A prominent goal of the current administration was to stimulate states to transition to computer-delivered assessments as quickly as possible. The unprecedented scale of federal grants to the consortia of states served as a major "carrot" to drive this transition.

While the U.S. Department of Education provided multiple reasons for this push for online testing, foremost among them was the assertion that states could better assess the skills and knowledge needed for college and career readiness through computer-delivered tests. Concern had been mounting since the passage of the No Child Left Behind (NCLB) Act that the quality and rigor of state tests had declined to the point that few were testing complex skills or higher-order thinking. Evidence included:

- Nearly half of the nation's students were taking state reading and mathematics tests that contained only multiple-choice items, which were overly prone to guessing and emphasizing lower-level skills;
- States assessed writing in just a few grades, if at all, and none reflected the dominant types of writing required in higher education or the workforce; and
- Between 2000 and 2010, even among the country's best state tests, only about two percent of mathematics items and 21 percent of English Language Arts items assessed higher-order skills, such as analysis, evaluation, explanation of reasoning or synthesis.

Cost had driven some of these changes. NCLB required a significant expansion in the volume of state testing, stressing state coffers, and the cost for human scoring of constructed-response items is much greater than for machine scoring of multiple-choice items.

By converting to computer-delivered tests, states could include a number of machine-scorable item types that require students to generate, as opposed to select, a response. These include short constructed-response items calling for the entry of a word, number or equation, or technology-based response items such as selecting coordinates on a graph or highlighting evidence in a text.

Online tests can also require students to employ the technological tools used in colleges and the workforce today, such as word processors, search engines (in simulated search environments), audio and video informational sources, graphing software and spreadsheets.
Finally, by stimulating the creation of the consortia of states, the Race to the Top Fund Assessment Program (RTTAP) increased the feasibility of including complex and technology-rich tasks, such as simulations. Such tasks are expensive to develop for use in a high-stakes test, placing them beyond the financial reach of most, if not all, individual states.

How well have the consortia met this goal of improved measurement of key skills through technology-enhanced testing? Three studies released in recent months reached the same conclusion: While there is room for improvement, the new consortia assessments have taken advantage of these opportunities and are distinctly better tests than the previous generation of state tests.

The National Network of State Teachers of the Year convened panels of expert teachers, which performed side-by-side comparisons of former state tests and those of the consortia. They concluded that the consortia tests better reflect the range of knowledge and problem-solving skills that all students should master in the tested subjects, and better align with and support great teaching and learning.

Similarly, expert panel reviews conducted by the Fordham Institute and the Human Resources Research Organization concluded that the new consortia tests do a better job of assessing high-priority skills and knowledge than a former best-in-class state assessment, the Massachusetts Comprehensive Assessment System.

With its emphasis on college and career readiness, RTTAP has encouraged states to think in new ways about how to assess the skills and knowledge that are important to students’ futures. With its emphasis on rigor, it has helped states incorporate the higher-order thinking skills that are so critical in the international economy.

There are many ways in which even this new generation of tests can and should become more accurate and useful measures of student learning, to be sure, but the push for computer-delivered assessments has helped many states measure more of the skills and competencies that will matter, which in turn helps advance educational quality and equity throughout the nation.

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1 Notice Inviting Applications for the Race to the Top Fund Assessment Program, Federal Register/Vol. 74, No. 204/ Friday, October 23, 2009.
4 Council of Chief State School Officers Database of State Assessments, 2010.
6 The Right Trajectory: State Teachers of the Year Compare Former and New State Assessments, C. McClellan, J. Joe & K. Bassett, National Network of State Teachers of the Year, 2015.
7 Evaluating the Content and Quality of Next Generation Assessments, N. Doorey & M. Polikoff, the Fordham Institute, 2016.