

# National Assessment Governing Board

## Committee on Standards, Design and Methodology

### Report of December 6, 2013

#### JOINT MEETING WITH REPORTING AND DISSEMINATION COMMITTEE

##### Attendees

**COSDAM Members:** Chair Lou Fabrizio, Vice Chair Fielding Rolston, Lucille Davy, Andrew Ho, Terry Holliday, and James Popham.

**Reporting and Dissemination Committee Members:** Acting Chair Terry Mazany (Vice Chair of the Reporting and Dissemination Committee), Anitere Flores, Rebecca Gagnon, Tom Luna, Tonya Miles, and Father Joseph O’Keefe.

**Governing Board Staff:** Executive Director Cornelia Orr, Michelle Blair, Larry Feinberg, Stephaan Harris, and Sharyn Rosenberg.

**Other Attendees:** John Easton, Director of the Institute of Education Sciences and ex officio member of the Governing Board. NCES: Commissioner Jack Buckley, Gina Broxterman, Patricia Etienne, Arnold Goldstein, Andrew Kolstad, and Daniel McGrath. AIR: Victor Bandeira de Mello, George Bohrnstedt, Markus Broer, and Cadelle Hemphill. ETS: Andreas Oranje, John Mazzeo, and Lisa Ward. Hager Sharp: David Hoff, Debra Silimeo, and Melissa Spade Cristler. HumRRO: Steve Sellman and Laurie Wise. Optimal Solutions Group: Rukayat Akinbiyi. Reingold: Amy Buckley, Erin Fenn, Sarah Johnson, and Valeri Marrapodi. Virginia Department of Education: Pat Wright. Westat: Chris Averett and Keith Rust. Widmeyer: Jason Smith.

Lou Fabrizio, Chair of the Committee on Standards, Design and Methodology (COSDAM), called the meeting to order at 10:02 a.m. and welcomed members and guests. The purpose of the joint session was to discuss implementation in the NAEP 2013 assessments of the Governing Board policy on NAEP Testing and Reporting on Students with Disabilities (SD) and English Language Learners (ELL).

Larry Feinberg, of the Governing Board staff, described the March 2010 policy, which was intended to reduce exclusion rates and provide consistency across jurisdictions in how students are tested to promote sound reporting of comparisons and trends. The policy limits the grounds on which schools can exclude students from NAEP samples to two categories—for SD, only those with the most significant cognitive disabilities, and for ELL, only those who have been in U.S. schools for less than a year.

He noted that previously, schools could exclude students with Individualized Education Programs (IEPs) that called for accommodations on state tests that NAEP does not allow

because they would alter the construct NAEP assesses. The most widely used of these were having the test read aloud for the Reading assessment and using a calculator for all parts of the Mathematics assessment.

Under the current Board policy, schools can no longer decide to exclude students whose IEPs for state tests specify an accommodation not allowed on NAEP. Instead, such students should take NAEP with allowable accommodations. Parents should be encouraged to permit them to do so, given that NAEP provides no scores and causes no consequences for individuals but needs fully representative samples to produce the valid results for the groups on which it reports. By law, individual participation in NAEP is voluntary and parents may withdraw their children for any reason.

When parents refuse to allow children to participate in NAEP, scores are imputed based on reweighting the performance of other students with similar characteristics. However, when students are excluded, they do not impact group scores at all, and, in effect, are considered to achieve at the group average.

Grady Wilburn, of NCES, presented 2013 participation data for grades 4 and 8 Reading and Mathematics. He noted large increases in inclusion rates over the past ten years, and said the Board's inclusion goals—95 percent of all students in each sample and 85 percent of students identified as SD or ELL—had been met in almost all states. According to calculations by Keith Rust, of Westat, converting exclusions in reading to refusals would produce a statistically significant change in only one state, Maryland. However, Peggy Carr, Associate Commissioner of Assessment at NCES, said the impact would be much greater in some of the urban districts in TUDA, whose 2013 results have not yet been released.

In accordance with Board action, Mr. Wilburn said NCES had also published scores based on full-population estimates, (FPEs), which adjust state and district averages by imputing scores for excluded SD and ELL students based on the performance of similar SD and ELL students who are tested. Member Andrew Ho said these estimates should be given more emphasis as a way to give consistency to trends and make it clear when score changes are likely to have been caused by changes in exclusion rates. Ms. Carr said improvements were possible in the models for imputing FPEs.

Mr. Wilburn explained that, contrary to the Board policy, NCES had continued to permit schools to exclude students whose IEPs called for accommodations that NAEP does not allow, in most cases, read-aloud. NCES believes changing this practice would increase refusals, impact reported trends, change NAEP's target population, and violate sound psychometric procedures.

For mathematics in 2013, NCES introduced a new option for students whose IEPs call for a calculator accommodation, where schools could choose to have these students take two calculator-active NAEP blocks, even if those were not the blocks that would have been randomly assigned through the matrix sampling design. Mr. Feinberg said this change, by reducing exclusions, had also impacted some reported trends.

Jack Buckley, the Commissioner of Education Statistics, noted that it is not clear who gets to define NAEP's target population. He said NCES and the Board disagree about whether it should include students whose IEPs specify accommodations that NAEP does not allow.

Mr. Wilburn said NCES plans to publish a technical memo that will focus on how refusal and exclusion issues impact NAEP participation and performance. The memo will include total participation rates that summarize non-participation from all causes—exclusions, refusals, and absence (which is the largest category). The memo will also provide data on the proportion of exclusions based on NAEP not allowing a state-provided accommodation.

There was additional discussion on the impact that exclusion and refusal changes would have on TUDA districts. Terry Mazany, the acting chair of the Reporting and Dissemination Committee, conveyed a message from Andrés Alonso, the Committee chair who was not present. He said Mr. Alonso, former superintendent of Baltimore schools, had urged that policy changes impacting NAEP exclusions and scores should be highlighted in NAEP reports to provide context for interpreting results and that historical data should be provided.

The Committees asked the staffs of NCES and NAGB to consider possible policy changes and what their impact might be. Lou Fabrizio, chair of the Committee on Standards, Design and Methodology, asked staff to prepare recommendations for moving forward and a timeline for possible Board action.

#### **CLOSED SESSION 11:05 – 11:45 a.m.**

**COSDAM Members:** Lou Fabrizio (Chair), Fielding Rolston (Vice Chair), Lucille Davy, Andrew Ho, Terry Holliday, and Jim Popham.

**Governing Board Staff:** Cornelia Orr, Sharyn Rosenberg, Ray Fields, and Michelle Blair.

**Other Attendees:** John Q. Easton, Director of the Institute of Education Sciences and ex officio member of the Governing Board. NCES: Janis Brown, Jing Chen, Patricia Etienne, Andrew Kolstad, and Daniel McGrath. AIR: George Bohrnstedt and Markus Broer. ETS: John Mazzeo and Andreas Oranje. Hager Sharp: Melissa Spade Cristler. HumRRO: Laurie Wise. Westat: Keith Rust. Widmeyer: Jason Smith.

In accordance with the provisions of exemption (9)(B) of Section 552b(c) of Title 5 U.S.C., the Committee on Standards, Design and Methodology met in closed session on December 6, 2013 from 11:05 a.m. – 11:45 a.m. in order to discuss information regarding analyses of the Technology and Engineering Literacy (TEL) field trial, including secure data.

## **Discussion on Achievement Level Setting (ALS) on the 2014 NAEP Technology and Engineering Literacy (TEL) Assessment**

Governing Board staff Sharyn Rosenberg began the discussion on achievement level setting (ALS) for the 2014 NAEP Technology and Engineering Literacy (TEL) Assessment. She provided a summary of previous discussions related to this topic and noted that the TEL ALS poses some unique challenges due to being computer-based, cross-disciplinary, and a new construct not explicitly taught in many schools. One of the major concerns that previously had been raised by COSDAM members was whether the scaling of student performance on TEL would support an overall construct on which achievement levels could be set. Ms. Rosenberg explained that the TEL ALS procurement had been delayed until this empirical question could be addressed with the TEL field trial data; the scaling results of the field trial data were not complete at the time of the August Board meeting but are available now. She then introduced Andreas Oranje of ETS, to present analyses of the TEL field trial data.

Mr. Oranje presented the currently available results from the 2013 TEL field trial, including subscale correlations and student group results. Mr. Oranje also presented a schedule of planned activities for the TEL operational administration in 2014. Results from the composite or univariate scale score distribution are expected to be available by September 1, 2014.

Mr. Oranje addressed the question of how the achievement level setting (ALS) on the 2014 TEL assessment could be informed by the 2013 TEL field trial. His presentation addressed the following overarching question: *Should the Governing Board set achievement level standards for Technology and Engineering Literacy by content area, or across the three scales?*

The results of the 2013 field trial analyses suggested that TEL is a cohesive construct on which achievement levels could be set. Some committee members questioned the meaning of the standard setting and how the results from the assessment will be useful. Guidance to staff about the procurement was that, on the technical merits, there is no reason not to proceed with work toward an ALS procurement. This could include some preliminary steps, such as further development of achievement level descriptors. Some committee members noted the importance of using data from the achievement level setting process to determine the feasibility of reporting achievement level results for TEL.

Terry Holliday presented the following motion, seconded by Jim Popham:

**The procurement for the TEL achievement level setting should be delayed until the full Board can have a discussion about whether TEL should remain in the NAEP schedule beyond 2014.**

There was considerable discussion about various aspects of the motion. The motion did not carry; two were in favor and four were against.

Concerns were raised about allocating resources to TEL assessments in future years, after the 2014 grade 8 assessment is administered, given the NAEP budget constraints.

Terry Holliday presented the following motion, seconded by Lucille Davy:

**Given the constraints anticipated in the NAEP budget for the foreseeable future, and the associated need to deliberate on values and trade-offs for subjects and grades to be assessed at the state and national levels, the full Board should discuss in plenary session at the earliest possible time the choices to be made for the schedule of assessments in 2015 and beyond.**

All six members present voted in favor of this motion.

**OPEN SESSION: 11:45 a.m. – 12:45 p.m.**

**COSDAM Members:** Lou Fabrizio (Chair), Fielding Rolston (Vice Chair), Lucille Davy, Andrew Ho, Terry Holliday, and Jim Popham.

**Governing Board Staff:** Sharyn Rosenberg, Ray Fields, and Michelle Blair.

**Other Attendees:** John Q. Easton, Director of the Institute of Education Sciences and ex officio member of the Governing Board. NCES: Janis Brown, Peggy Carr, Jing Chen, Patricia Etienne, Andrew Kolstad, and Daniel McGrath. AIR: George Bohrnstedt and Markus Broer. ETS: Steve Lazer, John Mazzeo and Andreas Oranje. Hager Sharp: Melissa Spade Cristler. HumRRO: Laurie Wise. Westat: Keith Rust. Widmeyer: Jason Smith.

### **NAEP 12<sup>th</sup> Grade Academic Preparedness Research**

Governing Board staff Ray Fields introduced the update on academic preparedness research by noting that he was working with Peggy Carr, Associate Commissioner for Assessment at NCES, on plans for reporting the 2013 grade 12 results for mathematics and reading in terms of academic preparedness for college. He said there was agreement that the report of the 2013 12<sup>th</sup> grade results would include information about academic preparedness for college and that this information would be based on the Governing Board's August 2013 motion and the prototype chapter that Mr. Fields had drafted.

Ms. Carr began by concurring with Mr. Field's observations. As a model for illustrating the plan for reporting, she projected a screenshot of the Nation's Report Card website for the 2013 mathematics and reading results. The screenshot indicated that a link to academic preparedness background information (described in the prototype chapter on academic preparedness that was presented at the August 2013 meeting) is expected to appear on the top bar of the website, near the topic, "About the Assessments." A question about students' academic preparedness for college is expected to appear in the left hand column, above the question, "How are states performing?"

Mr. Fields added that the Board's research on academic preparedness is still a work in progress, and that the information about students' academic preparedness for college would not be the

centerpiece of the report. Ms. Carr noted that NCES views the academic preparedness work as research and development.

Fielding Rolston asked whether state results would be reported in terms of academic preparedness for college. Mr. Fields and Ms. Carr responded that the plan is to report on academic preparedness for college at the national level only, because there is not enough validity evidence at this point to support state-level inferences about academic preparedness for college. Committee members expressed interest in reporting on academic preparedness for college for the 13 states with 12<sup>th</sup> grade state-level NAEP results. There was a discussion about whether state-level results could be provided with the appropriate caveats.

Ms. Rosenberg explained that additional research on academic preparedness for college at the state level is in the early stages of planning, in connection with the 2013 assessments. Data sharing agreements are in development with five state partners at grade 12, under which 2013 NAEP scores for reading and mathematics will be linked to student performance data from state longitudinal databases. The results from these studies should provide additional validity evidence to determine whether state-level inferences about academic preparedness for college are supportable.

Ms. Rosenberg also provided an update on the other statistical relationship studies on academic preparedness for college. She noted that ACT is supportive of a national NAEP-ACT linking study and that work toward a data sharing agreement is underway. However, there is currently no plan for a statistical linking study to be performed for NAEP and the SAT in 2013.

Ms. Rosenberg noted that data sharing agreements are in development with three state partners at grade 8; this research will examine the feasibility of using NAEP to make inferences about students being on track for academic preparedness for college. Ms. Rosenberg mentioned that one of the key aspects of the research is to link grade 8 NAEP mathematics and reading scores with grade 8 ACT EXPLORE scores in these subjects. While noting a recent announcement that the ACT EXPLORE assessment will be discontinued after June 2014 (to be replaced by ACT ASPIRE), she said that this relatively small scale investigation will be useful to explore the feasibility of conducting additional academic preparedness research at grade 8.

Committee members expressed support for the planned research, in particular for the extension of the academic preparedness research to grade 8 and a possibility that a special study to administer grade 12 NAEP in 2017 to a subsample of the students who took grade 8 NAEP in 2013 might be conducted. Mr. Ho noted that he had some comments on the phrasing of the research questions and would send his feedback after the Board meeting.

### **Committee Questions on Information Items**

Mr. Fabrizio asked whether there were questions on any of the information items: 1) the update on evaluation of the NAEP achievement levels procurement (Attachment F); 2) the IES grant on Reading for Understanding (Attachment G), or the NAEP 12<sup>th</sup> grade academic research: Phase 2 research updates (Attachment H). The Committee confirmed that there were no questions.

**Other Issues: Instructional Sensitivity and NAEP**

In closing, Mr. Fabrizio invited Mr. Popham to give some brief remarks on instructional sensitivity, an issue that Mr. Popham has raised in several previous COSDAM meetings. Mr. Popham talked about the importance of instructional sensitivity, which he defined as the degree to which tests can support inferences about instructional quality. He emphasized that the instructional sensitivity of tests is crucially important, particularly when evaluating teachers. However, he noted that he was not advocating instructional sensitivity for NAEP. Mr. Popham did raise questions about the extent to which NAEP items are sensitive enough to measure any changes in education. He asked how items are evaluated, including what instructions are given to item reviewers. Mr. Popham requested that Governing Board staff provide information on the item review process, including the points at which the instructional sensitivity of the items could be considered.

I certify the accuracy of these minutes.

*Louis M. Fabrizio*

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Lou Fabrizio, Chair

December 20, 2013

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Date