

Economics Framework For the 2012 National Assessment of Educational Progress



National Assessment Governing Board
U.S. Department of Education

The National Assessment Governing Board

The National Assessment Governing Board (NAGB) was created by Congress to formulate policy for the National Assessment of Educational Progress (NAEP). Among the Board's responsibilities are developing objectives and test specifications, and designing the assessment methodology for NAEP.

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Developed under contract number ED01CO0130 for the National Assessment Governing Board by the American Institutes for Research, the Council for Economic Education, and the Council of Chief State School Officers

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Executive Summary

The purpose of economic education is to enable individuals to function effectively both in their own personal lives and as citizens and participants in an increasingly connected world economy. Both knowledge of economic concepts and ideas and the ability to apply basic economic analysis to solve everyday problems are necessary for an individual to function as a productive member of society—as a worker, a saver, an investor, a consumer, or an active citizen.

This framework document provides a guide for the development of the 2012 National Assessment of Educational Progress (NAEP) Economics Assessment. The framework, together with *Assessment and Item Specifications: NAEP Economics* and *Recommendations on Background Variables: NAEP Economics Assessment*, makes recommendations to the National Assessment Governing Board (NAGB) on the content and format of the assessment.

This framework is designed to assess the outcomes of students' education in and understanding of economics in grade 12 as part of NAEP. The framework is based on a definition of economic literacy as the ability to identify, analyze, and evaluate the consequences of individual decisions and public policy. Economic literacy includes an understanding of:

- the fundamental constraints imposed by limited resources, the resulting choices people have to make, and the tradeoffs they face;
- how economies and markets work and how people function within them;
- the benefits and costs of economic interaction and the interdependence among people and nations.

Economic literacy also includes having the skills that allow people to function effectively as consumers, producers, savers, investors, and responsible citizens. These skills include economic reasoning, problem solving, decision-making, and analyzing real-life situations.

The content of the framework is grouped for reporting purposes into three areas—the Market Economy, the National Economy, and the International Economy. The core ideas in the Market Economy content area, which comprises 45 percent of the assessment, are the relevance of limited resources, how buyers and sellers interact to create markets, how these markets allocate resources, and the economic role of government in a market economy. This category focuses on concepts such as scarcity, choice, opportunity costs, supply and demand, profit, competition, incentives, individual incomes, the comparison of benefits and costs in making decisions, and the evaluation of short- and long-run consequences of decisions.

The National Economy content area (40 percent of the assessment) includes an understanding of the data that describe the overall conditions in the U.S. economy, the factors that cause changes in those conditions, and the appropriate policy alternatives. This category focuses on such concepts as unemployment, inflation, economic growth, money, gross domestic product (GDP), and the mechanics and appropriate uses of monetary and fiscal policies.

The International Economy content area (15 percent of the assessment) includes an understanding of the reasons for individuals and businesses to specialize and trade and the rationale for specialization and trade across international borders; an ability to compare the benefits and costs of that specialization and resulting trade for consumers, producers, and governments; and an understanding that this trade brings additional complications. This category includes concepts such as voluntary exchange, specialization, interdependence, imports and exports, barriers to trade, and the process and consequences of exchange rate determination.

Assessing what students know and can do in economics offers an opportunity to measure their understanding and skills in a wide variety of important and daily events and problems. The NAEP Economics Assessment takes advantage of that opportunity by placing most of the assessment items in specific relevant and useful contexts and applications. Between 20 and 30 percent of the items will be written in each of three contexts—an individual and household context, including decisions about earning, saving, and personal finance challenges; a business context with a focus on entrepreneurs, workers, producers, and investors; and a public context, including items related to government, policy, citizenship, and domestic and international organizations.

The NAEP Economics Assessment will include items that require students to use different cognitive skills to demonstrate their understanding of, and ability to use, economics. Students will be expected to demonstrate Knowing skills that use recognition and recall of fundamental ideas, Applying skills that use principles and concepts to solve real problems, and Reasoning skills that require a broad range of critical-thinking abilities. Approximately one-third of the assessment in each content area will be devoted to each cognitive category.

The framework includes recommendations for the types of items to be used in the NAEP Economics Assessment. Students will spend approximately 60 percent of their time on multiple-choice items, 30 percent on short constructed-response items, and 10 percent on extended constructed-response items. All three types of items will be included in each of the three content areas.

The framework uses the NAEP achievement level criteria of *Basic*, *Proficient*, and *Advanced* to describe what students should know and be able to do. *Basic* achievement is partial mastery of prerequisite knowledge and skills. The *Proficient* level represents solid academic performance. The *Advanced* level signifies superior performance.

The NAEP Economics Assessment and Item Specifications is a companion document to the *Economics Framework for the National Assessment of Educational Progress*. The Specifications document translates the Framework into guidelines for developing items and for developing the assessment as a whole. The primary purpose of the Specifications document is to provide the National Center for Education Statistics (NCES) and its assessment development contractor with information that will ensure that the NAEP Economics Assessment reflects the intent of the NAEP Economics Framework adopted by the National Assessment Governing Board.

Chapter 1

Introduction

What is the National Assessment of Educational Progress (NAEP)?

Often called The Nation's Report Card, the National Assessment of Educational Progress (NAEP) is the only nationally representative, continuing assessment of what America's students know and can do in various subject areas. NAEP provides a comprehensive measure of students' learning at critical junctures in their school experience. As mandated by Congress in Public Law 107-279, the purpose of NAEP is to provide, in a timely manner, a fair and accurate measurement of student academic achievement and to report trends in such achievement. NAEP accomplishes these tasks by regularly assessing what students know and can do in various subject areas in grades 4, 8, and 12.

Who is responsible for NAEP?

NAEP has three components: policy, operations, and implementation. The National Assessment Governing Board (Governing Board), whose members are appointed by the Secretary of Education, sets policy for NAEP. The Governing Board selects the subject areas to be assessed, develops assessment objectives and specifications, develops guidelines for reporting, and undertakes other policy duties. The National Center for Education Statistics (NCES), in turn, is responsible for overseeing NAEP operations. Implementation of the NAEP program is carried out through contracts, grants, and cooperative agreements with qualified organizations. These organizations are responsible for developing the assessment instruments, selecting the school and student samples, scoring student responses, analyzing the data, writing NAEP reports, and performing other NAEP tasks.

What kind of information does NAEP collect?

NAEP collects basically two types of information: student

performance data on cognitive items in a subject area assessment and background data in questionnaires. The assessment instrument includes a variety of tasks, from multiple-choice items to extended constructed-response items. The variety in these assessment questions provides students with multiple ways to demonstrate their understanding of the content being assessed.

NAEP collects background data through questionnaires completed by the students, their teachers, and the school principal or his or her designee. Some of these questions are standard for every NAEP assessment, regardless of subject, and concentrate on student demographics such as gender, race/ethnicity, and region. Other background information is collected on factors related to academic performance, such as time spent by students on homework and teachers' instructional practices. In addition, specific questions may directly relate to the subject being assessed. For example, in economics, students might be queried about whether they have had a course in economics at any point in their high school careers.

How does NAEP collect this information?

NAEP relies on two forms of sampling: student sampling and item sampling. Through a rigorous sampling process, NAEP samples students nationwide at grades 4, 8, and 12 to participate in the assessment. The sample is large enough to produce reliable and valid results at the national level and for subgroups of students defined by specified characteristics (e.g., gender, race/ethnicity, eligibility for the federal Free/Reduced-Price Lunch Program, and region). In subjects whose results are reported at the state level (reading, mathematics, writing, and science), samples of students are selected from each participating state so that NAEP can produce reliable and valid results at the state level. In item sampling, each student generally answers two blocks (or sets) of items in 50 minutes. NAEP can use a large number of items in an assessment for a given subject area and grade level because of this sampling design.

How are NAEP achievement results reported?

NAEP provides information to the public primarily through The Nation's Report Card. By law, NAEP cannot report school or individual student performance results. In fact, the NAEP design

precludes the reporting of such data. All results are reported for representative samples of students.

Subject-matter achievement is reported by scale scores and by achievement levels. NAEP scale scores provide information about the distribution of student achievement. Scale scores usually range from 0 to 500 and are reported as averages and percentiles. However, the primary means of reporting NAEP results are achievement levels, which are standards for *Basic*, *Proficient*, and *Advanced* performance. These levels describe what students should know and be able to do for each grade and subject that NAEP assesses.

These scale scores and achievement levels are developed independently for each subject; thus, the results cannot be compared across subjects. NAEP also reports scale scores and achievement levels for subgroups of students, as well as by background factors that relate to student achievement.

The Governing Board defines the achievement levels as follows:

Basic: Students at this level demonstrate partial mastery of prerequisite knowledge and skills that are fundamental for proficient work at each grade.

Proficient: Students at this level demonstrate solid academic performance for each grade assessed. These students demonstrate competency over challenging subject matter, including subject-matter knowledge, application of such knowledge to real-world situations, and analytical skills appropriate to the subject matter.

Advanced: Students at this level demonstrate superior performance.

What is the NAEP Economics Assessment?

The first NAEP Economics Assessment was administered in 2006 to a national sample of high school seniors from across the country, with various backgrounds and in public and private schools. This assessment provided the first opportunity for the nation's students to demonstrate on a nationally administered assessment what they know about economics. The second NAEP Economics Assessment was administered in 2012, and allows NAEP to report performance trends compared with the 2006 student performance data.

What is the NAEP Economics Framework Development Project?

In September 2001, the Governing Board awarded a contract to the American Institutes for Research (AIR) to conduct the Economics Framework Development project. AIR collaborated with the National Council on Economic Education (now known as the Council for Economic Education) and the Council of Chief State School Officers (CCSSO) to develop recommendations to the Governing Board for the NAEP Economics Assessment. Specifically, the Project Management Team directed the work of the Steering Committee, the Planning Committee, and the Technical Advisory Panel to make recommendations to the Governing Board on the following:

- a framework for the assessment
- assessment and item specifications based on the framework
- background variables to be collected from students, teachers, and school administrators

The Steering Committee consisted of 15 members, the Planning Committee had 19 members, and the Technical Advisory Committee had four members. The Steering and Planning Committees included secondary teachers and administrators, college and university teachers, representatives of professional education organizations and the private sector, policymakers, and members of the public. The Steering Committee met three times to set the overall guidelines for the project and to act in an advisory capacity, review materials, and recommend revisions and changes. The Planning Committee met five times and designed the Framework, the Specifications, and the Background Variables document with the assistance of the Technical Advisory Committee and the Project Management Team.

In addition to the members of the committees and the Project Management Team, hundreds of stakeholders—educators, business and labor representatives, students, and policymakers—were involved in the evolution of the Framework Development Project through their participation in the national review forums and other reviews of the documents. Members of each project committee and the Project Management Team are listed in Appendix B.

The timeline for the project follows:

Fall 2001

The Governing Board awarded the economics contract and delivered its Charge to the project Steering Committee. Project consultants developed an Issues Paper to guide committee discussions.

Fall 2001 Through Winter 2002

The Steering and Planning Committees met several times. The Steering Committee developed the “Charge” to guide the work of the Planning Committee. The Planning Committee developed the Framework and Specifications for the assessment.

April and May 2002

The Framework was made available for national review.

Summer 2002

Full recommendations for the assessment Framework, Specifications, and Background questions were prepared and submitted to the Governing Board.

August 2002

The Governing Board took final action on recommendations regarding the NAEP Economics Assessment (on the Framework, Specifications, and Background Variables).

Chapter 2

Economic Education

Economic literacy is essential for individuals to function effectively in their own personal lives, as participants in an increasingly connected world economy, and as citizens. It is difficult to function as a productive member of society—as a worker, a saver, an investor, a consumer, or an active citizen—without some knowledge of economic concepts and ideas and an ability to apply basic economic analysis to solve everyday problems.

The core of economics taught in elementary, secondary, and college classrooms is designed to enable students to understand how economies function and to apply economic analysis in their own lives by helping them interpret the daily news; make personal decisions about spending, working, saving, and investing; and explore social and economic challenges and policies. Economic understanding is, more than anything else, the ability to use a set of principles to better understand how the world around us works.

Instruction in economics in high school is important for high school graduates who go on to college; it is especially important for those high school graduates who do not attend college. Not everyone who graduates from high school goes to college and among those who do attend college not everyone takes an economics course, so the strongest opportunity for most students to learn basic economics occurs in high school. About 58 percent of high school graduates took an economics course in 2009, which is up significantly from 44 percent in 2005 (Walstad and Rebeck, forthcoming). This percentage averaged around 45 percent from 1990 through 2005.

What is the current state of economic education in the United States?

On August 8, 2007, NAEP grade 12 results were released in *The Nation's Report Card: Economics 2006*. This was the first-ever report of national results on what students know and can do in economics.

See http://nationsreportcard.gov/economics_2006.

Economics as a part of the elementary, middle, and secondary school curricula has expanded at a steady pace. Part of the impetus has been the increasing awareness of the importance of economic understanding by teachers and curriculum planners and the creation and expansion of university teacher training programs for in-service teachers. A movement to mandate secondary economics courses for graduation spread rapidly during the 1970s and 1980s. The efforts of national education organizations and economic institutions such as the National Council on Economic Education, the Federal Reserve Banks, Junior Achievement, and the Foundation for Teaching Economics resulted in a further expansion of economics in the curriculum, the development of new materials, and teacher training.

In today's elementary and secondary classrooms, economics concepts are being integrated into traditional mathematics, reading, and social studies lessons. In some secondary schools, not only are these concepts integrated across the curriculum, but students are given the opportunity, and sometimes are required, to take a one-semester course in economics. In 2009, 59 percent of high school seniors reported they had taken a course labeled "economics" (NCES, 2011).

Forty-nine states and the District of Columbia include economics as part of state standards or curriculum guidelines. However, only 28 states require the implementation of economic standards. A total of 19 states test students on economic knowledge. Twenty-one states require an economics course prior to graduation (Council for Economic Education, 2009).

The desired content and goals of economic education in elementary and middle schools and in secondary economics courses have been explored by teachers, economic educators, and economists. Beginning with *A Framework for Teaching Economics: Basic Concepts* in the 1970s (Hansen et al., 1977), the framework revision in the 1980s (Saunders et al., 1984), and the scope and sequence work in the late 1980s (Gilliard et al., 1988), professionals with a wide variety of backgrounds have come together to reach agreements about reasonable expectations of economic understanding for secondary school graduates.

The Council for Economic Education (formerly the National

Council on Economic Education) developed a coalition of organizations and individuals to write voluntary content standards in economics. A writing committee—consisting of nationally recognized economic educators and teachers—and a review committee of distinguished economists were established and began work. A variety of organizations, teachers, and economists were consulted throughout the process. The result was the *Voluntary National Content Standards in Economics* (the National Council on Economic Education, 1997). The second edition of these standards was published in 2010.

Additional efforts have gone into the creation of research and evaluation instruments in economic education for elementary, middle, and secondary schools (Walstad, 2001). The Advanced Placement Economics examinations have been created for the Advanced Placement economics courses taught in secondary schools. Professional groups also have developed guides for secondary-school economics content. Textbooks with economics content based on standard practice in a large number of states have been published and are widely used. In each instance, goals for economic understanding have been established. The results of all these efforts provide useful guidelines for understanding what is important in the elementary and secondary economics experience.

There is even significant variation among what are described as economics courses in the nation's high schools (Dempsey, 2000). The high school economics experience ranges from Advanced Placement Economics, which is equivalent to a college-level principles of economics course, to courses in consumer economics, personal finance, business principles, or, in some cases, studies of comparative economic systems. Some of these courses include very little economics.

The challenge of defining the depth and breadth of content in the NAEP (National Assessment of Educational Progress) Economics Assessment is further complicated because many students' exposure to economics is limited to the instruction they receive as part of a class other than economics or what they learn from their parents, the media, or their own employment.

Describing the typical economics curriculum that a student has encountered is not possible. Some students have never had a course and may not even recognize that economics concepts and ideas have been infused into their other courses. Others may overestimate their degree of economic understanding gained from those courses. A significant number have had a one-semester course in economics, and a small number of students have had a yearlong course. So how can a fair and rigorous NAEP assessment be created that measures what students do know in economics and what they should know in grade 12? This was the question faced by a broad-based group of economics educators, policymakers, and representatives of business and finance assembled as the first Steering Committee for the NAEP Economics Assessment.

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