National Assessment Governing Board
Committee on Standards, Design and Methodology

August 1, 2014

JOINT MEETING WITH REPORTING AND DISSEMINATION COMMITTEE

Attendees

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

Reporting and Dissemination Committee Members: Chair Andrés Alonso, Vice Chair Terry Mazany, Anitere Flores, Rebecca Gagnon, Tom Luna, Tonya Miles, Ronnie Musgrove, and Father Joseph O'Keefe.

Governing Board Staff: Executive Director Cornelia Orr, Michelle Blair, Lily Clark, 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: Associate Commissioner Peggy Carr, Gina Broxterman, Samantha Burg, Jing Chen, Patricia Etienne, Arnold Goldstein, Drew Malizio, Bill Tirre, Ebony Walton, Grady Wilburn. AIR: Sami Kitmitto, Cadelle Hemphill, and Young Yee Kim. CRP: Sondra Gaines and Edward Wofford. ETS: Debby Almonte, Jay Campbell, Steve Lazer, and Andreas Oranje. Hager Sharp: Melissa Spade Cristler, David Hoff, and Debra Silimeo. HumRRO: Steve Sellman and Laurie Wise. Metametrics: Malbert Smith. Optimal Solutions Group: Rukayat Akinbiyi and Yvette Clinton. Pearson: Paul Nichols and Brad Thayer. Reingold: Amy Buckley and Valerie Marrapodi. Westat: Chris Averett, Keith Rust, and Dianne Walsh. Arlington Public Schools: Amy Yamashiro. Council of Chief State School Officers (CCSSO): Katie Carroll and Scott Norton. New Mexico Department of Education and Governing Board/CCSSO Policy Task Force Member: Pete Goldschmidt.

NAEP Testing and Reporting on Students with Disabilities (ACTION ITEM)

Lou Fabrizio, Chair of the Committee on Standards, Design and Methodology (COSDAM), called the joint meeting to order at 9:45 a.m. and welcomed members and guests. Mr. Fabrizio noted that the session would focus on a particular challenge associated with the March 2010 Board policy on NAEP Testing and Reporting on Students with Disabilities (SDs) and English Language Learners (ELLs). The policy was intended to reduce exclusion rates and provide more consistency across jurisdictions in which students are tested on NAEP to promote sound reporting of comparisons and trends. The policy limits the grounds by which schools can exclude students to two categories—for SDs, only those with the most significant cognitive disabilities, and for ELLs, only those who have been in U.S. schools for less than one year. Although schools cannot limit student participation on any other grounds, individual participation in NAEP is voluntary by law and parents may withdraw their children for any reason.

The policy states, "Students refusing to take the assessment because a particular accommodation is not allowed should not be classified as exclusions but placed in the category of refusals under NAEP data analysis procedures." Under NAEP data analysis procedures, a weight class adjustment is used to account for students who refuse to take the assessment, but excluded students have no impact on estimated scores. Contrary to the Board policy, NCES has continued to permit schools to exclude students whose Individualized Education Programs (IEPs) call for accommodations that NAEP does not allow. NCES asserts that it is technically incorrect to apply a weight class adjustment that combines students who did not participate due to receiving accommodations on their state tests that are not allowed on NAEP with students who refused for other reasons.

For the benefit of the Reporting and Dissemination (R&D) Committee, Grady Wilburn of the National Center for Education Statistics (NCES) presented three alternative methods for adjusting scores for students who were excluded from NAEP, contrary to the Board policy. These options had originally been presented to COSDAM at the May 2014 Board meeting. The first method, *"Expanded" population estimates*, would improve upon the methodology of the full population estimates (FPEs) and incorporate additional data from NAEP teacher and school contextual questionnaires and from school records (e.g., state test scores for individual students). The second method, *Modified participation A*, would involve administering only the NAEP contextual questionnaire to excluded students and using that additional information to predict how the students would have performed on the cognitive items. The third method, *Modified participation B*, would involve administering the contextual questionnaire in the selected subject (i.e., Reading) in conjunction with an assessment in a different subject (e.g., Mathematics) and using both sources of information to predict how the students would have done on the Reading assessment.

R&D members agreed with COSDAM members that the spirit of the policy was working as intended, and that none of the proposed procedures were desirable. There was general consensus that NCES' current practices on this particular aspect of the policy—encouraging schools to include more students in NAEP even when they receive accommodations on their state tests that are not allowed on NAEP, but still allowing schools to exclude such students if they insist—was acceptable.

The following motion was made by Rebecca Gagnon and seconded by Terry Holliday; all members voted in favor of the motion:

ACTION: The joint committees of COSDAM and R&D recommend approval to the Governing Board of a motion to change the fourth implementation for students with disabilities on page four of the March 2010 Board policy on NAEP Testing and Reporting on Students with Disabilities (SDs) and English Language Learners (ELLs) to the following:

> ***The <u>number of</u> students who do not take the assessment because a particular accommodation is not allowed should be reported and minimized to the extent possible.***

After the joint session adjourned, a suggestion was made to substitute "percentage" for "number" to be consistent with NCES reporting practices; this substitution was incorporated into the motion that was subsequently approved by the full Board on Saturday morning. The final motion that was approved on Saturday morning included the following language:

> ***The percentage of students who do not take the assessment because a particular accommodation is not allowed should be reported and minimized to the extent possible.***

Andrés Alonso called for the joint committee to reconsider the requirement that English Language Learners (ELL) must be included in NAEP if they have been in U.S. schools for at least one year. Arnold Goldstein of NCES noted that the accommodations policy was developed to be consistent with the No Child Left Behind (NCLB) federal legislation. Mr. Fabrizio suggested that a representative from the U.S. Department of Education be invited to address the joint committee about the origin of this requirement during the November 2014 Board meeting.

COSDAM MEETING

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

Other Board Members: Chairman David Driscoll and Cary Sneider.

Governing Board Staff: Executive Director Cornelia Orr, Sharyn Rosenberg, Michelle Blair, and Lily Clark.

Other Attendees: John Easton, Director of the Institute of Education Sciences and ex officio member of the Governing Board. NCES: Samantha Burg, Jing Chen, Patricia Etienne, Daniel McGrath, Drew Malizio, and Bill Tirre. AIR: George Bohrnstedt and Young Yee Kim. ETS: Steve Lazer and Andreas Oranje. Hager Sharp: Melissa Spade Cristler. HumRRO: Laurie Wise. Optimal Solutions Group: Yvette Clinton. Pearson: Tracey Hembry, Paul Nichols, and Brad Thayer. Westat: Dianne Walsh. WestEd: Mark Loveland and Edys Quellmalz. Arlington Public Schools: Amy Yamashiro. Council of Chief State School Officers: Katie Carroll. New Mexico Department of Education and Governing Board/CCSSO Policy Task Force Member: Pete Goldschmidt.

Introductions and Review of Agenda

Mr. Fabrizio welcomed everyone to the COSDAM meeting and noted that the agenda included an action item on the Technology and Engineering Literacy (TEL) achievement levels descriptions (ALDs), an introduction to the TEL achievement levels setting (ALS) contract, and a discussion about academic preparedness research. He also noted that this would be John Easton's last meeting as the Director of the Institute of Education Sciences and ex officio member of the Governing Board. In September Mr. Easton will begin working at the Spencer Foundation in Chicago.

TEL Achievement Levels Descriptions (ACTION ITEM)

Mr. Fabrizio welcomed Cary Sneider who was invited to join the meeting for the discussion of the TEL achievement levels descriptions (ALDs) in the event that any questions arose about the TEL Framework. Mr. Fabrizio noted that Sharyn Rosenberg had given an overview of the TEL (ALDs) during the May 2014 COSDAM meeting. The draft TEL ALDs were distributed to COSDAM in late June and were discussed via conference call on July 3, 2014. COSDAM members had requested a few revisions during that conference call; the revisions were incorporated into the updated version that was sent to COSDAM in mid-July. Mr. Fabrizio introduced the presenter, Edys Quellmalz from WestEd, to discuss the process used to develop the TEL ALDs.

Ms. Quellmalz began with an overview of the project staff and TEL Framework. She described the process used to develop the TEL ALDs, which included: convening an expert panel to draft ALDs; seeking public comment and expert review of the ALDs; discussing the comments and reviews with the expert panel via teleconference; discussing the ALDs with COSDAM via teleconference; and incorporating COSDAM feedback into the final version that was included in the Board materials.

COSDAM members did not have any comments or questions on the TEL ALDs. The following motion was made by Jim Geringer, and seconded by Jim Popham; all members voted in favor of the motion. At the conclusion of the discussion, Mr. Fabrizio thanked Mr. Sneider for his attendance.

ACTION: COSDAM recommends approval to the Governing Board of the Technology and Engineering Literacy Achievement Levels Descriptions, as included in Attachment 1.

TEL Achievement Levels Setting (ALS) Contract

Ms. Rosenberg noted that the NAEP legislation specifies that the Governing Board is responsible for developing achievement levels for each subject area and grade tested by NAEP. In 1995, the Board adopted a policy on Developing Student Performance Levels for the National Assessment of Educational Progress; this policy is used to guide procurements on NAEP achievement levels setting. Following a competitive procurement process, the TEL ALS contract was awarded to NCS Pearson (Pearson) in early July 2014. Ms. Rosenberg noted that Pearson is also the NAEP Alliance contractor for materials distribution, processing, and scoring, but that the TEL ALS work is completely separate from the NAEP Alliance work. Ms. Rosenberg introduced the presenter, TEL ALS project director Paul Nichols of Pearson.

Mr. Nichols provided an overview of the scope of work for the TEL ALS, which includes a planning document, design document, pilot study, operational achievement levels setting, and two types of final reports (process and technical). COSDAM will be briefed on several key project milestones, via both in-person Board meetings and webinars or conference calls. Mr. Nichols noted that the Technical Advisory Committee on Standard Setting (TACSS) includes several prominent experts in standard setting, including former COSDAM member Greg Cizek.

In addition, former Governing Board Assistant Director for Psychometrics Susan Loomis will serve as a consultant to Pearson on this project.

Mr. Nichols described the proposed standard setting procedure, whereby a Bookmark methodology will be linked with empirical external validity evidence that is provided to panelists after their cut score recommendations have been made.

Some COSDAM members expressed concerns about the potential subjectivity of achievement levels setting. A discussion ensued about the extent to which standard setting panelists may be apt to overstate their understanding of the process. Mr. Popham suggested that a "lemon item" be incorporated into the panelist evaluation process to measure positive response bias. Andrew Ho suggested that the standard error of the cut scores or panelist feedback could be compared to previous standard setting activities of more traditional subjects.

Following the discussion of the TEL ALS project, Mr. Holliday questioned the entire enterprise of TEL due to the costs and the construct that is being measured. He asked whether there is a practical process in schools that we are attempting to measure and improve with the TEL assessment. More than any other subject tested by NAEP, Mr. Holliday noted that TEL will be largely impacted by student opportunities outside of the classroom.

The Future of Academic Preparedness Research

Board Chairman David Driscoll addressed COSDAM about academic preparedness research; he urged the committee to "keep faith" with research that has been done on academic preparedness for college and also urged the Board to continue with research on job training. He also spoke about the importance of TEL.

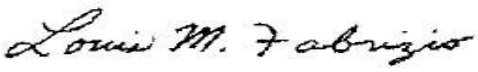
Information Items

Mr. Fabrizio asked whether there were questions about any of the information items. Mr. Ho asked about the timeline for the white paper on the transition to technology based assessments. Bill Tirre of NCES responded that ETS had just delivered a draft to NCES but that it had not yet been reviewed. Ms. Rosenberg noted that the Board will be kept informed about the progress of this white paper. Mr. Ho also asked about the general costs associated with academic preparedness research; Cornelia Orr responded that this information could be shared with COSDAM during the next meeting.

Other Issues and Questions

Mr. Fabrizio asked whether there were any other issues or questions that COSDAM members wished to raise. Mr. Popham suggested a future discussion about the merits and potential for a study related to increasing the instructional sensitivity of NAEP. Ms. Orr noted that COSDAM might consider how frequently bridge studies are needed as the technology based assessments continually move to new platforms.

I certify the accuracy of these minutes.



August 12, 2014

Lou Fabrizio, Chair

Date

Final Technology and Engineering Literacy Achievement Levels Descriptions
(Approved by the National Assessment Governing Board on August 2, 2014)

Basic: Eighth grade students performing at the *Basic* level should be able to use common tools and media to achieve specified goals and identify major impacts. They should demonstrate an understanding that humans can develop solutions by creating and using technologies. They should be able to identify major positive and negative effects that technology can have on the natural and designed world. Students should be able to use systematic engineering design processes to solve a simple problem that responsibly addresses a human need or want. Students should distinguish components in selected technological systems and recognize that technologies require maintenance. They should select common information and communications technology tools and media for specified purposes, tasks, and audiences. Students should be able to find and evaluate sources, organize and display data and other information to address simple research tasks, give appropriate acknowledgement for use of the work of others, and use feedback from team members (assessed virtually).

Proficient: Eighth grade students performing at the *Proficient* level should be able to understand the interactions among parts within systems, systematically develop solutions, and contribute to teams (assessed virtually) using common and specialized tools to achieve goals. They should be able to explain how technology and society influence each other by comparing the benefits and limitations of the technologies' impacts. Students should be able to analyze the interactions among components in technological systems and consider how the behavior of a single part affects the whole. They should be able to diagnose the cause of a simple technological problem. They should be able to use a variety of technologies and work with others using systematic engineering design processes in which they iteratively plan, analyze, generate, and communicate solutions. Students should be able to select and use an appropriate range of tools and media for a variety of purposes, tasks, and audiences. They should be able to contribute to work of team collaborators (assessed virtually) and provide constructive feedback. Students should be able to find, evaluate, organize, and display data and information to answer research questions, solve problems, and achieve goals, appropriately citing use of the ideas, words, and images of others.

Advanced: Eighth grade students performing at the *Advanced* level should be able to draw upon multiple tools and media to address complex problems and goals and demonstrate their understanding of the potential impacts on society. They should be able to explain the complex relationships between technologies and society and the potential implications of technological decisions on society and the natural world. Given criteria and constraints, students should be able to use systematic engineering design processes to plan, design, and use evidence to evaluate and refine multiple possible solutions to a need or problem and justify their solutions. Students should be able to explain the relationships among components in technological systems, anticipate maintenance issues, identify root causes, and repair faults. They should be able to use a variety of common and specialized information technologies to achieve goals, and to produce and communicate solutions to complex problems. Students should be able to integrate the use of multiple tools and media, evaluate and use data and information, communicate with a range of audiences, and accomplish complex tasks. They should be able to use and explain the ethical and appropriate methods for citing use of multimedia sources and the ideas and work of others. Students should be able to contribute to collaborative tasks on a team (assessed virtually) and organize, monitor, and refine team processes.