

# National Assessment Governing Board

## Assessment Development Committee

May 18 – 19, 2017

### AGENDA

#### Thursday, May 18

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##### **Closed Session**

12:30 – 3:30 pm

Welcome and Introductions

*Shannon Garrison, ADC Chair*

Review of NAEP Cognitive Items in Mathematics and Science

Secure material provided under separate cover

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#### Friday, May 19

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10:30 – 11:00 am

NAEP Items and Outreach to Educators (SV #3)

*Dan McGrath, NCES*

*Robert Finnegan, ETS*

Attachment A

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11:00 – 11:45 am

NAEP Frameworks (SV #5)

- Report from the Working Group on Framework Update Processes
- Upcoming Framework Update Projects

*Dale Nowlin, Governing Board*

*Michelle Blair, Governing Board Staff*

Attachment B

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11:45 am – 12:45 pm

##### **Closed Session**

Review of NAEP Cognitive Items in Mathematics and Reading

Secure material provided under separate cover

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Information Item

Item Review Schedule

Attachment C

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## NAEP ITEMS AND OUTREACH TO EDUCATORS

In March 2017, the ADC expressed interest in engaging educators around NAEP data and items, as a way to provide context on student performance relative to the nation and to make NAEP more user-friendly and relevant to educators' needs. This discussion was inspired by the Strategic Vision's priority to:

“Expand the availability, utility, and use of NAEP resources, in part by creating new resources to inform education policy and practice.”

To pursue this, the Committee acknowledged a possible need to increase teacher access to released items. Related outreach and resources should not be designed or construed as a NAEP advertisement or test prep, in accordance with [law](#) and [Board policy](#), which prohibits NAEP influence on state and local standards, tests, and curricula. National conferences and training sessions at these conferences were noted as potential vehicles for this important outreach. NAEP outreach, generally, is a core focus of the Reporting and Dissemination Committee (R&D), while the ADC's focus on NAEP items will be helpful to R&D if the Board decides to pursue targeted outreach with educators using items.

At the May 2017 meeting, the ADC will continue discussion on how NAEP items should be included in outreach to educators, feeding into R&D's outreach planning. Important questions to consider include:

- What should be the primary goal in this outreach?
- Are there different approaches that should be taken with different subject areas?
- To what extent may NAEP items introduce mixed messages, e.g., relative to state standards or formative assessments?
- Are principals a better target audience for outreach with NAEP items, compared with teachers?
- Which strategies should be considered to accomplish this goal? How should online NAEP questions tools factor into this work?

Dan McGrath (NCES) and Robert Finnegan (ETS) will give a presentation on the NAEP questions tool to support ADC discussion, while also sharing how NCES currently publicizes the tool to stakeholders. An overview of the questions tool is attached. Clicking the image below will also lead directly to the tool online.

## NAEP Questions Tool

[Already have an account? Sign in](#)  
[Make a roster and save your selections. Create an account](#)

**Search Questions**

- Explore thousands of questions by grade, year, and content area.
- See sample student responses and data.

search

**Test Yourself**

- Try answering some of the same questions that students have responded to on actual NAEP assessments.
- See how your scores compare to those of students across the nation.

try

**Create Tests**

- Select a subject and grade and get a **pre-selected assessment**, or make all the choices yourself and create your own **customized assessment**.

pre-selected

customized



### **NAEP Questions Tool**

The NAEP Questions Tool (NQT) is an online database of thousands of questions that have been used on NAEP assessments, as well as a tool that allows users to test themselves on NAEP questions and explore the content and form of NAEP assessments. The Questions Tool was published originally in 1998 and has been revised twice—first in 2008, and again in 2012—to enhance its features and usability. The current version of the Questions Tool includes a test delivery interface that enables users to use NAEP questions to create their own tests of varying difficulty and length in order to test themselves or their students and benchmark their performance against the national average.

In this session, NCES will review functionality of the NQT in support of a committee discussion of how the tool can be used by educators to learn more about NAEP and how it relates to their classroom instruction.

## **NAEP FRAMEWORKS: UPDATE PROCESSES AND UPCOMING PROJECTS**

### **FRAMEWORK UPDATE PROCESSES**

According to the NAEP statute (P.L. 107-279), the Governing Board is responsible for developing assessment objectives and test specifications for each NAEP subject area. Since 1989 the Governing Board has developed assessment frameworks and specifications in more than 10 subjects through comprehensive, inclusive, and deliberative framework projects.

#### **INTEREST IN NEW FRAMEWORK UPDATE PROCESSES**

A priori process decisions can potentially support a more continuous, incremental, and systematic model for framework updates, aligning with the Board's Strategic Vision to develop new framework update approaches that address evolving expectations for students and rigorous continued reporting of student achievement trends. A major contribution of a new approach could be to proactively consider how to preserve the student achievement trends reported by NAEP, while ensuring NAEP frameworks remain relevant.

There are several issues to resolve before the Board can determine feasibility of a new approach. For instance, determining what content updates are needed is in the purview of the Assessment Development Committee (ADC), while determining speed of changes and methods for maintaining trend with continuous, incremental changes to content are issues for the Committee on Standards, Design and Methodology (COSDAM) and the National Center for Education Statistics (NCES). Perspectives from both committees will assist the Board in determining what a new framework updating approach might entail.

#### **ISSUES RAISED IN NOVEMBER 2016 AND MARCH 2017 JOINT COMMITTEE DISCUSSIONS**

Adopting a new process involves many nuances, such as how items released at each assessment affect the intended incremental progression of framework content updates and how achievement level descriptors will account for these updates. Joint committee discussions have also noted that having a stable measure does not ensure stability in what is being measured—if NAEP continued to assess writing in the traditional paper-pencil format, measurement would be compromised since increasingly students do not write this way. Other issues raised in joint committee and working group discussions include:

- Considering whether NAEP is not detecting changes that are important to capture.
- Addressing new sequencing of content across grades.
- Avoiding the portrayal of a moving target with an assessment that is constantly changing.
- Considering how changes interact with general content drift over time or the accumulation of year-to-year trend inferences over time.
- Leveraging digital platforms for student engagement in NAEP content and the platform.
- Engaging stakeholders in determining needed updates.
- Considering NAEP's leadership for the nation and states.
- Confirming whether NAEP should help spur progress in education, while documenting what students know and can do, since this additional focus could suggest different framework update processes and timelines.
- Shortening lead times.
- Exploring whether context shifts of items alone can represent desired changes.
- Determining how much change is too much and the ideal rate of change.

ADC and COSDAM have jointly discussed how the Board can minimize the risk of having a framework become irrelevant, even though it is inherently difficult to predict certain vulnerabilities far in advance. Change every other year has been acknowledged as extreme, but the current pace of change is likely slower than what is needed.

### **PROSPECTIVE OUTCOMES FOR POLICY AND PROCESS**

Current [Board policy](#) prioritizes having NAEP frameworks remain stable for at least 10 years, and does not include processes for updating NAEP frameworks more frequently, while still maintaining trend. Hence, joint- and cross-committee discussions will review and refine policies and procedures for updating frameworks, which may include:

- Criteria to determine whether there is a compelling rationale to pursue content updates.
- Criteria to determine whether a new approach for updating a framework is appropriate.
- A suggestion to pilot the new approach in a particular NAEP subject.

### **PREVIOUS MODELS FOR FRAMEWORK UPDATES**

Previously, the Board has pursued framework updates in three ways:

#### **1. *New Framework with New Trend***

Research, outreach, content, and policy input show a new framework is warranted to define a new construct, including new content, skills, item types, delivery modes (i.e., digital-based assessment (DBA)), and other modifications. The new construct definition motivates a break in trend reporting from the old assessment's results. Examples:

- *2011 NAEP Writing*—writing with word processing tools represented a different construct compared with the previous framework's paper-pencil assessment.
- *2009 NAEP Science*—advancements in science and science curricular standards warranted a different construct with crosscutting content and deeper integration of science practices.

#### **2. *New Framework with Maintained Trend***

A new framework is designed to be different from the previous framework. However, empirical investigation reveals that the construct does not differ substantially. Interest in maintaining trend reporting prompts research to try to ensure trend lines can be maintained. Example:

- *2009 NAEP Reading*—several sub-elements of the previous framework were no longer relevant to the field's conceptualization of reading comprehension, prompting a new framework as in NAEP Writing and NAEP Science. Reauthorization of the Elementary and Secondary Education Act in 2002 required use of NAEP as a monitoring tool for states, prompting interest in maintaining reading trend despite construct changes. Empirical investigation revealed trend could be maintained from 1992.

#### **3. *Updated Framework/Maintain Trend***

Making gradual changes to a framework over time may help ensure that trend is maintained. Framework "tweaks" are prompted by important and less dramatic curricular and assessment advances. So these changes are sporadic, rather than ongoing. Examples:

- *NAEP Mathematics*—over time "tweaks" clarified objectives, shifted content emphases, and refined the process dimension, while the construct definition was unchanged, enabling NAEP to maintain the mathematics trend line for grades 4 and 8 since 1990.
- *2006 NAEP U.S. History*—clarifications suggested by the NAEP U.S. History test specifications and removal of outdated material were "tweaks" to refresh the framework without disrupting trend.

### **WORKING GROUP ON FRAMEWORK UPDATE PROCESSES**

At the March 2017 joint meeting of ADC and COSDAM, there was unanimous agreement that a working group should be established, to develop a proposal for new approaches to updating frameworks for the entire Board's consideration. The primary goal of the working group is:

To explore a systematic process for conducting a series of smaller, more incremental changes to frameworks on a faster schedule in a way that enables maintenance of trends.

This smaller group would participate in monthly calls to support steady progress in Board deliberations, identifying issues to bring back to the respective committees iteratively for feedback. As noted above, ADC will have primary responsibility for identifying what content should be updated to ensure that assessments remain relevant, while COSDAM will explore the extent to which content changes can be made while maintaining trends.

The following Board members volunteered to participate in the working group: Lucille Davy, Shannon Garrison, Andrew Ho, Dale Nowlin, Linda Rosen, Cary Sneider, Chasidy White, and Joe Willhoft. ADC member Dale Nowlin leads these working group discussions.

The first working group teleconference was held on April 7, 2017 and was focused on reviewing relevant background information and updates and identifying issues to tackle first. Background and updates reviewed:

- The Governing Board Framework Development Policy
- Summary chart of framework developments and updates in connection with trend reporting
- Content-related reviews by NCES-convened committees of experts, which includes people who served on the framework development teams convened by the Board
- Current plans and procurements for evaluating framework update needs, i.e., the state math standards review project and upcoming framework update projects
- Input from the April 3, 2017 meeting of Governing Board CCSSO Policy Task Force, sharing how states conduct their own standards revision processes (March 2017 Board meeting discussions requested more information on state processes)

The April 7 working group discussion raised the following issues for discussion and follow-up:

- The current Board Framework Development Policy focuses primarily on processes for developing completely new frameworks, which is appropriate given the Board's early work. Prospective policy revisions should add more guidance for updating frameworks.
- More ongoing processes to indicate when NAEP frameworks do or do not require updates are needed. Establishing a menu of monitoring options may be helpful.
- The 10-year default for framework stability in the policy may be unnecessarily rigid, but drastic reconceptualizations of a subject area prompting a completely new framework are rare. Hence, framework updates are a more likely default than framework replacements.
- Since there could still be policy reasons to pursue a new framework and trend, policy revisions may be needed to clarify when new frameworks should be considered.
- More information on previous processes to determine and implement framework "tweaks," will be helpful in determining new or more formal guidance for framework updating.
- More information is needed to determine opportunities for reducing current lead times between starting a framework change and administering the new assessment.

At the May 2017 Board meeting, working group members will update their respective committees about the latest discussions from the second teleconference on May 11, 2017.

## UPCOMING FRAMEWORK PROJECTS

The Board has kept NAEP Reading and Mathematics frameworks stable to support content stability and trend reporting during a time of sweeping changes in assessments across states. The ADC has provided direct oversight and guidance relative to NAEP content in extensive item reviews, ensuring alignment with the frameworks in the context and mode of digital-based assessment (DBA). Some framework changes are needed to adapt the frameworks to DBA administration, and other factors also need to be reviewed, including new grade level sequencing of mathematics content across states. Several other frameworks may require updating for similar reasons, e.g., U.S. History, Civics, and Geography. By Fall 2017, this work will begin.

For each subject area, the update project will include three key phases:

- Phase 1. Using stakeholder discussions and commissioned papers to identify new issues since the most recent framework revision
- Phase 2. Revising the framework via a team of experts
- Phase 3. Inviting public comments to inform final framework revision

The Board will identify a contractor through a competitive process to initiate and implement framework revisions, several of which may occur with overlapping timelines to address multiple subject areas simultaneously. Concurrent timelines will assure that revisions are completed in time for NCES item development for the next administrations of each assessment. For each framework, phase 2, in particular, will be influenced by Board decisions regarding recommendations proposed by the ongoing cross-committee Working Group on Framework Update Processes. At the May 2017 Board meeting, the ADC will consider and confirm the overarching goals for these projects. This will ensure that these update projects are structured appropriately. Proposed goals and phase activities (by subject area) are listed below for Committee feedback and discussion.

### **Phase 1. Identifying the Issues**

Commission papers addressing:

- Evolution of discipline and implications for NAEP frameworks
- Relevance to students' postsecondary lives as citizens, workers, and learners
- Digital-based assessment issues relevant to the subject area
- Relevant international content and measurement trends
- Analysis of NAEP student achievement trends, considering contextual factors

Convene a symposium of stakeholders to review and discuss:

- Commissioned papers
- Areas of agreement and disagreement
- A process for selecting a delegation of experts who will be tasked with revising the framework

### **Phase 2. Revising the Framework**

Convene experts to propose recommended revisions to the framework and specifications, considering issues such as:

- The extent to which specifications changes are needed more than framework changes
- Subsets of revisions that can be considered educationally meaningful, if the overall framework update is to be implemented incrementally

### **Phase 3. Collecting Public Comments**

Present draft framework revisions for public comment and determine how to address those comments in a final version of the revised framework that will be presented to ADC

For each subject area, the process will conclude with experts proposing a final set of recommended framework revisions to the ADC. The ADC will then determine if additional modifications are needed before presenting the revised framework to the full Board for adoption.



**Assessment Development Committee  
Item Review Schedule  
April 2017 - September 2017**

Review Package to Board	Board Comments to NCES	Survey/ Cognitive	Review Task	Approx. Number Items	Status
4/3/17	4/26/17	Cognitive	2019 Reading (12) Pilot (DI)	30-35	✓
4/20/17	5/02/17	Survey	2019 Science (4, 8, 12) Pilot	80-100	✓
5/3/17	5/26/17	Cognitive	2019 Science (4, 8, 12) Pilot (DI)	150-155	
5/3/17	5/26/17	Cognitive	2019 Math (12) Pilot (DI)	170-180	
5/3/17	5/26/17	Survey	2018 Civics, US History, and Geography (8) Operational	80-100	
5/8/17	5/26/17	Cognitive	2019 Reading (12) Pilot (SBT) Final Builds	2 tasks	
5/8/17	5/26/17	Cognitive	2019 Math (12) Pilot (SBT) Final Builds	2 tasks	
6/28/17	7/19/17	Cognitive	2019 Science (4, 8) Pilot (ICT) Final Builds	4 tasks	
7/26/17	8/11/17	Cognitive	2018 Civics (8) Operational (DI)	40-50	
7/26/17	8/11/17	Cognitive	2018 U.S. History (8) Operational (DI)	60-75	
7/26/17	8/11/17	Cognitive	2018 Geography (8) Operational (DI)	40-50	
7/25/17	8/11/17	Cognitive	2019 Science (4, 8, 12) Pilot (ICT) Final Builds	8 tasks	
7/26/17	8/11/17	Cognitive	2019 Science (4, 8, 12) Pilot (HHOTs) Final Builds	6 tasks	

NOTE: "SBT" indicates Scenario-Based Task  
"DI" indicates Discrete Item