# National Assessment Governing Board

Reporting and Dissemination Committee

May 18, 2012
10:00 a.m.-12:30 p.m.

AGENDA

10:00 – 10:50 am	Reporting on 12th Grade Preparedness
	    Susan Loomis, Ray Fields,
	    and Larry Feinberg, NAGB Staff
	    [Joint meeting with COSDAM]
		Please see tab for 12th Grade Preparedness Reporting

10:50 – 11:00 am	Review of Recent NAEP Release: Science 2011
	    Stephaan Harris, NAGB
	    Amy Buckley, Reingold Communications
		Attachment A

11:00 – 11:10 am	Projected Schedule for Future NAEP Reports *Arnold Goldstein, NCES*	Attachment B
11:10 – 11:20 am	**ACTION**: Release Plan for NAEP 2011 Writing Report Card *Stephaan Harris, NAGB*	Attachment C

11:20 – 11:40 am	NAEP Background Questions:
	 ol low-up to Expert Panel Report
	    Holly Spurlock, NCES
	    Larry Feinberg, NAGB
		Attachment D

11:40 – 11:55 pm	Topics and Plans for Focused NAEP Reports
	    Arnold Goldstein, NCES
	    Larry Feinberg, NAGB
		Attachment E

11:55 am – 12:30 pm	**ACTION:** Review of 2013 NAEP Core Background Questions for Schools and Charter School Supplement *Committee Members*	Attachment F
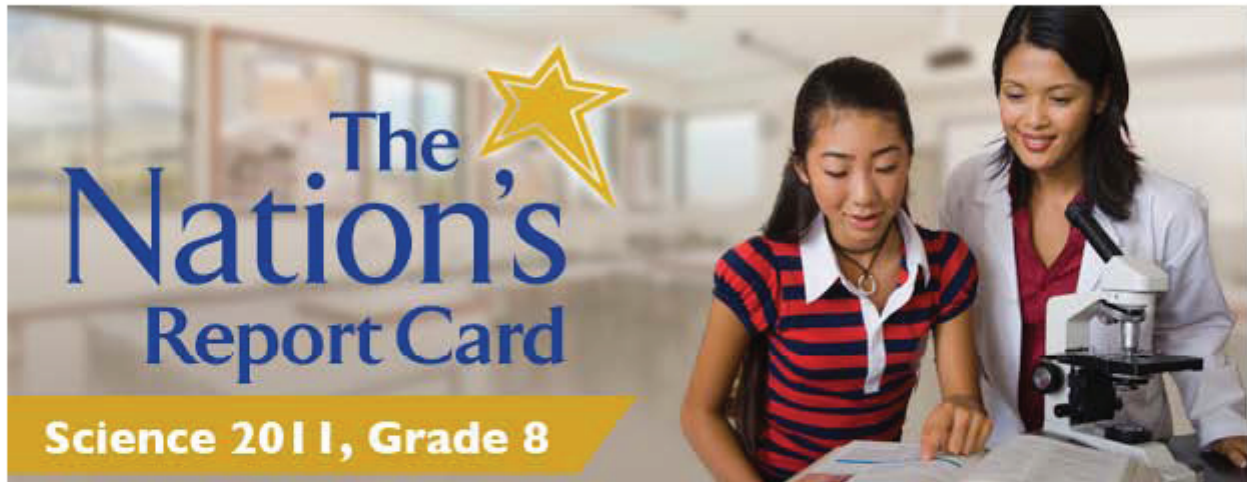
Live Webinar
The Nation's Report Card: Science 2011, Grade 8
May 10, 10 a.m. (EDT)

Have our nation's students improved in science since 2009?

The results of the 2011 National Assessment of Education Progress (NAEP) in Science at Grade 8 will reveal whether student performance in science has improved over the past two years.

Have overall scores increased? Have the percentages of students performing at or above *Basic*, *Proficient*, and *Advanced* levels changed? Has there been a shift in the racial/ethnic achievement gaps or differences between the scores of students in public and private schools?

The live webinar on Thursday, May 10, will answer these important questions and more, yielding valuable insights for the education and science communities.

Participants will discover student achievement data from three broad content areas.

- **Physical science:** properties and changes of matter, forms of energy, energy transfer and conservation, position and motion of objects, and forces affecting motion.
- **Life science:** organization and development, matter and energy transformations, $ interdependence, heredity and reproduction, and evolution and diversity.
- **Earth and space sciences:** objects in the universe, the history of the Earth, properties of Earth materials, tectonics, energy in Earth systems, and climate and weather.

Webinar attendees will also gain powerful insights from background questions that provide important context about students and their academic performance.

The Nation's Report Card: Science 2011, Grade 8

EVENT: LIVE WEBINAR $

DATE: Thursday, May 10, 2012 $

TIME: 10:00 a.m. EDT $

Register for the webinar:

REGISTER

Submit a question in advance of the event:

SUBMIT A QUESTION

MEET THE PANELISTS:

- + bio **Jack Buckley**

  Commissioner, National Center for Education Statistics

- + bio **Jeniffer Harper-Taylor**

  President, Siemens Foundation

- + bio **Hector Ibarra**

  Middle School Science Teacher, Belin-Blank International Center and Talent Development at the University of Iowa; Member, National Assessment Governing Board

The National Assessment of Educational Progress (NAEP)—also known as The Nation's Report Card—is the only continuing, nationally representative measure of what students know and can do in key subject areas.

Contact Us:

If you have questions about the report card release event, contact Stephaan Harris at 202.357.7504 or Stephaan.Harris@ed.gov.

IES NATIONAL CENTER FOR
EDUCATION STATISTICS

Institute of Education Sciences

Upcoming NAEP Reports as of April 2012

Report   **Expected Release Date**

Initial NAEP Releases)

2009 Science Hands-On Tasks and Interactive Computer Tasks: Grades 4, 8, and 12	June 2012
2011 National Indian Education Study: Grades 4 and 8	June 2012
2005 High School Transcript Study: Mathematics Course Content Analysis	June/July 2012
2011 Writing Report Card: Grades 8 and 12	August 2012
2011 Reading Vocabulary: Grades 4 and 8	September 2012

Other NAEP Reports)

Linking NAEP and TIMSS 2011 Mathematics and Science Results for the 8th Grade	December 2012

NAGB Reports)

Mega-States Report: Grades 4, 8, and 12	October 2012

Other Related Reports from NCES)

Digest of Education Statistics, 2011	May 2012
Characteristics of the 100 Largest Public Elementary and Secondary School Districts in the United States: 2009-10	May 2012

2012 NCES Assessment Data Release Timeline

	2009 Science HOTS & ICT		
	2011 NIES		
	2005 HSTS MCS		
2011 Science 8		2011 Writing 8 & 12	Meaning Vocab Study
			Mega States

NAEP TIMSS Linking

2011 TIMSS

2011 PIRLS

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
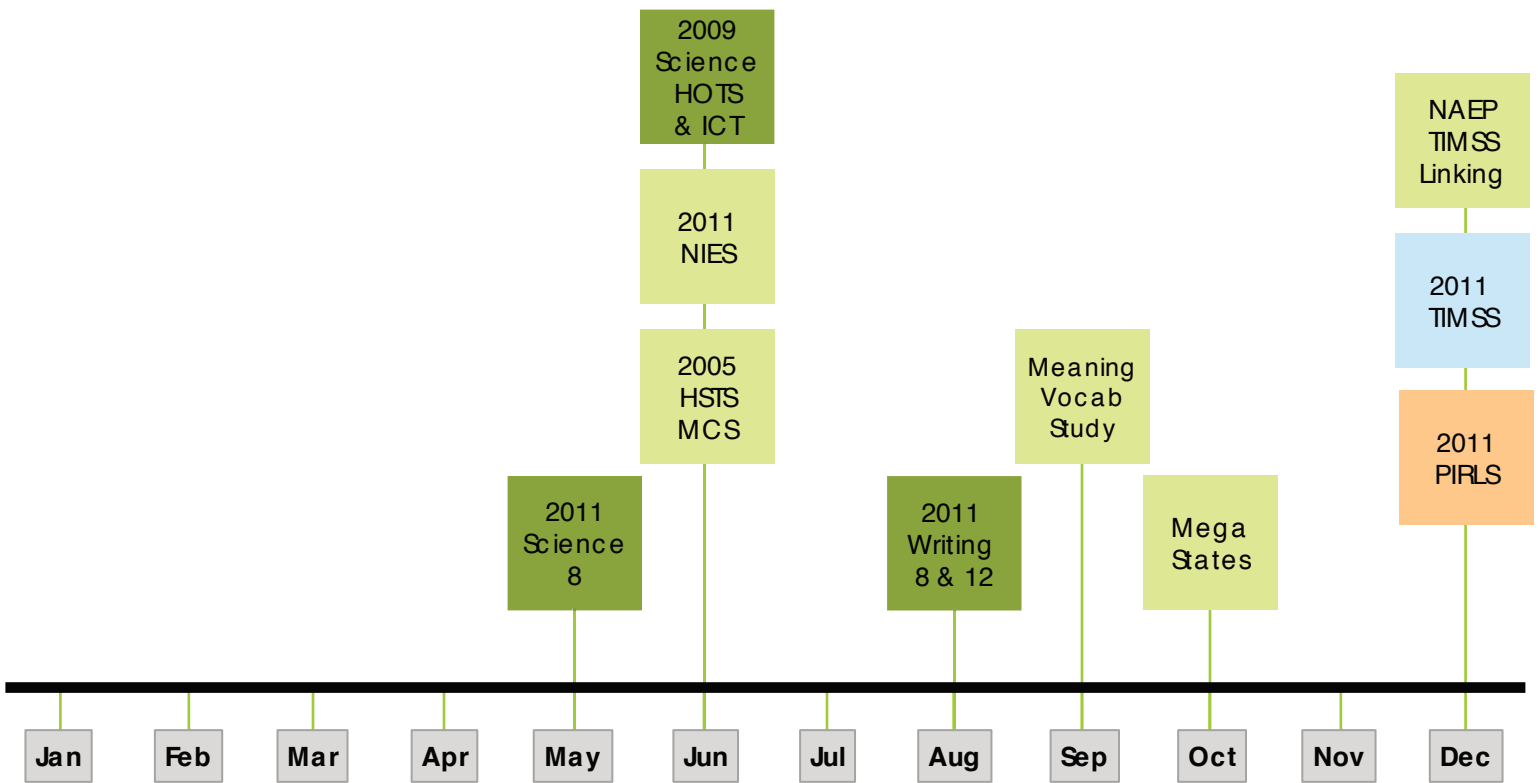
LEGEND

- NAEP Report Cards
- NAEP Studies
- TIMSS
- PIRLS

DRAFT
April 23, 2012

4

Releases in
2012

- 2011 Science Report Card: Grade 8 (National and State)

- 2009 Science HOTS & ICT: Grades 4, 8, 12 (National only)

- 2011 National Indian Education Study: Grades 4 and 8 (National and State)

- 2005 HSTS Math Curriculum Study (National only)

- 2011 Writing Report Card: Grades 8 and 12 (National only)

- Meaning Vocabulary Study: Grades 4 and 8 (National only)

- Mega States Report Card: Grades 4, 8, and 12 (Selected States)

- Linking NAEP and TIMSS 2011 Mathematics and Science results for the 8th Grade

- 2011 TIMSS: Grades 4 and 8 (National only)

- 2011 PIRLS: Grade 4 (National only)

Assessment Data Collection Schedule
2012

NAEP	International
☐ Economics: National (12)	☐ PISA USA (Age 15)
☐ Long-term Trend: National (Ages 9, 13, 17)	

NATIONAL ASSESSMENT GOVERNING BOARD
RELEASE PLAN FOR
NAEP WRITING 2011 REPORT

The Nation's Report Card in Writing 2011

The Nation's Report Card in Writing 2011 will be released to the general public during August 2012. Following review and approval of the report's results, the release will be conducted as an online webinar. The release event will include a data presentation by the Commissioner of Education Statistics, with moderation and comments by at least one member of the National Assessment Governing Board and a writer or writing educator. Full accompanying data will be posted on the Internet at the scheduled time of release.

This Report Card is the first National Assessment of Educational Progress (NAEP) assessment to be completely computer-based and presents results from a representative sample of about 24,100 8th graders and 28,100 12th graders at the national level. Results will be reported in terms of scale scores and percentages of students at or above newly-developed NAEP achievement levels. In addition to overall results for students nationwide, the report will include data for various demographic groups and public and private schools. Information about the new Writing Framework will be included, along with examples of questions and student responses. Because the framework and testing method have changed, no trend data will be available

DATE OF RELEASE

The release event for the media and the public will occur in August 2012. The exact date will be determined by the Chair of the Reporting and Dissemination Committee in accordance with Governing Board policy, following acceptance of the final report.

EVENT FORMAT

- Introductions and opening statement by a member of the National Assessment Governing Board
- Data presentation by the Commissioner of Education Statistics
- Comments by at least one Governing Board member and a writer or writing educator.
- Questions from members of the press and then the general audience
- Program will last approximately 60 minutes
- Event will be broadcast live over the Internet, and viewers will be able to submit questions electronically for panelists. An archived version of the webinar, with closed captioning, will be posted on the Governing Board website.

EMBARGOED ACTIVITIES BEFORE RELEASE

In the days preceding the release, the Governing Board and NCES will offer embargoed briefings or mailings to U.S. Congressional staff in Washington, DC. Representatives of governors, state education agencies, and appropriate media will have access to a special website with embargoed data after signing the Governing Board's embargo agreement.

REPORT RELEASE

The Commissioner of Education Statistics will publicly release the report at the NAEP website–http://nationsreportcard.gov–at the scheduled time of the release event. An online copy of the report, along with data tools, questions, and other resources, will be available at the time of release on the NAEP site. An interactive version of the release with panelists' statements, the Governing Board press release, publications and related materials will be posted on the Board's web site at www.nagb.org. The Board site will also feature links to social networking sites, key graphics, and audio and/or video material related to the event.

ACTIVITIES AFTER THE RELEASE

The Governing Board's communications contractor, Reingold-Ogilvy, will work with Board staff to coordinate an in-person or online event designed to extend the life of the NAEP Writing results by featuring current topics that would be of great interest and relevance to stakeholders. The event would be designed for organizations, officials, and individuals in the fields of education and policy who have an interest in student writing and assessment.

NOTE TO Reporting and Dissemination Committee on Expert Panel Report on NAEP Background Questions

At its meeting in March 2012 the Governing Board received a report, *NAEP Background Questions: An Underused National Resource*, prepared by a six-member expert panel that had been convened by Board staff last fall. The panel was asked to recommend improvements in the background questions on the National Assessment of Educational Progress (NAEP) and how to make better use of them in policy-related reports.

Over the past 25 years, hundreds of background or non-cognitive questions have been asked of the students, teachers, and schools in NAEP's national, state, and urban district samples. These are meant to enrich the reporting of academic results, but for more than a decade little use has been made of them. Meanwhile, two major international assessments— PISA (Program for International Student Assessment) and TIMSS (Trends in International Mathematics and Science Study)—have issued extensive analyses of similar background variables that are playing a major role in education policy discussions.

The six-member expert panel that prepared the report was headed by Marshall S. Smith, a former U.S. Under Secretary of Education and former dean of the Stanford University School of Education. Other members have a wide range of experience in education research and policy.

The Board has sought public comment on the report through a notice sent to several hundred state and local education officials, researchers, and others interested in education. It requested a written response from the National Center for Education Statistics (NCES), and also held two webinars (called virtual town halls) at which oral comments could be made and questions asked.

At this meeting the Committee will discuss the comments on the report and what actions to recommend the Governing Board take on it.

This tab includes the response from NCES, feedback from the CCSSO-Board task force, a compilation of public comment, a news article on the report in *Education Week*, and material on the report itself—the full text, executive summary, list of panel members, and a Board news release.

Response to the Governing Board's Expert Panel on Background Questions

NCES commends the Governing Board for their initiative to examine the background questions in their current usage and process. NAEP's background questions are an important resource to the educational community. As such, it is critical that NCES and the Governing Board continue to evaluate processes and improvements to strengthen this important resource.

NCES supports many of the recommendations discussed in the paper. Obtaining policy relevant information and trends is an important goal of NAEP. In particular, NCES agrees with the following recommendations and through our current and future activities we will continue to support them and strive to enhance their presence in the NAEP program:

While we may not agree with all of the individual components of these recommendations, we endorse the principle behind the recommendation.

- **Recommendation Area 2** (*Strengthen the validity, reliability and coordination of the measures and clusters of measures for background questions*). NCES is interested in exploring additional ways to strengthen the reliability and validity of background questions. Currently, NAEP employs the following procedures to evaluate the reliability and validity of a questionnaire item:
  - Conduct expert panel reviews of items to confirm that the question covers the full range of the meaning of the construct.
  - Conduct cognitive interviews to check for consistent understanding of questions (and terms) and investigate the range of responses that respondents will report.
  - Examine missing rates and response patterns to assess whether there may be a problem that warrants changing an item or not including an item in a future administration.
  - Examine the relationship between survey responses with other variables (e.g., students average scale scores).

- **Recommendation 1d** (*Use consistency over time as a criterion to consider for question selection and wording*). The report calls for consistency in question wording over time as a consideration. Reporting trend information is of critical importance for NAEP and NCES concurs with the importance of this role. Over the last several years, changes to the wording of background questions have been made to ensure consistency across the questions (such as consistency across grades or consistency across subjects). As such, the program is actively adopting the philosophy of maintaining consistency in the background questions.

- **Recommendation Area 4d** (*NAEP should encourage others to conduct exploratory studies of the NAEP background variables*). External researchers utilize NAEP data to prepare reports focused on background question findings. It is important that researchers are provided opportunities to access NAEP data to help ensure the background questionnaire are not an underused resource. NCES would be supportive of refining the current grant process in order to give an increased emphasis for these types of activities.

- **Recommendation 4e** (*Further improve the powerful online NAEP tools for data analysis*). NCES is interested in allowing easier access to the wealth of background information to the general public. In addition, it may be worth noting that some of the report's recommendations related to expanding the current functionality of NDE to make exploration and exporting of background variable data more convenient are, at least in part, already implemented. For example, it is now possible to export data to Excel (rather than needing to key-enter the data) from the Build Reports tab. Also, it is possible to search for keywords in a variable's name on the Select Variables tab.

While we support the overall effort and the above-mentioned specific recommendations, NCES would like to respond to the following areas discussed in the report that are potentially more problematic:

- **Increase Student and School Burden (as suggested in Recommendations 2c and 3b)**: We are greatly concerned about the report's recommendations that would significantly increase burden on students and schools. Specifically, the recommendation to expand burden on student and schools by requiring more time for answering background questionnaires will likely have a negative impact on participation and response rates. Unlike TIMSS, PISA, and PIRLS, there are many schools that are sampled by NAEP on a regular basis. NAEP is assessed every year, often at grades 4, 8, and 12, while the international assessments are assessed every three to five years, with only one (for PISA and PIRLS) or two (for TIMSS) groups of students. NAEP is a much more frequent presence, and consequently, must be more considerate of the time schools are asked to divert from teaching to testing. Because NAEP is administered with much greater frequency, one might predict school participation in NAEP would be noticeably lower than in the international assessments. However, the data indicate the opposite: NAEP's response rates are significantly better and this result may be attributed to testing time.

  NAEP currently requires only 65 minutes for assessment time to answer the cognitive and background questions for paper and pencil assessments and only 75 minutes for computer-based assessments, with the additional 10 minutes being added to the cognitive portion of the assessment. The international assessments, however, require between 100 and 150 minutes of assessment time. Field reports suggest the amount of time required on the international assessments is a significant problem and the time burden reduces school participation. Conversely, the school response rates for NAEP are much higher than for any international assessment administered in the U.S., as indicated in the table below.

U.S. School Participation Rates for NAEP and International Assessments

Assessment	School Response Rate	Frequency of Assessments	Amount of Assessment Time (Cognitive and BQ)
NAEP (grade 4)	97%	Every year	65-75 minutes
NAEP (grade 8)	97%	Every year	65-75 minutes
NAEP (grade 12)	94%	Every year	65-75 minutes
TIMSS (grade 4)	70%	Every 4 years	102 minutes
TIMSS (grade 8)	68%	Every 4 years	120 minutes
PISA	68%	Every 3 years	150 minutes
PIRLS	57%	Every 5 years	100 minutes

Notes:

    Participation rates are from the most recently published assessments: NAEP (2011), TIMSS (2007), PISA (2009), and PIRLS (2006).

    NAEP is congressionally mandated for reading and mathematics for grades 4 and 8. These subjects are in the field every other year. NAEP 2010 school response rates, a year in which reading and mathematics were not in the field, were also superior to school responses rates for the international assessments. The 2010 NAEP school response rate was 96% for grade 4, 96% for grade 8, and 89% at grade 12.

- **Spiral Background Questions (as suggested in Recommendation 3a):** The report recommends implementing a procedure in which the background questions are spiraled so that no student receives all of the background questions, but that the full set of questions is administered across the entire sample. The intention behind this recommendation is to expand the number of background questionnaire items that are administered as part of any given subject-area assessment. NCES supports this effort; however several challenges must first be addressed.

For instance, in order to implement this effectively and so that the results are unbiased, all questions would need to be included in the analysis conditioning model. The exact approach that could be taken to implement this would need to be determined. Numerous options could be considered for modifying the conditioning model (such as employing multiple conditioning models or including all questions and treating the ones that were not administered as missing). NCES would need to investigate these different alternatives to determine the most appropriate methodology for the NAEP data, both in terms of the reliability and validity of the results and the reporting timeline and requirements.

In addition, it is important to recognize that spiraling the background questions will decrease the individual sample size for each question. In return, the standard errors associated with the results will increase. The exact impact of this increase in standard errors would need to be investigated to evaluate if it would have significant reporting implications for subgroups within jurisdictions. NCES wants to make sure that spiraling does not compromise our

ability to report background data due to a sampling (e.g., background data for urban districts that tracks progress in implementing instructional curricular, and technological changes).

- **Rotating Background Questions (as suggested in Recommendation 1a)**: The report calls for the rotation of some background questions, such that they would only be assessed in every other administration. The theory of such an approach is that information on additional topics and questions can be collected, without increasing burden. However, it is important to note that this approach would yield longer periods of time between trend reporting and, thus, limited trend information would be available with each assessment. For the legislatively mandated reading and mathematics grades 4 and 8 assessments, states use the trend information to help explain changes from one administration to the next. In addition, for the assessments administered less frequently (i.e., every 4 or 6 years), very little trend data could be captured among rotated questions over the course of the framework.

- **Scope of Questions (as referenced in the Executive Summary and Recommendation 1b):** The report cites the importance of including policy relevant topics in the NAEP background questionnaires, such as opportunity-to-learn issues; key instructional, curricular, and technological changes; and out-of-school learning factors. The panel should be aware that there are examples of background questions that already address each of these topics in both the core and subject-specific student questionnaires, as well as in the teacher questionnaires. NCES has previously met resistance from some of our stakeholders who view certain topics, such as out-of-school learning, as potentially too intrusive. Moreover, NAEP legislation prohibits evaluating or assessing personal or family beliefs and attitudes.

No matter how much time the program decides to require of its questionnaire respondents, there will always have to be choices made based on priorities for reporting and information policy. Extending the NAEP background questions further to inform topics of current policy interest could put the program in a precarious position given the recent national conversation concerning the level of government involvement in schools. NAEP is not designed to serve as a program evaluator. The NAEP legislation stipulates, "The use of assessment items and data on any assessment authorized under this section by an agent or agents of the Federal Government to rank, compare, or otherwise evaluate individual students or teachers, or to provide rewards or sanctions for individual students, teachers, schools or local educational agencies is prohibited." NCES recommends exercising significant caution so school administrators, teachers, students, and their parents do not characterize NAEP background questions as overly intrusive.

- **Expanded Use of Cognitive Laboratories (as suggested in Recommendation 2f)**: The report calls for expanded use of cognitive interviews in developing new background questions. It is not clear how NAEP can significantly improve upon current processes based on this recommendation. NAEP employs extensive application of cognitive interview procedures to ensure the language and terms used in background questions are clear to respondents, and elicit the type of information desired. Starting in early 2009, all newly developed and revised questions have undergone cognitive laboratory procedures. In addition to traditional cognitive interview techniques, NCES and its contractors use other

techniques to ensure high-quality items, including pre-testing in the form of focus groups and item tryouts, especially with many of the new computer-delivered background questionnaire development efforts.

- **Pooling Item Responses Across Surveys (as mentioned in Recommendation 3b)**: It is not clear how item responses could be pooled across successive surveys in any meaningful way. Each assessment year is sampled independently to ensure the results represent the population of interest. As such the combined, or pooled, responses across years would not represent either target population. For, example, pooling the responses from the 2009 and 2011 grade 4 mathematics student questionnaires would not represent results from either 2009 or 2011. As such, pooling item responses would present a severe violation to data integrity.

Finally, NCES would like to acknowledge that most of the efforts discussed in the paper (both those that NCES endorses and those that would require additional consideration) have cost implications. Creating additional questions and assessing students for increased time, creating additional reports, spiraling the background questions, and conducting bridge studies would all incur additional costs.

Without additional funds from the federal budget, the addition of these activities would place other NAEP activities in jeopardy.

National Assessment Governing Board/Council of Chief State School Officers
Policy Task Force)
List of Key Points
April 30, 2012

This document lists issues and suggestions from the Task Force's discussion at the April 30, 2012 WebEx meeting.

Discussion Topic #6: NAEP Background Questions
Task force feedback
- There are concerns about the appropriateness of certain questions that could be asked and their purposes. Depending on the question, additional consents may be needed at the school or district level because of state-specific privacy concerns about maintaining student confidentiality.
- Aggregated state-level data may obscure meaningful differences in student performance.
- States primarily use NAEP data for additional information to supplement state data.
- The purpose of the background questions and analyses should be to illuminate correlations between NAEP student performance and background questions.
- The Task Force would appreciate more detailed information on this topic, such as the target audience for the information from background questions and the intended uses of background questions, including potential decisions these data are expected to inform.

Task force suggestions
- Make better use of existing NAEP background data in an accessible and useful format.
- Improve online NAEP data analysis tools to facilitate use of data by various audiences.
- Consider removing some existing questions to create space for new questions in order to maintain the existing time allotment for background questions.
- Focus some new questions on "career skills" and post-secondary plans. This information would be particularly useful to states.
- Clarify who will use any new information and how the information will be used.

Discussion Topic #10: Board Initiatives on Raising Achievement and Closing Gaps
Task force suggestions on new focus reports
- Ensure a direct relationship between the topic and NAEP achievement.
- Ensure objectivity of analysis.
- Consider new background questions that will enrich these focus reports.
- Identify the consumers of the reports and how the report is likely to be used.

Priority topics
- Charter schools: A Ten-Year Report—2013 compared to 2003 (when a charter school report was last published). A NAEP report on this topic would be viewed as a useful, objective source to inform states on charter school performance.
- Opportunity-to-Learn: Teachers, Curriculum, and Instruction. How they are distributed by race/ethnicity, socio-economic status, and achievement levels
- Education policies and instructional practices of high-performing or high-growth states and districts

- Eighth-grade algebra: How it has grown and achievement patterns and trends. (The Task Force also expressed interest in seeing this report/topic include an analysis of 8th grade algebra course content/rigor in relation to NAEP results.)
- Learning in the South: A report across the curriculum on the SREB states
- Other regional reports: New England states and the Midwest (Big Ten) with NAEP data across the curriculum

Policy Task Force Members (2011 - 2012)

Patricia Wright, Task Force Chair
Superintendent of Public Instruction
Virginia Department of Education
Richmond, VA

Deborah Sigman, Task Force Vice Chair
Deputy Superintendent
California Department of Education
Sacramento, CA

David V. Abbott
Deputy Commissioner/General Counsel
Rhode Island Department of Elementary and
Secondary Education
Providence, RI

Liza Cordeiro
Executive Director, Office of
Communications
West Virginia Department of Education
Charleston, WV

Tom Foster
Director of Assessment
Kansas State Department of Education
Topeka, KS

Pete Goldschmidt
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New Mexico Public Education Department
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Kentucky Department of Education
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Dan Hupp
Director of Student Assessment
Maine Department of Education
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Susie Morrison
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Illinois State Board of Education
Springfield, IL

Nate Olson
Communications Manager
Washington Office of Superintendent of
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Olympia, WA

Joel Thornton
Chief of Staff
Georgia Department of Education
Atlanta, GA

Joyce Zurkowski
Director of Student Assessment
Colorado Department of Education
Denver, CO

Public Comment on Expert Panel Report on NAEP Background Questions

Public Comment on NAEP Background Question Report

Chief State School Officers

Stephen Bowen, Commissioner, State of Maine Department of Education
Lillian Lowery, Secretary of Education, Delaware Department of Education

Former NAGB Chairmen

Richard Boyd
Chester E. Finn, Jr.

Former NCES Commissioner

Mark Schneider

Other Public

American Educational Research Association
Cynthia (Cindy) Brown, Vice President for Education Policy, and Ulrich Boser,
Senior Fellow, both of the Center for American Progress
Eleanor Chelimsky, American Evaluation Association; Former Assistant Comptroller General
of the United States for Program Evaluation and Methodology
Richard Innes, Education Analyst, Bluegrass Institute for Public Policy Solutions (KY)
Francesca Lopez, Assistant Professor, Marquette University
Sarah Lubienski, Professor of Mathematics Education, University of Illinois at Urbana-
Champaign
Tom Munk, Senior Education Analyst, Westat, Durham, NC
Charlene Rivera, Research Professor, George Washington University; Executive Director, Center
for Equity and Excellence in Education
Sol Stern, Contributing Editor, City Journal; Senior Fellow, Manhattan Institute (NY)

State NAEP Coordinators and Other State or District Testing Officials

Illinois - Andy Metcalf, NAEP State Coordinator
Kentucky – Lisa Gross, Communications Director
Minnesota - Kate Beattie, NAEP State Coordinator
Montana - Mike Chapman, NAEP State Coordinator
Oregon - Beth LaDuca, NAEP State Coordinator
Tennessee - Laura Garza Atkins, NAEP State Coordinator
Virginia - Wendy Geiger, NAEP State Coordinator
Washington - Angie Mangiantini, NAEP State Coordinator

Miami-Dade County - Sally Shay, Director of Assessment, Research, and Data Analysis

Report on Town Hall Webinars of May 1 and 3, 2012

Paul R. LePage

GOVERNOR

Stephen L. Bowen

COMMISSIONER

TO: Cornelia Orr, National Assessment Governing Board
FROM: Commissioner Stephen Bowen, State of Maine Department of Education
SUBJECT: NAEP Background Questions, Brief Response Format
DATE: April 26, 2012

As requested in your email of April 11, below are my comments regarding NAEP Background Questions.

RE: General view:
Overall, I agree that the background questions on the NAEP assessment are an unused national resource. Since the 2012 Maine Department of Education Strategic Plan focuses on building an education system from the learner out, asking student background questions is important. The core of the plan is effective learner centered instruction, guided by assessment systems that provide accurate data on achievement and growth, using information systems that track learner growth over time. Student background questions help us understand the context for NAEP achievement results and give parents, educators, and policy makers' insight into how to develop component systems. They also will give us insight into the fidelity of implementation of our current standards of curriculum and instruction.

Since Maine's strategic plan also cites the need for great teachers and leaders, monitoring supporting and growing effective practices, it will be essential to create an educational climate that fosters continuous improvement. Therefore, monitoring student motivation, understanding perceptions of learning from within the classroom and asking about out-of-school learning will enable us to create more effective learner-centered classrooms, multiple pathways for learning within the system, and expanded learning options for 'anywhere, anytime learning.'

RE: Points of agreement:
In order to pave the way for increased focus on issues and topics informed by background questions, I particularly agree with the committee's proposal that NAGB approve special reports that take advantage of the untapped potential for understanding provided by the background questions, in order to gauge the political, social, and academic response to special reports based on contextual data. Of course, background information must be carefully used, in a manner that does not violate or infringe on personal privacy of students and their families.

Since Maine is a unique state with extremes in geographic, settlement, population, and socio-economic features, it is difficult to paint an accurate picture of its citizenry in the aggregate using data from the US Census or CDC. Questions like years of schooling of adults in the family, number of adults in the household, and index of home possessions may infer one meaning for family life in most states, but mean something different in Maine. Furthermore, Maine is not only the most rural state in the country (according to the 2009 US Census), but is also 96% white, with almost an entire ELL population that is not Hispanic. Additionally, the cost and type

of homes, cost of living in diverse areas of the state, and lifestyles throughout the state vary widely. Although Maine's multiple job holding rate declined in 2010, it remained above the U.S, average as job quality continues to be an area of concern. For a wide variety of reasons, analyzing the data that NAEP collects is extremely important to accurately inform the type of learner-center educational system envisioned in Maine's strategic plan.

RE: Points of disagreement:
Although I am in favor of using a multidimensional index for SES, I am not convinced that using other methods like using background questions, with geo-coding or other census information, would prove to be a more accurate system than using zip code information. Additionally, attempting to use other methods may be more expensive with the unintended consequence of using resources that would be better put toward, for example, updating the NAEP data tools, making it easier to utilize the contextual database.

RE: Setting priorities for the panel:
Expanding NAEP's current set of core background questions to include instruction and other learning opportunities should be a priority. It will be important to allow the examination of student learning environments by describing the curriculum, instructional approaches, and time spent on learning, the variety of settings and digital opportunities, and teacher qualifications from both the viewpoint of teachers, principals, and students. That practice would also enable us to uncover information about student motivation and control over one's own learning environment. In creating a learner-centered educational system in Maine, we strive to recognize and validate the fact that learning takes place in many settings, and at all times of the day.

At the same time , it will be important to strengthen the validity, reliability and coordination of NAEP background questions to increase confidence in the findings, and as well, attempt to link to contextual research on international benchmarks such as PISA and TIMSS.

RE: Additional comments:
Of course, the board needs to consider improving the usefulness and use of NAEP Background Questionnaires in relation to other expenditures in NAEP's annual budget. In that light, I would like to express my support for the continued use of NAEP assessments, especially those that track national and state achievement over time. Linking them to international assessments is also critically important in today's economy.

I also support the continued development of benchmarks in the social sciences, which often seem to be the last ones developed at the state or national level, yet are so important to maintaining an informed citizenry.

Thank you for this opportunity to submit a response to the NAGB Governing Board regarding NAEP background questions.

NAEP BACKGROUND QUESTIONS: AN UNDERUSED NATIONAL RESOURCE

Delaware Department of Education

Sent by Lillian M. Lowery, Secretary of Education
Prepared by Duncan G. Smith, NAEP State Coordinator

1. ' What is your general view of this report?

Comments

The NAEP background questions provide a great resource, but NAGB and the expert panel acknowledge that while significant resources have been applied to this area over the years, it continues to be widely underused. The NAEP background questions are a unique national information resource, and the implementations of the recommendations within the report will help this tool become more reliable, more user friendly, and more widely referenced, while not becoming a greater burden on students, teachers, and administrators who are asked to take the questionnaire.

2. ' Please mention the points with which you particularly agree.

1)) Panel Recommendation: Produce more special reports on the background data:

Comments

There is a considerable quantity of data already collected but largely unreported and unanalyzed. Special reports provided by NAEP will focus educators' attention on important national trends and lead to further investigations and data exploration by personnel that have the time and skills to undertake such research. While the reports would be informative, they would not indicate causal interpretations using the background questions; NAEP's role is to inform, not to suggest root causes for performance. A recommended research grant program from the panel may encourage further exploration studies by individuals or groups of researchers.

2)) Panel Recommendation: Improve the relevance, quality, coherence and usefulness of a core and rotated set of background variables

Comments

Currently used questions allow for analysis of common topics and subgroups (i.e., Race/ethnicity; SES), but they are not always organized in an effective manner. 'Tiering' and clustering questions into three recommended concise groups will allow for easier analysis and less question duplication. Data mining becomes very time consuming due to too many available background questions.

Accuracy of data will improve with the rewording of questions. Answer options to survey questions often include imprecise terms. For example, specific terms such as 'once a month' and 'one a week' should be used instead of frequently used answer options such as 'a lot' or 'infrequently'.

The ten-minute target length for responses to the student questionnaire is insufficient and NAEP would do well to consider the merits and feasibility of a lengthier questionnaire. TIMSS grade 4 and 8 student questionnaires are targeted for 30 minutes at each grade and do not appear to suffer from high non-response rates.

3)) <u>Panel recommendation</u>: Improve the usability of the Data Explorer

     <u>Comments</u>
     The NDE can be difficult to navigate to get to the crux of research topics. Challenges to the
     user are summed up in the example provided with the NAEP Data Explorer within the report.
     (P. 38, 39)

     To make valid international comparisons, NAEP needs to word its questions so that they are
     very similar or identical to the wording of the comparable questions on international surveys.
     Comparability of wording will only be achieved through careful question linking.

3. ' Please mention the points with which you particularly disagree.

     <u>Panel recommendation</u>
     "Some background questions with slow-moving trends may be adequately monitored through
     repeating survey questions at four-year intervals." (P. 32)

     Establishing a 4-year interval between administrations of some background questions may
     lead users of the NDE to disregard questions that do not provide trend information over
     consecutive administrations. Point-in-time does not provide as accurate a picture as long-
     term trends.

     Answers to questions that may address the impact of state-specific initiatives may be lost
     over time if questions are used in 4-yr intervals. For example, a question that addresses pre-
     AP initiatives on the grade 8 math questionnaire was asked in 2007, but was omitted in 2009
     and 2011. Response data for 2009 and 2011 would have been beneficial for analysis for
     Delaware due to RTTT AP initiatives.

4. ' What priorities would you suggest for implementing the panel recommendations?

- Use consistency over time as a criterion consideration for question selection and wording
  to improve data-mining efforts, thus improving the NAEP Data Explorer (NDE) in
  general. What appears to be the exact same question may be listed a number of times and
  in different places in the NDE. Each instance of this all too common occurrence requires
  the user to search through and find all similar items and try and identify the one, if any,
  that is available and relevant.

- Provide special reports, such as those that are organized around learning opportunities in
  school and around learning opportunities & conditions out of school, with the release of
  national and state NAEP performance data.

- Revise the NAEP questionnaire to reflect international surveys such as TIMMS and PISA
  to allow for better cross-survey comparisons.

5. ' Additional comments.
       NONE.

Richard G. Boyd)

Former Chairman, National Assessment Governing Board (1990-1992)
Former Mississippi State Superintendent of Schools

I think the report is needed, and I have only a couple of responses.

I was attending my very first "Chiefs" meeting in the fall of 1984, when the most contentious debate among the group in its history ensued: should we back state-by-state assessments? The question was decided by one vote, and to this day Verne Duncan (Oregon) says I was the deciding vote because all other Chiefs from the South voted "no."

Why am I telling you this? Because the argument most prominently used on that day by those who were proponents was this: "If we do this, I could learn from others what works best and emulate that." Twenty-eight years later, that has not happened; and now, this new report cites background data that could identify "those with high achievement growth to identify factors that differentiate high-performers from lower-performers on NAEP." So the goal is good, but the devil is in the details.

Actually, there IS one valuable factor that we have learned: if you want to rank well on state-by-state NAEP, either ship out those living in poverty or do something about improving the out-of-school conditions which those kids face. Over the last 3-4 years, for use in lectures I have made, I have rank-ordered the latest state NAEP results in terms of family income and parent education. Guess who fills up most of the bottom quartile? Actually, you already know. It's the states of the old Confederacy, where poverty levels are the highest--and also the states from which the Chiefs in 1984 voted no because they already knew how their states would rank.

<div align="right">April 30, 2012</div>

NAEP BACKGROUND QUESTIONS: AN UNDERUSED NATIONAL RESOURCE

Chester E. Finn, Jr. '
President, Thomas B. Fordham Institute
Former Chairman, National Assessment Governing Board (1998-1990) '

1. What is your general view of this report?

Treading on very dangerous ground. I would move very very slowly if at all in most of the directions the panel has recommended. I understand NAGB's yearning to be relevant, impactful, constructive and noticed. But every time NAEP has strayed in the direction of "explaining" or "evaluating" rather than simply reporting it has gotten into serious doo-doo, and this is certain to happen with even greater force in a "tea party" era. NAEP is a thermometer not a diagnostician. The temperature chart needs to be accurate, of course, and other factors that may influence it need to be described with as much precision as can be mustered (e.g. race, gender, socio-economic status). But look what happened in 2006 when Mark Schneider tried to "evaluate" charter-school performance using NAEP data. Big mistake, as he would now admit. The same sort of backlash will occur with much greater force and damage in the present era when things have become so politicized and issues like the Common Core have become so controversial. There will also be challenges involving privacy and objections to NAEP probing into issues that are "none of the government's business". NAEP's only truly important role over the next decade is to be a trustworthy thermometer. Emulating PISA and TIMSS (with their EXTREMELY dubious policy and often highly controversial policy pronouncements, particularly those of "planetary school superintendent Schleicher") would gravely jeopardize the integrity and respect and acceptance of NAEP as "the nation's report card"—neutral, trustworthy, nonpartisan, etc.. Someday perhaps it won't need to be that. Today, however, it's more important than ever. I know this advice (and warning) will be unwelcome at NAGB, perhaps especially on the part of my friend the chairman. But I couldn't be more serious. Mark well the advice you have already received from Mark, from Russ Whitehurst, from Jack Buckley. They've lived through this sort of thing. Much as I respect Mike Smith (and some of the other members of his panel), much of what is being recommended here is inherently dangerous, potentially damaging to NAEP, politically volatile and also very expensive. (Incidentally, I think there's an imminent risk that when the Romney campaign comes upon this report they may use it as a [minor] way to attack the Obama administration on grounds of further federal over-reach in K-12 education, especially when they see who chaired the panel.)

2. Please mention the points with which you particularly agree.

There are some sound suggestions involving validity/reliability, consistent wording, precision, etc. And there are suggestions of good additions to school-level information that principals could supply.

3. **Please mention the points with which you particularly disagree.**

Here's the biggest source of difficulty:

"Here, the panel finds that the NAEP background questionnaires severely limit their potential usefulness by not explicitly asking questions about the progress and challenges of implementing key national policies in different states and urban districts."

Most (though not all) of the hazards in the panel report arise here. I wish this weren't true, but I have to say that (regrettably) there is not one single "key national policy" in K-12 education that isn't itself controversial. This is not territory that NAGB or NAEP should invade. It's not fit territory for a "thermometer". Leave it to the docs and medical researchers and health policy folks, so to speak. Also the politicians. And be aware that they will argue among themselves. This is akin to recommending that the CDC's National Center for Health Statistics ask "questions about the progress and challenges of implementing" "Obama-care"—and then issue reports on how well it is going in which states. Very dangerous territory. Very risky for NAEP. Also very costly stuff at a time when the President himself has asked for less money for NAEP.

There's also potential big trouble in recommending the expansion of student questionnaires into areas like student motivation and expectations. Some parents will find such questions intrusive and inappropriate. They will tell their Congressmen. They will take to their blogs. They will make NAGB sorry.

4. **What priorities would you suggest for implementing the panel recommendations?**

Identify the recommendations that would make for technical improvements in the reliability, consistency, validity, precision and clarity of NAEP reporting on non-controversial matters—and eschew the rest.

<u>Chester E. Finn, Jr</u>

Thomas B. Fordham Institute, Hoover Institution, once-upon-a-time NAGB chairman and ass't secretary for research & improvement

NAEP BACKGROUND QUESTIONS: AN UNDERUSED NATIONAL RESOURCE

Mark Schneider
Vice President, American Institutes for Research
Former Commissioner of Education Statistics

1. **What is your general view of this report?**

   Many of the recommendations in areas 1 through 3 of the report are fine and should be implemented (although the strain on NCES' resources needs to be carefully considered).

   However, Point 4, if adopted, will put NAGB on a road leading to poor policy advice, political controversies, and general grief.

   At the most fundamental level, PISA should NOT serve as the model for NAEP—and that is clearly one of the underlying motives behind the recommendations of this report.

   Cross sectional data w/o individual student level scores and with gross contextual measures make for a lethal mix, but political pressure from ministries forces PISA to go further and further into issuing poorly grounded research. (When I served on the PGB, other members admitted that their ministers were bored with the latest PISA findings and were always demanding something new and different.) As a result, PISA reports, while they get lots of press, are filled with bad analysis and dubious policy "implications" (OECD is careful never to use the word "recommendations").

   NAEP is a powerful tool for taking a snapshot of what American students know and can do. It is NOT a powerful research tool for many of the purposes to which this report points and it risks its sterling reputation by issuing the kinds of reports that will inevitably flow from the recommendations of the Smith study, if adopted.

   As an example: The study recommends that NAEP be used for "Tracking progress in implementing key instructional, curricular, and technological changes and educational policy initiatives, such as the Common Core standards."

   This is NOT what NAEP is suited to do. There are other far cheaper and better ways of doing this and if NAEP does this, it would be dragged into the endless political controversies that already mark the debate over the Common Core.

   To underscore the complexity in NAEP reports that could follow, consider
   Exhibit B. *Illustrative Table Development Assessment of Background Question Indicators With a Grade 8 Math Focus: School Districts Participating in the 2011 Trial Urban Development Assessment.*

What is the "story" in this table? Who is this table designed for? Who is the audience? The report claims that this exhibit is "an illustrative overview table for in-school learning opportunities for math that suggests the rich potential information payoffs from background question analyses." I believe that it shows just the opposite.

2. **Please mention the points with which you particularly agree.**

I agree that the background questionnaire is in need of "housekeeping"—getting rid of redundancies and ancient items. And there are some technical points in the report that should indeed be implemented. But again, we need to keep in mind NCES' limited resources to implement these recommendations.

3. **Please mention the points with which you particularly disagree.**

See above.

4. **What priorities would you suggest for implementing the panel recommendations?**

Do the technical housekeeping—end of story.

5. **Additional comments.**

American Educational Research Association Comments
to the National Assessment Governing Board
on the Expert Panel Report
NAEP Background Questions: An Underused National Resource
Response to April 11, 2012 Request from NAGB

The American Educational Research Association (AERA) is pleased to have been invited to comment on the expert panel report on *NAEP Background Questions: An Underused National Resource* (2012)*.* We commend the leadership of the National Assessment Governing Board (NAGB) for undertaking a review of background questions at this critical time, when disparities in educational progress and achievement continue to challenge our educational and societal commitments.

AERA staff, leadership, and members have been engaged in NAEP/NAGB for many years through providing testimony on behalf of NAEP appropriations, participating in focus groups on future directions of NAEP, providing research forums for NAGB leadership, and participating in previous workshops about background questions. AERA is a co-publisher and distributor of a comprehensive history of NAEP, *The Nation's Report Card: Evolution and Perspectives* (2004)*.* Also, as the national scientific association for approximately 25,000 education researchers, many of our members serve on NAEP/NAGB committees and boards, and most importantly they re active users of NAEP through undertaking scientific studies that have both added to knowledge and revealed areas where NAEP could be strengthened.

The AERA comments are organized in three parts as suggested in the NAGB request: a general comment on the overall direction provided by the report, comments highlighting specific areas of support, and areas where we have specific concerns or raise questions. We also offer a concluding comment regarding how best to proceed in the next generation of NAEP development, including in areas of background variables, during the years ahead.

General Comment on the Guidance Provided by the Report

Overall, this report constitutes a very important step in enhancing the largest U.S. educational survey. The background items have consistently been underdeveloped and thus minimize the opportunity for deeper and more comprehensive analyses, especially regarding trends in performance of different groups of students. This report not only suggests more detailed information on background characteristics but also highlights other family activities in the home shown to be associated with academic performance

that could and should be part of the NAEP background questionnaire. Particularly valuable is that this report makes recommendations regarding items that are replicated and should be deleted. While the specifics may merit further discussion and advice (including from experts within the National Center for Education Statistics [NCES]), the general orientation toward reducing redundancy and pressing for coordination and integration is wise. Perhaps most importantly the report suggests incorporating items from PISA and TIMSS that would enhance the usefulness of NAEP in terms of comparing results with other international surveys. The report also importantly recommends the need for further research—specifically noting the value of a grant program for researchers to extend the analytic properties of NAEP.

Presently NAEP is a descriptive survey of the nation's academic performance. Several reports have suggested modifications to the sampling design of NAEP, including embedding an individual student longitudinal component that would increase the opportunities for estimating causal effects using observational data from random-sample surveys. The report appropriately cautions researchers that even with an enhanced background questionnaire the present design of NAEP limits what statistical inferences can be estimated. This point is well-taken; however, recent methodological advances may increase the efficiency of estimators that can be used to estimate causal effects. This could be one of the methodological problems that could be explored with grant support. Nevertheless, we continue to underscore the cautions associated with causal analysis with cross-sectional data and self-reported survey questions. This is another area where coordination with NCES could lead to strong strategic decisions and choices consistent with the spirit and objectives set forth in this report.

The report advances recommendations and offers sound counsel and directives related to background questions that merit further follow-up and consideration. Taken as a whole, the report can strengthen NAEP and the value of this survey for monitoring educational progress. AERA appreciates that implementation of many of these recommendations will be challenging in terms of the resource demands of time, money, and expertise, but we hope NAGB will find the means and mechanisms, and where appropriate working closely with NCES, to implement them. We are enthusiastic about the general direction and recommendations in this report; nevertheless, we note below some specific areas where we would urge NAGB to exercise caution in moving forward.

Comments Supporting Specific Recommendations

1. AERA supports the implementation recommendation (5d) to establish a single NAGB committee with responsibility for all background questions, and also supports the functions proposed for this committee with regard to monitoring, developing, and disseminating information about the background questions. It may seem out of sequence that our first point in support of the recommendations is the final recommendation in the report itself. However, such a committee can have major, sustained, and systemic value. AERA testified in favor of a similar strategy for moving

forward with background questions in an oral report at the 2002 hearings sponsored by NAGB. We believe that the issue of background questions is one requiring continuous review and fixed responsibility and that a standing committee of NAGB is a sound approach to providing capacity for the functions envisioned.

2. AERA also supports the major recommendations for providing background questions that are drawn from established research and that are useful for analysis leading to improved understanding of education phenomenon uniquely assessed by NAEP. The report suggests that "core" and "second tier" questions might be introduced and rotated across surveys periodically; that efforts be made to identify clusters of questions that collectively best measure different aspects of research-based theoretical frameworks for major educational topics; and encourages study of spiral sampling to permit additional questions without adding to time requirements for students.

3. We call attention to the importance of the report recommendation that special reports highlighting background question analysis be produced regularly. In addition to providing the public with richer information about the education status of the nation, such reports and the attending explanations of the limitations of cross sectional, non-longitudinal data bases, will educate the public about its limitations for causal analyses. In essence, the reports could model the sound and productive use of background data for policy makers, members of the media, and researchers.

4. AERA has been leading a grants program (the AERA Grants Program) under the aegis of a Governing Board of leading research scientists since 1989. The AERA Grants Program is dedicated to the analysis of large-scale federal data sets supported in particular by the National Center for Education Statistics (NCES), including NAEP, and the National Science Foundation. The program was begun and continues to advance knowledge, tools, and methods exactly for the reason recommended in the report—to enhance the use of data resources that otherwise are underutilized, especially at the level of their potential. We support the recommendation for NAGB to create a research program with regard to the use and development of background questions as vital to achieving the goals of the report. We encourage consideration of whether a new funding entity needs to be created or whether within IES/NCES or through entities such as the AERA Grants Program the same goals could be effectively and efficiently realized.

5. AERA endorses the report's recommendation that NAGB and NCES continue to seek ways to develop an improved measure of socio-economic status (SES), either through development of composite items or by generating SES data from information available by linking with other instruments such as the American Community Survey. The recommendation to explore geocoding to aggregate data from the U.S. Census is worth exploring also.

Reliance on SES indicators such as school lunch eligibility is problematic at all times and especially now that the Department of Agriculture is considering modifications in its

policy for providing school lunch. Similarly weak measures of SES have limited researcher's ability to use NAEP data effectively, and AERA welcomes the priority of improved SES questions as central to improved background questions. As the lead federal agency for education statistics working in cooperation with the other federal statistical agencies of the federal government, NCES is and should be an invaluable resource and partner in this regard.

6. Finally, we think it likely that every background question currently in use had a purpose when introduced, but agree that they should be reviewed and modified with an eye toward making them useful in research and analysis. The report has a number of sound specific suggestions for doing so that merit the attention of NAGB. Having participated in some previous NAEP efforts at item development, we are mindful of the weight carried by each question and of the difficult trade offs involved, but also by the high level of expertise of current staff and consultants in performing this task. Nonetheless, we believe that several of the recommendations for additional research-based questions that might suggest explanations for cognitive achievement should be explored by NAGB. We further encourage that such efforts build on the use of cognitive interviewing techniques we believe are in use by NAEP in developing questions.

<u>Comments on Raising Concerns Related to Specific Recommendations</u>

1. We question the soundness of the recommendation to use NAEP to monitor adoption or impact of policy changes such as the Common Core standards. While we encourage NAEP enhancements in order to have policy relevant value, we think it is unnecessary and potentially politically risky fort NAEP to be used to monitor implementation or compliance with federal or national reforms. The report fails to provide a compelling reason for seeking this type of information as part of NAEP background questions and this recommendation appears antithetical to goal of developing research-based questions that are theoretically sound. The Institute of Education Sciences is a federal agency that is evaluating the impact of federal intervention programs and is more suited for this work. Additionally, many research organizations and entities outside of government have been effective in conducting such work.

2. We have concerns about the recommendation in 1e to eliminate asking about race/ethnicity in the school questionnaire because it is "obtainable from student records." Self identification and multi-racial classification are important measures that can directly relate to students' perceptions and performance. We urge caution in considering student records on race/ethnicity, especially given the vagaries of how such data may be collected and reported, as a sufficient variable. Dropping such questions from NAEP seems inconsistent with the overall aims of the report in seeking to advance consideration of background attributes.

3. Issues about the misuse of NAEP background questions and assessment data to support causal statements resulting in misinformed policy development are a serious

4

matter. As noted above, we welcome the caution about over interpretation with regard to causality provided in the report at recommendation 4e, but note that the emphasis is misplaced. The recommendation calls on NAEP to "not publish causal interpretations of the factors determining performance differences based on NAEP data." The problem of misuse is elsewhere and requires education of educators, media, and policy makers and to some extent also researchers about appropriate inferences from such data rather than admonition to NAEP.

A number of actions proposed in the report will indirectly address this problem (e.g., reports build on background questions, dissemination of information about them, small grants programs), but we believe the recommendation might be amended to include a full description of why NAEP is unsuitable for providing causal interpretation. The illustrations of the value of background questions provided in the report seem ambiguous on the question of causality. For example, the illustration of dramatically different degrees of afterschool math instruction in the south and northeast (p. 10) has no significance unless linked to differences in achievement in the same regions. This is true of many of the illustrations of application of background questions and without further explicit clarifications begs the question of avoiding causal interpretations.

Concluding Comment Looking Ahead

As noted at the outset, we applaud the leadership shown by NAGB in undertaking this investigation of background questions and seeking the advice of an expert panel. The February 2012 report is a valuable contribution. We believe that important directions and recommendations have been provided for improving the quality and use of background questions. We know that this will be steady and challenging work.

As this work is moving forward, we urge that further consideration be given to addressing the major challenges before NAEP as it seeks to be as relevant in the future as in the past. The report makes frequent reference to international studies such as PISA and the alignment of NAEP. Embedded in this important report are broader questions about the next generation of research monitoring and understanding educational progress and how best to undertake it. We urge NAGB to look to the future and consider such issues as: What will be the important and unique contribution of NAEP in 2022? What are the implications for NAEP of the statewide longitudinal data systems (SLDS) and how best to nest the use of administrative data systems with data collections such as NAEP? What are the implications for the development of NAEP of the growth of salient programs in NCES and other agencies, such as the National Children's Study, or the growth and increased capacity of non-governmental groups engaged in reporting on education through new technologies? Finally, NAGB could usefully address the changed—and dramatically heightened—expectations for data use in education that have developed among policy makers over the past decades.

We anticipate that such an exploration will demonstrate a continued, valued role for NAEP in the U.S. education system. However, we also think it would be useful to consider vehicles (including statutory ones) for strengthening the relationship between NAGB and NCES. The report references activities of NAGB and NCES as if they were freestanding—where collaborations are underway or being urged. We fully recognize that the structure provided by current legislation encourages separation of responsibilities between NAGB and NCES and that there is already a high degree of collaboration in place. Nevertheless, a review of the core purposes of NAEP might suggest that its goals could be realized more effectively and efficiently through closer collaboration with NCES in planning, instrument development, data gathering, and analyses, and, over time, there may be compelling reasons to strengthen this relationship in legislation.

NCES as a federal statistical agency in the United States has a stature and purpose that can benefit NAEP in the year ahead. We urge that NAGB consider how NAEP can benefit from stronger connections to NCES and gain from the multiplier effects of NCES data systems and the work of NCES with other statistical agencies (e.g., Census Bureau, Bureau of Justice Statistics, Bureau of Labor Statistics), with the states and their administrative longitudinal data systems, and with other nations in the further development of international data collections.

The American Educational Research Association appreciates being asked to comment on the report on NAEP background questions. Please call on our Association if we can be of further help in pursuing the objectives and strategies for continuing to work on background questions or for a broader examination of the contributions of NAEP in the coming decades.

Respectfully submitted,

Felice J. Levine, Ph.D.
Executive Director
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6

NAEP BACKGROUND QUESTIONS: AN UNDERUSED NATIONAL RESOURCE

**Cynthia (Cindy) Brown, Vice President for Education Policy and
Ulrich Boser, Senior Fellow, both at the Center for American Progress**

1. What is your general view of this report?

There's a lot to commend in the report. We believe that the NAEP background questions are an underused resource, and we believe that there are a number of improvements that can be made to the surveys. We agree, for instance, that there should be more consistency in question wording over time. We also believe more can be done to make the online NAEP tools more accessible. We also agree that the questions about student demographics can be improved. In other words, we agree that the technical aspects of the exam can—and should—be improved.

But we would recommend that NAEP *not* measure policy trends. The assessment is not designed to evaluate programs or reforms like the Common Core. That work should be done by others. We also believe that such additional items could be politically divisive. The NAEP is an assessment; it should stay that way.

2. Please mention the points with which you particularly agree.

We particular agree with "Recommendation 2a Improve the validity and reliability of the current measures NAEP uses for its mandated student reporting categories." We also agree with the first part of "Recommendation 1e," that NAGB should delete duplicative or low-priority questions.

3. Please mention the points with which you particularly disagree.

We do not agree that NAEP should be used to monitor topics of current policy interest. That is not the role of NAEP. While we are very supportive of the reforms described (Common Core, better teacher evaluation, etc.), NAEP is not the tool with which one should attempt to examine those issues. ED could do that with other surveys and tools. Moreover, such efforts could potentially politicize the exam. That would be a shame.

4. What priorities would you suggest for implementing the panel recommendations?

We urge improvement in the technical aspect of the assessment, including the basic background questions that are currently used. We would also recommend keeping some of the very basic background questions currently used (number of books at home, pages read outside of school, etc.). We would leave out questions that are not central to understanding a student's background. We would also leave out any questions that examine policy trends.

Comment on Expert Panel Report on NAEP Background Questions

Eleanor Chelimsky, American Evaluation Association;
Former Assistant Comptroller General of the United States
for Program Evaluation and Methodology

Susan Kistler, Executive Director of the American Evaluation Association (AEA), sent me your email -- "Comments Sought on NAEP Background Questions" -- and I am writing this in support of what the Expert Panel on Strengthening NAEP Background Questions seeks to do.

I am a member of AEA's Evaluation Policy Task Force, a former enthusiastic user of NAEP data, a former Assistant Comptroller General of the United States for Program Evaluation and Methodology (1980-1994), a former president of the Evaluation Research Society, a former president of the American Evaluation Association, and a continuing commentator on methodological issues.

The initiative proposed by the expert panel would normally be welcome -- background factors related to student achievement: what they are, how they differ in different places, and how they may be changing, are always of interest -- but in today's world, specific and accurate knowledge about them is CRUCIAL because (1) we know that they heavily affect student achievement; (2) U.S. student achievement has not been doing well on international tests; and (3) because teacher quality -- taken alone -- has been used in the media and elsewhere to explain student achievement without examination of those important "plausible factors" (Campbell), or "background factors" (as NAEP would have it) which must be part of any cause-and-effect analysis.

So yes, I applaud the expert panel's initiative. The NAEP data have always been important and useful, but I did not realize that the background questionnaires had been cut back over the past decade. I hope this data collection can be restored, along with the important analysis that will allow. Looking only at the first three bullets on page 1 of the executive summary, which show how factors outside classroom learning could be monitored -- especially student motivation -- and then at the fourth bullet which raises the big question about why the high-performing schools are, in fact, high-performing, the expert panel's proposal arouses great expectations.

NAEP BACKGROUND QUESTIONS: AN UNDERUSED NATIONAL RESOURCE

Richard G. Innes
Education Analyst, Bluegrass Institute for Public Policy Solutions (Kentucky) '

1. **What is your general view of this report?**

   The report is very worthwhile and makes some very good points about the need to increase the quality and usability of NAEP background questions.

2. **Please mention the points with which you particularly agree.**

   All the points are well taken, but the call to reinstitute regular analysis and reporting about background questions is particularly worthwhile (Recommendation Area 4).

3. **Please mention the points with which you particularly disagree.**

   I have no points of disagreement, but would add a caution that the individual questionnaires must not become overly time-consuming for school staff and students to complete or the quality of the data will inevitably suffer. Consider more matrixing of the questions.

4. **What priorities would you suggest for implementing the panel recommendations?**

   Aside from simply getting the formal analysis of background questions restarted, I would put particular emphasis on developing questions that allow the NAEP to be more accurately analyzed for impacts due to student racial demographic changes from state to state and to collect and release more information about students who are excluded in each state. We need more extensive answers about why some states had much higher rates of exclusion of students with learning disabilities than was true in other states.

5. **Additional comments**

   I am pleased that this topic is starting to get increased emphasis, as I was disappointed when some important questions were dropped several years ago. Specifically, questions regarding certification by the National Board for Professional Teaching Standards need to be added back to NAEP. Such a question was included in the 2003 NAEP and it provided important insight into the performance of NBPTS program. Then, the question was removed and an important trend line was lost.

Francesca López, PhD
Assistant Professor
Marquette University
College of Education
Department of Educational Policy and Leadership

1. **What is your general view of this report?**

   Overall, the rationale for strengthening NAEP BQ is compelling.

2. **Please mention the points with which you particularly agree.**

   The need to strengthen BQ that are grounded in theoretical frameworks; validity issues that need to be addressed (i.e., to accurately measure "hard-to-measure" concepts by a rich set of items; the need to improve the precision of statements; and strengthening SES as a variable.

3. **Please mention the points with which you particularly disagree.**

   In terms of recommendation area 4, theoretically grounded questions may not be useful in regular reports, but rather allow researchers to examine these points of interest more fully. Because the reports are more widely disseminated, the issue with interpretations of causation may be difficult to circumvent.

4. **What priorities would you suggest for implementing the panel recommendations?**

   Some of the recommendations in section 5 utilize existing BQ, and may be most important to explore prior to the addition of new items.

   Some recommendations are likely much easier to implement than others (e.g., deleting duplicative questions versus extending background questions to inform topics of current policy interest and improving question reliability by replacing imprecise phrases such as "infrequent" or "a lot" with more precise terms such as "once a month" or "twice or more a week"). It would seem appropriate to move forward with the issues that can be resolved efficiently.

   Other more time-and-cost extensive priorities that I would suggest to be prioritized include:

2a. Improve the validity and reliability of the current measures NAEP uses for its mandated student reporting categories.

1b. Extend background questions to inform topics of current policy interest

1c. Select clusters of questions that collectively best measure different aspects of research-based theoretical frameworks for major educational topics.

2c. Accurately measure the multi-dimensional nature of learning-to-learn skills including student learning behaviors, motivation and expectations.

2b. Enhance the validity of student responses at different grade levels.

As a final step (once validity studies have established that BQ reflect the construct intended) would be to prioritize the analysis of the variables (4d NAEP should encourage others to conduct exploratory studies of the NAEP background variables and 4e. Further improve the powerful online NAEP tools for data analysis).

5. **Additional comments**

As a researcher who has used NAEP, I am eager to see these implementations made. I have proposed a study where I attempted to use some of the student background variables to represent motivation, but the variables were insufficient to accurately represent the construct. I have also used NIES, which contains many more BQ, but it may be useful to include BQs that capture the rigor of curricula. This would be a vital control for examining performance across states.

Response to the Report on NAEP Background Questions

Sarah Lubienski
Professor of Mathematics Education at the University of Illinois at Urbana-Champaign
Former Chair of the NAEP Studies Special Interest Group of AERA
Former PI of two NAEP Secondary Analysis Grants
Member, AERA Grants Governing Board

Overall, I think the report heads in the right direction and makes solid recommendations. I very much agree that the background variables could be better, more consistent, more efficiently administered, etc.

I fully support spiraling student background questions. Now that student samples are so much larger than they were roughly a decade ago, there's plenty of room for spiraling. (Incidentally, the example on p. 31 of the report is odd – it is a state-level example to warn of the dangers of spiraling student-level questions. The sample sizes in the two cases seem to be on a totally different scale).

I like the idea of planning for temporary policy-relevant questions. However, in many cases 6 years is not enough – consider that it takes 8 years for the 4th graders to move to 12th grade. More time is likely needed to track the implementation of a K-12 policy like the Common Core Standards.

With regard to possibly having variables move in and out of surveys (e.g., alternating administrations), occasionally, it can be useful to examine patterns that follow a national cohort across grades 4, 8, and 12 (e.g., comparing grade 4 answers to a question in 2007 and then grade 8 at 2011). Hence, trying to keep a consistent set of variables every 4 years should be a consideration.

I am pleased to see the attention to SES variables. For example, parent education questions at grade 4 used to buy us something even though 1/3 of the kids didn't know the answer (the fact that they didn't know also told us something – those tended to be children of lower-SES). As NAGB moves forward on this, they might find a recent study of ECLS-K SES variables useful, as it focused on which variables go beyond lunch-eligibility in explaining variation in achievement and could possibly be reported by students or schools (e.g., number of children in the home is one variable that goes beyond other SES measures).

Lubienski, S. T. & Crane, C. C. (2010). Beyond free lunch: Which family background measures matter? Education Policy Analysis Archives. 18(1), http://epaa.asu.edu/ojs/article/view/756.

I agree that there has been a major push for causal inference with datasets lately, and this has probably limited the attention that researchers have given NAEP recently, particularly given the longitudinal datasets available right now. I agree that NAEP variables can help us see interesting patterns, such as which students have access to particular types of instruction and resources. However, I do think major cautions are in order if we are going beyond that. I grew worried at the report's recommendations for things like, "Benchmarking high-performing states and urban districts and those with high achievement growth to identify factors that differentiate high-performers from lower-performers on NAEP." There are many chicken-and-egg questions that come up in these cases, and results are often misleading to readers. E.g., 8th grade calculator users score higher on NAEP, but this could simply be due to students who are high-achieving (and therefore in algebra classes) being given more access to calculators. Similarly,

on p. 17, they call for NAEP reports that provide correlational information, such as "characteristics of instruction in schools that made adequate yearly progress." Again, schools with high-achieving students might use a different type of instruction partly because they do not need to worry about AYP. We don't actually know that such instruction is helping the school make AYP.

 I fully support being more careful about haphazard wording of questions and response options, using bridge studies when wording is changed, and piloting items. Questions and response options must be examined closely to make sure there's meaningful variability in the responses.

 As this work moves forward, I have a few specific recommendations:

As core, rotating and temporary background variables are selected, I STRONGLY recommend that content-specific NAEP scholars are involved. For example, in mathematics education, there has been an ongoing group led by Pete Kloosterman and others, which has put together several monographs over the past 2 decades that present detailed NAEP mathematics results, including analyses of items and background variables. That group of mathematics education researchers should be consulted as math-specific background items are selected. As an affiliate of that group, I can say that there are particular variables, such as students' level of agreement with the statement "Learning math is mostly memorizing facts", that are very important variables to bring back into the background survey. This group has also been wishing for years for information about what textbook is used -- not just in NAEP but in all national education surveys.

Similarly, I support the call for more background items on student motivation – however I'm not sure the report writers recognize that this can be a larger can of worms that it might appear. There are many sub-constructs and related ideas (student beliefs, interest, confidence) and each is typically measured with an array of items. Additionally, each of these constructs are also important to be examined in relation to specific subjects—e.g., a child's motivation and efficacy related to reading might be very different than in math. Questions should be selected in consultation with motivation/efficacy/beliefs experts as well as with content-specific experts and with those who study equity issues (race, SES, gender).

The committee recommends that small grants be given for NAEP analyses, and I support that. But the committee seems unaware of the $100,000 NAEP Secondary Analysis Grants that NCES awarded prior to the availability of IES Goal 1 grants. The current emphasis on causal inference for most competitions, including IES Goal 1 and AERA grants means that money specific to NAEP analyses would be useful. Again, the NAEP math monographs out of Indiana University that have been supported in the past by NCTM (and NCES?) offers a good model for the types of information that can be gleaned from NAEP by a particular research community. Putting out calls for special book projects and other NAEP analysis projects could be useful.

Past NAEP Secondary Analysis Grant reports should be examined for relevant information about variables. I had two such grants, and if memory serves me correctly, I ended my final grant reports with a list of recommendations about NAEP variables.

More generally, given that nobody knows the limits of the data like researchers who are digging into the dataset and doing detailed analyses, I believe that any person funded with federal grants to use NCES datasets should be asked to devote a section of their final report to making recommendations pertaining to the variables in the dataset (e.g., what variables are missing or problematic or extraneous).

NAEP BACKGROUND QUESTIONS: AN UNDERUSED NATIONAL RESOURCE

Tom Munk, Ph.D., Senior Education Analyst, Westat, Durham NC

1. **What is your general view of this report?**

   I think this is an excellent report.

2. **Please mention the points with which you particularly agree.**

   I particularly agree that NAEP's background data is an underused national resource. Its use should be encouraged. The Nation's Report Card *is already being well-used as a yardstick to compare states and Congressionally-mandated groups. It's time to start again using it to begin to understand why the gaps that it highlights exist.*

3. **Please mention the points with which you particularly disagree.**

   I believe the report overemphasizes the concern about using point-in-time data for causal purposes. While it is very true that point-in-time data has major limitations with regard to causal analysis, it is also true that NAEP's scope, strong outcome measures, and continuity put it head and shoulders above other datasets for certain analyses. It is appropriate that analyses conducted under ED contracts avoid causal claims, but careful causal analysis also has its place and should be supported, but not endorsed, by ED. It is possible, using, for example, SEM, to carefully specify a model, test the model, and generate causal conclusions that can improve our understanding of the nation's education system (see, for example http://gradworks.umi.com/32/72/3272803.html, *and McMillian et al (2010))).*

4. **What priorities would you suggest for implementing the panel recommendations?**

   All the priorities mentioned are important, but the first priority should be to remind researchers and policy makers about the valuable data that is already being collected by reinstituting meaningful analyses and reporting. NCES should prepare the highlighted special reports and also encourage external researchers to conduct well-considered studies through a grants program like that described by the panel.

Reference

McMillian, M., Munk, T., Bumpers, E., and Coneal, W. (2010). Creating a testable, estimable model to inform our response to the test-score gap crisis. *Review of Black Political Economy,* 37 (3/4), 257-262. DOI: 10.1007/s12114-010-9070-2.

Comment on NAEP Background Questionnaires Report

Charlene Rivera, Ed.D.
Research Professor and Executive Director
The George Washington University
Center for Equity & Excellence in Education

From my reading of the report on NAEP background questionnaires, it appears that English language learners and former ELLs (ELLs) were not addressed. I would urge the committee to directly address this group of students and to recommend explicit collection of data in the NAEP Background Questionnaires. Specifically, ELLs should be tracked by levels of English language proficiency (beginner, intermediate, advanced, if possible) and years in ELP status. Former ELLs should also be tracked by years exited from ELP status (e.g., less than one year, one to two years, three years or more).

The background information in the NAEP background questionnaires provide an important mechanism to learn about all students and an important opportunity to learn how ELLs and former ELLs are progressing relative to other students. This type of tracking is important because of the size of the subgroup. It is also important considering the move to Common Core State Standards. Being able to report on the progress of ELLs will make it possible to assess how these students are achieving overall, state by state, and in urban districts (through TUDA where this population is highly concentrated). Tracking former ELLs by number of years exited from ELL status is also important to understanding how the nation is doing in educating this large segment of the population relative to other students.

For these reasons, I strongly urge that background questions distinguish ELLs and former ELLs to make it possible for NAEP to meaningfully report on ELLs' and former ELLs' progress in regular NAEP reports. The attention to ELLs and former ELLs also will make it feasible to write special longitudinal reports on the progress of this subgroup of students.

Charlene Rivera

Sol Stern

Contributing Editor
City Journal
Senior Fellow, Manhattan Institute

Thanks for sending me the Expert Panel report.

I found the recommendations very important and I would endorse all of them. As someone who has frequently written about the inadequacies of local and state tests in making judgments about claims of improvements in student achievement, NAEP has been essential to making my argument. I think the recommendations would provide an even greater context and essential information for evaluating the performance of states and local districts and would make NAEP and an even more essential tool. I hope the recommendations are implemented by the NAEP governing board.

NAEP BACKGROUND QUESTIONS: AN UNDERUSED NATIONAL RESOURCE

**A Report to the National Assessment Governing Board by the Expert Panel
on Strengthening the NAEP Background Questions**

Andy Metcalf

Illinois NAEP State Coordinator

1. What is your general view of this report?

I agree the back ground (BG) data needs to be more readily available to the public and policy makers in more user friendly ways and it should be reported more in special reports.

2. Please mention the points with which you particularly agree.

The reporting and use of more BG data needs to be in sound research-based ways.

It is important to analyze the relationship between measures of opportunity-to-learn (OTL) and student achievement, and to describe possible resources available to reduce the OTL gaps. The analyses of these OTL measures could include differences in curriculum and instruction. The evaluation of background variables provides a sound basis for educational policy changes that improve the learning process.

3. **Please mention the points with which you particularly disagree.**

While identifying factors that differentiate high-performing from lower-performing states and urban districts on NAEP is important, caution needs to be taken when trying to generalize to all jurisdictions, especially from the analyses of international performance. For example, the context of demographic data within states may be vastly different from countries described with superior performing education systems. Many of the high performing countries have homogeneous populations with relatively little poverty. States and urban districts with higher poverty rates are at a disadvantage.

4. What priorities would you suggest for implementing the panel recommendations?

The primary mechanism for reporting BQ data should be in NAEP special reports and PowerPoint presentations. BQ data should continue to be available to researchers through the NAEP Data Explorer.

5. Additional comments.

There is definitely a need to include more analyses of BG variables with NAEP performance.

Lisa Y. Gross
Director, Division of Communications
Kentucky Department of Education

Please see below for some comments on the report about NAEP background questions. These comments were primarily gathered from staff in the Kentucky Department of Education's Office of Assessment and Accountability.

Kentucky education officials have a long experience with questionnaires. The data provided by the questionnaires was of interest to researchers, but it didn't usually lead to policy changes, and we haven't seen major instructional changes brought about by the responses.

Additional questionnaires would add time to the tests, and care should be taken not to overshadow the purpose of NAEP with background questions. It's possible, too, that NCES already has research surveys that could address the same issues without adding more background questions to NAEP.

All background questions should be chosen with direct impact on public policy in mind. Validity and reliability of student responses also should be prime considerations.

Kate Beattie
Minnesota NAEP State Coordinator

1. **What is your general view of this report?**
   Brings out some great points/opportunities

2. **Please mention the points with which you particularly agree.**
   Delete asking students their ethnicity, and other redundant questions

   Creation of reports

3. **Please mention the points with which you particularly disagree.**

4. **What priorities would you suggest for implementing the panel recommendations?**
   Streamline questionnaires)
   Create reports)

5. **Additional comments.**

Mike Chapman
NAEP State Coordinator, Montana

1.) **What is your general view of this report?**

My general feeling is that this is long overdue, but that to revise (or, I would say, redesign) the questions asked and actually derive benefit from them will take a significant focus – as much of a push as that applied to inclusion.

2. ' **Please mention the points with which you particularly agree.**

- That NAEP background questions should be research based, that is, designed with a coherent research aim. I've spoken with people from ETS, for instance, who have stated that questions are often (to paraphrase a longer discussion) "fishing for a correlation," i.e., experimental attempts, not to satisfy any clear question, but as an ad hoc opportunity to find something that works, maybe. (For example, "How many feet of bookshelf do you have in your home?" as a possible correlate to NAEP scores.) To make the BGQs truly a resource will require a multi-year (-decade?) commitment, involving experts in evaluation and a concerted analytical treatment. This sense seems to be deeply rooted in the expert panel report.

- That NAEP's questions should be aligned with those used in international testing. From here on out, I expect the call for international comparability to increase, even though it's a difficult demand to satisfy for myriad reasons. But such a consideration should be a stated goal of any new initiative applying to NAEP.

- Generally, I agree most with the tenor of the report, which calls for direct attention to validity and reliability, noting that these two are lacking, and appear to have deteriorated over the years.

3. ' **Please mention the points with which you particularly disagree.**

I can't say I disagree with anything they say, per se. I do, though, have a major concern about the implications of trying to rebuild the system, from the standpoint of resources and commitment of staff to make it work. I also know from direct experience that school officials are increasingly irritated by the length of the questionnaires they have to fill out, and many are critical of what they see as a waste of paper. On-line responses are preferred, but they usually happen at night or on weekends, since days are packed with required tasks and NAEP is widely regarded as increasingly expensive in time by the

schools. Part of that, of course, is not NAEP's fault, but the fault of the general rising tide of bureaucratic attention to testing at the expense of teaching time.

4. **What priorities would you suggest for implementing the panel recommendations?**

I believe they laid out quite a precise order of events and players, one that mirrors the work that goes into developing items and standards. The first step, establishing a firm and workable commitment, is key. At the same time, realizing that this can't be an effort that is added onto already-heavy task loads at every level, from school room to the higher echelons of NCES, it has to be accompanied by a commitment of resources commensurate with the task.

5. **Additional comments.**

When I first saw the title of the panel's report, describing the BGQs as an "underused national resource," I feared the worst, because I don't regard the current questions or answers as much of a resource at all. At one of the meetings of the NAEP State Coordinators, we spent about an hour looking at question after question, and it became painfully clear that even this random selection of questions contained so much ambiguity of interpretation that there was no hope of being able to make anything out of the responses. This emerged from the discussion, that is, it surprised us, rather than having been a forgone conclusion. Based on that, I would have preferred to see the report titled, *"NAEP BACKGROUND QUESTIONS: A POTENTIAL FUTURE NATIONAL RESOURCE."*

I hope my judgments aren't too harsh. I would love to see the NAEP background questions be a usable resource for the good of education.

NAEP BACKGROUND QUESTIONS: AN UNDERUSED NATIONAL RESOURCE

**A Report to the National Assessment Governing Board by the Expert Panel
on Strengthening the NAEP Background Questions**

Beth LaDuca
NAEP State Coordinator
Oregon Department of Education

1. ' What is your general view of this report?

I agree with certain recommendations and disagree with others. Please see details below.

2. ' Please mention the points with which you particularly agree.

- Developing a valid SES measure for NAEP
- Maintaining trends by not making slight changes in the wording of background questions.

3. ' Please mention the points with which you particularly disagree.

I am concerned about the recommendation to base special reports on the background questions. These reports must avoid the types of data displays exemplified by Exhibit B in the report. Such data displays do not provide indicators of variability around the estimates and thus present a high risk for false inferences. Also, the presentation of NAEP scores and background variable percentages in the same chart increases the risk of false causal attribution.

4. ' What priorities would you suggest for implementing the panel recommendations?

Most important – a valid measure of SES for NAEP. Next – maintaining trend by not)
tweaking the wording of background questions after their initial use.

5. ' Additional comments.

I am most concerned about false inferences of causal relationships between background variables and NAEP scores. Even NAGB members have made this error; see, for example, Alan Friedman's discussion of the frequency of hand-on-science activities in class and NAEP scores from the 2009 science release (http://www.nagb.org/science2009/statement-friedman.htm).

Laura Garza Atkins
Tennessee NAEP State Coordinator

BRIEF RESPONSE FORM

1. **What is your general view of this report?**

   I agree that the Background questions need to be revised and enhanced and that the questions are underused.

2. **Please mention the points with which you particularly agree.**

   I agree that duplicative and low-priority questions should be eliminated.

3. **Please mention the points with which you particularly disagree.**

   I do <u>not</u> agree that an important variable to explore <u>in depth</u> should be "Out-of-School Learning Time or Opportunities." It may be interesting to researchers but this information will not help inform instruction or educational policy.

4. **What priorities would you suggest for implementing the panel recommendations?**

   I suggest implementing additional student, teacher, and principal questions that provide more information about instructional practices that are used in classrooms.

5. **Additional comments.**

   I suggest using current and former content-specific public educators to help revise and enhance the NAEP Background questions.

Wendy Geiger
NAEP State Coordinator
Virginia Department of Education

BRIEF RESPONSE FORM

1. **What is your general view of this report?**

   The report was extensive and well thought out.

2. **Please mention the points with which you particularly agree.**

   Questions should be consistent from year to year to allow for trends. One of NAEP strengths is being able to see trends in achievement.

3. **Please mention the points with which you particularly disagree.**

   We must be VERY careful asking students questions that can maybe indicate their socio-economic status. Asking a student ANYTHING that might be embarrassing should not be allowed. Some might realize that the question is getting at how much money their family or living situation has and realize that he or she does not have what others do. Upsetting a student is not worth the information that is being gained and the correct information might not be given. Students taking NAEP may be seated quite close together since they take different cognitive blocks. They are more apt to look around while answering background questions. I would consider any student furnished information to not be very reliable.

4. **What priorities would you suggest for implementing the panel recommendations?**

5. **Additional comments.**

NAEP BACKGROUND QUESTIONS: AN UNDERUSED NATIONAL RESOURCE

**A Report to the National Assessment Governing Board by the Expert Panel
on Strengthening the NAEP Background Questions**

Angie Mangiantini
Washington NAEP State Coordinator

1. What is your general view of this report?

The report identified specific recommendations for increasing the use of NAEP contextual variables. One of the things I would have been interested in knowing is if any states are using these variables and how they are being used.

2. Please mention the points with which you particularly agree.
I particularly agree that these variables are under-utilized, lack consistency from one administration of NAEP to another, are not well organized in NDE and should be more closely aligned with the international assessments.

3. Please mention the points with which you particularly disagree.

One of the points I disagree with is because a question is asked of both the student and teacher, it should only be asked of one responder. Having looked at questions responded to by both teachers and students it is very interesting to see the differences in their perceptions.

4. What priorities would you suggest for implementing the panel recommendations?

The first priority would be to reorganize the existing data available on the NDE, and make it more accessible. The second priority would be cleaning up the language of the questions currently being used. The language in many cases is very imprecise.

5. Additional comments

A pilot of geo-coding at specific schools was conducted in Washington about 5 years ago. Once the software was downloaded on the school's computer, principals were very impressed with the demographic information they were able to obtain.

NAEP BACKGROUND QUESTIONS: AN UNDERUSED NATIONAL RESOURCE

Sally A. Shay, Ph.D.

District Director, Assessment, Research and Data Analysis
Miami-Dade County Public Schools
Miami, Florida

- **What is your general view of this report?**
  - **We appreciate the fact that the board has addressed the need for more focused questions that will to provide more accurate data to support the analysis of background information obtained at the school level.**

- **Please mention the points with which you particularly agree.**
  - **More precise terms**
  - **Coordination with background questions from other assessments**

- **Please mention the points with which you particularly disagree.**
  - **More questions and the time required for teachers and students to complete them**

- **What priorities would you suggest for implementing the panel recommendations?**
  - **Select fewer, clearly defined questions to gather only critical information**
  - **Obtaining as much information as possible at the district level to keep burden to schools/teachers/students at a minimum**

- **Additional comments.**

National Assessment Governing Board)
Town Hall Webinars on NAEP Background Question Report
May 1 and May 3, 2012)
Summary Report

Overview

As part of an effort to improve reporting on NAEP background variables, the National Assessment Governing Board convened a six-member expert panel to recommend how to make better use of existing background questions and propose an analytic agenda for additional topics and questions that would be useful in understanding student achievement and developing education policy. The panel report, *NAEP Background Questions: An Underused National Resource*, was presented to the Governing Board in March 2012.

The expert panel offered recommendations in four areas:

- Ask Important Questions
- Improve the Accuracy of Measures
- Strengthen Sampling Efficiency
- Reinstitute Meaningful Analysis and Reporting

In addition to its notice soliciting written comment on the report, the Board conducted two virtual town hall webinars at which participants could make oral or written remarks via telephone and the Internet. The one-hour sessions were held on May 1 and 3, 2012. They were publicized beforehand on the Board website and through e-mails sent to several hundred education organizations, research and policy groups, state and local education officials, and former Governing Board members.

Both webinars had a similar format. Eileen Weiser, Chair of the Committee on Reporting and Dissemination, served as moderator. Larry Feinberg, Assistant Director for Reporting and Analysis, presented a summary of the report findings and Executive Director Cornelia was available to answer questions. Amy Buckley, of Reingold Communications, managed the flow of participant feedback and questions.

Each session was conducted through a mix of verbal and online webinar methods, utilizing a common telephone conference line and an online chat capability. Participants could make oral remarks or to type brief comments and questions.

The following is a summary of individual comments and questions by webinar participants. A detailed transcript will also be prepared.

Town Hall 1 (May 1, 2012: 3:00 p.m. EDT)

Discussion Questions and Responses

Question 1: What was your general view of report? *No responses*

Question 2: What are the some of the points with which you particularly agree? *No responses*

Question 3: What are some of the points with which you particularly disagree? *No responses*

Question 4: What priorities would you suggest for implementing the panel recommendations? *No responses*

Additional Questions asked by Eileen Weiser (moderator):

Would states and districts be willing to have students spend more time than the current 10-minute maximum answering additional NAEP background questions to obtain richer contextual information related to student achievement? Do you think the additional time would be disruptive to schools and might reduce the cooperation needed to get good school samples for NAEP?

Kate Beattie, NAEP State Coordinator for the Minnesota Department of Education, felt it would depend on the amount of time; 30 minutes would be too long.

How can NAEP increase the visibility of its background information for the public and policymakers and encourage them to use it? *(No responses)*

Should additional online tools or apps be developed to improve access to and use of NAEP background information? *No responses)*

Are there targeted background questions that should be asked of students, teachers, and school administrators who participate in the NAEP Trial Urban District Assessment? *No responses*

How important is it to compare NAEP background information from America's students, teachers, and schools with similar data from international assessments? *No responses*

How much relative emphasis should be placed on gathering in-school vs. out-of-school background information from students? *No responses*

Additional Comments:

Joseph McTighe, Executive Director of the Council for American Private Education, made a statement about the NAEP data tool, which provides information to the general public on the Internet. He finds the Data Explorer very helpful in deciphering and sorting students in particular categories (such as the percentage of students who do two hours of homework per night), but asked if all background data could be included in this online tool.

Larry Feinberg assured Mr. McTighe that all background data, sorted by category is available on the Data Explorer, but that sometimes it is difficult to find by people who are unfamiliar with how it is organized.

Amy Buckley, of Reingold, recommended that Mr. McTighe be provided with a few sample links. Mr. Feinberg thanked him for the insight and said the Board and NCES need to think about how to improve public access to the background question findings, which was one the recommendations of the expert panel report.

Discussion Questions and Responses

Question 1: What was your general view of the report?

Joe McCrary, of WestEd, said he was glad to read the report and see thought being put into background questions and variables. He feels this will really expand the use of NAEP results and wondered how NCES reacted.

Executive Director Cornelia Orr said the Governing Board has received a written response from NCES, which will be included in agenda materials for consideration at the Board's May meeting. She said NCES responded positively to some recommendations in the report, but was cautious about moving too fast on others. She said NCES expressed concern about adding more time for students to respond to background questions.

Question 2: What are the some of the points with which you particularly agree? _No responses_

Question 3: What are some of the points with which you particularly disagree? _No responses_

Question 4: What priorities would you suggest for implementing the panel recommendations?

Beth LaDuca, NAEP State Coordinator from the Oregon Department of Education, said what she would most like to advocate for in the report is developing an adequate SES measure for NAEP.

Joe McCrary, of WestEd, said he strongly favored the expert panel recommendation to reinstitute the analysis and regular reporting of NAEP background questions. He said he supported the suggestion to gather information on the implementation of the Common Core State Standards. He said addressing this topic early on will help solidify the relevance of NAEP and its background questions. He said the data obtained would be used by many researchers.

Additional Questions asked by Eileen Weiser (moderator):

Would states and districts be willing to have students spend more time than the current 10-minute maximum answering additional NAEP background questions to obtain richer contextual information related to student achievement? Do you think the additional time would be disruptive to schools and might reduce the cooperation needed to get good school samples for NAEP?

Richard Innes, of the Bluegrass Institute for Public Policy Solutions in Kentucky, said he is concerned about the limited amount of information provided by NAEP on students who are excluded from the assessment. He would like to see more in-depth analysis on this topic, which should be better presented on the NCES website. Mr. Innes said the information now is posted in

a separate area of the website, making it very hard to find, and noted that the data can't be sorted by factors such as race, which limits its utility for analysis. He said the exclusion data should be made available through the NAEP Data Explorer or a similar analytic tool.

Mrs. Weiser commented that NCES and the Governing Board have been talking about developing computer applications (apps) to assist with the use of NAEP background data. She asked if this would be helpful to webinar attendees and their organizations.

Joe McCrary, WestEd, said he has had trouble with using the data online. He mentioned that he tried to run some statistics online a few years ago and ended up just ordering the disks. He said the app sounds interesting and he could see where it would be helpful for state-level research so states could easily run their own statistics. He also mentioned that congressional staffers might be able to answer questions very quickly using an app.

Are there targeted background questions that should be asked of students, teachers, and school administrators that participate in the NAEP Trial Urban District Assessment?

Richard Innes from the Bluegrass Institute said his organization has been looking at TUDA data because Louisville is a participant. He said it is helpful because Louisville has a unique racial distribution. He wants to see more information about how TUDA districts really differ from one another, as well as information on the socioeconomic status and breakout for minorities. He feels that not including this type of information may ultimately skew the interpretation of the data, because it's easy to misconstrue findings when you don't take a deeper look.

How important is it to compare NAEP background information from America's students, teachers, and schools with similar data from international assessments?

Richard Innes from the Bluegrass Institute said he would use it. He thinks gaining better congruence between NAEP questions and questions asked on international assessments is critical. There are concerns that the samples from other countries may not really be representative of those countries, and therefore may be unfairly compared to data from our students. He said expanding background data to allow us to make more informed judgments is very important.

Lindsay Lamb from Austin Independent School District said school climate is becoming an important topic in her district and others. She feels that being able to make comparisons not only with other TUDAs, but other states, is important. She also mentioned that information on PISA and TIMSS is important to consider as well.

How much relative emphasis should be placed on gathering in-school vs. out-of-school background information from students?

Paula Hutton, NAEP State Coordinator in the Maine Department of Education, said her department is very interested in both in-school and out-of-school information, citing the fact that Maine is a one-to-one laptop state in grades 7 and 12, and the department's goals focus on "anytime anywhere" learning in pre-K through 20.

Mrs. Weiser said the Board has been discussing benchmark studies of high-growth states and urban districts, and asked if that would be valuable to attendees.

Richard Innes from the Bluegrass Institute said that would be valuable and recommended adding the amount of per-pupil spending, at least at the school level. He said the Bluegrass Institute is getting a lot of questions about how schools could operate more efficiently. He would like to see a NAEP background question about funding at the school level so people could start looking for diamonds in the rough—schools that might not have the highest test scores, but have high achievement with relatively low funding levels. Mr. Innes recommended that school financial data be collected by NAEP and used in reports.

Joe McCrary from WestEd urged caution about benchmarking reports. He said he was not sure how NAEP would define a high performing or high growth jurisdiction or how to choose the factors that correlate with such achievement. He commented that the current structure of NAEP does not allow for generalizations at the school level and recommended creating special research samples within NAEP to be able to do that.

Do you believe there would be value in asking about learning opportunities and school resources, including teachers, curriculum, and instruction, among schools with various concentrations of students from racial and socio-economic groups? *No responses*

Mrs. Weiser raised the topic of reporting on computer-delivered education. She said NAEP collects little data on this now and asked whether it would be important to track.

Joe McCrary from WestEd said collecting information on computer-delivered education would be relevant, especially in light of budget cuts. His concern is about doing it right. He asked whether enough data would be gathered on the variations in implementing the different models to be able to generalize. Some districts pay a teacher to oversee computer education while others use someone else on staff to monitor computer use. He feels that differences in implementation would make it difficult to report on these programs.

Paula Hutton from the Maine Department of Education said learning both inside and outside of school is increasing in Maine. She said state education officials think that is inevitable for meeting the learning needs of students.

Implementation of the Common Core State Standards: Is there a sense on what kinds of focused reports would be useful in years to come?

Richard Innes from the Bluegrass Institute said one of things NAEP would have to capture is the difference in implementation, citing the fact that while most states have committed to the Common Core State Standards, implementation is not happening at the same pace in each state. He feels that developing metrics on how to determine the degree to which the Common Core has been implemented from state to state is going to be a challenge.

Would you have interest in a focused report on background variables regarding teacher evaluations?

Lindsay Lamb from Austin Independent School District said it would be interesting because many districts and states are seeking information regarding teacher effectiveness.

Should NAEP collect data on school safety and discipline, including suspensions and expulsions, and use that in its reports?

Richard Innes from the Bluegrass Institute feels that as NAEP moves into more state-level 12th grade testing, it will be critical to report on graduation rates, school dropouts, and, retentions. He said these factors have a great impact on the reported achievement at 12th grade. The proportion of students lost between 9th and 12th grades is significant and differs from state to state. He said without that data, comparing state results would be largely meaningless.

Would a focused report on learning opportunities after-school and in the home, showing differences by economic and social background, be of value?

Richard Innes from the Bluegrass Institute said it would be important to find out what works in disadvantaged environments. He feels that anything NAEP can do to enrich information in that area would help, maybe should highlight states or TUDA districts that are doing well.

Lindsay Lamb from Austin Independent School District agreed that such information would be beneficial.

Joe McCrary from WestEd said he would be interested but questioned if the information would be actionable.

Mrs. Weiser said the Governing Board has established a partnership with the national PTA, and that there are outreach mechanisms in place for conveying this type of information if NAEP obtains it. She parents, churches, and community groups might use the information to support learning.

Additional Comments

Joe McCrary from WestEd thanked the Board for taking the time to discuss the report with webinar attendees and giving them a chance to be heard.

Paula Hutton from the Maine Department of Education said the National Conference on Student Assessment in June will have a session called the Hidden Gem where NAEP State Coordinators will present information on how they use contextual data from the NAEP background questions in their states.

Policymakers Weigh Gathering More Data for NAEP

Goal is to improve understanding of performance

By Erik W. Robelen

As many experts raise questions about the future of "the nation's report card," the governing board for the assessment program is exploring changes aimed at leveraging the achievement data to better inform education policy and practice.

Back to Story

The core idea, outlined in a **report** to the board, is to expand and make far greater use of the background information collected when the National Assessment of Educational Progress is given. In doing so, the report suggests, NAEP could identify factors that may differentiate high-performing states and urban districts from low performers.

The effort, it says, would parallel the extensive reporting of background variables in global assessment systems, such as the **Program for International Student Achievement**, or PISA.

The report was released just weeks after the Obama administration proposed a fiscal 2013 budget that would cut the NAEP budget by $6 million, while funding a pilot program of state participation in PISA.

"Currently, the NAEP background questions are a potentially important but largely underused national resource," says the report by a six-member expert panel commissioned by the **National Assessment Governing Board**, or NAGB, which sets policy for the testing program. "These data could provide rich insights into a wide range of important issues about the nature and quality of American primary and secondary education and the context for understanding achievement and its improvement."

In addition, the report says NAEP background questions could help track policy trends, such as implementation of the Common Core State Standards or new teacher-evaluation systems.

The report, presented this month to NAGB at a meeting in New Orleans, was apparently well-received by many board members, including the chairman, former Massachusetts Commissioner of Education David P. Driscoll. But some of the ideas are generating pushback from current and former federal officials.

"NAGB has a tool that they want to use for everything," said Mark S. Schneider, a former commissioner of the National Center for Education Statistics, the arm of the U.S. Department of Education that administers the test. He argues that NAEP should stick to its core strengths, namely measuring student achievement and serving as a benchmark for state assessments.

"I find this just a distraction," Mr. Schneider said of the proposed plan.

Causation vs. Correlation

Although the report emphasizes the importance of not letting correlations between math achievement and rates of absenteeism, for instance, be confused for causation, Mr. Schneider argues that such distinctions would be lost on the public and risk damaging NAEP's reputation.

"They will make statements that will inevitably push the boundaries, and you will end up with questionable reports, in my opinion," said Mr. Schneider, who is now a vice president of the Washington-based American Institutes for Research. Other concerns raised about the proposals are the cost involved, especially given the president's proposed cut to NAEP, and what some experts say may be resistance to the federal government's collection and reporting of more information on students, given privacy concerns.

The new report, commissioned by NAGB, notes that complementing the NAEP tests is a "rich collection" of background questions regularly asked of students, teachers, and schools. But the collection and the public reporting of such information have been significantly scaled back over the past decade, the report says.

"NAEP should restore and improve upon its earlier practice of making much greater use of background data," the report says, "but do so in a more sound and research-supported way."

It offers recommendations in four areas related to the background questions: asking "important questions," improving the accuracy of measures, strengthening sampling efficiency, and reinstituting what it calls "meaningful analysis and reporting."

It's the fourth area, analysis and reporting, that is proving especially controversial.

Marshall S. "Mike" Smith, a co-author of the report and a former U.S. undersecretary of education in the Clinton administration, notes that the report comes at a time when NAEP's long-term relevance is at issue. He cites the work to develop common assessments across states in English/language arts and mathematics, as well as the growing prominence of international exams, like PISA.

"The future of NAEP is somewhat in doubt," Mr. Smith said.

PISA's use of extensive background questions, he said, has enabled it to have wide influence.

"They've built narratives around the assessments: Why are there differences among countries" in achievement, he said. "We can't do that with NAEP. We're not able to construct plausible scenarios or narratives about why there are different achievement levels among states. And we've seen that can be a powerful mechanism for motivating reform."

Mr. Driscoll, the chairman of NAGB, said the next step is for board staff members to draft recommendations on how the proposed changes could be implemented.

"I have challenged the board to think about how NAEP and NAGB can make a difference and have an impact," he said. "There is some very valuable information that we can lay out ... that would be instructive for all of us."

The report makes clear that NAEP should not be used to assert causes for variation in student achievement, but that a series of "descriptive findings" could be illustrative and help "generate hypotheses" for further study. For example, it might highlight differences in access to 8th grade algebra courses or to a teacher who majored in math.

"A valid concern over causal interpretations has led to a serious and unjustified overreaction," the report says.

But some observers see reason for concern.

"It's a mistake to present results that are purely descriptive," said Grover J. "Russ" Whitehurst, a senior fellow at the Brookings Institution in Washington who was the director of the federal Institute of Education Sciences under President George W. Bush. "It is misleading, and it doesn't make any difference if you have a footnote saying these results should not be considered causally."

Jack Buckley, the current NCES commissioner, expressed reservations about some of the suggestions, especially in the analysis and reporting of the background data.

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"The panel is looking toward PISA as an exemplar," he said. "Folks at [the Organization for Economic Cooperation and Development, which administers PISA] write these papers and get a broad audience, but it's not always clear that the data can support the conclusions they reach about what works."

Mr. Buckley said he understands NAGB's desire to be "policy-relevant," but he cautioned that "we have to carefully determine what is the best data source for measuring different things."

Mr. Driscoll said he's keenly aware of not going too far with how the background data are used.

"I agree ... that we have to be careful about the causal effects," he said. "I think we've gone too far in one direction to de-emphasize the background questions, and the danger is to go too far in the other direction."
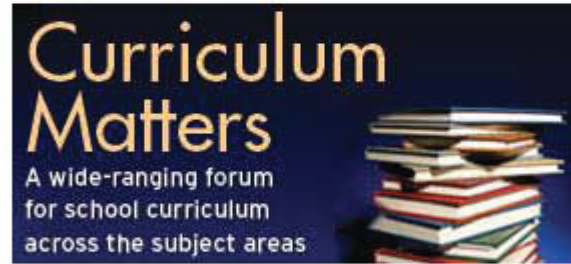
NAEP BACKGROUND QUESTIONS:
AN UNDERUSED
NATIONAL RESOURCE

A Report to the National Assessment Governing Board by the Expert Panel on Strengthening the NAEP Background Questions

February 22, 2012

Chair: Marshall S. Smith

Members: Naomi Chudowsky, Alan Ginsburg, Robert Hauser, Jennifer Jennings, and Sharon Lewis

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Executive Summary

For more than four decades the National Assessment of Educational Progress (NAEP) has tracked the achievement of U.S. students in major academic subjects. This national resource is the only assessment that states and now many urban districts can look to as an objective yardstick of their performance over time, relative to national benchmarks, and compared with other jurisdictions. Less known, but complementing the NAEP assessments, is a rich collection of student, teacher and school responses to background questions that can help in understanding the context for NAEP achievement results and give insights into how to improve them.

Currently, the NAEP background questions are a potentially important but largely underused national resource. The background questionnaires have been cut back over the past decade. They now cover only a small fraction of important student, teacher, and school issues and have been little used in recent NAEP reports, in contrast to the first state-level NAEP Report Cards in the early 1990s.

NAEP should restore and improve upon its earlier practice of making much greater use of background data, but do so in a more sound and research-supported way. With proper attention, these data could provide rich insights into a wide range of important issues about the nature and quality of American primary and secondary education including:

- Describing the resources available to support learning (opportunity-to-learn) for students with differing home backgrounds and over time.

- Tracking progress in implementing key instructional, curricular, and technological changes and educational policy initiatives, such as the Common Core standards.

- Monitoring student motivation and out-of-school learning as research-based factors affecting student achievement.

- Benchmarking high-performing states and urban districts and those with high achievement growth to identify factors that differentiate high-performers from lower-performers on NAEP. This domestic effort would parallel the extensive reporting of background variables in PISA (Program for International Student Assessment) and TIMSS (Trends in International Mathematics and Science Study) that have become starting points for U.S. international benchmarking analyses to describe the characteristics of high-performing and low-performing education systems.

The panel proposes building a strategy to make the NAEP background questions an important national resource for educators, policymakers, and the public. The panel sees the need to expand the scope and quality of the existing questions, move into important new areas directed by research and policy, make better use of the questions though regular publications, and improve the capacity for analysis by users around the world.

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We offer recommendations in four areas (see Exhibit A):

(1) Ask Important Questions.
(2) Improve the Accuracy of Measures.
(3) Strengthen Sampling Efficiency.
(4) Reinstitute Meaningful Analysis and Reporting.

Exhibit A. Expert Panel Recommendations to Strengthen NAEP Background Questions in Four Areas

1. Ask Important Questions	2. Improve the Accuracy of Measures	3. Strengthen Sampling Efficiency	4. Reinstitute Meaningful Analyses & Reporting
•Core questions •Rotated questions •Policy questions •Theoretical frameworks •Consistent questions overtime •Delete duplicative or low-priority questions	•Valid •Reliable •Coordinated (with domestic and international surveys) •Cognitive labs	•Spiral sampling •Extended questionnaire time •Alternate surveys •Pooling item responses across surveys	•Special background question reports •Online compendium of responses •Report descriptive not causal findings •Externally conducted research •Improve online tools
• Establish a single NAGB committee overseeing background questions • Review budget including need for staff to implement recommendations			

Recommendation Area 1. Identify Core, Rotated and Theoretically Coherent Groups of Important *Background Questions* around High-Priority Areas.

To the extent that you don't ask and analyze important questions, you can't expect to get back important answers. The panel recommends identifying topics falling into three question groups.

- A *common core* set of background questions to include three question clusters: (1) the congressionally required student background characteristics; (2) instructional practices and school learning opportunities and resources; and (3) student motivation and control over the environment.

- A *second tier* of priority background question clusters would be rotated across assessment cycles. Important topics that might be explored include school-parent cooperation, school climate and discipline, school administration including support for learning, and out-of-school learning time.

- A *third tier* would be a set of *policy issues* that would be examined for six years and then rotated out with new ones added. For example, the initial set might start

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with questions on implementation of the Common Core standards. Two years later, a set of questions or module on teacher evaluations could be added, and two years after that a module on project-based or online learning.

Once question topics are identified, the panel urges the *selection of clusters of questions that collectively best portray different important aspects of research-based theoretical frameworks for the major educational topics*. *Such frameworks should be published, as they are for TIMSS and PISA, to explain the theoretical rationale and research evidence* that underlie the selection of the background questions and their connection to student learning and achievement.

The Panel recommends two additional considerations to maximize the information worth of the questions chosen. The first is to pay greater attention to the *consistency of question selection and wording* to produce reliable time-series that measure change over time. A review of 400 questions asked about teachers found that about 300 are no longer used, with many replaced by just slightly different wording. A second recommendation is to balance the number of questions asked about a topic with the information value gained. Eight questions are asked about technology use in mathematics but there are no questions about student expectations despite the strong research connection with achievement.

Recommendation Area 2. Strengthen the Validity, Reliability and Coordination of the *Measures and Clusters of Measures* for the Background Questions.

The panel urges attention to strengthening the validity, reliability and coordination of NAEP background questions. An important first step in this overall effort would be to improve the *validity, reliability and coordination of the current measures NAEP uses for its mandated student reporting categories*. The panel strongly supports the current review of the SES variables as it is critical to respond to the known limitations of the school-lunch proxy. These problems will worsen with expansion of the Department of Agriculture state pilots, which allow whole-school eligibility for schools serving concentrations of low-income students. The panel also believes that an expanded *cognitive interview capability,* such as a small standing panel of respondents to test out questions, would improve question validity and reliability. We recognize that this may increase costs but it would help make NAEP a better source of information.

The panel recommends improving question wording by replacing imprecise terms such as "infrequent" or "a lot" with more precise terms such as "once a month" or "twice or more a week." Furthermore, major information benefits would accrue from coordinating the NAEP background questions with those asked on other international and domestic surveys. To illustrate, the PISA international survey covers number of hours of math instruction in-school and out- of-school; NAEP only asks about days taught math in-school and only about participation in math instruction outside of school and nothing about frequency.

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Recommendation Area 3. Reform NAEP *Sampling* to Enhance the Scope of the Background Questions While Maintaining Sampling Accuracy.

The panel recommends that NAEP should consider expanding the depth of its background questions through a variety of strategies including spiral sampling (already under study), expanded questionnaire time and rotating background questions across samples. The panel notes that the depth of student information in particular is limited by the ten-minute questionnaire time limit compared with 30 minutes used for TIMSS and PISA. A combination of these strategies would allow NAEP to obtain far richer information while maintaining sampling accuracy and still keeping respondent burden to acceptable levels.

Recommendation Area 4. Reinstitute the *Analysis and Regular Reporting* of the NAEP Background Questions.

This set of recommendations would bolster the analysis and reporting of the background questions by means of separate publications, online tables, and improvements to the Data Explorer. The recommendations also include a reiteration of current policy to not use causal interpretations of point-in-time data.

The panel strongly recommends NAEP consider two initial special reports, one organized around learning opportunities in school and a second around learning opportunities and conditions out of school. Exhibit B displays an illustrative overview table for in-school learning opportunities for math that suggests the rich potential information payoffs from background question analyses. A third benchmarking report should also be considered that explores the correlates of high-performing states and districts or those with high achievement growth. These synthesis reports would also provide a way to assess the information value of current and past questionnaire items.

Implementation of Recommendations

The panel urges the National Assessment Governing Board (NAGB) and the National Center for Education Statistics (NCES) to move quickly to begin implementing its recommendations to make the background questions a more useful resource, while also recognizing that implementation will take time.

Initial implementation should be undertaken through a three-part plan:

- Immediately produce *special reports on the background data* that analyze the considerable quantity of data already collected, but is largely unreported and unanalyzed.

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Exhibit B . Illustrative Table of Background Question Indicators With a Grade 8 Math Focus: School Districts Particpating in the 2011 Trial Urban Development Assessment

Jurisdictions	Grade 8 All Students	Eligible for National School Lunch	Grade 8 Students Absent 5 or more days last month	Grade 8 Students in Algebra	Grade 8 Students 5 or more Hours of Math Per Week	Grade 8 Students 1 Hour or More Math Homework	Grade 8 Does Math At An Afterschool or Tutoring Program	Grade 8 Entered Math Through Alternative Certification	Grade 8 Teacher Has Math Major/ Minor/ Special Emphasis	Grade 8 Full-time Math Specialist At School	Grade 8 Assigned To Math By Ability	Grade 8 26+ Students in Math Class	Grade 8 Computers Avaiable to Teachers and Stundents
	Scale Score	Percentages	Percentages	Percentages	Percentages	Percentages	Percentages	Percentages	Percentages	Percentages	Percentages	Percentages	Percentages
National	284	44	7	42	37	17	21	17	38	17	76	45	84
Albuquerque	275	60	8	37	65	13	20	27	33	32	66	59	77
Atlanta	266	82	5	27	75	38	57	57	95	61	59	37	90
Austin	287	59	8	23	61	27	30	42	57	58	53	52	89
Baltimore City	261	85	9	46	93	41	38	38	79	53	85	37	71
Boston	282	76	9	66	76	39	30	13	69	12	61	47	56
Charlotte	285	52	8	35	87	18	29	44	47	33	86	76	70
Chicago	270	84	4	32	67	47	37	23	84	20	45	65	88
Cleveland	256	100	11	29	69	33	25	6	58	14	51	44	90
Dallas	274	85	7	32	46	27	39	61	66	13	45	24	57
Detroit	246	79	17	24	81	46	37	11	83	39	18	85	61
District of Columbia (DCPS)	255	70	12	53	65	29	39	57	68	40	53	20	86
Fresno	256	88	10	51	32	11	26	6	37	23	91	75	59
Hillsborough County (FL)	282	54	9	87	20	13	22	40	35	29	95	3	86
Houston	279	76	6	29	63	26	37	56	63	25	84	58	68
Jefferson County (KY)	274	60	7	40	68	14	20	21	34	36	77	80	80
Los Angeles	261	82	6	67	44	40	27	39	67	37	75	52	74
Miami-Dade	272	72	5	36	43	47	25	38	72	25	90	13	88
Milwaukee	254	81	13	30	78	43	31	37	74	82	28	86	78
New York City	272	87	10	28	83	26	39	35	65	36	60	83	79
Philadelphia	265	88	10	34	89	27	27	24	54	32	30	75	89
San Diego	278	60	8	69	48	13	27	11	40	17	78	72	80

Source: NAEP Data Explorer

- Move quickly to initiate a long-term effort to improve the relevance, quality, coherence, and usefulness of a *core and rotated set of background variables while implementing recommended improvements to improve measurement accuracy and sampling efficiency.*

- Further improve the *usability of the Data Explorer and other NCES online tools*, which are already valuable analytic supports.

The panel suggests that NAGB establish a separate standing committee to review all background questions and plans to improve their use. Currently, the Board's responsibilities for background questions are divided between two of its standing committees. These subgroups do not coordinate their work and the background questionnaires are of secondary interest to both of them. A unified standing committee should regularly monitor and report on implementation of the panel's recommendations by NCES and Governing Board staff.

In addition, the panel believes that the background questions and how they used in NAEP reporting warrant a periodic, rigorous, and independent evaluation similar to that conducted in the past on NAEP cognitive assessment items.

The panel recognizes that implementing its recommendations will involve resource considerations in terms of time, money, and personnel. One approach to this problem may be to reduce costs in certain areas. For example, efforts should be made to eliminate

lower-priority activities, such as the duplicative collection of racial data and the disproportionate number of questions asked in areas such as technology. Another approach should be to make a clear and powerful case for the usefulness of having a coherent set of relevant and valid background variables to help explain NAEP results and to take this case to the Department of Education, the Office of Management and Budget (OMB), and Congress.

In conclusion, the NAEP background questions are a unique national information resource. The Governing Board and NCES have a responsibility to develop this resource to better understand academic achievement and the contexts in which it occurs and, hopefully, to help spur educational improvement.

Introduction

The National Assessment of Educational Progress (NAEP) is a unique American education resource. For more than four decades the assessment has tracked the achievement of U.S. students in major academic subjects. This national resource is the only assessment that states and now many urban districts can look to as an objective yardstick of their performance over time, relative to national benchmarks, and compared with other jurisdictions.[1]

Representative samples of students regularly take NAEP assessments in reading, mathematics, science, and writing and the national, state, and urban district levels. Other subjects, including U.S. history, civics, and the arts, are tested at the national level only. Less known, but complementing the NAEP assessments, is a potentially rich collection of student, teacher and school responses to background questions that can help in understanding the context for NAEP achievement results and give insights into how to improve them.

Currently, the NAEP background questions are a potentially important but largely underused national resource. The background questions have been cut back over the past decade. They now cover only a small fraction of important student, teacher and school issues, and have been little used in recent NAEP reports, in contrast to the first state-level NAEP Report Cards in the early 1990s.

NAEP should restore and improve upon its earlier practice of making much greater use of background data, but do so in a more sound and research-supported way. With proper attention, these data could provide rich insights into important questions about the nature and quality of American primary and secondary education. What are the racial, ethnic and economic characteristics of schools at different achievement levels? What are the sources of curriculum content? What resources are available for students? What are the common instructional approaches teachers employ, and how do they adjust approaches to differing student needs? What preparation and training do teachers receive? How is teacher performance evaluated?

In turn, the answers to these survey questions can support important NAEP analyses. The analyses should focus on the unique advantages of NAEP for collecting data and trends over time on education-related background factors paired with achievement results that are representative of states and many urban districts. The following three examples

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[1] Although this report focuses on the lack of reporting the background variables for the main NAEP, a similar weakness occurs in not reporting the background variables for the long-term trend NAEP. The report on the 2008 long-term trend assessments did include data on higher level course taking in math in 2008 in relation to that year's NAEP scores, but surprisingly did not report results for earlier years, although available.

illustrate potentially significant descriptive findings from the NAEP background questions for mathematics with respect to:

- Describing the resources available to support learning (opportunity-to-learn) for students with differing home backgrounds and over time.
  - In Arizona, a Hispanic grade-8 student is only 57 percent as likely to have a teacher of mathematics who has a major in mathematics as a white grade-8 student. In California, their chances are nearly equal.

- Tracking progress in implementing instructional, curricular, and technological changes and key education policy initiatives.
  - The proportion of students in schools with no eighth-graders enrolled in algebra is 15 percent nationally. Among urban districts, Miami-Dade and Houston have only 5 percent of their students in schools without a grade-8 algebra course, but Detroit and Milwaukee have over 80 percent of eighth-graders in such schools.

- Monitoring student motivation and out-of-school learning as factors affecting student achievement.
  - More than 45 percent of the grade 4 students in several Southern states (Louisiana, South Carolina and Texas) participated in after-school math instruction. But in several highly rural states (Maine, Oregon and Vermont) the participation rate in after-school math instruction was only about 25 percent.

Moreover, the *extensive reporting of the background variables in PISA and TIMSS* have become starting points for U.S. international benchmarking analyses to describe the characteristics of high-performing education systems (Darling-Hammond, 2010). These data have been used to examine characteristics of high-performing systems, such as Singapore and Korea, and to study the nature of instruction in subjects such as math and science, where the U.S. performs poorly. In a similar fashion the NAEP data could be used to guide benchmarking of high-performing states and urban districts or jurisdictions experiencing substantial performance growth. This benchmarking activity would be a means to generate hypotheses for further verification though in-depth study. Specific examples of the use of NAEP background questions for domestic benchmarking might include examining:

- A high overall-performing state such as Massachusetts or a state like Texas that has a relatively small white-Hispanic performance gap compared with other states.
- A high-performing district such as New York City that has low-income students achieving above the national average for all low-income students in both reading and math at grades 4 and 8.
- The nearly one standard deviation growth in grade 4 math since 1990 and the instructional, curriculum and teacher changes that occurred over this period.

The panel recognizes the justifiable concern over misuse of the NAEP background variables in making causal interpretations. NAEP is not able to reduce countervailing explanations for causation like a well-designed experiment. Also, successive NAEP assessments will sample different students in the same grade, so the data are not a measure of change over time for the same students as in a true longitudinal design. However, the panel believes that a valid concern over causal interpretations has led to a serious and unjustified overreaction. NAEP's national and state representative data uniquely address many important descriptive questions. These data can track progress on variables shown by research to be important for achievement. The NAEP background questions can inform national policies by providing descriptive data about the quality of implementation. Also, because NAEP is already in the schools to administer its assessments, data can be collected at relatively low cost compared with other survey vehicles.

Yet for the past decade NAEP has stopped publishing all but the most minimal background information.

- NAEP no longer systematically reports on the responses to the background questions when publishing its assessment results, except for the congressionally required student reporting categories (e.g., race/ethnicity, low-income).[i2]
- In-depth special reports using the background questions are rare (e.g., the 2010 report on American Indian Educational Experiences was an exception).
- Data are made available almost entirely through an online database called the NAEP Data Explorer. This is a useful tool, but it is not a substitute for carefully prepared summary data tables and analyses. Most educators, policy makers and members of the public do not have the time or inclination to master use of the Data Explorer, but many would pay attention to focused reports and make use of summary tabular information.

Reporting the background questions would be a great service to the nation in identifying and tracking important national and state trends in education. Here, the panel finds that the NAEP background questionnaires severely limit their potential usefulness by not explicitly asking questions about the progress and challenges of implementing key national policies in different states and urban districts. Yet the *NAEP Background Information Framework* (2003), which sets out principles to guide background question selection and reporting, explicitly recognizes that the background questions should "focus on the most important variables related to public policy."

NAEP's de-emphasis of the background questions is in marked contrast to the significance that all the major international surveys – PISA (Program for International Student Assessment), TIMSS (Trends in International Mathematics and Science Study), and PIRLS (Progress in International Reading Literacy Study) – give to background

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[2] In 2011 NAEP began to use the background variables again in its main assessment reports, but with only a single background table related to instruction for each subject and grade. The 2010 Civics, eography and U.S. History reports also contained a background table related to instruction for the different grades.

variables in participating countries.

The panel believes NAEP should return to its earlier practice of making much greater use of background data, but do so in a more sound and research-supported way. With proper attention, the questions could provide rich insights into a wide range of important issues about the nature and quality of American primary and secondary education and the context for understanding achievement and its improvement. The panel believes there is a need to expand the scope and quality of the existing questions, move into important new areas directed by research and policy, make better use of the questions though regular NAEP publications, and improve the capacity for analysis by data users.

To do so the panel has developed recommendations for improvements in four areas:

(1) Ask Important Questions.
(2) Improve the Accuracy of the Measures.
(3) Strengthen Sampling Efficiency.
(4) Reinstitute Meaningful Analysis and Reporting.

Within each area, Exhibit 1 identifies the specific individual recommendations.

Exhibit 1. Expert Panel Recommendations to Strengthen NAEP Background Questions in Four Areas

1. Ask Important Questions	2. Improve the Accuracy of Measures	3. Strengthen Sampling Efficiency	4. Reinstitute Meaningful Analyses & Reporting
•Core questions •Rotated questions •Policy questions •Theoretical frameworks •Consistent questions overtime •Delete duplicative or low-priority questions	•Valid •Reliable •Coordinated (with domestic and international surveys) •Cognitive labs	•Spiral sampling •Extended questionnaire time •Alternate surveys •Pooling item responses across surveys	•Special reports •Online compendium of responses •Report descriptive not causal findings •Externally conducted research •Improve online tools
• Establish a single NAGB committee overseeing background questions • Review budget include need for staff to implement recomendations			

The panel recognizes that these recommendations would require commitments of resources and that the Governing Board and the Commissioner of Education Statistics are in the best position to decide on any tradeoffs between existing and proposed features of NAEP that may be required within NAEP's budget.

Recommendation Area 1. Identify Core, Rotated and Theoretically Coherent Groups of Important Background Questions around High-Priority Information Areas

To the extent that you don't ask and analyze important questions you can't expect to get back important answers. This section recommends strategies for focusing clusters of questions on important information topics within the confines of NAEP questionnaire timelines and administration procedures. Consistent with the NAEP framework, important questions are ones that would primarily focus on the factors that research has shown are related to student achievement. Background questions would also address the implementation of major national policies where NAEP surveys can provide a view from the field state-by-state. In this way, NAEP can report on the distributions and trends of many of the factors and policies important for student achievement.

Questionnaire Overview

With each administration of the subject area assessment, NAEP includes separate student, teacher and school background questionnaires. Although a few questions about subgroups are specified in the NAEP legislation, the Governing Board has the discretion to determine most questions. Exhibit 2 displays the overall number of questions and general question content for each of the three respondent questionnaires on the most recently- reported reading and mathematics surveys.

Exhibit 2. Overview of the Most Current NAEP Mathematics and Reading Background Questionnaires for Students, Teachers and Schools

	Students 10 Min			Teachers 30 Min			Schools 30 Min		
	Questions: - Student & family background and out-of-school learning - Subject specific: self-perception and school courses content			Questions (subject specific): - Teachers Background: education and training; - Classroom Organization and Instructional practices			Questions: - School Characteristics (including a special charter school survey) - Subject specific: course, student placement, staff composition, training, technology		
	Gr. 4 (2011)	Gr. 8 (2011)	Gr. 12 (2009)	Gr. 4 (2011)	Gr. 8 (2011)	Gr. 12 (2009)	Gr. 4 (2011)	Gr. 8* (2011)	Gr. 12* (2009)
Math: 2011	31	30	40	48	31		39	49	48
Reading: 2011	32	26	34		30				

*School questionnaire for grades 8 and 12 covers reading, math and science. Teacher questionnaire is not administered at grade 12.
Source: NAEP Background Questionnaires. Available Feb 2012: http://nces.ed.gov/nationsreportcard/bgquest.asp

A 10-minute student questionnaire consisting of approximately 30 questions asks about family background, school and home experiences, and out-of-school learning activities.

- Since NAEP does not administer a questionnaire to survey parents, the student questionnaire is the primary source of information on students' home characteristics and out-of-school learning activities. (School records do provide an alternative source for race, ethnicity and school lunch eligibility data).
- With respect to socio-economic status, grade 4 students are only asked about household items (computers in the home, numbers of books). Students in grades 8 and 12 are also queried about their mother's and father's highest level of education.
- A few questions are asked about students' out-of-school learning-related activities -- talk about things studied in school, read for fun on your own time, or studying and reading at an after-school program.
- A few items are included about student self-perception and enjoyment of a specific subject, for example whether reading and math are favorite subjects.
- Students are asked a number of questions about their classes in the subject assessed – for example, the frequency of reading aloud and discussing what they read in class, and in math many questions about using technology (calculators, graphing programs and spreadsheets).

A 30-minute *teacher* questionnaire of 30-40 questions is filled-out by the teacher in grade 4 or 8 in the subject assessed, usually the classroom teacher at grade 4 and the English or mathematics teacher at grade 8. This questionnaire covers:
- Teacher background information on race/ethnicity, education, certification and experience and professional development.
- Classroom organization items about class size, hours of instruction and ability grouping.
- Instructional items about topic emphasis, instructional approach, homework, evaluating student progress and access to resources and technology. The math questionnaire includes extensive questions about calculators of all types, computers, the Internet and CD-ROMs.

A 30-minute *school* questionnaire of about 40 questions covers:
- Overall school characteristics including grades, status as a charter, student composition and turnover, teacher absenteeism, volunteerism, and Title I federal program participation.
- Subject-specific items about specialist staff, structuring of content with standards and assessments, resource availability with emphasis on technology,
- Special charter school questionnaire about legal status and focus of charter.

Looking across the surveys, several issues of questionnaire coverage emerge:
- The student questionnaire includes items obtainable elsewhere and may be duplicative. For example, student-reported information on classroom instructional approaches overlaps with information on the teacher questionnaire.

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- Although the three surveys collectively cover a broad range of important background topics, the surveys omit a few topics with a strong base supporting their relationship to achievement. Two examples are the degree to which schools reach out to parents, and school discipline and the climate for learning.
- The questionnaires largely ignore major national policy issues prominent over the last decade involving the response to federal mandates for state-based student testing and high-stakes accountability.

The panel believes there is a need to address these and other issues of questionnaire content through a systematic process for identifying topics and questions that best relate to understanding NAEP student achievement results without being excessively burdensome or invasive.

Recommendation 1a. Continually review and refine a core and second-tier set of background topics and questions that are common across NAEP surveys.

- NAEP should build on its current process for specifying a *common core* set of background questions to include three question clusters: (1) the congressionally required student background characteristics; (2) instructional practices and school learning opportunities and resources; and (3) student motivation and control over the environment.
- NAEP should develop a *second tier* of priority background question clusters that could be rotated across assessment cycles. Important topics that might be explored include school-parent cooperation, school climate and discipline, school administration and support for learning; and out-of-school learning time.
- NAEP should prioritize core and second tier items in terms of information value and respondent time, select high-priority items, and eliminate current low-priority items.
- NAEP should regularly publish its background questionnaires and provide justifications for all questions asked in terms of research and policy. Core and second-tier background questions should be identified.

<u>Discussion</u>

This recommendation would expand NAEP's current set of *core* background questions focused primarily on the congressionally required *student subgroups*. The panel recommends including as an additional part of the core, a second cluster for *instructional and other school learning opportunities*. This cluster would allow examination of student learning environments by describing the curriculum, instructional approaches, and teacher qualifications. Many of these types of questions are now included in the teacher questionnaire and would be folded into this category.

A third core cluster of core questions is recommended to cover the area of *student motivation and control over the environment*. Measures such as whether students believe that success depends more on ability than effort or students' locus of control have been

documented over several decades as strongly related to academic performance (Coleman, 1966; Chen & Stevenson, 1995). Also, students' educational expectations predict their educational achievement and occupational expectations predict occupational attainment (ETS, 2010). When good teachers and a positive school environment influence student motivation and expectations this in turn will lead to improved achievement.

A *second tier* set of question clusters is proposed to focus on items for which there is strong research backing of their relation to achievement, but for which rotated items across alternate assessments (e.g., every four years) would be acceptable. As noted above, these second tier clusters could describe school-parent cooperation, school climate and discipline, school administration and support for learning; and out-of-school learning time. Specific clusters should vary across time as achievement levels and educational practices and policies change.

Together these clusters of items would view gains in school achievement as driven by a simple theory that sees gains in learning as a function of the curriculum, learning time, quality of instruction and student motivation These core and second-tier clusters meet the principle in the Board's Background Information Framework that "The information obtained be of value in understanding academic performance and taking steps to improve it" (2003 Background Information Framework).

The Panel recognizes that in defining these clusters NAEP will have to establish tradeoffs in terms of meeting the constraints of questionnaire length and cost. These decisions should be based on the priority of a question or question cluster in terms of information value balanced against respondent burden and costs. To make room for new high-priority items NAEP should consider eliminating or reducing low-value or duplicative questions as noted below. Time constraints may also be addressed by rotating questions on alternate survey administrations (i.e., four-year intervals) NAEP also constrains the student questionnaire length to ten minutes when TIMSS even at grade 4 is 30 minutes.

Recommendation 1b. Extend NAEP background questions to inform topics of current policy interest.

- Implementation of this recommendation could focus on three rotating sets of policy questions each extended over a six-year period. For example, the initial set might start with questions on implementation of the Common Core standards. Two years later, a set of questions or module on teacher evaluations would be added, and two years after that a module on project-based or online learning. After six-years, questions on a new policy issue would be introduced to replace the first. Using this approach each of the question sets would have three observations over the six-year time.

- The panel concurs with the 2003 Background Report caution to include only policy-relevant questions that are answered on the basis of fact rather than opinion. That is, the responses to policy-relevant questions should be objective and not reflect personal beliefs. Questions should ask about policy responses, such as training received to understand new standards or the extent to which new

standards have changed instructional content or approaches. Questions should not elicit judgments about personal policy preferences.

- The policy information collected should not duplicate what can be obtained from other sources, such as description of the law or state implementation plans. Instead, NAEP is uniquely positioned to obtain ground- level information by surveying teachers and principals about policy implementation and challenges. This would not be designed nor suited to address legal compliance with federal policy, which is the role of program monitoring. Instead, it would provide information to improve the quality of policy and practice.

- Indeed, many national policies such as the Common Core are not federal at all. In this example, NAEP would track the implementation of standards in the Common-Core states, identifying changes in instructional content and emphasis compared with non-Common cores states. NAEP teacher surveys could further address the extent of staff training and understanding of the new standards and instructional challenges.

Discussion

The panel's review of the current background questionnaires concluded that they insufficiently incorporate questions about school and teacher responses to policies that could strengthen policy implementation and promote student achievement. Examples of policy-relevant issues that NAEP could but currently does not report on include characteristics of instruction in schools that made adequate yearly progress, the degree to which teacher evaluations incorporate student outcomes, or the nature and extent of coordination between school and after-school instruction.

This recommendation would reinforce NAGB (2003) guidance that identifies "informing educational policy" as a reason for collecting non-cognitive information. It would also support NCES commitments to convening "a policy/contextual issues panel when needed to identify policy/contextual issues that NAEP might address in the future, and to outline the relevant constructs and identify data needed to address these issues."[3]

The panel recognizes that policy issues should be regularly refreshed as new policies emerge that build on or replace prior strategies. Our proposal aims for roughly a six-year issue cycle to give policies sufficient time to be implemented and effect improvements. The three policies suggested in the recommendations reflect the likely timeframe of implementation. The initial focus is on Common Core implementation, which is already underway in many states. Next a question set would be added on how schools evaluate their teachers. This would include questions on how evaluations of teachers take into consideration the outcomes of a teacher's students, as this relatively new policy takes

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[3] See NCES description of non-cognitive items and questions available December 2011 online: http://nces.ed.gov/nationsreportcard/tdw/instruments/noncog.asp.

hold. The third suggestion of project-based and online learning reflects expectations that the role of technology in providing instruction will substantially increase.

Recommendation 1c. Select clusters of questions that collectively best measure different aspects of research-based theoretical frameworks for major educational topics.

- Such frameworks should be published, as they are for TIMSS and PISA, to explain the theoretical rationale and research evidence that underlie the selection of the background questions and their connection to student learning and achievement. NAEP unlike TIMSS or PISA currently fails to publish clearly defined, research-based theoretical frameworks that guide question selection. Accordingly, NAEP should make explicit and publically available the underlying theoretical frameworks for question selection. The Panel recognizes that the research basis for the theoretical justifications may be less than perfect and are sometimes subject to post-hoc rationalizations. Nonetheless, the objective syntheses of research across a variety of settings to form theoretical frameworks for clusters of variables significantly enhances the odds of collecting survey information that will accurately and usefully inform practice and policy.
- Background questions should fit together to portray different important aspects of a topic (e.g., the different dimensions of SES).

<u>Discussion</u>

The 2003 *Background Information Framework* for NAEP states the principle that "Background information shall provide a context for reporting and interpreting achievement results and, as the statute provides, must be "directly related to the appraisal of academic achievement and to the fair and accurate presentation of such information." NAEP to its credit employs panels involving contractors and multiple external groups in its question development.

However, currently, NAEP does not formally publish an accompanying document with each assessment that lays out the theoretically-based frameworks that underlie the selection of the background questions and their connection with learning and achievement.

NCES has a good start toward building the necessary research foundation for developing such frameworks in the papers prepared by the Education Testing Service (ETS). ETS (2010) has developed three in-depth literature reviews, one each to support the topics currently or potentially addressed in the student, teacher and school questionnaires. The student and school questionnaire reviews also compare the current NAEP content items with the content measured in other large-scale national and international assessments.

The panel's proposal would build-on the current literature reviews by:

- Using the research to develop theoretical frameworks that identify for major topics the component variables around which to build clusters of questions. The current ETS literature reviews although useful, are largely a description of discrete findings. Exhibit 3 is an example of how PISA presents a research-based, theoretical framework to organize background questions around the components of student engagement in reading and reading strategies. In this example, PISA operationalizes engagement in reading in terms of five components: reading for school, enjoyment of reading, time spent reading for enjoyment, diversity of reading materials, and diversity of online reading activities. Multiple questions then ask students about their reading behaviors with respect to each component.

- Organizing literature reviews around topics, which is preferable to the current organization around three separate questionnaires. Some topics may cut across the student, teacher and school questionnaires. For example, the current ETS literature review considers family involvement only in terms of the student questionnaire and the items describing home learning activities and resources. A broader research-based theoretical framework around the issue of parental involvement would extend the construct to include how teachers and schools reach out and support families, not just what families do by themselves. Indeed, Title I longitudinal evaluations have shown that student achievement improves when schools reach out and support parental involvement. (USED, 2001).

Once developed, these research-based frameworks would form the basis for developing valid and reliable questions to measure the different aspects of a topic domestically and to coordinate measurement with major international surveys. (Section 2 below).

Exhibit 3. PISA Analytic Framework for Student Engagement in Reading and Learning Strategies to Inform Decisions about Improving Reading
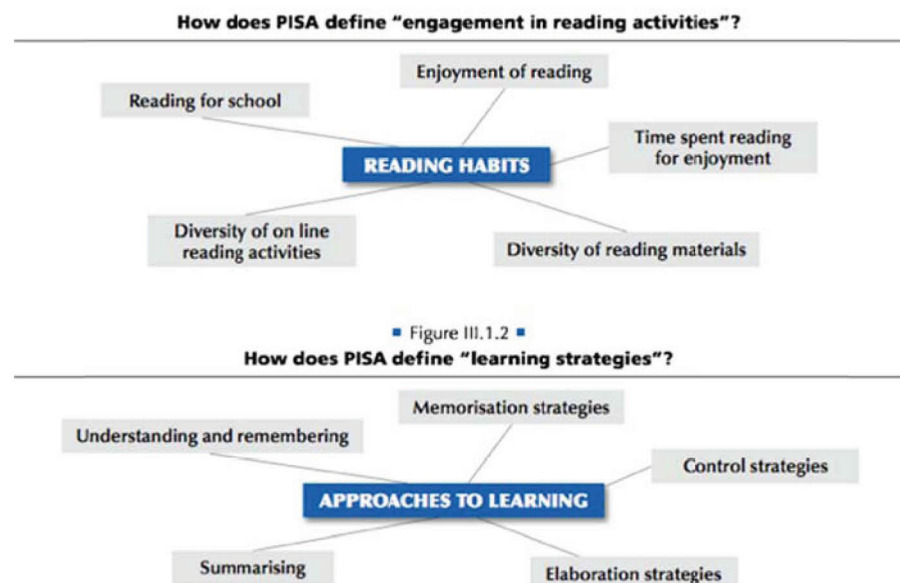
Source. OECD, PISA 2009 Results: Learning to Learn – Student Engagement, Strategies and Practices

Recommendation 1d. Use consistency over time as a criterion to consider for question selection and wording.

- NAEP's inconsistent inclusion of background questions weakens its potential to track trends and improvements within a subject area and topic.
- Recognizing that NAEP needs to periodically refresh its question set, nonetheless NAEP question selection seems haphazard – important questions may not be asked for two or more assessments and then they may reappear with changed wording that disrupt the time series reporting.
- Rather than total eliminating some potentially important survey questions on a topic, NAEP should consider rotating questions so that a question may be asked only once every 4-6 years.
- When rewording is necessary, NAEP should do *bridge studies* to link the new question responses with prior ones to form an unbroken time series of responses.

Discussion

The opportunity to assess progress on a background indicator over time is lost when NAEP no longer asks a prior question or disrupts the time series by asking essentially the same question in a somewhat different way. Because NAEP is the only major regular state-by-state assessment, question disruption results in a loss of important information to understand changes in a state educational context.

The panel examined the extent to which time series are available on the background question items for a sample of five broad questionnaire categories (Exhibit 4). The examination computed the percentage of questions asked under each category on the 2011 questionnaire for which there was also information for the same question for 2005 or earlier (at least a six-year trend).

- Between 70%-80% of the 2011 items about student characteristics or school demographics could be traced back to 2005 or earlier years.
- The three remaining categories that dealt with more judgmental measurement had much weaker time series availability. Only one-third of the 2011 questions asking about course offerings yielded at least a 6-year trend. No 2011 questions about curriculum or school resources were found on the 2005 or earlier questionnaires.

Some question categories become confusing to the user because of the considerable number of questions no longer asked. A case in point under the group of teacher factor questions is the "Preparation, Credentials and Experiences" category that contains over *400 questions of which more than 300 are no longer used,* with many replaced by just slightly different wording. . Moreover, what appears to be the exact same question maybe listed a number of times and in different places. Each instance of this all too common occurrence requires the user to search through and find all similar items and try and identify the one, if any, that is available and relevant.

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Recognizing that at times changes in question wording may be necessary, the Panel recommends conducting *bridge studies* that would compare responses in the same year for prior and newly revised questions on a topic. NAEP's 2004 assessments in math and reading conducted a bridge study to compare results from students randomly assigned to the original and revised versions of the assessment (NCES, 2004). Bridge studies were also conducted for the new frameworks in reading and 12th grade math that were introduced in 2009. A similar process could be developed to bridge question changes in important areas of the background questionnaires.

Strategies for holding down the added expense of bridge studies should be carefully explored. Recognize that in conducting a bridge study on background questions, smaller representative samples of the kind used for polling may be adequate and preferable in minimizing error to having no bridge study at all. Also, it may be feasible to add background questions to other bridge studies such as those employed for the assessment.

Exhibit 4. Percent of Background Questions Asked in 2011 Which Were Also Asked in 2005 or Earlier For a Sample of Question Categories

Question Category	Total Questions 2011	Total Number Asked in 2005 or Earlier	% of 2011 questions Asked in 2005 or Earlier
Student Characteristics	10	8	80%
Curriculum	34	0	0%
Course Offerings	78	28	36%
School Demographics	18	13	72%
School Resources	43	0	0%

Source: NAEP Data Explorer

Recommendation 1e. Delete duplicative or low-priority questions to make time for the Panel's higher priority items.

- Several question groups on the student questionnaire are duplicative of information asked on the school or teacher survey. With the 10-minute limited time constraints on the student survey, these duplicative items should be reviewed for elimination and replaced by higher-priority items in the areas recommended by the panel.
- There seem to be an excessive number of background variables collected around a particular topic in some subjects.

<u>Discussion</u>

With the student questionnaire currently only 10 minutes long, each question must bring information value or be eliminated and replaced by a high-value item. The Panel has identified two item clusters as duplicative and candidates for elimination

- Student's race/ethnicity asked on the student questionnaire is also obtainable from

> **Exhibit 5. NAEP's 2011 Grade 8 Student Questionnaire Asks 8 Questions About Technology Use**
>
> 1. + How often do you use these different types of **calculators** in your math class? a) Basic four-function (addition, subtraction, multiplication, division) b) Scientific (not graphing) c) Graphing
> 2. + When you take a math test or quiz, how often do you use a calculator? a) Never   b) Sometimes c) Always
> 3. + For each of the following activities, how often do you use a **calculator?** a**)** To check your work on math homework assignments; b) To calculate the answers to math homework problems; and c) To work in class on math lessons led by your teacher.
> 4. + What kind of **calculator** do you usually use when you are **not in math class?** a) None; b) Basic four-function (addition, subtraction, multiplication, division); c) Scientific (not graphing); d) Graphing
> 5. + How often do you use a **computer** for math at school?
> 6. + Do you use a **computer** for math homework at home?
> 7. + On a typical day, how much time do you spend doing work for math class on a **computer**? Include work you do in class and for homework.
> 8. + When you are doing math for school or homework, how often do you use these **different types of computer programs?**
>   a)   A spreadsheet program for math class assignments;
>   b)   A program to practice or drill on math facts (addition, subtraction, multiplication, division).
>   c)   A program that presents new math lessons with problems to solve
>   d)   The Internet to learn things for math class
>   e)   A calculator program on the computer to solve or check problems for math class
>   f)   A graphing program on the computer to make charts or graphs for math class
>   g)   A statistical program to calculate patterns such as correlations or cross tabulations
>   h)   A word processing program to write papers for math class.
>   i)   A program to work with geometric shapes for math class

school records that represent the official record and

- Student information on classroom instructional approaches overlaps with information on the teacher questionnaire.

In addition to direct item duplication, inefficiencies in question selection come about through an imbalance of questions in an area that is disproportionate to its information importance. Exhibit 5 lists the sixteen questions about technology on the 2011 student questionnaire for the eighth grade assessment in mathematics This is over one-quarter of the items and, while easily measurable, the level of detail may be hard to justify in terms of information value.

Recommendation Area 2. Strengthen the Validity, Reliability and Coordination of the Measures and Clusters of Measures for Background Questions.

The panel urges attention to strengthening the validity, reliability and coordination of NAEP background questions

A validity study of the NAEP background questions would assess whether they capture the concept NAEP intends the questions to measure. Concepts such as student socioeconomic status, student expectations, teacher qualifications, instructional content are challenging to define and quantify.

Two common approaches to assessing validity are:

1. $Construct validity assesses whether the question or set of questions accurately captures the underlying construct being measured, which is often multi-dimensional. Socio-economic status is a multidimensional concept about family and community position in society that is incompletely captured by a discrete measure of poverty status—eligibility for a free or reduced-price school lunch.

2. $Concurrent and predictive validity assesses whether the questions measuring a concept relate well at the same time or in the future with another established measure of that concept. The different aspects of family involvement that relate to current or future achievement meet the concurrent or predictive validity test.

A *reliable measure* yields consistent results over repeated measures. Asking teachers a question about frequency of a behavior in terms such as how much emphasis do you place on a subject is imprecise and subject to the subjective opinion and local norms. A more reliable question would ask do you teach this subject once a week, twice a week or very day.

Coordination among a set of questions maximizes information content. A duplicative question yields no added information content. Matching a NAEP set of questions with comparable questions on international assessments is highly efficient as it potentially adds considerable information content at little or no extra respondent burden.

The following recommendations suggest improvements to the validity, reliability and coordination of the NAEP background questions.

Recommendation 2a. Improve the validity and reliability of the current measures NAEP uses for its mandated student reporting categories.

- Support the current NAGB and NCES reviews of the best way to measure student socioeconomic status (SES). The known limitations of the current school lunch proxy and the likelihood that even this proxy will no longer be available make this review critically important.
- Assess the implications of changes in multi-racial student populations for the racial/ethnic student classification.
- Examine the accuracy of state-by-state or urban school system performance differences because of variation in the percentages of special education students receiving accommodations.

Discussion

The panel supports the current NAGB and NCES reviews to identify the best way to measure SES variables within the confines of the NAEP questionnaire structure.

This review is critically important given the well-documented limitations of the current school lunch proxy and that the first three State systems are piloting free school lunches for all students in very high-poverty school systems.

Limitations of the current school lunch measure include:

- The current measure divides the population only into two groups of free and reduced price school-lunch eligibles and ineligibles and is therefore insensitive to income differences above and below the income eligibility thresholds. SES is more accurately reflected by continuous measures. For example, this is consistent with studies showing student achievement results are sensitive to income levels over a broad income range.[4]

- School lunch eligibility is known to be underreported in secondary schools. Secondary students may not want the stigma of making known their families low-income and secondary students may not eat lunch at school. In fact, the grade 12 NAEP did not include school lunch for its 2009 report because of the problems of underreporting.

- The lengthy research literature on measuring SES consistently recommends multidimensional SES indices (Hauser & Warren, 1997) involving family resources, education and occupation. However, NAEP only reports the single student school lunch eligibility measure. NAEP's SES Project Progress Report (Noel-Miller and Hauser, August 2011) shows that a simple weighted average of indicators of home possessions and parental educational attainment does quite as well as independently estimated regression estimates in predicting math and reading achievement across grade-levels and race-ethnic subgroups.

- The 2010 *Healthy, Hunger-Free Kids* Act includes a "community eligibility" option, which would permit schools in high-poverty areas to provide free breakfast and lunch to all students without sending home individual paper applications for parents to submit income data. Three states have been selected for 2011-12 pilot eligibility (Illinois, Kentucky and Tennessee) and more states are scheduled to participate in successive years. Moreover, one urban school system Cleveland already counts 100 percent of its students as eligible for school lunch.

Consistent with the research literature, PISA incorporates questions for age 15 respondents to support an international multidimensional, socio-economic index. PISA's SES index elements consist of: occupational status of the father or mother, whichever is higher; the level of education of the father or mother, whichever is higher, converted into

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[4] " In data from the Early Childhood Longitudinal Study (ECLS) measuring kindergarten students achievement on the ECLS reading achievement assessment, low-income students scored at about the 30th percentile, middle- income students scored at about the 45th percentile, and upper-income students scores at about the 70th percentile." (Lacour & Tissington, 2011)

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years of schooling; and the index of home possessions, obtained by asking students whether they had a desk at which they studied at home, a room of their own, a quiet place to study, educational software, a link to the Internet, their own calculator, classic literature, books of poetry, works of art (e.g. paintings), books to help them with their school work, a dictionary, a dishwasher, a DVD player or VCR, three other country-specific items and the number of cellular phones, televisions, computers, cars and books at home.

The panel recommends that NAEP also move toward a multidimensional index for SES using current background questions. The panel further supports a long-run direction along the lines NCES is exploring of a two-pronged approach: (1) Creating an enhanced student background questionnaire with items that probe resources in the home, parents' education level, and parents' employment status; and (2) Using geocoding software to link students' home addresses to aggregate SES data available from the United States Bureau of the Census. The geocoding would reflect neighborhood and community factors that influence student performance.

In this context, the panel strongly supports the current NCES pilot to "generate SES information from the Census American Community Survey (ACS) data using school catchment zones, and which would make the collection of students' home address unnecessary for any assigned (non-choice) school."[5]

The Panel recommends assessing the potential implications of changes in multi-racial student populations for the valid measurement of the racial/ethnic student classification.

Starting in 2011 NAEP collected multi-racial data from school records and included it in the main subject-matter reports. In 2008, the U.S. Census (2011) reported the multiracial population at 7.0 million or 2.3% of the population. This number is for the full U.S. population and the percentage for the school age children would be expected to be higher to reflect the growing number of inter-racial families in the U.S. NAEP now collects these race / ethnicity data two ways – from school records and student reports. The student reports allow students to check more than one box within racial and ethnic categories. NAEP should compare the self-identified reports with the official school records.

Recommendation 2b. Enhance the validity of student responses at different grade levels.

- Assess whether the same construct (e.g., SES) is best measured by different and increasingly more valid items across grades 4, 8 and 12.

Discussion

A younger (grade 4) NAEP respondent is likely to have more difficulty accurately going

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[5] Quote from NCES Jan. 26, 2012 memo from Peggy Carr to Larry Feinberg.

through a typical question-answer process, which involves 4 steps: (1) understanding and interpreting the question being asked; (2) retrieving the relevant information from memory; (3) integrating this information into a summarized judgment; and (4) reporting this judgment by translating it to the format of the presented response scale (Borgers & Hox, 2000).

The Panel recognizes that NAEP questionnaire design already gives considerable attention to differences in the ability of students at different age groups to go through these four steps to respond accurately to background questions. .Thus, NAEP dropped a question about parent's education for grade 4 students because of research suggesting that responses from grade 4 students were less reliable than from older students. However, balanced against possible student response error is the loss of potentially useful information from eliminating questions. The Panel recommends NAEP explore the inclusion in the grade 4 questionnaires of questions that ask about mother's and father's highest education. The exploration should compare the error rates in estimating SES with and without the grade 4 parent education item.

The Panel also recommends that NAEP consider how the same construct (e.g., SES) can be measured by increasingly more valid and multi-dimensional clusters of items for students in upper grades.

Recommendation 2c. Accurately measure the multi-dimensional nature of learning-to-learn skills including student learning behaviors, motivation and expectations.

- Learning-to-learn skills refer to a cluster of personal qualities, habits and attitudes and include learning strategies, motivations and expectations. These soft-skills have shown a strong predictive relationship with math and reading achievement and workforce performance over decades (Coleman report, ETS paper on ECLS, NAEP, TIMSS and PISA). The Panel also notes that motivation and expectation questions are a regular component in major NCES national longitudinal surveys and international surveys at the primary and secondary level. However, developing questions that accurately measure non-cognitive skills through subjective responses to survey questions is challenging and should build on the considerable existing body of measurement in this area.

<u>Discussion</u>

To accurately measure some of the hard-to-measure concepts the Panel has recommended (1c above) that NAEP develop clusters of questions that collectively provide a good measure of different aspects of theoretically-based frameworks. Currently, the NAEP background questionnaire, especially the student questionnaire, is highly restricted by time constraints and does not contain the rich set of items needed to validly measure many learning attributes associated with student achievement.

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Exhibit 6 provides an example of how PISA's in-depth questioning draws out students' approaches to understanding a particular type of text. In essence, the questionnaire creates more authentic learning situations from which to document students' behaviors.

Exhibit 6. PISA's In-Depth Student Questions Of How They Would Approach Remembering Information in a Text Approximates An Authentic Assessment Item

Reading task: You have to understand and remember the information in a text.

How do you rate the usefulness of the following strategies for understanding and memorizing the text?

Possible strategy	Score Not useful at all					Very useful
	(1)	(2)	(3)	(4)	(5)	(6)
a) I concentrate on the parts of the text that are easy to understand.	O₁	O₂	O₃	O₄	O₅	O₆
b) I quickly read through the text twice.	O₁	O₂	O₃	O₄	O₅	O₆
c) After reading the text, I discuss its content with other people.	O₁	O₂	O₃	O₄	O₅	O₆
d) I underline important parts of the text.	O₁	O₂	O₃	O₄	O₅	O₆
e) I summarize the text in my own words.	O₁	O₂	O₃	O₄	O₅	O₆
f) I read the text aloud to another person.	O₁	O₂	O₃	O₄	O₅	O₆

Source: OECD PISA 2009 Student Questionnaire

The Panel recommends that NAEP explore including these rich behavior questions for grades 8 and 12 even if it would require expanding the student questionnaire time for completion.

Recommendation 2d. Improve question reliability by replacing imprecise phrases such as "infrequent" or "a lot" with more precise terms such as "once a month" or "twice or more a week".

Discussion

NAEP should ask questions involving frequency of behaviors or intensity of services in a form that elicits the most precise meaning to these terms. In this regard, some NAEP questions are not specific and the reliability of responses to these questions may be low.

The following illustrates two questions on the NAEP 2009 teacher questionnaire asking teachers about frequencies of time spent on science. Question a) asks about time spent on physical science in terms using categories such as "Little", "Some" or "A lot" that could

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mean quite different amounts of time depending on teacher norms. By contrast, question b) uses the preferred wording in which response times are expressed in clear distinct time intervals.

Question a): In this class, about how much time do you spend on physical science?
Answers: None = 4%, Little = 9%, Some = 27%, A lot = 60%

Question b): About how much time in total do you spend with this class on science instruction in a typical week
Answers: Less than 1 hour = 1%, 1-2.9 hours = 4%, 3-4.9 hours = 60%, 5-6.9 hours = 25% , 7 hours or more = 9%

NAEP should specify responses to questions about frequency and intensity in a specific quantifiable format wherever feasible.

Recommendation 2e. Coordinate NAEP background questions with those asked on international or domestic surveys.

- NAEP should explore framing its questions with as identical wording as feasible to similar questions found on international assessments.
- NAEP should examine the feasibility of NAEP coordinating with the NCES household survey to administer the household survey to families of students who participate in the NAEP subject assessments. This coordination between the two surveys would link the results of adults in the household survey with students' NAEP assessment scores.

<u>Discussion</u>

In recent years NAEP cognitive assessment results have been linked internationally to place NAEP national and state disaggregated performance on an international TIMSS or PISA scale. NCES now is linking the 2011 grade 8 mathematics and science assessments of NAEP and TIMSS so international benchmarks can be reported on NAEP. Potentially, many of the responses to the background questions can also be compared with similar questions asked on international assessments. Examples include time spent on homework, after-school learning, taking algebra in the eighth grade, or teacher preparation to teach math or science.

To make valid international comparisons, NAEP needs to word its questions so that they are very similar or identical to the wording of the comparable questions on international surveys. Comparability of wording will only be achieved through careful question linking.

Exhibit 7 illustrates the potential payoffs that could occur from linking NAEP responses to those on an international assessment measuring with respect student time learning in regular school lessons and out-of-school lessons compared with high-scoring Japan and Korea.

Exhibit 7. Student Time Per Week Learning Math in Regular School Lessons and Out-of-School Lessons, PISA Age-15, 2006

Regular In-School Lessons: Mathematics (Age 15, 2006)									
No Time		Less than 2 hr		2-4 hr		4-6 hr		6+ hr	
Math Score	%	Math Score	%	Math Score	%	Math Score	%	Math Score	%
Japan	0	444	8	491	35	551	42	572	14
Korea	416	1	451	3	520	21	551	58	576	16
U.S.	429	5	430	23	465	20	511	38	480	15

Out-of-School: Mathematics (Age 15, 2006)									
No Time		Less than 2 hr		2-4 hr		4-6 hr		6+ hr	
Math Score	%	Math Score	%	Math Score	%	Math Score	%	Math Score	%
Japan	480	24	517	32	551	23	575	13	593	8
Korea	520	23	541	14	573	33	579	17	594	13
U.S.	512	79	478	11	454	5	456	3	433	2

Source: NAEP Data Explorer

- Almost 30 % of U.S. age-15 students spend less than 2 hr. in a math class per week compared with less than 10% of Japanese students and 5 percent of Korean students. Moreover, those students with the lowest scores receive the least math instructional help in-school.
- Eighty percent of U.S. age-15 students spend no time learning math in formal afterschool instruction compared with only a quarter of Japanese or Korean students.

It would be valuable for individual states to be able to compare their students' math instructional time in-school and out-of-school with those of the Asian performers, but NAEP collects very little information about learning time. For example, it asks only about number of days a week in math instruction and not about number of hours and there is no information about time spent in math or other subjects after school. Had NAEP spelled out a basic theoretical framework identifying clusters of questions about time measurement (recommendation 1c) NAEP might have been more likely to align its questions to compare states with the interesting PISA national results.

Recommendation 2f. Build on current NCES cognitive interview techniques by using cognitive laboratories, such as small standing panels, to field test questions to establish their validity and reliability.

Discussion

NCES conducted cognitive laboratory investigations of the responses of students and teachers to questions from the 1996 and 1998 background questionnaires (Levine, Huberman, and Buckner, 2002). Cognitive interviews are an approach "to assess how respondents comprehend survey items and what strategies they use to devise answers."

The 1990's studies identified a number of general types of item problems:

- Behavioral frequency discrepancies. These items ask about how frequently a student or teacher engages in specific activities or practices. The average level of agreement between fourth grade students and their teachers on items that used a four-point rating scale was only 38 percent; for eighth grade students and their teachers, the level of agreement was still only 51 percent. Guessing would yield agreement of 25 percent.

- Time frame discrepancies. Differences between teachers and students in the period over which behavior is estimated were common. Teachers would generally think about the current year and students about a very immediate near-term period. Also, when teachers were asked about the frequency of a behavior such as how often a particular science topic was taught, teacher's responses applied to only when science is taught. Thus the response option, "Almost every day," was explicitly interpreted as "Almost every day that science is taught."

- Comprehension discrepancies. Different respondents may interpret items differently. When teachers responded to a question about frequency of a behavior with "students in your class," some teachers would answer about the typical student and others would respond if any one student exhibited that behavior.

- List format discrepancies: Loss of context. On a long list of items, students or teachers might forget the context in which the question was asked. A student might interpret a question about school behavior such as reading and respond with their general reading behavior in or out of school.

NAEP also conducted a cognitive laboratory analysis of the Responses of fourth and eighth graders to questionnaire items and parental assessment (Levine, et.al. 2001).

The Panel believes that cognitive lab interviews are able to detect and prevent many survey design problems. Hence, it recommends that NAEP use cognitive labs more extensively with an accompanying small panel of adult (teacher/principal) and child respondents to validate and improve background questions. In addition, small-scale pilot studies should be used to assess the feasibility, reliability, and external validity of survey items. We recognize that this may increase costs but it would help make the overall NAEP a better source of information.

Recommendation Area 3. Reform NAEP Sampling to Enhance the Scope of the Background Questions While Maintaining Sampling Accuracy.

Limitations of time and concerns over data burden severely constrain the depth of the student background questions. As a result, NAEP often lacks the richness in its background questions that would enable it to replicate the constructs such as those PISA creates from lengthy multiple items around different aspects of research-based

frameworks. To further extend the richness of its data sets, PISA also enhances its basic student and principal questionnaires with optional supplemental questionnaires. NAEP should consider expanding the depth of its questions through a variety of strategies including spiral sampling (currently already under consideration by NAEP), expanded questionnaire time and rotating background questions across samples.

Recommendation 3a. Support NCES's exploration of a spiral sample methodology to expand the scope of background questions, while assessing the possible loss in the representativeness of disaggregated data.

- Spiraling questions so that no student takes the full set of background questions would allow NAEP to expand the scope of its background items. The current 10-minute limit for the student questionnaire severely constrains the current scope and depth of the student questionnaires. By contrast PISA is able to support richer construct development with its 30-minute student questionnaire.
- In assessing questionnaire spiraling, it is important to consider how it would reduce NAEP's ability to provide statistically-accurate state-by-state or urban district information, especially if broken out for different student sub-groups.

<u>**Discussion**</u>

The Panel supports exploring the proposed spiral sampling of questionnaire items in order to implement improvements in student questionnaire scope and depth. As noted, one such improvement would be to enable greater in-depth questioning through clusters of items that measure different aspects of research-based topic frameworks.

However, the Panel urges NCES to quantify how item spiraling will reduce NAEP's ability to disaggregate state or urban district responses for specific population groups. For example, will background questions be available in sufficient sample size for all population groups for which cognitive student achievement data are reported?

Illustrating this point is an analysis of whether a state has changed its grade-8 access of students to a course in algebra during the two-year interval between successive NAEP assessments. It turns out that Alabama raised the percentage of its students in schools offering grade-8 algebra by 6 percentage points during the two years and Arizona decreased it by 5-percentage points. These changes are sizeable for two years, yet neither change was statistically significant. A spiral sampling approach would further reduce the odds of obtaining statistical significance.

Recommendation 3b. Consider other item-sampling reforms to obtain the needed questionnaire time including lengthening the student survey; establishing a 4-year interval between administration of some background questions; and pooling item responses across survey administrations.

- The ten-minute target length for responses to the student questionnaire does not seem grounded in empirical experience and NAEP would do well to consider the

merits and feasibility of a lengthier questionnaire. TIMSS grade 4 and 8 student questionnaires are targeted for 30 minutes at each grade and do not appear to suffer from high non-response rates.[6]

- Some background questions with slow-moving trends may be adequately $ monitored through repeating survey questions at four-year intervals.
- Pooling item responses across successive surveys may also be a permissible strategy to expand the sample provided that response changes are sufficiently slow moving.

Discussion

These sample reforms could expand the number of background items surveyed over a multi-year period, while maintaining accurate State-by-state reporting of background questions. However, each involves its own tradeoffs in terms of questionnaire time and the availability of items on any one survey. The panel requests that NCES examine and report to NAGB the comparative strengths and weaknesses of different approaches to expanding questionnaire items.

Recommendation Area 4. Reinstitute the Analysis and Regular Reporting of NAEP Background Questions.

Rich responses to relevant background questions would mean little if NAEP continues its present practice of including very few findings from the background questionnaires in its reports. The main exception is the reporting of achievement by the congressionally required student subgroups. For other background information, the only recourse for a potential user to these data is to conduct one's own analyses using the NAEP Data Explorer. As a practical matter, this is an option that only professional researchers (and few others) will have the time and skills to undertake.

This set of recommendations would bolster the analysis and reporting of the background questions by means of separate publications, online tables, and improvements to the Data Explorer. The recommendations also include a caution to not repeat the mistakes of the past by excessive reporting of causal interpretations of point in-time data.

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[6] *TIMSS 2011 Assessment Design* (p126) describes expected student testing time at grade 4 of 72 minutes for the student achievement booklet and 30 minutes for the student questionnaire. The grade-8 times are 90 minutes for the student achievement booklet and 30 minutes for the student questionnaire

Recommendation 4a. Prepare special reports highlighting the background question findings.

- The special reports would provide interested readers with key findings derived from the background questions. These special reports could be prepared and released either with the achievement report or during the interval between assessment administrations. The Panel recommends NAEP consider two initial special reports, one organized around learning opportunities in school and a second around learning opportunities and conditions out of school. A third report that explores benchmarking to find correlates of high-performing states and districts should also be considered.
- These synthesis reports would also provide a way to assess the information value of current and past questionnaire items.

<u>Discussion</u>

Special reports would provide access to the background questions in manageable-size documents that don't overwhelm the reader. An example of a NAEP special report is *The Educational Experiences of American Indian and Alaska Native Students in Grades 4 and 8,* which is Part II of the National Indian Education Study of 2009. Part II complements the Part I report on NAEP assessment results for American Indian students by providing information about students, their families and communities, and their school experiences.

More generally TIMSS and PISA illustrate two approaches to developing topics for the special reports. TIMSS includes individual chapters organized around different questionnaire topics:

- Students' Backgrounds and Attitudes Towards Science
- The Science Curriculum $
- Teachers of Science
- Classroom Characteristics and Instruction
- School Contexts for Science Learning and Instruction $

The 2009 PISA has published a series of special reports, synthesizing lessons learned to improve academic achievement:

- *Overcoming Social Background*: *Equity in Learning Opportunities and Outcomes* looks at how successful education systems moderate the impact of social background and immigrant status on student and school performance.
- *Learning to Learn*: *Student Engagement, Strategies and Practices* examines 15-year-olds' motivation, their engagement with reading and their use of effective learning strategies.
- *What Makes a School Successful? Resources, Policies and Practices* examines how human, financial and material resources, and education policies and practices shape learning outcomes.

Students On Line: *Digital Technologies and Performance*, explores student use of information technologies for learning.

The Panel recommends that NAEP give priority to preparing two initial special reports using current data.

- The first report would focus on learning opportunities and conditions in school including examining characteristics of teachers, curriculum and instruction and the distribution of these characteristics among schools with students of various racial and socioeconomic concentrations.
- The second report would explore the characteristics of learning opportunities after- school and in the home, again comparing students from different economic and social backgrounds.

These reports would help inform future background variable data collections by identifying data of the greatest value in what currently is collected.

Other future NAEP reports could take advantage of NAEP's special data collections. One might examine the characteristics of high-performing states or jurisdictions. Another would explore the extensive NAEP question sets on technology use in instruction.

Recommendation 4b. Prepare an online compendium of key background indicators for States and participating urban districts.

Discussion

The state-by-state or urban district compendium would take advantage of NAEP's unique capacity to report a consistent series of state and urban district background data over time. The Panel heard an example of such a report incorporating NAEP data in the STEM area that is being prepared by the nonprofit organization Change the Equation [7]

Exhibit 8 illustrates for the 22 districts participating in the 2011 Trial Urban Assessments a hypothetical mock-up of background question responses focused around grade 8 and mathematics. A few findings from the urban district data in Exhibit 8 illustrate the potential value of indicator comparisons:

- The systems with the highest percentage of students absent 5 or more days were Detroit, Milwaukee, DC and Cleveland, which were also places with lower student scores.
- For grade 8 students taking algebra, the highest scoring districts of Austin and Charlotte had relatively low rates of absenteeism.

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[7] rom *Change the Equation,* a non-profit, non-partisan coalition of more than 100 CEOs who are committed to bringing high-quality Science, Technology, Engineering, and Mathematics (STEM) learning to every U.S. child.

- Although urban school systems have somewhat higher rates of students $ participating in math at an afterschool tutoring or school program, only Atlanta had at least half the students avail themselves of afterschool assistance.
- Urban districts for the most part have above national-average percentages of staff teaching math with a major, minor or special emphasis in mathematics.
- Access to the Internet at home is widespread among urban areas making school support for learning at home more feasible than might be generally believed.

Exhibit 8. Illustrative Table of Background Question Indicators With a Grade 8 Math Focus: School Districts Participating in the 2011 Trial Urban Development Assessment

Jurisdictions	Grade 8 All Students (Scale Score)	Eligible for National School Lunch	Grade 8 Students Absent 5 or more days last month	Grade 8 Students in Algebra	Grade 8 Students 5 or more Hours of Math Per Week	Grade 8 Students 1 Hour or More Math Homework	Grade 8 Does Math At An Afterschool or Tutoring Program	Grade 8 Entered Math Through Alternative Certification	Grade 8 Teacher Has Math Major/Minor/Special Emphasis	Grade 8 Full-time Math Specialist At School	Grade 8 Assigned To Math By Ability	Grade 8 26+ Students in Math Class	Grade 8 Computers Available to Teachers and Students
		Percentages	Percentages	Percentages	Percentages	Percentages	Percentages	Percentages	Percentages	Percentages	Percentages	Percentages	Percentages
National	284	44	7	42	37	17	21	17	38	17	76	45	84
Albuquerque	275	60	8	37	65	13	20	27	33	32	66	59	77
Atlanta	266	82	5	27	75	38	57	57	95	61	59	37	90
Austin	287	59	8	23	61	27	30	42	57	58	53	52	89
Baltimore City	261	85	9	46	93	41	38	38	79	53	85	37	71
Boston	282	76	9	65	78	39	30	13	89	12	61	47	56
Charlotte	285	52	8	35	87	18	29	44	47	33	86	76	70
Chicago	270	84	4	32	67	47	37	23	84	20	45	65	88
Cleveland	256	100	11	29	69	33	25	6	58	14	51	44	90
Dallas	274	85	7	32	46	27	39	61	66	13	45	24	57
Detroit	246	79	17	24	81	46	37	11	83	39	18	85	61
District of Columbia (DCPS)	255	70	12	53	65	29	39	57	68	40	53	20	86
Fresno	256	88	10	51	32	11	26	6	37	23	91	75	59
Hillsborough County (FL)	282	54	9	67	20	13	22	40	35	29	95	3	86
Houston	279	76	6	29	63	26	37	56	63	25	84	58	68
Jefferson County (KY)	274	60	7	48	66	14	20	21	34	36	77	80	80
Los Angeles	261	82	6	67	44	40	27	39	67	37	75	52	74
Miami-Dade	272	72	5	35	43	47	25	38	72	25	90	13	88
Milwaukee	254	81	13	30	78	43	31	37	74	82	28	86	78
New York City	272	87	10	23	89	28	39	35	65	36	60	83	79
Philadelphia	265	88	10	34	89	27	27	24	54	37	30	75	89
San Diego	278	60	8	68	48	13	27	11	40	17	78	72	80

Source: NAEP Data Explorer

An actual set of NAEP urban or state indicators should be carefully developed to include the most informative research-based responses and would summarize other subjects and grades.

The Panel also recommends considering a larger online compendium of national, state or urban background question results be prepared and structured to easily find questions of interest around a topic. The typical educator or policymaker, who would benefit from the findings contained in the background questions, lacks the time to understand and delve into the questionnaires through the NAEP Data Explorer.

To facilitate online access to prepared tables of questions, the user might be given options to select: (a) questions based on a Google-type question search (b) questions as they appear on the student, teacher or school questionnaires; or (c) questions grouped by topic

and grade. Once the questions are selected, tables at the different system levels would be automatically generated and viewed.

Recommendation 4c. NAEP's reports should not indicate causal interpretations using the background questions. However, the NAEP data offer some unique advantages for generating relationships and hypotheses about factors that may be associated with performance and these findings should guide more rigorous in-depth follow-on analyses.

First, NAEP's performance reporting by subject, population group or jurisdiction is often the primary source of objective national performance data overtime. These data naturally raise questions about the underlying factors that produce the high and low performance. However, the Panel concludes, as have other NAGB panels before it, that NAEP should not publish causal interpretations of the factors determining performance differences based on the NAEP data.

Second, it is important to differentiate NAEP's use of rigorous external research to identify, measure and report on background variables that support or work against achievement (Barton, 2002). In such instances, NAEP is not generating the findings from its cross-sectional data, but instead drawing upon an external evidentiary research base for the questions selected. Examples would be the degree to which lower income or lower performing students have access to at least equal levels among opportunity-to-learn variables such as certified teachers or instructional time. Another example would be to compare high and low performers on such factors as alignment of instruction with standards that are systemically related to achievement.

Recommendation 4d: NAEP should encourage others to conduct exploratory studies of the NAEP background variables.

- This may be through initiating small-grant competitions for researchers to analyze NAEP background-question data or by partnering or supporting others to conduct their own analyses of the background variables.
- These grants would provide funds for researchers to explore interesting and potentially policy-relevant topics and methodologies.
- The independent reports supported through the external grants could use the background question data to inform national education policy debates without any direct NAEP organizational involvement and oversight over the findings. The external grantees might also explore issues and topics where analysts might employ NAEP data to explore correlations or associations.
- There is precedent for NAEP to support mini-grant competitions of this kind.

<u>**Discussion**</u>

Other statistical agencies routinely support in-depth analyses of their statistical data. For example, the Bureau of Labor Statistics (BLS) has its own employment research and

program development staff to conduct original research using BLS data. The ASA/NSF/Research Fellow program is jointly supported by American Statistical Association and The National Science Foundation with participation of the U.S. Census Bureau, and the Bureau of Economic Analysis. This program jointly supports a Federal Statistics Fellowship program bringing academic researchers to work with statisticians and social scientists in the three federal agencies for up to one year.

NAEP should consider launching a similar program through small grants ($10,000-$50,000) competitively given to independently conduct research using NAEP data including the background questions. The focus of this research would be primarily on measurement and other statistical issues to improve the election and quality of the background variables.

The Panel also suggests that NAEP consider various strategies for encouraging and supporting outside researchers to conduct analyses of the NAEP data. NCES may want to work cooperatively with other organizations and foundations in these efforts. For example, NCES partially supported with foundations the widely cited research by Grissmer (2000) to analyze the state-level NAEP repeated time series achievement and background questions to examine the impact of systemic reform on improved achievement.

Recommendation 4e. Further improve the powerful online NAEP tools for data analysis.

- NAEP should follow the PISA model of including with each published table a link to its online downloadable spreadsheet that may be analyzed though software such as Excel.
- Extend the Data Explorer to facilitate the manipulation and analyses of the background questions by themselves without the achievement results. Extending software to build-in multivariate analyses should be considered.

Discussion

NAEP should follow the PISA model of including with each published table a link to its online downloadable spreadsheet that is analyzable though software such as Excel. Each NAEP table and chart contains useful breakouts of the overall assessment and background data, which have been extracted and organized to focus on particular topics. Analysts and researchers may want to build off these tables to add more data series, conduct descriptive statistical analyses or pull apart and regroup the data to emphasize different points. Currently, NAEP offers no direct means to work off of the tables and charts in the reports other than to reenter the data by hand or to try and recreate them using the NAEP Data Explorer.

The Panel urges NAEP reporting to follow the lead of PISA by attaching a "statlink" to a downloadable excel file of the data in the table so that the user is able to access directly the data content without burdensome data reentry. Exhibit 9 shows how statlink was used to highlight the U.S. score compared with Singapore. The published PISA chart was

Exhibit 9 The PISA Statlink To Excel Simplified Preparing This Graphic That Was Modified From the PISA Original To Highlight U.S. Performance Relative To Singapore

Chart: The Percentage of Disadvantaged Students (Low SES) Who Attain the Top Quarter On PISA Reading Performance Across All Countries

modified to highlight the gap between the U.S. compared with top performing Singapore in the performance of the bottom quarter of the most disadvantaged students (low SES) within each country who achieve in the top quarter on PISA.

The Panel further recommends that NAEP strengthen the Data Explorer to facilitate the manipulation and analyses of the background questions by themselves without the achievement results. Extending software to build-in multivariate analyses should be considered.
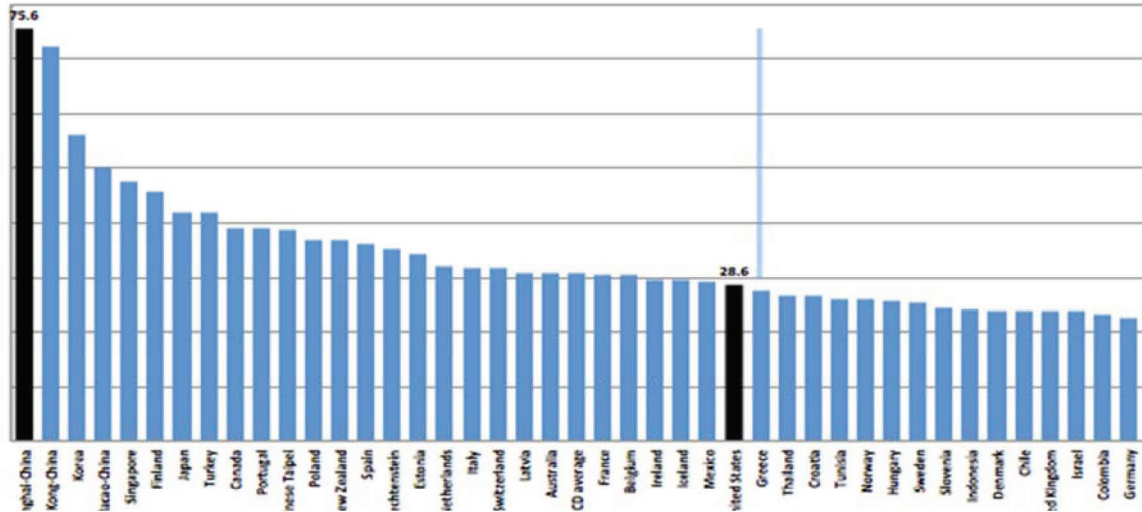
While the NAEP data explorer is a typically excellent and easy to use tool when analyzing achievement results, analysis of the non-cognitive background variables can be quite challenging even for data experts. Several problems occur:

- Finding the question of interest in the Data Explorer is made more difficult by not having an alphabetic listing of question topics. A direct link from a question in the published student, school or teacher questionnaire to that question in the Data Explorer would also be helpful.
- The Data Explorer is designed to use the background questions as categories by which to classify student achievement scores (e.g., by whether a student participates in school-lunch) and not to independently analyze the background question responses themselves.

The following is a real-world example of the challenges that arose in using the Data Explorer *to compare how much time teachers in each state spend on math instruction at the fourth grade.*

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- Step 1. Find whether this question is available on the NAEP Data Explorer.
  - Unfortunately, the Data Explorer does not contain a question search tool to determine if this question is available.
  - Look for "time spent on math instruction" under the curriculum section and find an item for class time spent on different science categories (e.g., earth science), but not for mathematics.
  - Look for "time spent on math instruction" under the "course offerings" section of the Data Explorer and find a question about "4th grade instruction in math" that covers time spent in class, but the latest data are for 1996.
  - Don't give up, and go to the "classroom management" section of the Data Explorer and find "the 2011 question of interest: Amount of time required for math instruction." This works but why is the question under classroom management and why is time spent in instruction listed in three different places?

- Step 2. Go to the Data Explorer to print a table displaying the distribution of time each state spends on math instruction at different grades. Instead obtain a table (Exhibit 10) that distributes State assessment scores by time intervals, but does not display the frequencies of the time intervals themselves.

Exhibit 10. Normal Data Explorer Display That Uses Background Variables (Time Spent Per Week on Math) As Classifiers To Distribute Achievement

Average scale scores for mathematics, grade 4 by year, jurisdiction and time per week on math

Year Jurisdiction	Less than 3 hours		3-4.9 hours		5-6.9 hours		7 hours or more	
	Average scale score	Standard Error	Average scale score	Standard Error	Average scale score	Standard Error	Average scale score	Standard Error
2011 Alabama	222	(3.5)	216	(7.4)	232	(1.3)	232	(1.4)
Alaska	232	(5.9)	233	(3.5)	238	(1.2)	237	(1.9)
Arizona	226	(5.1)	223	(4.3)	236	(1.5)	237	(1.6)

The problem is that Data Explorer has a default that assumes interest in the distribution of assessment findings and not in the distribution of the background variables. The override selection to obtain a straightforward table of the time distribution of math scores is through a little known and not easily found path under the statistics option under edit reports. This permits the user to deselect assessment as the dependent variable and replace with the percentages distribution of the background question (Exhibit 11). This option should be highlighted in the NAEP general instructions and in the edit reports screen that everyone sees.

Finally the Panel understands that that the Data Explorer once had a capability to conduct multivariate analyses, but that is was removed by the NCES Chief Statistician because of concern about potentially disclosing personally identifiable information about sampled students. The Panel understands this concern, but

requests NCES to review the decision to determine whether disclosure safeguards can be built into an online multivariate capability.

Exhibit 11. Desired NAEP Data Explorer Display That Presents The Distribution of Time Spent On Math Per Week By State

		Less than 3 hours		3-4.9 hours		5-6.9 hours		7 hours or more	
Year	Jurisdiction	Percentage	Standard Error	Percentage	Standard Error	Percentage	Standard Error	Percentage	Standard Error
2011	Alabama	4	(1.1)	3	(1.2)	62	(3.3)	31	(3.0)
	Alaska	3	(0.5)	8	(0.9)	58	(2.2)	31	(2.1)
	Arizona	3	(0.8)	5	(1.1)	57	(3.5)	35	(3.5)

Percentages for mathematics, grade 4 by year, jurisdiction and time per week on math instruction [T088001]: 2011

NOTE: Detail may not sum to totals because of rounding. Some apparent differences between estimates may not be statistically significant.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2011 Mathematics Assessment.

5. Implementing the Panel Recommendations

The panel report identifies four areas for improving the usefulness and use of the NAEP Background Questionnaires with respect to question selection, measurement, sampling, and analyses and reporting.

The panel recognizes that the benefits of the recommendations in each area should be balanced against their cost in relation to other expenditures in NAEP's annual budget of over $130 million. A decision on the merits of each item involves potential tradeoffs that are outside the panel's mandate and expertise. In considering resource priorities, however, the panel concludes that even though the background variables have been underused in recent years, they could, for a relatively modest expenditure, become the means for greatly increasing the usefulness and impact of NAEP. The panel therefore urges that its recommendations be implemented through:

- Producing *special reports* on the background data that analyze the considerable quantity of data already collected but largely unreported and unanalyzed.
- Moving quickly to initiate a long-term effort to improve the relevance, quality, coherence and usefulness of a *core and rotated set of background variables while implementing recommended improvements for measurement accuracy and sampling efficiency.*
- Further improving the *usability of the Data Explorer and other NCES online tools*, which are already of high quality.

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Recommendation 5a. Exploit existing background data through special reports focused on issues and topics informed by background questions.

Discussion

The proposed special reports in 5a are designed to mine the unexploited investment in the largely unanalyzed background questions. These reports might be modeled on the special publication of background data from the National Indian Education Study of 2009, *Part II: The Educational Experiences of American Indian and Alaska Native Students in Grades 4 and 8*, cited in Recommendation 4a.

The special publications would describe:

- In-school learning opportunities and other educational experiences focusing on data already collected on curriculum, instruction, teachers and other school resources including technology.
- Out-of-school learning opportunities and other educational experiences including after-school and at home.
- The background characteristics of high performing states and school systems contrasted with low-performers. This benchmarking study would be purely descriptive, serving to guide follow-on research to improve understanding of the factors differentiating high and low performing states and districts.

These would be three synthesis reports, drawing on data from NAEP assessments across the curriculum and, where possible, trends over time.

Recommendation 5b. Initiate a set of activities to build clusters of core and second-tier questions around high-priority topics for the 2015 NAEP administration.

Discussion

Given the long lead times for questionnaire development, this effort needs to begin immediately in order to affect the 2015 NAEP reading and mathematics administration. The revised questionnaires would refocus the background questions to identify an expanded first-tier core and second -tier set of rotated question clusters, including a rotated set of policy issues (Strategies 1 and 2, Exhibit 12). As NAEP redefines its question sets, NAEP would improve measures through published evaluations of their validity, reliability and consistency with each major assessment (Strategy 3, Exhibit 12). To find the questionnaire time to develop in-depth question sets, Strategy 4 prepares a NAEP analysis and report on a combination of sampling reforms addressing spiraling questions and extra question time.

Exhibit 12. Longer-term Background Question Activities / Products		
Strategy	Recom-mendation	Activities/Products
1.. *Select core and rotated clusters of questions around research-based theoretical frameworks*	1a, 1c	• Identify 1st tier core clusters (student sub-groups student learning opportunities, student motivation) • Identify 2nd tier rotated questions • Publish background questions with research-based justifications for question clusters
2. *Extend NAEP Background Questionnaires to monitor topics of current policy interest*	1b	• Identify current and future policy issues that are suited for NAEP Background Question (Common Core, Teacher evaluation, online instruction. • Propose rotating cycle of 3 major policy areas beginning with 2013 assessment.
3. *Launch a process for the continual examination of the validity, reliability, efficiency, and consistency of measures*	2a,2b,2c 1d, 2f	• Report on validity & reliability of SES & responses at different age levels • Implement quality review procedures for reliability and consistency of questions. • Launch a cognitive laboratory capability with possibly an available small standing supplementary panel.
4. *Report on item sampling reforms to incorporate extended question sets and topics including eliminating duplicative and low-priority items*	3a, 3b	• Report on a strategy to add questions for cluster analyses and policy issues through questionnaire spiraling, alternating questions across assessment administrations, adding extra questionnaire time and eliminating low-priority items,

Recommendation 5c. Further improve the usability of the Data Explorer and other NAEP online tools, which are already of high quality.

Discussion

While the Data Explorer is an excellent tool for online access of NAEP achievement data, addressing weaknesses in the analyses and display of the background data in the Data Explorer and publications would extend the usefulness of NAEP's current online tools.

- Simplify and clarify how to use the Data Explorer to analyze the distribution of responses on background questions.
- Explore the potential for conducting multivariate analyses through the Data Explorer
- Build links that allow the data in tables and charts in NAEP publications to transfer to excel spreadsheets for further analyses.

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Recommendation 5d. Promote implementation by creating a single Governing Board committee responsible for all background questions; provide adequate resource support, while ensuring efficient resource use; and publicize background question products and findings.

<u>**Discussion**</u>

To promote implementation of the background question recommendations and make sure change occurs, the panel suggests that NAGB establish a separate standing committee to review all background questions and oversee a multi-year development plan to improve the questions and their use. Currently, the Board's responsibilities for the background questions are divided between the Assessment Development and the Reporting and Dissemination Committees. A unified standing committee should regularly monitor and report on implementation of the panel's recommendations by NCES and Governing Board staff.

The panel further recommends that a review be conducted of the resources needed in terms of time, money and personnel to implement the recommendations in this report. One approach to the problem may be to reduce costs in certain areas. For example, efforts should be made to eliminate lower-priority activities, such as the duplicative collection of racial data and the disproportionate number of questions asked in areas such as technology. Another approach should be to make a clear and powerful case for the usefulness of having a coherent set of relevant and valid background variables to help explain NAEP results and to take this case to the Department of Education, the Office of Management and Budget (OMB), and Congress.

In conclusion, the NAEP background questions are a unique national information resource. The Governing Board and NCES have a responsibility to develop this resource to better understand academic achievement and the contexts in which it occurs and, hopefully, to help spur educational improvement.

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NATIONAL ASSESSMENT GOVERNING BOARD

Expert Panel on Strengthening
NAEP Background Questions)

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  Washington, DC

- Jennifer Jennings
  Assistant Professor of Sociology
  New York University
  New York, NY

- Sharon Lewis
  Research Director
  Council of the Great City Schools
  Washington, DC

Focus on NAEP Topics

- **The NAEP Social Studies Assessments (Fall 2012)**

  o This report will take advantage of the Civics, U.S. History and Geography all being released in the same year. It will highlight performance across all demographics as well examine the relationship between performance and background variables

- **Inclusion (Fall 2012)**

  o NAEP has made great strides in improving the inclusion on SD and ELL. This report will focus on the efforts utilized to increase inclusion and participation as well as highlight the new NAGB policy of testing and reporting SD and ELL.

- **Simpson's Paradox (Winter 2012/ 2013)**

  o The phenomenon of all subgroup results increasing while the overall score remains the same is one that NCES constantly receives questions and inquires about. This report would highlight occurrences in NAEP results and the real world and explain why this occurs.

- **12th Grade Participation (Winter 2012/2013)**

  o With 12th grade participation being a focal point of NAEP, this report will highlight the strategies we've used to increase engagement as well as show the increase in 12th grade participation

- *Gender Gap Report* **(Spring-Summer 2013)**

  o A report across all state level subjects (math, reading, mathematics) highlighting the gender gap. Report may also Include states that have the highest/lowest performing male/female students, highest gap by subject, largest improvements and largest decline

- *Black Male Students (Summer 2013)*

- ***Private Schools: Achievement and school practices across the curriculum with trends over two decades (2014)***

  o This would serve as an update to the 2003 private school report. It will include a breakdown of the type of private schools NAEP samples, their performance (with trend), and using any relevant HSTS data.

NOTE: The reports in *italics* have not gone through the NCES publication approval process. They're added to this list because of the interest of the National Assessment Governing Board.

ADDITIONAL POSSIBLE TOPICS FOR FOCUSED NAEP REPORTS

1.) Computer-delivered education: Digital learning in its many varieties including virtual schools and hybrid or blended courses (that combine online and face-to-face instruction)

2.) Charter schools: A Ten-Year Report—2013 compared to 2003

3.) School climate, safety, and discipline (including suspensions and expulsions)

4.) Opportunity-to-Learn: Teachers, Curriculum, and Instruction. How they are distributed by race/ethnicity, socio-economic status, and achievement levels

5.) Learning after-school and at-home (out-of-school learning opportunities)

6.) Education policies and instructional practices of high-performing or high-growth states and districts: Benchmarking Reports

7.) Learning in the South: A report across the curriculum on the SREB states

8.) Rural education

9.) Other regional reports: New England states and the Midwest (Big Ten) with NAEP data across the curriculum

10. Eighth-grade algebra: How it has grown and achievement patterns and trends

11. 21st Century Skills: Compile NAEP released questions with student performance data that illustrate widely-desired competencies in communication, collaboration, critical thinking, and creativity (4 C's)

NOTE: *Some reports may use data from other NCES and federal government surveys in addition to NAEP background questions and achievement results.*

NOTE TO Reporting and Dissemination Committee on Review of School Background Questionnaires

At this meeting the Committee will continue its review of background questions for the 2013 National Assessment. The questionnaires to be considered are a core for all of the approximately 15,000 schools in NAEP's national, state, and urban district samples, including both public and private schools—with some variations by grade. There is also a supplement for the approximately 750 charter schools.

The background questions are intended to give some context for results and to track factors associated with academic achievement, such as parent engagement, absenteeism, and retention in grade. The charter school supplement asks additional questions about the organization, legal status, and focus of charter schools. The questionnaires are to be completed by the school principal or head of the school.

Preliminary versions of the questionnaires have already been reviewed by the Committee and were administered to pilot test samples earlier this year. At this point the Committee may delete specific questions, but no additions or revisions are possible because of the need to pre-test before use.

The questionnaires attached are for the three grades assessed by NAEP—4, 8, and 12. In addition, NCES has provided extensive reference materials on each questionnaire, including a full explanation of how the questions are organized and data from pre-tests and trends. These booklets are being distributed separately to Committee members and will be available to consult at the Committee meeting.

The tab also includes a report on the Committee teleconference of April 26 at which 2013 background questions for students and teachers were approved. The approved questionnaires are attached.

THE NATIONAL ASSESSMENT OF EDUCATIONAL PROGRESS

2013 SCHOOL CORE QUESTIONNAIRES %

Grades 4, 8, and 12

To be administered in 2013

Proposed Questionnaires Extracted from the
National Assessment Governing Board (
Clearance Review Package (

NAEP

NATIONAL ASSESSMENT
OF EDUCATIONAL
PROGRESS

This questionnaire should be completed by the principal or the head of the school.

Some of the questions that follow ask you to fill in specific numbers. For those questions, please print the appropriate numbers in the boxes provided. Please PRINT LEGIBLY. Using one number per box, fill in every box. Keep all printing within the boxes. Do not make any stray marks. Use only a No. 2 pencil.

Example:
150 would be written as

| 0 | 0 | , | 1 | 5 | 0 |

Examples of numerals are:

| 1 | 2 | 3 | 4 | 5 |

| 6 | 7 | 8 | 9 | 0 |

1. What grades are taught in your school? Fill in **all** ovals that apply.

   Ⓐ Pre-kindergarten

   Ⓑ Kindergarten

   Ⓒ 1st grade

   Ⓓ 2nd grade

   Ⓔ 3rd grade

   Ⓕ 4th grade

   Ⓖ 5th grade

   Ⓗ 6th grade

   Ⓘ 7th grade

   Ⓙ 8th grade

   Ⓚ 9th grade

   Ⓛ 10th grade

   Ⓜ 11th grade

   Ⓝ 12th grade

2. Can your school be described by any of the following? Fill in ovals for **all** that apply.

   Ⓐ Elementary school

   Ⓑ Middle or junior high school

   Ⓒ Secondary school

   Ⓓ Regular school with a magnet program

   Ⓔ A magnet school or a school with a special program emphasis, e.g., science/mathematics school, performing arts school, talented/gifted school, foreign language immersion school

   Ⓕ Special education school: primarily serves students with disabilities

   Ⓖ Alternative school: offers a curriculum designed to provide alternative or nontraditional education, not clearly categorized as regular, special, or vocational education

   Ⓗ Private independent school

   Ⓘ Private religiously affiliated school

   Ⓙ Independent charter school

   Ⓚ Charter school administered by local school district

   Ⓛ Other (specify):_____

3. What is the current enrollment in your school?

□,□□□

4. Approximately what percentage of fourth-graders in your school is new this year?

□□□ %

5. Of the students currently enrolled in your school, what percentage has been identified as limited-English proficient?

Ⓐ 0%

Ⓑ 1–5%

Ⓒ 6–10%

Ⓓ 11–25%

Ⓔ 26–50%

Ⓕ 51–75%

Ⓖ 76–90%

Ⓗ Over 90%

6. Last school year, approximately what percentage of students at your school enrolled after the first day of school?

Ⓐ 0%

Ⓑ 1–3%

Ⓒ 4–6%

Ⓓ 7–10%

Ⓔ 11–20%

Ⓕ Over 20%

7. Last school year, approximately what percentage of students at your school left before the end of the school year?

Ⓐ 0%

Ⓑ 1–3%

Ⓒ 4–6%

Ⓓ 7–10%

Ⓔ 11–20%

Ⓕ Over 20%

8. About what percentage of your students is absent on an average day? (Include excused and unexcused absences in calculating this rate.)

Ⓐ 0–2%

Ⓑ 3–5%

Ⓒ 6–10%

Ⓓ More than 10%

9. About what percentage of your teachers is absent on an average day? (Include all absences in calculating this rate.)

   Ⓐ 0–2%

   Ⓑ 3–5%

   Ⓒ 6–10%

   Ⓓ More than 10%

10. About what percentage of this year's fourth-graders was held back and is repeating fourth grade?

    Ⓐ 0%

    Ⓑ 1–2%

    Ⓒ 3–5%

    Ⓓ 6–10%

    Ⓔ More than 10%

11. Does your school participate in the National School Lunch Program?

    Ⓐ Yes ➜ *Go to Question 12.*

    Ⓑ No ➜ *Skip to Question 15.*

12. How does the school operate the program?

    Ⓐ Student eligibility is determined individually, and eligible students receive free or reduced-price lunch. ➜ *Skip to Question 14.*

    Ⓑ All students in school receive free lunch under special provisions (e.g., Provision 2 or 3). ➜ *Go to Question 13.*

13. If your school distributes free lunch to all students under Provision 2 or 3, what was the <u>base year</u> during which individual student eligibility was collected?

 Ⓐ This school does not distribute free lunch to all students under Provision 2 or 3—eligibility is determined annually.

 Ⓑ 2012

 Ⓒ 2011

 Ⓓ 2010

 Ⓔ 2009

 Ⓕ 2008

 Ⓖ 2007 or earlier

14. During this school year, about what percentage of students in your school was eligible to receive a free or reduced-price lunch through the National School Lunch Program?

 Ⓐ 0%

 Ⓑ 1–5%

 Ⓒ 6–10%

 Ⓓ 11–25%

 Ⓔ 26–34%

 Ⓕ 35–50%

 Ⓖ 51–75%

 Ⓗ 76–99%

 Ⓘ 100%

15. Does your school receive Title I funding? (Title I is a federally funded program that provides educational services, such as remedial reading or remedial math, to children who live in areas with high concentrations of low-income families.)

 Ⓐ No

 Ⓑ Yes, our school receives funds, which are targeted to eligible students.

 Ⓒ Yes, our school receives funds, which are used for schoolwide purposes.

16. Approximately what percentage of students in your school receives the following services? Fill in **one** oval on each line. Students who receive more than one service should be counted for each service they receive. Please report the percentage of students who receive each of the following services as of the day you respond to this questionnaire.

	None	**1–5%**	**6–10%**	**11–25%**	**26–50%**	**51–75%**	**76–90%**	**Over 90%**	
a. Targeted Title I services	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	Ⓕ	Ⓖ	Ⓗ	VB610145
b. Gifted and talented program	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	Ⓕ	Ⓖ	Ⓗ	VB485286
c. Instruction provided in student's home language (non-English)	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	Ⓕ	Ⓖ	Ⓗ	VB485287
d. English-as-a-second-language (not in a bilingual education program)	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	Ⓕ	Ⓖ	Ⓗ	VB485288
e. Special education	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	Ⓕ	Ⓖ	Ⓗ	VB485289

17. During a typical week of school, what is the total number of regularly scheduled volunteers, including parents, working in the school?

    Ⓐ   0

    Ⓑ   1–5

    Ⓒ   6–10

    Ⓓ   11–15

    Ⓔ   16–25

    Ⓕ   More than 25

18. Approximately what percentage of students in your school have parents or guardians who do each of the following activities? Fill in **one** oval on each line.

	Not applicable	**0–10%**	**11–25%**	**26–50%**	**Over 50%**	
a. Volunteer regularly to help in the classroom or another part of the school	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	VE588679
b. Attend teacher–parent conferences	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	VE588681

19. *For all teacher counts entered in item 19:*

INCLUDE these types of teachers:

- *Regular*
- *Special area or resource teachers (e.g., special education, Title I, art, music, physical education)*
- *Long-term substitute teachers*

INCLUDE these types of teachers:

- *Itinerant teachers who teach part-time at this school*
- *Employees reported in other items of this section if they also have a part-time teaching assignment at this school*

DO NOT INCLUDE:

- *Student teachers*
- *Short-term substitute teachers*
- *Teachers who teach ONLY pre-kindergarten or adult education*

Around the first of October, how many TEACHERS held full-time or part-time positions or assignments in this school? *If none, mark (0) in the boxes.*

a. Full-time

☐☐☐ Full-time teachers

b. Part-time

☐☐☐ Part-time teachers

9

20. Does your school offer tenure to teachers?

    Ⓐ Yes

    Ⓑ No

21. Of the following categories of teachers who were full-time teachers at your school at the end of the last school year, what percentage stayed on as full-time teachers for this school year? Fill in **one** oval on each line.

	0–10%	11–25%	26–50%	51–75%	76–90%	Over 90%	
a. Nontenured teachers who had taught for at least one year	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	Ⓕ	VE588765
b. Tenured teachers	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	Ⓕ	VE588766

22. In the last school year, how many full-time teachers were new to your school?

☐☐☐

If you answered 1 or any number greater than 1, *go to Question 23.*

If you answered 0, *skip to Part II.*

23. Of the full-time teachers who were new to your school last year, what percentage stayed on as full-time teachers for this school year?

    Ⓐ 0–10%

    Ⓑ 11–25%

    Ⓒ 26–50%

    Ⓓ 51–75%

    Ⓔ 76–90%

    Ⓕ Over 90%

This questionnaire should be completed by the principal or the head of the school.

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   Ⓔ A magnet school or a school with a special program emphasis, e.g., science/mathematics school, performing arts school, talented/gifted school, foreign language immersion school

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   Ⓛ Other (specify):_____

3. What is the current enrollment in your school?

4. Approximately what percentage of eighth-graders in your school is new this year?

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Ⓔ More than 10%

11. Does your school participate in the National School Lunch Program?

Ⓐ Yes ➜ *Go to Question 12.*

Ⓑ No ➜ *Skip to Question 15.*

12. How does the school operate the program?

Ⓐ Student eligibility is determined individually, and eligible students receive free or reduced-price lunch. ➜ *Skip to Question 14.*

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Ⓔ 16–25

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	Not applicable	0–10%	11–25%	26–50%	Over 50%	
a. Volunteer regularly to help in the classroom or another part of the school	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	VE588679
b. Attend teacher–parent conferences	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	VE588681

19. *For all teacher counts entered in item 19:*

INCLUDE these types of teachers:

- *Regular*

- *Special area or resource teachers (e.g., special education, Title I, art, music, physical education)*

- *Long-term substitute teachers*

INCLUDE these types of teachers:

- *Itinerant teachers who teach part-time at this school*

- *Employees reported in other items of this section if they also have a part-time teaching assignment at this school*

DO NOT INCLUDE:

- *Student teachers*

- *Short-term substitute teachers*

- *Teachers who teach ONLY pre-kindergarten or adult education*

Around the first of October, how many TEACHERS held full-time or part-time positions or assignments in this school? *If none, mark (0) in the boxes.*

a. Full-time

☐☐☐ Full-time teachers

b. Part-time

☐☐☐ Part-time teachers

20. Does your school offer tenure to teachers?

    Ⓐ Yes

    Ⓑ No

21. Of the following categories of teachers who were full-time teachers at your school at the end of the last school year, what percentage stayed on as full-time teachers for this school year? Fill in **one** oval on each line.

	0–10%	**11–25%**	**26–50%**	**51–75%**	**76–90%**	**Over 90%**	
a. Nontenured teachers who had taught for at least one year	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	Ⓕ	VE588765
b. Tenured teachers	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	Ⓕ	VE588766

22. In the last school year, how many full-time teachers were new to your school?

☐☐☐

If you answered 1 or any number greater than 1, *go to Question 23.*

If you answered 0, *skip to Part II.*

23. Of the full-time teachers who were new to your school last year, what percentage stayed on as full-time teachers for this school year?

 Ⓐ 0–10%

 Ⓑ 11–25%

 Ⓒ 26–50%

 Ⓓ 51–75%

 Ⓔ 76–90%

 Ⓕ Over 90%

This questionnaire should be completed by the principal or the head of the school.

Some of the questions that follow ask you to fill in specific numbers. For those questions, please print the appropriate numbers in the boxes provided. Please PRINT LEGIBLY. Using one number per box, fill in every box. Keep all printing within the boxes. Do not make any stray marks. Use only a No. 2 pencil.

Example:
150 would be written as

| 0 | 0 | , | 1 | 5 | 0 |

Examples of numerals are:

| 1 | 2 | 3 | 4 | 5 |
| 6 | 7 | 8 | 9 | 0 |

1. What grades are taught in your school? Fill in **all** ovals that apply.

   Ⓐ Pre-kindergarten

   Ⓑ Kindergarten

   Ⓒ 1st grade

   Ⓓ 2nd grade

   Ⓔ 3rd grade

   Ⓕ 4th grade

   Ⓖ 5th grade

   Ⓗ 6th grade

   Ⓘ 7th grade

   Ⓙ 8th grade

   Ⓚ 9th grade

   Ⓛ 10th grade

   Ⓜ 11th grade

   Ⓝ 12th grade

2. Can your school be described by any of the following? Fill in ovals for **all** that apply.

   Ⓐ Elementary school

   Ⓑ Middle or junior high school

   Ⓒ Secondary school

   Ⓓ Regular school with a magnet program

   Ⓔ A magnet school or a school with a special program emphasis, e.g., science/mathematics school, performing arts school, talented/gifted school, foreign language immersion school

   Ⓕ Special education school: primarily serves students with disabilities

   Ⓖ Alternative school: offers a curriculum designed to provide alternative or nontraditional education, not clearly categorized as regular, special, or vocational education

   Ⓗ Private independent school

   Ⓘ Private religiously affiliated school

   Ⓙ Independent charter school

   Ⓚ Charter school administered by local school district

   Ⓛ Other (specify):_____

3. What is the current enrollment in your school?

⬜,⬜⬜⬜

4. Approximately what percentage of twelfth-graders in your school is new this year?

⬜⬜⬜ %

5. Of the students currently enrolled in your school, what percentage has been identified as limited-English proficient?

- Ⓐ 0%
- Ⓑ 1–5%
- Ⓒ 6–10%
- Ⓓ 11–25%
- Ⓔ 26–50%
- Ⓕ 51–75%
- Ⓖ 76–90%
- Ⓗ Over 90%

6. Last school year, approximately what percentage of students at your school enrolled after the first day of school?

   Ⓐ 0%

   Ⓑ 1–3%

   Ⓒ 4–6%

   Ⓓ 7–10%

   Ⓔ 11–20%

   Ⓕ Over 20%

7. Last school year, approximately what percentage of students at your school left before the end of the school year?

   Ⓐ 0%

   Ⓑ 1–3%

   Ⓒ 4–6%

   Ⓓ 7–10%

   Ⓔ 11–20%

   Ⓕ Over 20%

8. About what percentage of your students is absent on an average day? (Include excused and unexcused absences in calculating this rate.)

   Ⓐ 0–2%

   Ⓑ 3–5%

   Ⓒ 6–10%

   Ⓓ More than 10%

9. About what percentage of your teachers is absent on an average day? (Include all absences in calculating this rate.)

 Ⓐ 0–2%

 Ⓑ 3–5%

 Ⓒ 6–10%

 Ⓓ More than 10%

10. Does your school participate in the National School Lunch Program?

 Ⓐ Yes ➔ *Go to Question 11.*

 Ⓑ No ➔ *Skip to Question 14.*

11. How does the school operate the program?

 Ⓐ Student eligibility is determined individually, and eligible students receive free or reduced-price lunch. ➔ *Skip to Question 13.*

 Ⓑ All students in school receive free lunch under special provisions (e.g., Provision 2 or 3). ➔ *Go to Question 12.*

12. If your school distributes free lunch to all students under Provision 2 or 3, what was the <u>base year</u> during which individual student eligibility was collected?

 Ⓐ This school does not distribute free lunch to all students under Provision 2 or 3—eligibility is determined annually.

 Ⓑ 2012

 Ⓒ 2011

 Ⓓ 2010

 Ⓔ 2009

 Ⓕ 2008

 Ⓖ 2007 or earlier

13. During this school year, about what percentage of students in your school was eligible to receive a free or reduced-price lunch through the National School Lunch Program?

   Ⓐ 0%

   Ⓑ 1–5%

   Ⓒ 6–10%

   Ⓓ 11–25%

   Ⓔ 26–34%

   Ⓕ 35–50%

   Ⓖ 51–75%

   Ⓗ 76–99%

   Ⓘ 100%

14. Does your school receive Title I funding? (Title I is a federally funded program that provides educational services, such as remedial reading or remedial math, to children who live in areas with high concentrations of low-income families.)

   Ⓐ No

   Ⓑ Yes, our school receives funds, which are targeted to eligible students.

   Ⓒ Yes, our school receives funds, which are used for schoolwide purposes.

15. Approximately what percentage of students in your school receives the following services? Fill in **one** oval on each line. Students who receive more than one service should be counted for each service they receive. Please report the percentage of students who receive each of the following services as of the day you respond to this questionnaire.

	None	1–5%	6–10%	11–25%	26–50%	51–75%	76–90%	Over 90%	
a. Targeted Title I services	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	Ⓕ	Ⓖ	Ⓗ	VB610145
b. Gifted and talented program	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	Ⓕ	Ⓖ	Ⓗ	VB485286
c. Instruction provided in student's home language (non-English)	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	Ⓕ	Ⓖ	Ⓗ	VB485287
d. English-as-a-second-language (not in a bilingual education program)	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	Ⓕ	Ⓖ	Ⓗ	VB485288
e. Special education	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	Ⓕ	Ⓖ	Ⓗ	VB485289

16. Of the students in last year's graduating class, approximately what percentage is doing each of the following? Fill in **one** oval on each line.

	0–5%	6–10%	11–25%	26–50%	51–75%	Over 75%	I don't know.	
a. Attending a two-year college	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	Ⓕ	Ⓖ	VE588197
b. Attending a four-year college	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	Ⓕ	Ⓖ	VE589625
c. Attending a vocational-technical or business school	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	Ⓕ	Ⓖ	VE588425
d. Working for pay	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	Ⓕ	Ⓖ	VE588429
e. Serving in the military (excluding ROTC and military academies)	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	Ⓕ	Ⓖ	VE588432

17. Does your school offer any of the following services to students on a regular basis? Fill in ovals for **all** that apply.

Ⓐ Career and technical education workshops

Ⓑ Career counseling services or programs

Ⓒ Job placement services

Ⓓ Career days or job fairs

Ⓔ Career or employment readiness workshops

18. During a typical week of school, what is the total number of regularly scheduled volunteers, including parents, working in the school?

  Ⓐ 0

  Ⓑ 1–5

  Ⓒ 6–10

  Ⓓ 11–15

  Ⓔ 16–25

  Ⓕ More than 25

19. Approximately what percentage of students in your school have parents or guardians who do each of the following activities? Fill in **one** oval on each line.

	Not applicable	0–10%	11–25%	26–50%	Over 50%	
a. Volunteer regularly to help in the classroom or another part of the school	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	VE588679
b. Attend teacher–parent conferences	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	VE588681

20. *For all teacher counts entered in item 20:*

INCLUDE these types of teachers:

- *Regular*
- *Special area or resource teachers (e.g., special education, Title I, art, music, physical education)*
- *Long-term substitute teachers*

INCLUDE these types of teachers:

- *Itinerant teachers who teach part-time at this school*
- *Employees reported in other items of this section if they also have a part-time teaching assignment at this school*

DO NOT INCLUDE:

- *Student teachers*
- *Short-term substitute teachers*
- *Teachers who teach ONLY pre-kindergarten or adult education*

Around the first of October, how many TEACHERS held full-time or part-time positions or assignments in this school? *If none, mark (0) in the boxes.*

a. Full-time

⬜⬜⬜ Full-time teachers

b. Part-time

⬜⬜⬜ Part-time teachers

21. Does your school offer tenure to teachers?

Ⓐ Yes

Ⓑ No

22. Of the following categories of teachers who were full-time teachers at your school at the end of the last school year, what percentage stayed on as full-time teachers for this school year? Fill in **one** oval on each line.

	0–10%	**11–25%**	**26–50%**	**51–75%**	**76–90%**	**Over 90%**	
a. Nontenured teachers who had taught for at least one year	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	Ⓕ	VE588765
b. Tenured teachers	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	Ⓕ	VE588766

23. In the last school year, how many full-time teachers were new to your school?

☐ ☐ ☐

If you answered 1 or any number greater than 1, *go to Question 24.*

If you answered 0, *skip to Part II.*

24. Of the full-time teachers who were new to your school last year, what percentage stayed on as full-time teachers for this school year?

Ⓐ 0–10%

Ⓑ 11–25%

Ⓒ 26–50%

Ⓓ 51–75%

Ⓔ 76–90%

Ⓕ Over 90%

THE NATIONAL ASSESSMENT OF EDUCATIONAL PROGRESS
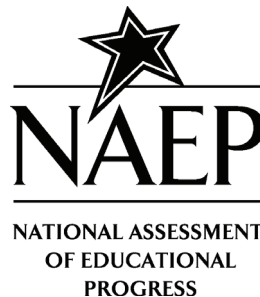
2013 CHARTER SCHOOL % QUESTIONNAIRES %

Grades 4, 8, and 12

To be administered in 2013

Proposed Questionnaires Extracted from the
National Assessment Governing Board (
Clearance Review Package (

Prepared by ETS under the direction of: (The National Center for Education Statistics
                                                Assessment Division
                                                1990 K Street, NW, 8th Floor
                                                Washington, DC 20006

Date: (April 17, 2012

NAEP

NATIONAL ASSESSMENT
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This section should be completed by the principal or the head of the school. If your school is a <u>charter</u> school, please continue. If your school is <u>not</u> a charter school, you have finished the survey. Thank you for your time.

1. Is your school a public **charter** school?

(A charter school is a public school that, in accordance with an enabling state statute, has been granted a charter exempting it from selected state or local rules and regulations. A charter school may be a newly created school, or it may previously have been a public or private school.)

① Yes ➔ *Go to Question 2.*

② No ➔ ***You have finished the survey. Thank you for your time.***

2. In which year did your school start providing instruction as a charter school?

□□□□

3. Who granted your school's current charter?

① School district

② State board of education (includes state board of regents and District of Columbia State Board of Education)

③ Postsecondary institution

④ State charter-granting agency

⑤ City or state public charter school board

⑥ Other (specify): _____

4. What is the legal status of your school?

    Ⓐ Officially part of the school district or local education agency (LEA)

    Ⓑ Independent from the school district or local education agency (LEA)

    Ⓒ A separate local education agency (LEA) as stipulated by state law

5. Is this school operated by a company or organization that also operates other charter schools?

    Ⓐ Yes

    Ⓑ No

6. Which one of the following best describes your charter school's **primary** focus in terms of program content?

    Ⓐ We have a comprehensive curriculum with no specialized area of focus.

    Ⓑ We have a special curricular focus, for example, the arts, math/science, foreign language immersion.

    Ⓒ Our curriculum is based on a particular educational theory, for example, Montessori, open school, Core Knowledge.

    Ⓓ Our curriculum is based on a particular moral philosophy or set of values, for example, African-centered education, character-based education, Eastern philosophy.

7. Does your school provide a written contract for parents?

    Ⓐ Yes, and parents are required to abide by it. ➔ *Go to Question 8.*

    Ⓑ Yes, but signing it is voluntary. ➔ *Go to Question 8.*

    Ⓒ No ➔ ***You have Finished the survey. Thank you for your time.***

8. Are the following elements addressed in your charter-parent contract? Fill in **one** oval in each row.

	Yes	No	
a. Dress code	Ⓐ	Ⓑ	VE588983
b. Home learning environment	Ⓐ	Ⓑ	VE588989
c. Homework	Ⓐ	Ⓑ	VE588981
d. Parent–teacher communication	Ⓐ	Ⓑ	VE588987
e. Parent volunteering	Ⓐ	Ⓑ	VE588991
f. School discipline policy	Ⓐ	Ⓑ	VE588985
g. Student attendance	Ⓐ	Ⓑ	VE588980
h. Student promotion policy	Ⓐ	Ⓑ	VE588988
i. Other (specify): _____	Ⓐ	Ⓑ	VE592478

NATIONAL ASSESSMENT GOVERNING BOARD '

Reporting and Dissemination Committee
Review of Background Questions

Student and Teacher Core Items
for 2013 NAEP Background Questionnaires '
Report of April 26, 2011

The Reporting and Dissemination Committee, under a standing delegation of authority from the National Assessment Governing Board, met by teleconference to review core background questions for students and teachers for the 2013 National Assessment of Educational Progress (NAEP). The questionnaires under consideration incorporate changes made by the Board in previous reviews. They were given to pilot test samples earlier this year.

The Committee voted unanimously to have all questions administered without change—for students at grades 4, 8, and 12 and for teachers at grades 4 and 8. Committee members expressed concerns about several items, and requested additional information and follow-up by NCES. The table below lists these concerns and requests.

Question -naire	Item Number	Topic	Governing Board Comments
Student	1 and 2	#1 Hispanic ethnicity #2 race (more than one allowed)	The Expert Panel on Strengthening NAEP Background Questions said in its report to the Board in March that these questions are duplicative and should be considered for deletion to free up testing time for additional, more productive items. The primary source of data on these topics is school administrative records (based on information from parents), which is used in NAEP public reports. Student-reported data is only available on the Internet via the NAEP Data Explorer. There are considerable discrepancies between the school records and student self-reporting. For example, Hispanic students accounted for 22 percent of grade 4 enrollment nationwide in 2013, according to school records, and 29 percent by self-reports. The proportion of 8th graders identified as two or more races was 2 percent by the school records compared to 6 percent by self-report. Several Committee members said it might be difficult for students, particularly fourth graders, to know how to answer the questions. Those who are Hispanic might

Question -naire	Item Number	Topic	Governing Board Comments
			identify primarily with nationality groups, such as Mexican or Cuban. Some identifying strongly as Hispanic might have difficulty with the second question asking for race. NCES staff said test administrators use prepared answers to help students who are uncertain what to do. The student question on Hispanic ethnicity supplies information on three nationality groups—Mexican, Puerto Rican, and Cuban—not found in school records. The student question on race permits different multi-racial combinations to be reported separately, e.g. black-white or Asian-white, but this was not done in 2011. **The Committee decided to continue the questions in 2013 assessments, but said the issue should be revisited for 2015, especially since the background questionnaires may undergo more extensive revision, as recommended by the expert panel. NCES was asked for additional information on discrepancies between school records and student self-reports, the uses actually made of student-reported data, and any difficulties in obtaining it.**
Student	12 (at grades 8 and 12) Same as #10 at grade 4	Household Composi- tion	Member Andres Alonso said the choices presented to students did not capture the fluid family situation of many inner-city children. He said many were living with adults, such as grandmothers and aunts, with no legal status over them. Member Tom Luna noted there is considerable research that children in single-parent families have lower average academic achievement. He said keeping the question would permit tracking performance changes in this group and whether achievement was different in different states and districts using different approaches. Donnell Butler, of ETS, said the references to male and female legal guardians raised some staff concern, but they did not seem to cause problems for students in the cognitive laboratories and pilot tests. **The Committee decided to keep the question, but said research should be conducted to make sure it is productive.**

Question-naire	Item Number	Topic	Governing Board Comments
Student	15 or last question	Enter Home Zip Code	Concern was expressed about whether young children know their home zip code and how productive research using zip codes to describe socio-economic status (SES) might be. Although this information is available from school records, James Deaton, of NCES, said staff is concerned about the privacy of home addresses. Mr. Deaton said further research would determine how valuable SES information based on zip code might be in NAEP reporting and analysis. **Question retained. Accuracy, usefulness to be studied**.
Teacher	7 at gr 4 8 at gr 8	National Board for Profession-Teaching Standards	Member Mary Frances Taymans expressed concern about the phrase "at least" in this question. Mr. Deaton said the question could not be rewritten at this point, but could only be kept or dropped in whole because of the need for pre-testing. **Question will be kept, responses studied.**

ies NATIONAL CENTER FOR EDUCATION STATISTICS

Institute of Education Sciences

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2013 STUDENT CORE % QUESTIONNAIRES

Grades 4, 8, and 12

To be administered in 2013

Proposed Questionnaires Extracted from the
National Assessment Governing Board
Clearance Review Package (

Prepared by ETS under the direction of: (

The National Center for Education Statistics
Assessment Division
1990 K Street, NW, 8th Floor
Washington, DC 20006

Date: (

April 17, 2012

NAEP

NATIONAL ASSESSMENT
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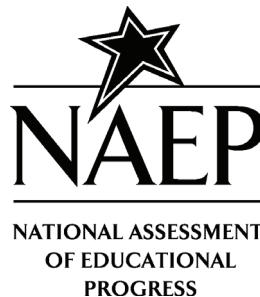
In this section, please tell us about yourself and your family. Please answer questions about your home based on where you live most of the time during the school year. The section has 1 questions. Mark your answers in your booklet. Fill in only **one** oval for each question except where instructed otherwise.

VB331330

1. Are you Hispanic or Latino? Fill in **one or more ovals**.

   Ⓐ No, I am not Hispanic or Latino.

   Ⓑ Yes, I am Mexican, Mexican American, or Chicano.

   Ⓒ Yes, I am Puerto Rican or Puerto Rican American.

   Ⓓ Yes, I am Cuban or Cuban American.

   Ⓔ Yes, I am from some other Hispanic or Latino background.

VB331331

2. Which of the following best describes you? Fill in **one or more ovals**.

   Ⓐ White

   Ⓑ Black or African American

   Ⓒ Asian

   Ⓓ American Indian or Alaska Native

   Ⓔ Native Hawaiian or other Pacific Islander

VB331335

3. About how many books are there in your home?

   Ⓐ Few (0–10)

   Ⓑ Enough to fill one shelf (11–25)

   Ⓒ Enough to fill one bookcase (26–100)

   Ⓓ Enough to fill several bookcases (more than 100)

VB331336

4. Is there a computer at home that you use?

   Ⓐ Yes

   Ⓑ No

5. Do you have the following in your home? Fill in ovals for **all** that apply.

    Ⓐ Access to the Internet

    Ⓑ Clothes dryer just for your family

    Ⓒ Dishwasher

    Ⓓ More than one bathroom

    Ⓔ Your own bedroom

6. About how many pages a day do you have to read in school and for homework?

    Ⓐ 5 or fewer

    Ⓑ 6–10

    Ⓒ 11–15

    Ⓓ 16–20

    Ⓔ More than 20

7. How often do you talk about things you have studied in school with someone in your family?

    Ⓐ Never or hardly ever

    Ⓑ Once every few weeks

    Ⓒ About once a week

    Ⓓ Two or three times a week

    Ⓔ Every day

8. How many days were you absent from school in the last month?

   Ⓐ None

   Ⓑ 1 or 2 days

   Ⓒ 3 or 4 days

   Ⓓ 5 to 10 days

   Ⓔ More than 10 days

9. How far in school did your mother go?   Grades 8 and 12

   Ⓐ She did not finish high school.

   Ⓑ She graduated from high school.

   Ⓒ She had some education after high school.

   Ⓓ She graduated from college.

   Ⓔ I don't know.

10. How far in school did your father go?   Grades 8 and 12

   Ⓐ He did not finish high school.

   Ⓑ He graduated from high school.

   Ⓒ He had some education after high school.

   Ⓓ He graduated from college.

   Ⓔ I don't know.

11. How often do people in your home talk to each other in a language other than English?

   Ⓐ Never

   Ⓑ Once in a while

   Ⓒ About half of the time

   Ⓓ All or most of the time

12. Do the following people live in your home? Fill in ovals for **all** that apply.

   Ⓐ   Mother

   Ⓑ   Stepmother

   Ⓒ   Foster mother or other female legal guardian

   Ⓓ   Father

   Ⓔ   Stepfather

   Ⓕ   Foster father or other male legal guardian

13. During this school year, which of the following have you done? Fill in ovals for **all** that apply.

Grade 12 only

   Ⓐ   Taken the SAT or ACT College Entrance Exams

   Ⓑ   Submitted the Free Application for Federal Student Aid (FAFSA)

   Ⓒ   Applied to a 2-year college

   Ⓓ   Been accepted to a 2-year college

   Ⓔ   Applied to a 4-year college

   Ⓕ   Been accepted to a 4-year college

   Ⓖ   Applied to a technical training program (such as electrician, beautician, mechanic, computer programmer, etc.)

   Ⓗ   Been accepted to a technical training program

   Ⓘ   Talked with a military recruiter

   Ⓙ   Been accepted into the military

   Ⓚ   Applied for a full-time job

   Ⓛ   Been interviewed for a full-time job

   Ⓜ   None of the above

14. Which of the following best describes your high school program?

   Ⓐ   General

Grade 12 only

   Ⓑ   Academic or college preparatory

   Ⓒ   Vocational or technical

15. Write the ZIP code of your home address in the boxes.

☐ ☐ ☐ ☐ ☐

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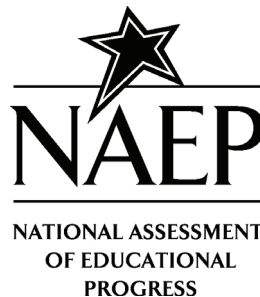
2013 TEACHER CORE % QUESTIONNAIRES

Grades 4 and 8 %

To be administered in 2013

Proposed Questionnaires Extracted from the
*National Assessment Governing Board
Clearance Review Package* (

Prepared by ETS under the direction of: (The National Center for Education Statistics
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1990 K Street, NW, 8th Floor
Washington, DC 20006

Date: (April 17, 2012

NAEP

NATIONAL ASSESSMENT
OF EDUCATIONAL
PROGRESS

VB331330

1. Are you Hispanic or Latino? Fill in **one or more ovals**.

  Ⓐ No, I am not Hispanic or Latino.

  Ⓑ Yes, I am Mexican, Mexican American, or Chicano.

  Ⓒ Yes, I am Puerto Rican or Puerto Rican American.

  Ⓓ Yes, I am Cuban or Cuban American.

  Ⓔ Yes, I am from some other Hispanic or Latino background.

VB331331

2. Which of the following best describes you? Fill in **one or more ovals**.

  Ⓐ White

  Ⓑ Black or African American

  Ⓒ Asian

  Ⓓ American Indian or Alaska Native

  Ⓔ Native Hawaiian or other Pacific Islander

VE577729

3. Excluding student teaching, how many years have you worked as an elementary or secondary teacher, counting this year?

  Ⓐ Less than 1 year

  Ⓑ 1–2 years

  Ⓒ 3–5 years

  Ⓓ 6–10 years

  Ⓔ 11–20 years

  Ⓕ 21 or more years

4. Excluding student teaching, how many years have you taught [subject] in grades 6 through 12, counting this year?

Ⓐ   Less than 1 year

Grade 8 only

Ⓑ   1–2 years

Ⓒ   3–5 years

Ⓓ   6–10 years

Ⓔ   11–20 years

Ⓕ   21 or more years

5. Have you been awarded tenure by the school where you currently teach?

Ⓐ   Yes

Ⓑ   No

Ⓒ   My school does not award tenure.

6. Do you hold a regular or standard certificate that is valid in the state in which you are currently teaching?

Ⓐ   Yes, I hold a permanent certificate.

Ⓑ   Yes, I hold a temporary certificate. (This type of certificate may require additional coursework, student teaching, etc.)

Ⓒ   No, but I am currently working toward certification.

Ⓓ   No, and I am not planning to obtain certification.

7. Did you enter teaching through an alternative route to certification program? (An alternative route to certification program is a program that was designed to expedite the transition of nonteachers to a teaching career, for example, a state, district, or university alternative route to certification program.)

Ⓐ   Yes

Ⓑ   No

8. Are you certified by the National Board for Professional Teaching Standards in at least one content area?

(The National Board for Professional Teaching Standards is a nongovernmental organization that administers National Board certification, a voluntary national assessment program that certifies teachers who meet high professional standards. In order to gain certification, the candidate must at least complete a portfolio of classroom practice and pass one or more tests of content knowledge.)

Ⓐ Yes, I am fully certified by the National Board for Professional Teaching Standards.

Ⓑ I am working towards my National Board certification.

Ⓒ No

9. What is the highest academic degree you hold?

Ⓐ High school diploma

Ⓑ Associate's degree/vocational certification

Ⓒ Bachelor's degree

Ⓓ Master's degree

Ⓔ Education specialist's or professional diploma based on at least one year's work past master's degree

Ⓕ Doctorate

Ⓖ Professional degree (e.g., M.D., LL.B., J.D., D.D.S.)

10. Since completing your undergraduate degree, have you taken any graduate courses?

Ⓐ Yes ➜ *Go to Question X.*

Ⓑ No ➜ *Skip to Question Y.*