

7/28/2017

To: Lisa Sireno and Shaun Bates

From: Andy Porter, Chair, Missouri Technical Advisory Committee

Subject: Minutes of Missouri TAC Meeting on July 27, 2017

The Missouri Technical Advisory Committee met by telephone conference call on July 27, 2017. Members of the TAC in attendance were Bertha Doar, director of assessment, St. Louis Missouri Public Schools; Karla Egan, independent consultant; Ron Mertz, St. Louis public schools, retired; Andy Porter, chair of TAC, University of Pennsylvania; and Ed Roeber, independent consultant; DESE: Lisa Sireno, Shaun Bates, Debbie Jameson, Commissioner Margie Vandeven, Blaine Henningsen, Jocelyn Strand, Jason Young, Janet Duncan, Angie Riner-Mooney, Jeff Falter, Chris Neale and Lisa Scroggs; Questar: Elliot Dunn, Adam Johnson, Katie McClarty, Tess Dawber and Scott Bishop.

Discussion focused on End-of-Course test results for spring 2017 and their validity for use in student, school and district accountability. In Missouri, there are End-of-Course assessments for nine subjects: algebra I, algebra II, American history, biology, English I, English II, geometry, government and physical science. For most subjects, the assessments are given three times a year: summer, fall and spring. By far the largest number of students is assessed at the spring assessment. While the number of years of assessment results vary by subject, all subjects were assessed at least in 2014/15, 2015/16 and 2016/17. For 2 of the 9 assessed subjects, there was a substantial drop in the percent of students found to be proficient or above from 2016 to 2017. In algebra I, the percent proficient or above in the spring of 2016 was 7 percentage points higher than in spring of 2017. Similarly for English II, the percent proficient or above in the spring of 2016 was 9.5 percentage points higher than in spring of 2017. For the other six subjects, the change from 2016 to 2017 for spring assessments varied from a 1 percentage point increase to a 3.4 percentage point drop.

Comparing student performance over years is complicated by the fact that for some subjects different forms of the assessment are used in different years and for some subjects the number of students tested differs from year-to-year. Thus, changes in performance from one year to the next could be due to a change in test form and/or a different cohort composition from year to year. The best data for making year-to-year comparisons is the spring assessment results because that is when by far the largest number of students was tested with the same form.

Lisa Sireno provided the framework for discussion. Advice was sought on using the End-of-Course assessment results in spring 2017 for accountability purposes. In particular the results for algebra I and English II were of concern due to the drop in percentage of students judged to be proficient or better. In each subject, the same test form was used in spring of 2017 as was

used in spring of 2015, but a different form was used in spring of 2016. In algebra I, the spring results for 2015, 2016 and 2017 were 62.8%, 67.4% and 60.4% judged proficient or better and for English II the comparable results were 74.5%, 80.8%, 71.3%. When comparing 2015 to 2017 where the same forms were used for each assessment, the drop in performance was much more modest than from 2016 to 2017 where a different form was used. While the number of students tested in spring 2017 was less by 1000 students or so than the number tested in 2015, the TAC judged that the primary reason for a drop in performance was due to the form used in spring of 2015 and spring of 2017 being easier than the form used in spring of 2016 for each of these two subjects.

The question became whether or not the results should be used for accountability purposes as obtained or whether some adjustment should be made to the results for 2017. Lowering the cut score for proficient or above one raw score point would result in 4 percentage points increase in students judged proficient or better in English II and 3.7 percentage points increase for algebra I. Because the state intends to do an early release of accountability data for the year, a decision was needed now.

**The TAC judged that in neither of the two subjects was the drop in performance from spring 2016 to spring 2017 affected by a change in the number of students tested. Thus, the drop in performance is likely due to either a true drop in student achievement and/or a difference in the difficulty of the form used between the two springs. The TAC noted that there was a small drop in performance from 2015 spring to 2017 spring when the same form was used at each assessment point. While the TAC concluded there is no strong psychometric solution to adjusting for the almost certain form affect, in fairness to students, schools and districts, some adjustment seemed warranted. Thus, the TAC recommended dropping the proficient cut score by one raw score point for each subject for spring and summer 2017 results (if the same test form is used in summer 2017 as was used in spring 2017).**

**The TAC noted that the End-of-Course forms would not be used again after the summer 2017. The TAC strongly recommends that in developing new forms for the End-of-Course assessments, a design be used so that each form shares a sufficient number of common items with each other form so that forms can be linked one to another thus yielding comparable scale scores across forms.**