

# National Assessment Governing Board Assessment Development Committee

**December 6, 2013**  
**10:00 a.m. – 12:45 p.m.**

## AGENDA

10:00 – 10:15 am	Welcome, Introductions, and Agenda Overview Comments from ADC Chair and Vice Chair <i>Shannon Garrison, Chair</i> <i>Cary Sneider, Vice Chair</i>	
10:15 – 10:30 am	Chairman’s Charge to the Committee for 2014 <i>David Driscoll, Board Chair</i>	
10:30 – 11:00 am	Technology and Engineering Literacy (TEL) Assessment Update <i>Lonnie Smith, ETS</i>	Attachment A
11:00 – 11:15 am	Update on Reporting Grade 4 Computer-Based Writing Information <i>Ebony Walton Chester, NCES</i>	Attachment B
11:15 am – 12:05 pm	Transitioning to NAEP Technology-Based Assessments in Reading and Mathematics <i>William Ward, NCES</i>	Attachment C
12:10 – 12:45 pm	<b>Joint Meeting with Reporting and Dissemination Committee</b> NAEP Contextual Variables a. <b>ACTION:</b> Contextual Information Framework for NAEP <i>Larry Feinberg, NAGB Staff</i> b. NAEP Education Indicators <i>Alan Ginsburg and Marshall Smith, Consultants</i>	See Reporting and Dissemination Committee Attachments F and G
Information Item	NAEP Item Review Schedule	Attachment D



## Summary of Technology and Engineering Literacy (TEL) Activities

### Update Session

The NAEP Technology and Engineering Literacy (TEL) assessment, designed to gauge how well students can apply their understanding of technology principles to real-life situations, will be administered for the first time in 2014 to a nationally representative sample of 8<sup>th</sup> graders.

To better inform and prepare the public for this assessment and to increase overall awareness, a TEL information page (<http://nces.ed.gov/nationsreportcard/tel/>) is currently hosted on the *Nation's Report Card* website. In addition to various resources (e.g., fact sheet for public schools), information on the TEL page includes two orientation videos, the student tutorial, and a sample scenario-based task. In the absence of any past cognitive items (since this is a first-time assessment) the sample task (Wells) is included to provide an exemplar of an actual TEL task. The Wells task was administered in the 2013 pilot.

Currently, there are no supporting materials (e.g., scoring guides) for the Wells task provided on the TEL web page. At the December 2013 meeting of the Assessment Development Committee (ADC), members will learn about forthcoming additions to the Wells web-based materials including a description of the specific TEL skills targeted by the task, the kinds of decisions students make, the types of information collected from student performance (e.g., the path a student takes to navigate through the task), and how students' responses effect their task score.

Additionally, the plans for the full TEL administration in 2014 will be summarized, including dates and sampling methods.



## **Reporting Lessons Learned from the 2011 Grade 4 Writing Pilot:**

### **Progress Report**

Technology is changing the way we assess and report student achievement. In congruence with this technological shift, NAEP has updated how it assesses student writing by conducting a writing computer-based assessment (WCBA) at grades 8 and 12 and piloting this assessment at grade 4. While it was clear that students in the higher grades could aptly demonstrate their writing ability on the computer, it was unknown whether fourth-graders could type their responses fully in the allotted time. To answer this and several other related questions, NCES coordinated usability studies, interviews, and a WCBA pilot assessment to examine what type of platform students needed to successfully complete the assessment and how well did fourth-graders write in different assessment conditions.

To disseminate findings from these efforts and to share the process for developing the WCBA platform, NCES leveraged technology to create an interactive web tool that shares lessons learned from the grade 4 WCBA. The website covers four areas: performance, development, accommodations, and (assessment) questions. Each section will have brief summaries describing what NCES did and learned and will contain supporting images and graphics.

At the August 2013 Governing Board meeting, the Assessment Development Committee (ADC) received a preview of the website and provided feedback to NCES. Since that meeting, NCES completed a technical memorandum that summarizes the development, administration and outcomes of the pilot assessment. This document will be available to the public upon request through the website. Additionally, more sections of the website were populated. During the December 2013 ADC meeting, the Committee will view additional web content that pertains to the development of the WCBA platform. The presentation will cover information on what students found difficult to understand in the original WCBA platform, and how the assessment platform changed in response.

The website is scheduled for public release in January 2014 and could serve as a model for future dissemination of “lessons learned” from other assessment activities.



## **Transitioning to Technology-Based Assessments (TBA) for NAEP Reading and Mathematics**

Transitioning reading and mathematics paper-and-pencil tests to technology-based assessments (TBA) is among the major challenges and opportunities facing the NAEP program. The intent is not to simply transfer the existing items to electronic delivery, but to introduce new types of technology-enabled items that can measure knowledge and skills that could not be tested—or could not be tested as well—on paper. NAEP being a trend assessment, there is also a desire to continue to measure progress within each subject area by maintaining NAEP trend lines, despite the change from paper-and-pencil to technology-based assessment modes.

At this December 2013 meeting of the Assessment Development Committee (ADC), NCES will present our proposed design for transitioning NAEP to technology-based assessments (including timelines and next steps). The design balances the introduction of innovative TBA content with the desire for trend maintenance, and features the use of a “TBA start-up” administration prior to the first operational TBA year. This TBA start-up would serve as an early bridge study to evaluate the feasibility of maintaining trends across the change in delivery mode.

Additionally, the individual TBA transitions for reading and mathematics, including the shifting emphases in item types as the transition is under way, will be discussed in greater detail. Topics will include how the paper-and-pencil items will be translated and/or transferred and administered for technology-based delivery and how pilot testing will be conducted in an effort to start to bring more TBA-dependent content into the assessment (while balancing innovation with a desire for trend maintenance).

**Assessment Development Committee  
Item Review Schedule  
December 2013 – July 2014  
(Updated 11/01/13)**

Review Package to Board	Board Comments to NCES	Survey/ Cognitive	Review Task	Approx Number Items	Status
11/21/13	12/13/13	Survey	2015 Operational Reading (4, 8)	78	<b>Review in early Dec.</b>
11/21/13	12/13/13	Survey	2015 Operational Math (4, 8)	90	<b>Review in early Dec.</b>
2/13/14	3/6/14	Cognitive	2015 Operational Reading (4, 8)	55	
2/13/14	3/6/14	Cognitive	2015 Operational Math (4, 8)	91	
5/1/14	5/22/14	Cognitive	Science ICT Beta Reviews (4, 8, 12)	9	
7/17/14	8/7/14	Cognitive	Science ICT Clearance Review (4, 8, 12)	18	
TBD		Survey	Reading question pool* (4, 8)	78	
TBD		Survey	Civics question pool* (4, 8, 12)	111	
TBD		Survey	Economics question pool* (12)	21	
TBD		Survey	Geography question pool* (4, 8, 12)	106	
TBD		Survey	US History question pool* (4, 8, 12)	105	

NOTE: Alpha builds will be presented to the ADC during their in-person and virtual meetings. These will not be submitted before the review. The ADC will receive outlines and beta builds prior to the ICT review meetings. (Alpha and beta builds are the first- and second-draft versions of the rendered task, respectively.)

\*A survey question pool represents all the questions that have been administered in operational assessments.