside the classroom, teachers should focus on learning growth for students of all abilities, with less emphasis on "bubble" students near the current proficiency threshold. Outside the classroom, districts and states will see a change in the accountability model, from one focused on proficiency to one focused on growth.
- **College Readiness.** Inside the classroom, students (and their teachers) ought to have clearer knowledge of whether students are on track for college readiness. Outside the classroom, if the K-12/higher ed alignment is effective, then states will be comparable on how well they prepare their students, and colleges should have better knowledge of which students require remediation.

Threats to Success

Challenges will arise in the development and implementation of PARCC assessments. These challenges and tradeoffs include:

- **"Open-ended" versus "computer-adaptive" -** These aims are potentially at odds with one another. In particular, the use of more open-ended responses could mean delays in feedback for students and teachers (generally, the more open-ended a test is, the longer it takes to grade and the more graders are required). This could counteract the improvement in feedback due to computer-adaptive testing.

- **"Content mastery" versus "higher-order" -** PARCC assessments aim to measure both, just as Common Core tries to teach both. For each student, they have a limited time to do so. How these two areas are balanced, and whether higher-order skills might crowd out or muddle content testing, will help determine the usefulness of these tests for all students.

- **Clear meaning of "college readiness" -** While the use of college readiness as a benchmark is likely an improvement upon vague and widely varying definitions of "proficiency", it still could be watered down. To ensure its usefulness, the new standard needs to provide clear information to colleges and universities on whether students require remediation.

Potential Pros

1. Frequent and immediate feedback from computer-adaptive tests could better guide instruction
2. Shorter time required to take tests, due to computer testing.
3. Use of growth models makes progress for every student count.
4. Better alignment of secondary education with colleges and universities.

Potential Cons

1. If tests are too open-ended, could cause delays in student and teacher feedback
2. Uncertainty about how to balance testing content and skills; will try to do both.
3. Huge investment required in technology upgrades, especially for rural and poor states.
4. Extensive professional development necessary to train teachers for the new tests.

What It means for Arkansas

The greatest challenge facing Arkansas as the new tests approach will be adequate investment and preparation for the technological requirements of the next generation of tests.

First, Common Core standards will be phased in over a 4-year period. K-2 standards will be set in 2011-12, followed by grades 3-5 in 2012-13, grades 6-8 in 2013-14, and 9-12 by 2014.

Second, a great deal of physical investment will be needed. All schools will need enough computers and enough network bandwidth to allow for testing many students at once. For many of Arkansas' poorer or rural schools, this will be a challenge. Many schools in the Ozarks, Ouachitas, and the Delta currently don't have enough bandwidth to handle likely demands of the proposed changes.

Third, and perhaps more challenging than upgrades to infrastructure, will be the need to adjust to computer-adaptive testing. This will require professional development for teachers. They will need to learn how to use students' test score data to determine what their students have effectively learned from them, and also target instructional areas for improvement.

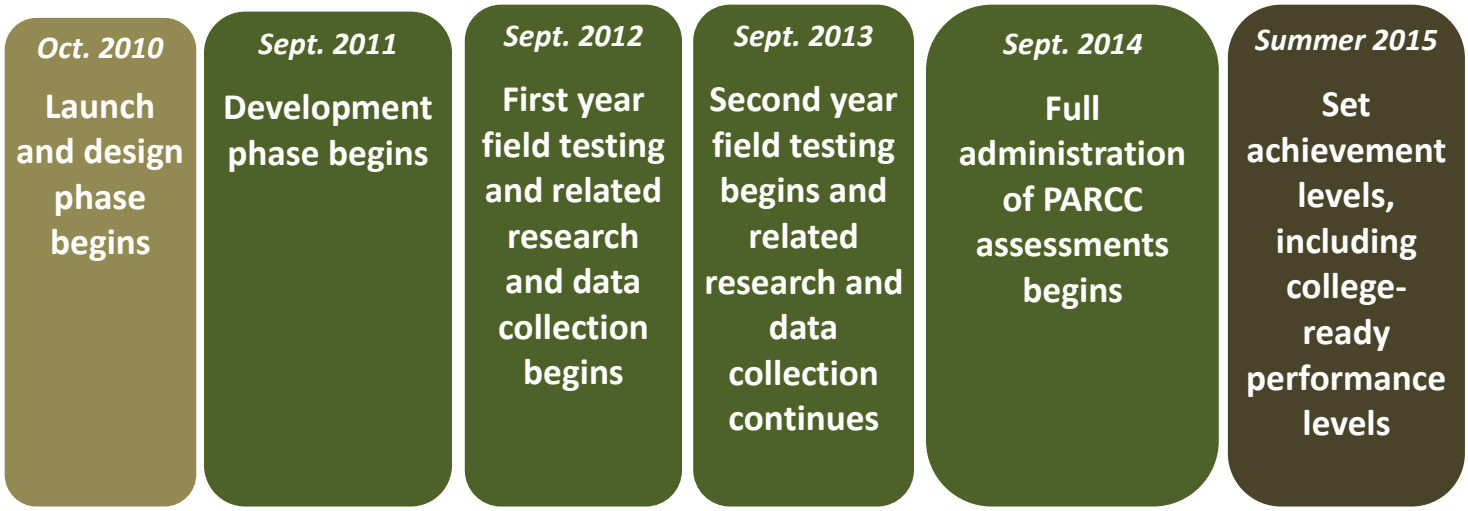
Fourth, state institutions of higher education, including the University of Arkansas system as well as Arkansas State and Central Arkansas, have signed on to cooperate in shaping standards for college readiness. The state has committed to meeting any necessary expenses for implementation of PARCC assessments, whether in professional development, additional staffing, or technology and data expenses, and Arkansas' relatively sound financial state will make it easier for the state to fund such implementation.

In Summary

Arkansas and other PARCC-participating states hope to focus their efforts into policies and tests which will make tests less intrusive (through computer-adaptive testing), more meaningful (through immediate feedback and better alignment), and better used for accountability (through the use of growth models). Threats to the success of PARCC include tests which crowd out the rigorous assessment of content, misallocation and misuse of technology, and poor professional development to prepare teachers for the changes. Choosing the former and avoiding the latter will require determination, care, and skillful leadership. If states and school leaders succeed, the results will be something of which all educators and students can be proud.

> ***"[T]he impact of this next generation of assessments in the classroom will be dramatic…the new assessments will support learning and instructional practices that teachers have long hungered for themselves."***
>
> **– Arne Duncan, US Secretary of Education**

Figure 1. PARCC Implementation Timeline



Source: PARCC Overview Powerpoint: http://www.achieve.org/files/PARCC-Overview-2-8-11.ppt

For more information about this policy brief, please contact the Office for Education Policy at oep@uark.edu