

National Assessment Governing Board

Executive Committee

March 1, 2012

AGENDA

4:30 pm	Welcome, Introductions, and Agenda Overview <i>David Driscoll, Chair</i>	
4:35 pm	Committee Issues and Challenges – March 2012 Meeting <i>Committee Chairs</i>	
4:45 pm	Updating Board Policy Statement: “Redesigning the National Assessment of Educational Progress” <i>David Driscoll</i> [Plan for Future Discussion on Cross-Cutting Issues] Potential Topics: <ul style="list-style-type: none">• <i>NAEP Reporting on 12th Grade Academic Preparedness</i>• <i>Comparing NAEP and PISA</i>• <i>Comparing NAEP and Common Core Assessments</i>• <i>The Future of NAEP</i>	Attachment A
4:50 pm	Ad Hoc Committee on NAEP Parent Engagement <i>Tonya Miles, Ad Hoc Committee Chair</i>	See Ad Hoc Committee Tab
Closed Session 5:00 – 6:00 pm		
5:00 – 6:00 pm	NAEP Budget, Assessment Schedule, and Contract Cost Estimates: FY 2013 and Beyond <i>Cornelia Orr, Executive Director</i> <i>Peggy Carr, Associate Commissioner, NCES</i>	Attachment B
6:00 pm	Adjourn	

Updating the Governing Board Policy Statement “Redesigning the National Assessment of Educational Progress”

Following the November 1994 Board meeting, then Chair William Randall established a work group on strategic planning for NAEP. The work group was composed of Board members, chaired by Mark Musick, and staffed by Ray Fields.

The need for strategic planning was prompted by several factors. The first trial state assessment—in mathematics at grade 8—had been conducted in 1990, with successive trials in 1992 and 1994 in reading and mathematics at grades 4 and 8, either by single subject and grade or in different subject/grade combinations. There was a degree of unpredictability to the schedule of state assessments, due in large part to the evolving nature of the legislative authorizations for state assessments and a changing budget outlook for NAEP. This led, at times, to late notice to states about changes to the schedule for an imminent assessment. States saw the value in state NAEP and were volunteering, but were frustrated by the absence of a dependable schedule available several years in advance of the assessments to permit orderly in-state planning.

In addition, the Governing Board, almost from its inception, had expressed concern to NCES about the excessive period of time from the end of NAEP testing to the release of assessment results, frequently as long as two years. The Board also was concerned about the fact that the format and content of NAEP reporting was aimed more at researchers than the general public, educators, and policymakers.

While NAEP had been conducted annually during its first decade in the 1970s, the schedule changed to a biannual basis during the 1980s and well into the 1990s. As a consequence, subject coverage and frequency were limited. The Governing Board embarked on the strategic planning process to identify strategies that could lead to efficiencies in assessment and greater subject coverage.

Through an extensive process of structured full-Board deliberation, consultation with NAEP stakeholders and experts, consultation with NCES, and public comment, the work group prepared the policy statement on “Redesigning the National Assessment of Educational Progress.” In August 1996, the Governing Board adopted the policy statement that appears on the following pages.

This seminal policy has served as a compass for the Board and NAEP. It contains the underlying basis for many of the fundamental positions the Board holds today. For example, it is the original source of 6 months as the goal for reporting NAEP results, the definition of the "general public" as the primary audience for NAEP reports, and the rationale for the 10-year outlook for the schedule of assessments, to name a few.

However, the educational environment NAEP is to serve has changed substantially since 1996. Executive Committee members have proposed taking a fresh look at this policy statement and revising or replacing it. The Executive Committee discussion will afford the opportunity to consider this proposal. There also will be a brief discussion of potential topics for future Executive Committee consideration.



Adopted: August 2, 1996

National Assessment Governing Board

Redesigning the National Assessment of Educational Progress

Policy Statement

Foreword

This policy statement was adopted in 1996, at a time when Congress had codified National Education Goals targeted for accomplishment by the year 2000. It was the expectation that the National Assessment of Educational Progress would be a primary means for monitoring progress in achieving the goal addressing student achievement and this expectation is reflected in the policy below. The National Education Goals legislation is no longer in effect and has been superseded by other national policies, the No Child Left Behind Act of 2001 (NCLB) being the most germane. Therefore, the references to National Education Goals in this policy statement are no longer relevant.

Under NCLB, state level participation in assessments in reading and mathematics in grades 4 and 8 became mandatory. Participation is required on a biennial basis, affecting costs and technical design. However, the overall intent and impact of the policy—to clarify purpose, define the audience, set forth limitations, maintain quality and integrity, and bring efficiencies to the design of the assessment—remain in effect and continue to guide the policy setting and operations of the National Assessment. (Foreword added August 2007.)

A Better Way to Measure Educational Progress in America

An effective democracy and a strong economy require well-educated citizens. A good education lays a foundation for getting a good job, leading a fulfilling life, and participating constructively in society.

But is the education provided in your state and in America good enough? How do our 12th graders compare with students in other nations in mathematics and science? Do our 8th grade students have an adequate understanding of the workings of our constitutional democracy? How well do our 4th grade students read, write, and compute? The National Assessment of Educational Progress is the only way for the public to know with accuracy how American students are achieving nationally and state-by-state.

The National Assessment tests at grades 4, 8, and 12. By law, it covers ten subjects, including reading, writing, mathematics, and science. The National Assessment has performance standards that indicate whether student achievement is "good enough." The National Assessment is not a national exam taken by all students. In fact, only several thousand students are tested per grade, comprising carefully drawn samples that represent the nation and the participating states. Since its first test in 1969, the National Assessment has earned a trusted reputation for its quality and credibility. That reputation must be maintained.

The National Assessment is unique because of its national, state-by-state, and 12th grade results. State and local test results cannot be used to provide a national picture of student achievement. States and local schools use different tests that vary in many ways. The results cannot simply be "added up" to get a national score nor can state scores on their different tests be compared. The National Assessment Governing Board believes that twelfth grade achievement is important to monitor at the national level, because the 12th grade marks the end of elementary and secondary education, the transition point for most students from school to work, to college, or to technical training. The National Assessment is the only source of nationally representative data at the 12th grade. College entrance tests such as the ACT and the SAT are taken only by students planning on higher education; the results do not represent the achievement of the total 12th grade class. And to date, virtually no state-based assessment program tests 12th graders.

While there is much about the National Assessment that is working well, there is a problem. Under its current design, the National Assessment tests too few subjects, too infrequently, and reports achievement results too late—as much as 18 to 24 months after testing. Testing occurs every other year. During the 1990's, only reading and mathematics will be tested more than once using up-to-date tests and performance standards. Six subjects will be tested only once and two subjects not at all during the 1990's.

Why is the National Assessment testing so few subjects and fewer subjects now than years ago? Over the years, the National Assessment has become increasingly complex. Its quality and integrity have led to a multitude of demands and expectations beyond its central purpose. Meeting those expectations was done with good intentions and seemed right for the situation at the time. However, additions to the National Assessment have been "tacked on" without changing the basic design, driving up costs and reducing the number of subjects that can be tested.

For example, where a single 120 page mathematics report once sufficed, mathematics reporting in 1992 consisted of seven volumes totaling almost 1,800 pages, not including individual state reports. Also, there are now two separate testing programs for reading, writing, math, and science. One monitors trends using tests developed during the 1970's; the other reflects current views on instruction and uses performance standards to report whether achievement is good enough.

The current National Assessment design is overburdened, inefficient, and redundant. It is unable to provide the frequent, timely reports on student achievement the American public needs. The challenge is to supply more information, more quickly, with the funding available.

To meet this challenge, the National Assessment design must be changed, building on its strengths while making it more efficient. The design of the National Assessment must be simplified. The purpose of the National Assessment must be sharply focused and its principal audience clearly defined. Because the National Assessment cannot do all that some would have it do, trade-offs must be made among desirable activities. Useful but less important activities may have to be reduced, eliminated, or carried out by others. The National Assessment must "stick to its knitting" in order to be more cost-effective, reach more of the public, provide more information more promptly, and maintain its integrity.

National Assessment Redesign

To provide the American public with more frequent information in more subjects about the progress of student achievement, changes must be made in the way that the National Assessment is designed and the results are reported. These changes are described in this policy statement. Undergirding these changes is an explicit statement of the purposes, objectives, audiences, and limitations of the National Assessment.

While change is in order, many current policies should continue. For example, reliability, validity, and quality of data will remain hallmarks of the National Assessment. The sample of tested students will be as representative as possible, using policies and procedures that maximize the number of students included who are disabled or are of limited English proficiency. And reporting on trends over time will remain a central commitment of the National Assessment.

The intent of this policy statement is to guide current operations of the National Assessment, the development of new requests for proposals for contracts for conducting the National Assessment and the activities and structure of the National Assessment Governing Board. Contracts for current operations extend through assessments to be conducted in 1998. New contracts would cover assessments as early as 1999 and thereafter.

Purpose and Objectives of the National Assessment of Educational Progress

The purpose of the National Assessment is stated in its legislation:

“...to provide a fair and accurate presentation of educational achievement in reading, writing, and the other subjects included in the third National Education Goal, regarding student achievement and citizenship.”

Thus, the central concern of the National Assessment is to inform the nation on the status of student achievement. The National Assessment Governing Board believes that this should be accomplished through the following objectives:

- 1. To measure national and state progress toward the third National Education Goal and provide timely, fair, and accurate data about student achievement at the national level, among the states, and in comparison with other nations;**
- 2. To develop, through a broadly inclusive process, sound assessments to measure what students know and can do as well what students should know and be able to do; and**
- 3. To help states and others link their assessments with the National Assessment and use National Assessment data to improve education performance.**

The specific changes in the design of the National Assessment described below are discussed in relation to these objectives.

The Audience for the National Assessment

The primary audience for National Assessment results is the American public, including the general public in states that receive their own results from the National Assessment. Reports should be written for this audience. Results should be released within 6 months of testing. Reports should be understandable, free of jargon, easy to use, and widely disseminated. Although more comprehensible, direct, and useful, the reports will not trade accuracy for simplicity. The tradition of high quality of National Assessment reports will be continued, with no erosion of validity and reliability. Assessment questions and samples of student work that illustrate performance standards are likely to receive heightened prominence in reports.

Principal users of National Assessment data are national and state policymakers and educators concerned with student achievement, curricula, testing, and standards. National Assessment data will be available to these users in forms that support their efforts to interpret results to the public, to improve education performance, and to perform secondary analysis.

Limitations: What the National Assessment Is Not

The National Assessment is intended to describe how well students are performing, but not to explain why. The National Assessment only provides group results; it is not an individual student test. The National Assessment tests academic subjects and does not collect information on individual students' personal values or attitudes. Each National Assessment test is developed through a national consensus process. This national consensus process takes into account education practices, the results of education research, and changes in the curricula. However, the National Assessment is independent of any particular curriculum and does not promote specific ideas, ideologies, or teaching techniques. Nor is the National Assessment an appropriate means, by itself, for improving instruction in individual classrooms, evaluating the effects of specific teaching practices, or determining whether particular approaches to curricula are working.

OBJECTIVE 1: To measure national and state progress toward the third National Education Goal and provide timely, fair, and accurate data about student achievement at the national level, among the states, and in comparison with other nations.

Assess all subjects specified by Congress: reading, writing, mathematics, science, history, geography, civics, the arts, foreign language, and economics.

The gap must be closed between the number of subjects the National Assessment is required to assess and the number of subjects it can assess at the national level under the current design. By law, the National Assessment is required to assess ten subjects and report results and trends. In order to chart progress and report trends, subjects must be assessed more than once. However, during the 1990s only reading and mathematics will have been assessed more than once using up-to-date tests and performance standards to report how well students are doing.

Some have suggested that a solution is to combine into a single assessment several related subjects (e.g. reading and writing and/or history, geography, civics, and economics). Under such an approach, assessment data would be reported using both an overall score and sub scores for the respective disciplines. Although such an approach has the appeal of reducing the number of separate assessments, its feasibility, desirability, and costs are unknown. Also, such an approach has far-reaching implications for the test frameworks that guide the development of each assessment and for reporting results. These implications must be considered carefully. For the immediate future, subjects will continue to be assessed separately. However, the National Assessment Governing Board is committed to providing the public with more information as efficiently as possible. The Governing Board will consult with technical experts and education policymakers, in conjunction with the development of assessment frameworks, to determine the feasibility, desirability, and costs of combining several related subjects into a single assessment.

- **The National Assessment shall be conducted annually, two or three subjects per year, in order to cover all required subjects at least twice a decade.**
- **The National Assessment shall assess all subjects listed in the third National Educational Goal—reading, writing, mathematics, science, history, geography, civics, the arts, foreign language and economics—according to a publicly released schedule adopted by the National Assessment Governing Board, covering eight to ten years, with reading, writing, mathematics, and science tested more frequently than the other subjects.**
- **The National Assessment Governing Board shall consult with technical experts and with education policymakers, in conjunction with the development of assessment frameworks, to determine the feasibility,**

desirability, and costs of combining several related subjects into a single assessment.

Provide National Assessment results for states

In 1988, testing at the state level was added to the National Assessment as a trial, with participation strictly voluntary, subjects and grades specified in law, and an independent evaluation required. Previously, the National Assessment had reported only national and regional results. For the first time, the information was relevant to individuals in states who make decisions about education funding, governance, and policy. As a result, states now are major users of National Assessment data.

Participation was strong in the first state-level assessment in 1990 and has grown to include even more states. In 1996, 44 states and 3 jurisdictions participated in the mathematics assessments at grade 4 and 8 and the science assessment at grade 8. The independent evaluation concluded that the trial state assessments produced valid and reliable data. The evaluation report recommended, and Congress agreed, that state-level assessments, with continued evaluations, be included in the 1994 reauthorization of the National Assessment.

Currently, the National Assessment draws a separate sample to obtain national results in addition to the samples drawn for individual state reports. Keeping the schools drawn for national samples completely partitioned from the state samples increases costs and creates additional burdens on states, particularly small states. Options should be identified for making the national and state samples more efficient and less burdensome. For example, it may be possible to reduce the current state sample size of 100 schools to a smaller number (e.g. 65-75) without a great loss in precision.

States participate in the National Assessment for many reasons, including to have an unbiased, external benchmark to help them make judgments about their own tests and standards. National Assessment data are used to make comparisons to other states, to help determine if curriculum and standards are rigorous enough, to develop questions about curricular strengths and weaknesses, to make state to international comparisons, and to provide a general indicator of achievement.

There is a strong interest among states to participate in the National Assessment to get state level information at grades 4 and 8 in reading, writing, mathematics, and science. The level of interest in participating in the National Assessment varies with respect to the other subjects (i.e., history, geography, civics, economics, the arts, and foreign language) and at grade 12, where state officials say that obtaining cooperation from high schools and 12th grade students is difficult.

Some states, however, would like to be able to use National Assessment tests in the other subjects and at grade 12. Such use of National Assessment tests would be conducted as a service, with the reporting of results and maintenance of data under the control of the state. States will be able to use National Assessment tests if they adhere to requirements to protect the integrity of the National Assessment program and pay the additional costs. At

the present time, states that participate in the National Assessment to get state level information at grades 4 and 8 in reading, writing, mathematics, and science provide in-kind support to cover the cost of in-state coordination and test administration. The National Assessment program covers the majority of costs, including test development, sampling, analysis, and reporting. States that wish to use National Assessment tests in other subjects and at grade 12 would pay for much of these additional costs.

States are active partners in the National Assessment program. States help develop National Assessment test frameworks, review test items, and assist in conducting the tests. The National Assessment program is effective, to a great degree, because of the involvement of the states.

Because it is useful to them, and because they invest time and resources in it, states want a dependable schedule for National Assessment testing. With a dependable schedule, states that want to will be better able to coordinate the National Assessment with their own state testing program and make better use of the National Assessment as an external reference point.

- **National Assessment state-level assessments shall be conducted on a reliable, predictable schedule according to an eight to ten year plan adopted by the National Assessment Governing Board.**
- **Reading, writing, mathematics, and science at grades 4 and 8 shall be given priority for National Assessment state-level assessments.**
- **States shall have the option to use National Assessment tests in other subjects and at grade 12 by assuming a larger share of the costs and adhering to requirements that protect the integrity of the National Assessment program. However, the National Assessment Governing Board shall seek ways to make such use of National Assessment tests attractive and financially feasible.**
- **Where possible, changes in national and state sampling procedures shall be made that will reduce burden on states, increase efficiency, and save costs.**

Vary the amount of detail in testing and in reporting results

More subjects can be assessed if different strategies are used. Currently, each time the National Assessment is conducted, it uses a similar approach, regardless of the nature of the subject or the number of times an assessment in a subject has been administered. This approach is locked-in through 1998 under current contracts. Under this approach, a larger number of students is tested in order to provide not just overall results, but fine-grained details as well (e.g. the achievement scores of 4th grade students whose teachers that year had five hours or more of in-service training). The National Assessment also collects "background" information through questionnaires completed by students, teachers, and principals. The questionnaires ask about teaching practices, school policies, and television watching, to name a few. Data analyses are elaborate. Reports are detailed and exhaustive, involving as many as seven separate reports per subject. Although the National Assessment

has been praised for this thoroughness, the cost of this thoroughness is that fewer subjects are assessed, assessments occur less frequently, and reports take longer to produce.

The different strategies needed might include several approaches to testing and reporting, all of which should be designed in ways that maintain the National Assessment's commitment to providing valid and reliable data of high quality. For example, these approaches could take the form of "standard report cards," "comprehensive reports," and special, focused assessments.

A standard report card would provide overall results in a subject with performance standards and average scores. Results for standard report cards could be reported by sex, race/ethnicity, socio-economic status, and for public and private schools, but would not be broken down further. This may reduce the number of students needed for testing and may reduce associated costs. Generally, subcategories within a subject (e.g. algebra, measurement, and geometry within mathematics) would not be reported. However, data from the National Assessment would continue to be available to state and local educators and policymakers for additional analysis.

Comprehensive reports, like the current approach, would be an in-depth look at a subject, perhaps using a newly adopted test framework, many students, many test questions, and ample background information. In addition to overall results using performance standards and average scores, subcategories within a subject could be reported. Results would be reported by sex, race/ethnicity, socio-economic status, and for public and private schools, and might be broken down further as well. In some cases, more than one report may be issued in a subject. Comprehensive reporting in a particular subject would occur infrequently, perhaps once in ten years, but under a planned schedule of assessments.

Special, focused assessments on timely topics also would be conducted. They would explore a particular question or issue and may be limited to particular grades. Generally, the cost would be less than the cost of a standard report card. Examples of these smaller-scale, focused assessments include: (1) assessing subjects using targeted approaches (e.g. 8th grade arts), (2) testing special populations (e.g. in-school 12th graders versus out-of-school youth), and (3) examining skills and knowledge across several subjects (e.g. readiness for work).

The use of background surveys also would be varied. The three kinds of background surveys—student, teacher and principal questionnaires—would not necessarily all be employed each time a subject is assessed. Instead, the use of such surveys would be limited and selective, with reports of results focused on a core of background questions addressing the most essential issues. Also, background surveys used for standard report cards in a particular year would be designed to complement, rather than duplicate, background surveys used for comprehensive reports in the same year.

- **National Assessment testing and reporting shall vary, using standard report cards most frequently, comprehensive reporting in selected subjects about once every ten years, and special, focused assessments.**

- **National Assessment results shall be timely, with the goal being to release results within 6 months of the completion of testing for standard report cards and within 9 months for comprehensive reports.**

Simplify the National Assessment design

The current design of the National Assessment is very complex and, in fact, has grown more complex over the years. Here are just three examples of this complexity. (1) No student takes the complete set of test questions in a subject and as many as twenty-six different test booklets are used within each grade. Scores are calculated using sophisticated statistical procedures. (2) Students, teachers, and principals complete separate background questionnaires and may submit them for scoring at different times. Data from the questionnaires are used in calculating results of the assessments. (3) Current requirements for data analysis demand that test scores be calculated for every background variable collected by the National Assessment before any report can be produced. This lengthens the time from data collection to reporting and adds significantly to cost.

The design became more complex, in part, because the National Assessment's purposes and audiences had proliferated and the amount of background information collected had expanded. Specifying the purposes, audiences, and limitations of the National Assessment, as well as providing for varied means for testing and reporting, will result in opportunities for simplifying the National Assessment design.

- **Options shall be identified to simplify the design of the National Assessment.**

Simplify the way the National Assessment reports trends in student achievement

From its beginning in 1969, monitoring achievement trends has been a central mission of the National Assessment of Educational Progress. Monitoring long-term trends in educational achievement, both for the population as a whole and for significant sub-groups, is a capacity unique to the National Assessment and should be continued as a central mission. However, as the National Assessment approaches its third decade, it must address the problem of how to assess trends in achievement when curricula continue to evolve and change. An assessment in a subject must be kept stable to monitor trends. However, stable assessments may not reflect important changes in curricula. Over time, there develops a legitimate concern about the relevance of the content of the assessment versus the ability to track change in achievement.

As a solution to this problem, since 1990, the National Assessment has reported achievement trends using two unconnected assessment programs. The tests, criteria for selecting students, and reporting are all different. The first program, "the main National Assessment," tests at grades 4, 8, and 12 and covers ten subjects. The assessments are based on a national consensus representing current views of each subject. Performance standards

are used to report whether student achievement on the National Assessment is "good enough." The schedule of subjects to be assessed in the main National Assessment is unrelated to the schedule of subjects under the second testing program.

The second assessment program reports long-term trends that go as far back as 1970. Only four subjects are covered: reading, writing, mathematics, and science. The assessments are based on views of the curricula prevalent during the 1970's and have not been changed. Testing is at ages 9, 13, and 17 except for writing, which tests at grades 4, 8, and 11. Trends are reported by average score; performance standards are not used. The long-term trend program has been valuable for documenting declines and increases in student achievement over time and a decrease in the achievement gap between minority and non-minority students.

It may be impractical and unnecessary to operate two separate assessment programs. However, it also is likely that curricula will continue to change and that current test frameworks may be less relevant in the future. The tension between the need for stable measures of student achievement and changing curricula should be recognized as a continuing policy matter for the National Assessment, requiring efficient and balanced design solutions. Among the factors to consider are: (1) setting a standard period of time for a long-term trend (e.g. 15-20 years) using a particular "metric" in a subject; (2) providing for overlapping administrations of old and new assessments and "bridge" studies to determine whether the new can be linked to the old assessment; and (3) periodic administration of older assessments (e.g. once every ten years once a new trend-line has been established so that it would be possible to compare performance in 2010 with that in 1970 on the old trend line and with that in 1990 on a new trend line).

- **A carefully planned transition shall be developed to enable "the main National Assessment," to become the primary way to measure trends in reading, writing, mathematics, and science in the National Assessment program.**

Use performance standards to report whether student achievement is "good enough"

In reporting on "educational progress," the National Assessment has, until recently, only considered current student performance compared to student achievement in previous years. Under this approach, the only standard was how well students had done previously, not how well they should be doing on what is measured by the National Assessment. Although this approach has been useful, it began to change in 1988 from a sole focus on "where we have been" to include "where we want to be" as well.

In 1988, Congress created a non-partisan citizen's group—the National Assessment Governing Board—and authorized it to set explicit performance standards, called achievement levels, for reporting National Assessment results.

The achievement levels describe "how good is good enough" on the various tests that make up the National Assessment. Previously, it might have been reported that the average mathematics score of 4th graders went up (or down) four points on a five-hundred-point scale. There was no way of knowing whether the previous score represented strong or weak performance and whether the amount of change should give cause for concern or celebration. In contrast, the National Assessment now also reports the percentage of students who are performing at or above "basic," "proficient," and "advanced" levels of achievement. Proficient, the central level, represents "competency over challenging subject matter," as demonstrated by how well students perform on the questions on each National Assessment test. Basic denotes partial mastery and advanced signifies superior performance on the National Assessment. Using achievement levels to report results and track changes allows readers to make judgments about whether performance is adequate, whether "progress" is sufficient, and how the National Assessment standards and results compare to those of other tests, such as state and local tests.

First employed in 1990, the achievement levels have been the subject of several independent evaluations and some controversy. Information from these evaluations, as well as from other experts, has been used over the last six years to improve and refine the procedures by which achievement levels are set. Although the current procedures may be among the most comprehensive and sophisticated standard-setting procedures used in education, the Governing Board remains committed to improving the process and to the continuing conduct of validity studies.

- **The National Assessment shall continue to report student achievement results based on performance standards.**

Use international comparisons

Looking at student performance and curriculum expectations in other nations is yet another way to consider the adequacy of U.S. student performance. The National Assessment is, and should be, a domestic assessment. However, decisions on the content of National Assessment tests, the achievement standards, and the interpretation of test results, where feasible, should be informed, in part, by the expectations for education set by other countries, such as Japan, Germany, and England. Although there are technical hurdles to overcome, consideration of such qualitative information can be used to good effect. In addition, the National Assessment should promote "linking" studies with international assessments, as has been done with the Third International Mathematics and Science Study, so that states that participate in the National Assessment can have state, national, and international comparisons. This, in turn, should take into account problems in making international comparisons truly comparable, such as differences in the samples of students tested, differences in the curricula, and differences in the translated test questions.

- **National Assessment test frameworks, test specifications, achievement levels, and data interpretations shall take into account, where feasible, curricula, standards, and student performance in other nations.**

- **The National Assessment shall promote "linking" studies with international assessments.**

Emphasize reporting for grades 4, 8, and 12

An aspect of the National Assessment design that needs reconsideration is age versus grade-based reporting. At its inception, the National Assessment tested only by age. Current law requires testing both by age (ages 9, 13, and 17) and by grade (grades 4, 8, and 12). Grade-based results are generally more useful than age-based results. Schools and curricula are organized by grade, not by age. Grades 4, 8, and 12 mark key transition points in American education. Grade 12 performance is particularly important as an "exit" measure from the K-12 education system. Grades 4, 8, and 12 are specified for monitoring in National Education Goal 3. Age-based samples may be more appropriate with respect to international comparisons and, given high school dropout rates, would be more inclusive for age 17 than for grade 12 samples, which are limited to youth enrolled in school. However, assessing the knowledge and skills of out-of-school youth may properly fall under the purpose of another program, such as the National Adult Literacy Survey.

Although grade-based reporting is generally preferable, there is a problem about the accuracy of grade 12 National Assessment results. At grade 12, a smaller percentage of schools and students that are invited actually participate in testing than is the case with 4th and 8th graders. Also, more 12th graders fail to complete their tests than do 4th and 8th graders. In addition, when asked, "How hard did you try on this test?" and "How important is doing well on this test?" many more 12th graders than 4th or 8th graders say that they didn't try hard and that the test wasn't important. Low participation rates, low completion rates, and indicators of low motivation suggest that the National Assessment may be underestimating what 12th graders know and can do.

One possible reason for low response and low motivation is that schools and students receive very little in return for their participation in the National Assessment beyond the knowledge that they are performing a public service. They do not receive test scores nor do they receive other information from the National Assessment that teachers and principals might wish to use as a part of the instructional program. This should be changed. The National Assessment design should use meaningful, practical incentives that will give school principals and teachers a greater reason to participate and students more of a reason to try harder. The underlying idea is clear: if principals and teachers see direct benefits, they are more likely to agree to participate in the National Assessment. Students may be more likely to take the assessment seriously if they see that their teachers and principals are enthusiastic about participating. Without practical incentives, even at grades 4 and 8, the willingness of district and school administrators and staff to participate in the National Assessment may diminish over time.

- **The National Assessment shall continue to test in and report results for grades 4, 8, and 12; however, in selected subjects, one or more of these grades may not be tested.**
- **Age-based testing and reporting shall be permitted when deemed appropriate and when necessary for international comparisons and for**

long-term trends, should the National Assessment Governing Board decide to continue long-term trends in their current form.

- **Grade 12 results shall be accompanied by clear, highlighted statements about school and student participation, student motivation, and cautions, where appropriate, about interpreting 12th grade achievement results.**
- **The National Assessment design shall seek to improve school and student participation rates and student motivation at grade 12.**
- **The National Assessment shall provide practical incentives for school and district participation at grades 4, 8, and 12.**

Use innovations in measurement and reporting

The National Assessment has a record of innovations in large-scale testing. These include the early use of performance items, sampling both students and test questions, using standards describing what students should know and be able to do, and employing computers for such things as inventory control, scoring, data analysis, and reporting. The National Assessment should continue to incorporate promising innovative approaches to test administration and improved methods for measuring and reporting student achievement.

Technology can help improve National Assessment reporting and testing. For example, reports could be put on computer disc, transmitted electronically, and made available on the World Wide Web. Test questions could be catalogued and made available on-line for use by state assessment personnel and classroom teachers. Also, the National Assessment could be administered by computer, eliminating the need for costly test booklet systems and reducing steps related to data entry of student responses. Students could answer "performance items" in cost-effective, computerized formats. The increasing use of computers in schools may make it feasible to administer some parts of the National Assessment by computer under the next contract for the National Assessment, beginning around the year 2000.

Other examples of promising methods for measuring and reporting student achievement include adaptive testing and domain-score reporting. In adaptive testing, each student is given a short "pre-test" to estimate that student's level of achievement. Students are then administered test exercises that are in the range of difficulty indicated by the pre-test. Since the test is "adapted" to the individual, it is more precise and can be markedly more efficient than regular test administration. In domain-score reporting, a subject (or "domain") is well defined, a goodly number of test questions are developed that encompass the subject, and student results are reported as a percentage of the "domain" that students "know and can do." This is in contrast to reporting results using an arbitrary scale, such as the 0-500 scale used in the National Assessment.

- **The National Assessment shall assess the merits of advances related to technology and the measurement and reporting of student achievement.**

- **Where warranted, the National Assessment shall implement such advances in order to reduce costs and/or improve test administration, measurement, and reporting.**
- **The next competition for National Assessment contracts, for assessments beginning around the year 2000, shall ask bidders to provide a plan for**
 - (1) conducting testing by computer in at least one subject at one grade, and**
 - (2) making use of technology to improve test administration, measurement, and reporting.**

OBJECTIVE 2: To develop, through a broadly inclusive process, sound assessments to measure what students know and can do as well as what students should know and be able to do.

Keep test frameworks and specifications stable

Test frameworks spell out in general terms how an assessment will be put together. The frameworks also determine what will be reported and influence how expensive an assessment will be. Should 8th grade mathematics include algebra questions? Should there be both multiple-choice questions and questions in which students show their work? What is the best mix of such types of questions for each grade? Which grades are appropriate for assessment in a subject area? Test specifications provide detailed instructions to the test writers about the specific content to be tested at each grade, how test questions will be scored, and the format for each test question (e.g. multiple choice, essay, etc.).

Since 1989, the National Assessment Governing Board has been responsible for developing test frameworks and specifications for NAEP. The Governing Board has done this through a broadly inclusive process, involving hundreds of teachers, curriculum experts, directors of state and local testing programs, administrators, policymakers, practitioners in the content area (e.g., chemists for science, demographers for geography, etc.) and members of the public. This process helps determine what is important for the National Assessment to test, how it should be measured, and how much of what is measured by the National Assessment students should know and be able to do in each subject.

The process of developing frameworks and specifications involves consideration of both current classroom teaching practices and important developments in each subject area for inclusion in the National Assessment. In order to ensure that National Assessment data fairly represent student achievement, the test frameworks and specifications are subjected to wide public review before adoption and test questions developed for the National Assessment are reviewed for relevance and quality by representatives from participating states.

An important role of the National Assessment is to report on trends in student achievement over time. For the National Assessment to be able to measure trends, the frameworks (and hence the tests) must remain stable. However, as new knowledge is gained in subject areas and as teaching practices change and evolve, pressures arise to change the test frameworks and tests to keep them current. But, if frameworks, specifications, and tests change too frequently, trends may be lost, costs go up, and reporting time may increase.

- **Test frameworks and test specifications developed for the National Assessment generally shall remain stable for at least ten years.**
- **To ensure that trend results can be reported, the pool of test questions developed in each subject for the National Assessment shall provide a stable measure of student performance for at least ten years.**
- **In rare circumstances, such as where significant changes in curricula have occurred, the National Assessment Governing Board may consider making changes to test frameworks and specifications before ten years have elapsed.**
- **In developing new test frameworks and specifications, or in making major alterations to approved frameworks and specifications, the cost of the resulting assessment shall be estimated. The National Assessment Governing Board will consider the effect of that cost on the ability to test other subjects before approving a proposed test framework and/or specifications.**

Use an appropriate mix of multiple-choice and "performance" questions

To provide information about "what students know and can do," the National Assessment uses both multiple-choice questions and questions in which students are asked to produce their own answers, such as writing a response to an essay question or explaining how they solved a math problem. Questions of the latter type are sometimes called "performance items." Both types of questions can vary in difficulty and the richness of information they provide, and may require students to demonstrate different kinds of skills and knowledge.

Performance items are desired because they provide direct evidence of what students can do. They range in length of test taking time from a short-answer or fill-in-the-blank format requiring about a minute of response time, to items requiring about 5 minutes of response time, to writing exercises that may allow 15 to 50 minutes response time. Although they may be desirable, performance items are more expensive than multiple-choice to develop, administer, and score. In addition, much larger proportions of students fail to respond to performance items, particularly as the amount of required response time increases.

Multiple-choice questions can be challenging and are desired because they are efficient in collecting information about student knowledge. However, multiple-choice questions are more subject to guessing than are performance items.

Currently, all students tested by the National Assessment are given both types of questions. Generally, about half the testing time is devoted to each type of question, but the amount of time for each differs based on the skills and knowledge to be assessed, as established in the National Assessment test frameworks. For example, in a writing assessment, all students are asked to write their responses to specific exercises. In other subjects, the mix of multiple-choice and performance items varies. The appropriate mix of items for each subject should be determined by the nature of the subject, the range of skills to be assessed, and cost.

- **Both multiple-choice and performance items shall continue to be used in the National Assessment;**
- **In developing new test frameworks, specifications, and questions, decisions about the appropriate mix of multiple-choice and performance items shall take into account the nature of the subject, the range of skills to be assessed, and cost.**

OBJECTIVE 3: To help states and others link their assessments with the National Assessment and use National Assessment data to improve education performance. '

The primary job of the National Assessment is to report frequently and promptly to the American public on student achievement. The resources of the National Assessment must be focused on this central purpose if it is to be achieved. However, the products of the National Assessment—test frameworks, specifications, scoring guides, results, questions, achievement levels, and background data—are widely regarded as being of high quality. They are developed with public funds and, therefore, should be available for public use as long as such uses do not threaten the integrity of the National Assessment or its ability to report regularly on student achievement.

The National Assessment should be designed in a way that permits its use by others, while protecting the privacy of students, teachers, and principals who have participated in the National Assessment. This should include making National Assessment test questions and data easy to access and use, and providing related technical assistance upon request. Generally, the costs of a project should be borne by the individual or group making the proposal, not by the National Assessment.

Examples of areas in which particular interest has been expressed for using the National Assessment include linking state and local tests with the National Assessment and performing in-depth analysis on National Assessment data. States that link their tests to the National Assessment would have an unbiased external benchmark to help make judgments about their own tests and standards and also would have a means for comparing their tests and standards with those of other states.

The National Assessment shall develop policies, practices, and procedures that assist states, school districts, and others who want to do so at their own cost to link their test results to the National Assessment.

- **The National Assessment shall be designed so that others may access and use National Assessment test frameworks, specifications, scoring guides, results, questions, achievement levels, and background data.**
- **The National Assessment shall employ safeguards to protect the integrity of the National Assessment program, prevent misuse of data, and ensure the privacy of individual test takers.**

NAEP Budget and Schedule

The pages that follow immediately are provided as background for the discussion of the NAEP budget and schedule of assessments. They were excerpted from the Department of Education budget justification for FY 2013. The last two pages in this attachment are the current NAEP schedule and the long-term schedule discussion draft, previously shared with the Executive Committee.

A decrease of \$5 million is requested for NAEP in FY 2013 and a decrease of \$1 million is requested for the Governing Board.

If approved by Congress, this would set new baselines for the NAEP and Governing Board budgets, with serious effects not just in FY 2013, but in the out-years as well. For example, over the five-year period of the new NAEP contracts planned for award in September 2012, the impact would be a \$25 million reduction in funds available for assessing student achievement.

The first page of the excerpt (numbered X-5) provides an overview of the President's request for the Institute of Education Sciences, showing where there are requested increases and decreases. The remaining pages provide details related to the request for NAEP and the Governing Board.

Your attention is directed to page X-49 and, especially, the highlighted text on page X-50.

The complete Department of Education FY 2013 budget justification can be found at <http://www2.ed.gov/about/overview/budget/budget13/justifications/index.html>

More details about the implications for the budget and NAEP schedule of assessments will be provided at the Governing Board meeting.

Excerpt from
 Department of Education
 FY 2013 Budget Justification

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Summary of Changes
 (dollars in thousands)

2012	\$593,664
2013	<u>621,150</u>
Net change	+27,486

Increases:	<u>2012 base</u>	<u>Change from base</u>
<u>Program:</u>		
Increase for Research, Development, and Dissemination to conduct additional research, development, dissemination, and evaluation activities.	\$189,787	+\$12,486
Increase for Statistics to allow NCES to collect State-level Program for International Student Assessment data.	108,748	+6,000
Increase for Statewide Data Systems to provide funding to support postsecondary data initiatives designed to improve information on students as they progress from high school to postsecondary education and the workforce.	38,077	<u>+15,000</u>
Subtotal, increases		+33,486
 Decreases		
<u>Program:</u>		
Decrease for National Assessment to reflect need to focus the program on key assessments	129,616	-5,000
Decrease for National Assessment Governing Board to reflect need to focus on key activities	<u>8,690</u>	<u>-1,000</u>
Subtotal, decreases		-6,000
Net change		+27,486

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(National Assessment of Educational Progress Authorization Act)

(dollars in thousands)

FY 2013 Authorization: 0¹

Budget Authority:

	<u>2012</u>	<u>2013</u>	<u>Change</u>
National Assessment of Educational Progress	\$129,616	\$124,616	-\$5,000
National Assessment Governing Board	<u>8,690</u>	<u>7,690</u>	<u>-1,000</u>
Total	138,306	132,306	-6,000

¹ The GEPA extension expired September 30, 2009; the Administration proposes to continue funding in FY 2013 under appropriations language.

PROGRAM DESCRIPTION

The National Assessment of Educational Progress (NAEP) is the only nationally representative and continuing assessment of what American students know and can do. Also known as *The Nation's Report Card*, NAEP collects and analyzes data on, measures, and reports on the status of and trends in student learning over time, subject-by-subject. By making objective information on student performance available to policymakers, educators, parents, and others, NAEP has become an integral part of the Nation's measurement of educational progress.

Assessment frequency is specified in the authorizing statute. The Commissioner for Education Statistics must conduct:

- National reading and mathematics assessments in public and private schools at grades 4 and 8 at least once every 2 years;
- National grade 12 reading and mathematics assessments in public and private schools on a regular schedule; and
- Biennial State assessments of student achievement in reading and mathematics in grades 4 and 8.

If time and resources allow, the Commissioner may conduct additional national and State assessments in grades 4, 8, and 12 in public and private schools at regularly scheduled intervals in additional subject matters, including writing, science, history, geography, civics, economics, foreign languages, and arts; may conduct grade 12 State reading and mathematics assessments; and may conduct long-term trend assessments of academic achievement at ages 9, 13, and 17 in reading and mathematics. Whenever feasible, information must be collected

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and reported by race, ethnicity, socioeconomic status, gender, disability, and limited-English proficiency. The NAEP schedule is publicly available at <http://www/nagb.org/>.

The National Assessment Governing Board (NAGB) is responsible for formulating policy for NAEP. NAGB is composed of 25 voting members including Governors, State legislators, chief State school officers, a superintendent, State and local board of education members, testing and measurement experts, a representative of business or industry, curriculum specialists, principals, classroom teachers, and parents. The Director of the Institute of Education Sciences serves as an ex officio, nonvoting member of the Board. Using a national consensus approach, NAGB develops appropriate assessment objectives and achievement levels for each grade in each subject area to be assessed. The Assessment budget supports the following major program components:

- *National NAEP.* The main NAEP assessments report results for the Nation and are designed to follow the curriculum frameworks developed by NAGB. They periodically measure student achievement in reading, mathematics, science, writing, U.S. history, civics, geography, and other subjects;
- *Grade 4 and 8 State NAEP.* State assessments address the needs of State-level policymakers for reliable data concerning student achievement in their States in reading, mathematics, science, and writing. In 2002, the Department began paying for State participation in biennial reading and mathematics assessments in grades 4 and 8. Periodic assessments also are administered in science and writing;
- *Grade 4 and 8 Trial Urban District Assessment (TUDA).* Begun in 2002, the TUDA provides information on student achievement in a small number of urban school districts. Participation is voluntary;
- *Long-term NAEP.* In its long-term trend program, NAEP administers identical instruments from one assessment year to the next, measuring student achievement in reading and mathematics. These assessments do not evolve based on changes in curricular or educational practices; and
- *Evaluation and validation studies.* Congress mandates that the Secretary provide for continuing review of the national and State assessments and student performance levels by one or more nationally recognized evaluation organizations. NAEP funds also support studies to examine critical validity issues involving NAEP design, interpretation, and operations.

In order to inform the American public about the performance of the Nation's students, NAEP produces a series of public audience and technical reports. All NAEP reports are available through the Internet (<http://nces.ed.gov/nationsreportcard/>). In addition, an online data tool (<http://nces.ed.gov/nationsreportcard/naepdata/>) allows users to create their own data tables with national and State data.

The statute requires biennial State assessments in reading and mathematics in grades 4 and 8 and requires reporting NAEP results, where feasible, by disability and limited-English proficiency as well as by race, ethnicity, socioeconomic status, and gender. The Federal Government is

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specifically prohibited from using NAEP to influence standards, assessments, curriculum, or instructional practices at the State and local levels, or from using NAEP to evaluate individual students or teachers or provide rewards or sanctions for individual students, teachers, schools, or school districts. In addition, the statute specifies that nothing in the law shall be construed to prescribe the use of NAEP for student promotion or graduation purposes, and that NAEP should not affect home schools. Maintenance of a system of records containing personally identifiable information on students is prohibited, and assessments must not evaluate or assess personal or family beliefs or attitudes.

The statute ensures the Department's ability to maintain test integrity by allowing the Statistics Commissioner to decline to release cognitive test items that will be used in future assessments for 10 years (and longer if important to protect long-term trend data) while continuing to provide for public access to assessment materials in secure settings. The statute requires that the public be notified about such access; requires that access be provided within 45 days in a mutually convenient setting; and establishes procedures for receiving, reviewing, and reporting complaints. The law provides criminal penalties for unauthorized release of assessment instruments.

The statute also mandates that participation is voluntary for students and schools, as well as for local educational agencies. Each participating State must give permission for the release of the results of its State assessment. However, under Title I of ESEA, each State participating in the Title I program must develop a State plan that demonstrates, among other things, that the State has developed high quality assessments that will be used to determine student progress (ESEA, Title I, Part A, Section 1111). In addition, each State, in its plan, had to agree to participate in the biennial grades 4 and 8 reading and mathematics NAEP assessments beginning in the 2002-2003 school year, if the Secretary paid for the costs of participation. Any State with an approved plan under section 1111 is deemed to have given its permission for the release of its grades 4 and 8 reading and mathematics NAEP data.

Funding levels for both NAEP and NAGB for the past 5 fiscal years were:

	(dollars in thousands)
2008	\$104,053
2009	138,844
2010	138,844
2011	138,566
2012	138,306

FY 2013 BUDGET REQUEST

The Administration requests \$132.3 million for Assessment in 2013, a decrease of \$6.0 million from 2012. Of this amount, \$124.6 million would provide support for the National Assessment of Educational Progress (NAEP) program and \$7.7 million would support the National Assessment Governing Board (NAGB). NAGB is responsible for formulating policy for NAEP and develops appropriate assessment objectives and achievement levels for each grade in each subject area to be assessed. The NAEP State-level assessments are held every other year, meaning that

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costs are considerably higher in some years and lower in others. The Administration requests that these funds remain available for 2 years, as they have been in recent years. Extending the availability of funds for an additional year allows the Department the flexibility it needs to fund the assessments. The Administration believes that the funds requested are sufficient to enable NAEP to fulfill its mission and continue to provide the critically important information needed on student achievement over time.

NAEP funds for a particular fiscal year provide support for the analysis and reporting of assessments conducted in prior fiscal years, the administration of current year assessments, and preparation for future assessments. The current plans are to use the 2013 funds for:

- Conducting the 2013 national and State reading and math assessments at grades 4, 8, and 12. State participation in 12th grade NAEP is voluntary, with 11 States participating in 2009. In addition, the 2013 assessments will once again include data for certain large urban districts. In 2009, 18 urban districts participated; 21 participated in 2011.
- Analysis and reporting of assessments conducted in prior years, including the 2012 economics and long-term trend assessments.
- Preparation for 2014 assessments. The current NAGB schedule includes assessments in U.S. history, civics, and geography, as well as a technology and engineering literacy assessment.

The requested funding for NAGB would allow it to carry out its policy-setting responsibilities for NAEP, including selecting subject areas to be assessed; developing student achievement levels for each grade and subject tested; taking appropriate actions to improve the form, content, use, and reporting of NAEP; developing test objectives and specifications for assessments in each subject; handling the initial public release of NAEP reports; ensuring that all NAEP materials are free from racial, cultural, gender, and regional bias and are secular, neutral, and non-ideological; developing and implementing procedures for the review of NAEP methodology, content, frameworks, reporting, and dissemination; and reviewing complaints about NAEP submitted by parents and other members of the public and determining whether revisions to NAEP are necessary and appropriate. NAGB also conducts special studies to inform NAEP. The 2013 request would allow NAGB to finish work on 12th grade preparedness initiated in 2011 and to complete Web-based interactive versions of the reading, mathematics, science, and writing frameworks.

NAEP Schedule of Assessments – Approved December 3, 2011		
Year	National	State
2005	Reading MATHEMATICS Science High School Transcript Study	Reading (4, 8) MATH (4, 8) Science (4, 8)
2006	U.S. History Civics ECONOMICS (12)	
2007	Reading (4, 8) Mathematics (4, 8) Writing (8, 12)	Reading (4, 8) Math (4, 8) Writing (8)
2008	Arts (8) Long-term trend	
2009	READING Mathematics* SCIENCE** High School Transcript Study	READING (4, 8, 12) Math (4, 8, 12) SCIENCE (4, 8)
2010	U.S. History Civics Geography	
2011	Reading (4, 8) Mathematics (4, 8) Science (8)** WRITING (8, 12)**	Reading (4, 8) Math (4, 8) Science (8)
2012	Economics (12) Long-term trend	
2013	Reading Mathematics	Reading (4, 8, 12) Math (4, 8, 12)
2014	U.S. History Civics Geography TECHNOLOGY AND ENGINEERING LITERACY (8) **	
2015	Reading Mathematics Science** High School Transcript Study	Reading (4, 8, 12) Math (4, 8, 12) Science (4, 8, 12)
2016	Arts (8) Long-term trend	
2017	Reading Mathematics Writing**	Reading (4, 8, 12) Math (4, 8, 12) Writing (4, 8, 12)

*New framework for grade 12 only.

**Assessments involving test administration by computer.

NOTES:

- (1) Grades tested are 4, 8, and 12 unless otherwise indicated, except that long-term trend assessments sample students at ages 9, 13, and 17 and are conducted in reading and mathematics.
- (2) Subjects in **BOLD ALL CAPS** indicate the year in which a new framework is implemented or assessment year for which the Board will decide whether a new or updated framework is needed.
- (3) In 2009, 12th grade assessments in reading and mathematics at the state level were conducted as a pilot in 11 volunteering states.
- (4) The Governing Board intends to conduct assessments at the 12th grade in World History and Foreign Language during the assessment period 2018-2022.

NAEP Schedule of Assessments – Discussion Draft		
Year	National	State
2010	U.S. History Civics Geography	
2011	Reading (4, 8) Mathematics (4, 8) Science (8)** WRITING (8, 12)**	Reading (4, 8) Math (4, 8) Science (8)
2012	Economics (12) Long-term trend	
2013	Reading Mathematics	Reading (4, 8, 12) Math (4, 8, 12)
2014	U.S. History Civics Geography TECHNOLOGY AND ENGINEERING LITERACY (8) **	
2015	Reading Mathematics Science** High School Transcript Study	Reading (4, 8, 12) Math (4, 8, 12) Science (4, 8, 12)
2016	Arts (8) Add: Economics (12) Long-term trend	
2017	Reading Mathematics MATHEMATICS** (nat'l and state) Writing**	Reading (4, 8, 12) Math (4, 8, 12)** Writing (4, 8, 12)**
2018	U.S. History Civics CIVICS** Geography Technology and Engineering Literacy (8, 12) **	
2019	Reading READING ** (nat'l and state) Mathematics** Science** SCIENCE ** (nat'l and state) High School Transcript Study	Reading (4, 8, 12)** Math (4, 8, 12)** Science (4, 8, 12)**
2020	Long-term trend NOTE: administer by computer? Economics (12)** FOREIGN LANGUAGE (12) **	
2021	Reading ** NOTE: PIRLS is expected this year Mathematics** Writing**	Reading (4, 8, 12)** Math (4, 8, 12)** Writing (4, 8, 12)**
2022	U.S. HISTORY** Civics** GEOGRAPHY** WORLD HISTORY (12) ** Technology And Engineering Literacy (4, 8, 12) **	

**Assessments involving test administration by computer.

NOTES:

- (1) Grades tested are 4, 8, and 12 unless otherwise indicated, except that long-term trend assessments sample students at ages 9, 13, and 17 and are conducted in reading and mathematics.
- (2) Subjects in **BOLD ALL CAPS** indicate the year in which a new framework is implemented or assessment year for which the Board will decide whether a new or updated framework is needed.
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