

# National Assessment Governing Board Assessment Development Committee

**November 20–22, 2014**

## AGENDA

<b>Thursday, November 20, 2014</b>		
9:00 am – 3:30 pm	<p><b>Closed Session</b></p> <p>Briefing on Technology Based Assessment (TBA) Activities in Reading and Mathematics <i>Eunice Greer, NCES</i> <i>Andreas Oranje and Greg Vafis, ETS</i></p> <p><b>ACTION:</b> Review of Mathematics TBA Materials <i>Gloria Dion, ETS</i></p>	Secure material sent under separate cover
<b>Friday, November 21, 2014</b>		
10:00 – 10:15 am	<p>Welcome to New ADC Members, Introductions, and Agenda Overview <i>Shannon Garrison, Chair</i></p>	
10:15 – 10:35 am	<p>Update on the 2014 NAEP Technology and Engineering (TEL) Assessment <i>William Ward, NCES</i></p>	Attachment A
10:35 – 11:15 am	<p>Update on NAEP and Next Generation Science Standards (NGSS) Comparison <i>Teresa Neidorf, AIR</i></p>	Attachment B
11:15 – 11:35 am	<p>NAEP Item Review Schedule <i>Mary Crovo, Governing Board Staff</i></p>	
11:35 – 11:45 pm	BREAK	
11:45 – 12:30 pm	<p><b>Closed Session:</b> NAEP 2011 Writing Assessment Overview and Discussion <i>Mary Crovo</i> <i>Elvira Germino Hausken, NCES</i></p>	Attachment C



## **NAEP Technology and Engineering Literacy (TEL) Assessment Update**

In the spring of 2014, the first-ever NAEP TEL assessment was administered via computer to a nationally representative sample of more than 20,000 8<sup>th</sup> graders. The assessment was designed to gauge how well students can apply their understanding of technology principles to real-life situations. Results will be available at the national level only and will be released as the Nation's Report Card.

The NAEP TEL Framework, which guides development activities, focuses on the level of knowledge and competencies about technology and engineering needed by all students and citizens to function in a technological society. TEL measured students' knowledge and skills in three interconnected areas: Technology and Society, Design and Systems, and Information and Communication Technology. There are three cross-cutting practices as well: Understanding Technological Principles, Developing Solutions and Achieving Goals, and Communicating and Collaborating.

An innovative component of the assessment is the incorporation of interactive scenario-based tasks. These tasks allowed the collection of a wide array of information on student performance, including observable data captured as students interacted with the TEL tasks. This innovation allows NAEP to expand TEL reporting beyond the traditional NAEP scores by including students' problem-solving strategies and processes.

In this session, NCES will present to the Assessment Development Committee an overview of the NAEP Technology and Engineering Literacy assessment beginning with development of the TEL Framework through the 2014 operational administration and post-administration activities, including important assessment development activities (such as the item tryout and pilot testing) and a summary of issues. Included in this session will be a timeline of assessment activities.

## **Update on the Comparison Study of NAEP and the Next Generation Science Standards**

*Prepared by AIR for NCES*

The recent release of the *Next Generation Science Standards* (NGSS) in 2013 and the National Research Council (NRC) report on *Developing Assessments for the Next Generation Science Standards* in 2014 are leading to major changes in state curricula and assessments. These changes are in response to the NGSS emphasis on the integration of scientific and engineering practices with disciplinary core ideas and crosscutting concepts in science. To inform ongoing discussions of NAEP's role in emerging national systems of large-scale assessments in science, technology, engineering, and mathematics (STEM), NCES conducted a comparison study of NGSS with the NAEP Frameworks in Science, Technology and Engineering Literacy (TEL) and Mathematics. The goal of the study is to provide evidence of the extent to which the STEM Frameworks in NAEP are aligned with the content and scientific and engineering practices in the NGSS.

At the last Governing Board meeting in August 2014, the Assessment Development Committee received a briefing on initial outcomes and feedback from the NAEP/NGSS expert panel meeting conducted in July. Analysis and report writing has been underway since the ADC meeting in August. At the November ADC meeting, we will describe the types of analyses conducted, highlight some key results comparing NGSS with the NAEP Science, TEL and Mathematics Frameworks, and discuss reporting plans.



## NAEP Writing Computer-Based Assessment

The Writing Computer-Based Assessment (WCBA) is designed to measure students' ability to respond to a writing task in an on-demand scenario and their ability to write using word processing software with commonly available tools on a computer. There are various types of tasks. Tasks may include text, audio, photographs, video, or animation on the computer. The assessment incorporates a short tutorial followed by two writing prompts and a survey questionnaire to gather contextual information.

NAEP piloted its first WCBA to samples of 8<sup>th</sup> and 12<sup>th</sup> grade students in 2010, with an operational administration of WCBA in 2011. This was followed by a pilot for its first WCBA to samples of 4<sup>th</sup> grade students in 2012.

This presentation will provide an overview of the WCBA, including the following:

- communicative purposes for writing,
- the assessment design,
- the universal design features,
- the types of student on-task behaviors associated with answering writing prompts, and
- the scoring of student responses.

It will also demonstrate samples of writing tasks as follows:

- types of writing tasks, and
- representative writing tasks.