



# 2012 Abridged Economics Framework

FOR THE NATIONAL ASSESSMENT OF EDUCATIONAL PROGRESS





# Introduction

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 without some knowledge of economic concepts and ideas and an ability to apply basic economic analysis to solve everyday problems.

A knowledge of economics is necessary for the understanding and the analysis of a wide variety of applications, including those involving

individual and household choices, personal finance issues, business and entrepreneurial decisions, and public policy.

Economic principles can be learned—and just as important, are applied—as much in the classroom as in the grocery store aisle.

Economic literacy is defined as the ability to identify, analyze, and evaluate the consequences of individual decisions and public policy. It includes an understanding of the fundamental constraints



imposed by limited resources; how economies and markets work; and the benefits and costs of economic interaction and interdependence among people and nations.

The Economics Framework for the 2012 National Assessment of Educational Progress provides a guide for the development of the 2012 National Assessment of Educational Progress (NAEP) Economics Assessment. The 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 grouped into three content areas—the Market Economy, the National Economy, and the International Economy. Because economics skills can be applied in a wide variety of situations, the NAEP Economics Assessment measures students' understanding 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 in each of three contexts: an individual and household context; a business context; and a public context, including items related to government and policy.

In addition to varying content areas and contexts, the assessment will include items requiring three different types of cognitive skills: Knowing, Applying, and Reasoning.

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.

By defining and assessing economic literacy as academic as well as practical knowledge, the economics framework is designed to measure what America's students know about a subject that is woven into every aspect of daily life, and is critical to a person's success as a worker, a saver, an investor, a consumer, and an active citizen.





# NAEP and the 2012 Economics Assessment

## ABOUT NAEP

The purpose of the National Assessment of Educational Progress (NAEP)—often called The Nation’s Report Card—is to provide a fair and accurate measurement of student academic achievement, and to show trends in such achievement. NAEP does this by regularly assessing what students know and can do in various subject areas in grades 4, 8, and 12, and provides information to the public primarily through The Nation’s Report Card.

Results are reported for representative samples of students—by law, NAEP may not report school or individual student performance results. 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. Background information, collected through questionnaires completed by students, their teachers, and the school principal, concentrate on student demographics such as gender, race/ethnicity, and region. Some background information is related to academic performance, such as time spent on homework and teachers’ instructional practices.

The NAEP Economics Assessment is the result of the NAEP Economics Framework Development Project, a collaborative effort started in 2001 including the American Institutes for Research, the Council for

Economic Education, and the Council of Chief State School Officers. In a process that included gathering insights and advice from hundreds of stakeholders, these agencies developed recommendations to the National Assessment Governing Board for what the NAEP Economics Assessment should include and how it should be constructed.

## ABOUT THE 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 was the first-ever report of national results on what students know and can do in economics. The second assessment was administered in 2012, using the same framework.

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. In today’s elementary and secondary classrooms, economics concepts are being integrated into traditional mathematics, reading, and social studies lessons. Over the past few decades, professionals with a wide variety of backgrounds have come together to reach agreements about reasonable expectations of economic understanding



for secondary school graduates. But there is significant variation even among what are described as economics courses in the nation’s high schools. 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 Economics Assessment was 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.

These were the factors taken into consideration by a broad-based group of economics educators, economists, policymakers, and representatives of business and finance assembled to create a fair and rigorous assessment that measures what students know and can do in economics at grade 12.

For purposes of the assessment, economic literacy is defined 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 trade-offs they face; how economies and markets work and how people function within them; and the benefits and costs of economic interaction and interdependence among people and nations.

Economic literacy also includes having the skills that allow people to function effectively in their roles as consumers, producers, savers, investors, and responsible citizens.

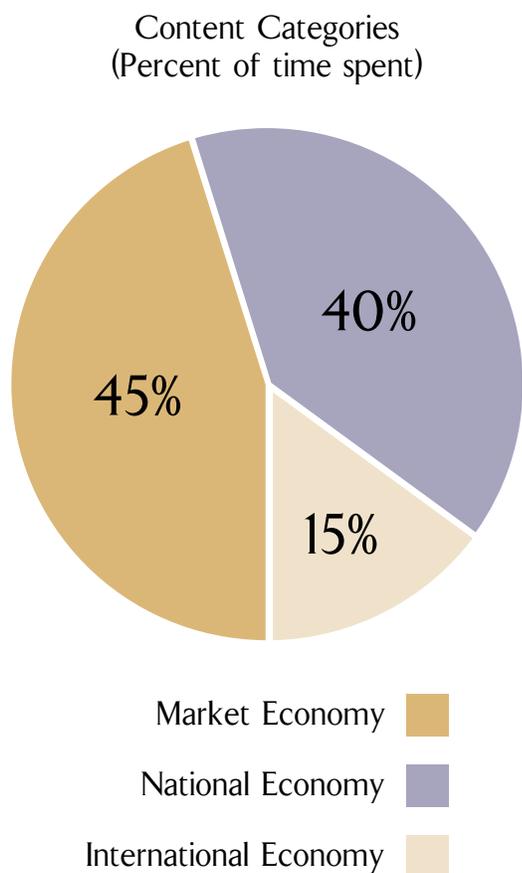
To test these skills, the assessment is based on the Voluntary National Content Standards in Economics—the principles of economics agreed on and viewed as essential by most economists. The assessment also includes benchmarks that give more detail about what grade 12 students should know and be able to do with regard to each of these 20 standards.





## CONTENT AREAS

The content of the assessment is divided into three areas: Some 45 percent of the assessment covers content and skills included in the Market Economy; 40 percent in the National Economy; and 15 percent in the International Economy. The recommended percentages refer to the amount of time that students will spend answering items in each content area.



**1. The Market Economy:** The core content in this category includes the relevance of limited resources, how individuals and institutions make decisions, the role of incentives, how buyers and sellers interact to create markets, how markets allocate resources, and the economic role of

government in a market economy. Economically literate grade 12 students are able to identify what trade-offs they face—what they gain and give up when they make choices. They are able to describe how the interaction of buyers and sellers influences prices and output levels. They can identify incentives that affect people’s behavior.

Students who are able to use economics can describe the likely effects of plans for education, training, and career options on future earnings and can identify the risks and returns of entrepreneurship that bear on its attractiveness as a career. Students can describe the roles of economic institutions, such as legal systems, private property, labor unions, and corporations, and identify and evaluate the benefits and costs of public policies.

Content in the Market Economy includes much of what is traditionally described as microeconomics

### **Standards in the Market Economy**

**Choices and costs:** Productive resources are limited.

**Effective decision-making** requires comparing the additional costs of alternatives with the additional benefits.

**Incentives:** People respond to positive and negative incentives.

**Markets** exist when buyers and sellers interact, which determines market prices and thereby allocates goods and services.



**Prices** send signals and provide incentives to buyers and sellers. When supply or demand changes, market prices adjust.

**Competition** among sellers lowers costs and prices and encourages producers to produce more of what consumers are willing and able to buy.

**Institutions** evolve in market economies. Banks, labor unions, corporations, legal systems, and not-for-profit organizations are examples of important institutions. Clearly defined and well-enforced property rights are essential as an institution.

**Income:** For most people, income is determined by the market value of the productive resources they sell.

**Entrepreneurs** are people who take calculated risks in organizing productive resources to make goods and services.

**Investment, productivity, and growth:**

Investment in factories, machinery, and new technology and in the health, education, and training of people can raise future standards of living.

**Economic role for government:** Government has an economic role in a market economy whenever the benefits of a government policy outweigh its costs. Governments often provide national defense, address environmental concerns, define and protect property rights, and through regulation attempt to make markets more competitive. Most government policies also redistribute income.



**2. The National Economy:** This content area includes the concepts, terminology, and data used to describe inflation, unemployment, output, and growth; the factors that cause changes in those conditions; the role of money and interest rates in an economy; and the mechanics and the appropriate uses of Federal Reserve monetary policies and federal government fiscal policies. Economically literate grade 12 students are able to describe how economies use different systems of allocating goods and services and can compare the benefits and the costs. Students can identify the economic roles that governments play as providers of goods and services. Students can explain the role of money in an economy and identify interest rates as the prices of borrowing or lending money and can give examples of situations in which they might pay or receive interest.

Students can identify the effects of technological change and investment on gross domestic product. They are able to explain the function of taxes and how taxes may redistribute income. They can interpret media reports about economic conditions and explain how these conditions can influence consumers, producers, and governments. Students are able to anticipate the consequences of inflation and unemployment. They can explain the macroeconomic policies of the federal government and the Federal Reserve System, under what conditions the policy decisions are likely to change, and the effects of those changes on themselves and others.

Content in the National Economy includes much of what is traditionally described as macroeconomics.



## Standards in the National Economy

**Resource allocation methods:** Different methods can be used to allocate goods and services.

**Money** makes it easier to trade, borrow, save, invest, and compare the value of goods and services.

**Interest rates** adjusted for inflation rise and fall to balance the amount saved with the amount borrowed.

**Investment, productivity, and growth:** (described under the Market Economy)

**Economic role for government:** (described under the Market Economy)

**Government decision-making:** The costs of government policies may exceed the benefits.

**Gross domestic product:** A nation's overall levels of income, employment, and prices are determined by the interaction of spending and production decisions made by all households, firms, government agencies, and others in the economy.

**Unemployment and inflation:** Unemployment imposes costs on individuals and on nations. Unexpected inflation imposes costs on many people and benefits some others because it arbitrarily redistributes purchasing power.

**Fiscal and monetary policies:** Federal government budgetary policy and the Federal

Reserve System's monetary policy influence the overall levels of employment, output, and prices.

## 3. The International Economy:

Content in this category includes the reasons for individuals and businesses to specialize and trade; the rationale for specialization and trade internationally; and the benefits and costs of that specialization and resulting trade for consumers, producers, and governments. Economically literate grade 12 students are able to explain how voluntary exchange is undertaken because both parties in the exchange expect to benefit. Students can explain how they benefit themselves and others by developing special skills and strengths. They are able to negotiate exchanges and identify the gains to themselves and others.

They can compare the benefits and costs of policies that alter trade barriers between nations, and they can identify who pays and who benefits. They are able to explain why exchange rates change and can predict the effects of those changes. They can explain how investment, technological change, education, and incentive structures contribute to differences in economic growth and standards of living.



## Standards in the International Economy

**Benefits of trade:** When individuals, regions, and nations specialize in what they can produce at the lowest cost and then trade with others, both production and consumption increase.

**Markets:** (described under the Market Economy)

**Investment, productivity, and growth:** (described under the Market Economy)

**Government decision-making:** (described under the National Economy)



## Distribution of standards across content areas

The Market Economy	The National Economy	The International Economy
<ul style="list-style-type: none"> <li>• Choices and costs</li> <li>• Effective decision-making</li> <li>• Incentives</li> <li>• Markets</li> <li>• Prices</li> <li>• Competition</li> <li>• Institutions</li> <li>• Income</li> <li>• Entrepreneurs</li> <li>• Investment, productivity, and growth</li> <li>• Economic role for government</li> <li>• Government decision-making</li> </ul>	<ul style="list-style-type: none"> <li>• Resource allocation</li> <li>• Money</li> <li>• Interest rates</li> <li>• Investment, productivity, and growth</li> <li>• Economic role for government</li> <li>• Government decision-making</li> <li>• Gross domestic product</li> <li>• Unemployment and inflation</li> <li>• Fiscal and monetary policies</li> </ul>	<ul style="list-style-type: none"> <li>• Voluntary exchange</li> <li>• Benefits of trade</li> <li>• Markets</li> <li>• Investment, productivity, and growth</li> <li>• Government decision-making</li> </ul>



# Characteristics of the Assessment

## COGNITIVE SKILLS CATEGORIES

Three cognitive categories were used in designing the assessment instrument: Knowing, Applying, and Reasoning. Students spend one-third of test time on each. Also, one-third of the testing time on the content areas is spent in each cognitive category.

**Knowing:** This category measures students' abilities to identify and recall information and to recognize economic terms and concepts. Items in this category will ask students to recognize and recall information and concepts, and interpret data and information to identify events or trends.

**Applying:** This category measures students' abilities to describe or explain the relationship between information and economic concepts. Items in this category will ask students to restate an economic concept in their own words; interpret data and information to identify events or trends and explain cause; analyze a given scenario or event that requires only one step in the analysis; and apply or use a concept when the concept is specified.

**Reasoning:** This category measures students' ability to use information and economic concepts accurately to solve problems, evaluate issues, and interpret situations. Items in this category will ask students to interpret data to identify an event or a trend, explain the cause, and recommend policy; apply or use a concept when the concept is not specified; apply more than one concept

when one or more concepts are specified; and perform a multiple-step analysis on a given scenario or event.

## CONTEXTS AND APPLICATIONS

Economics has broad applicability. It is rich in opportunities to use core principles and understanding, and young people learn economics in a variety of settings. For that reason, the items in the NAEP Economics Assessment are set in various contexts, both to assess the extent to which students can show their understanding of economics in real-world situations and to make the assessment accessible to students whose understanding of economic concepts comes from everyday economic decision-making rather than formal study.

Although a small number of items might not be set in a specific context, 60 to 90 percent should be, with 20 to 30 percent set in each of the following three contextual areas: individual and household, business, or public. The remainder of the items are in other contexts, in multiple contexts, or context-free. Context-based and context-free items will be distributed across the three content areas (the Market Economy, the National Economy, and the International Economy), and across the three cognitive levels (Knowing, Applying, and Reasoning). Following are explanations of the contextual examples, which could be multiple-choice or as short constructed-response items.



**An individual and household context,** including items related to personal finance (for example, a question contrasting the cost of renting an apartment one year with another year in which more students seek such housing)

**A business context,** including items related to entrepreneurs, workers, producers, or investors (for example, a question about what might happen to the price and number of pizzas sold if the price of cheese doubles)

**A public context,** including items related to government, policy, citizenship, and domestic and international organizations (for example, a question about what might happen to the number of high school graduates choosing to go to college versus those joining the armed forces if Congress lowers tuition)

**Context-free** (for example, a question about supply and demand, asking how the quantity of a product could increase when the price increases)

## GRAPHING, TABLE AND CHART INTERPRETATION, AND CALCULATION SKILLS

The assessment is designed to measure students' knowledge of graphs, charts, and tables in a way that is relevant to real-world applications. The focus of the items should be on measuring students' understanding and application of concepts. Graphs are important as tools, but students who can interpret supply and demand examples and applications without using graphs, for example, should be judged successful economics students. Students should not be expected to be able to read

and interpret graphs in significant numbers of items. However, the interpretation of tables and charts with data and data trends is sufficiently important that their inclusion in some items is appropriate. Charts and time-series graphs that summarize levels and trends in data may be useful for assessing how well students understand such concepts as unemployment, inflation, and economic growth. Again, the focus of the items should be on measuring students' understanding and application of concepts. Similarly, calculation and manipulation of numbers should be held to a minimum. The focus of the assessment should be on understanding economic concepts and their applications

## FORMATS OF ITEMS

The assessment includes multiple-choice and short and extended constructed-response items.

**Multiple-choice items** require students to select the correct or best answer to a given item (students will spend 60 percent of their time on this).

**Short constructed-response items** require students to respond in short answers that may vary from one or two words or phrases to several sentences (students will spend 30 percent of their time on this).

**Extended constructed-responses** require students to consider a situation that demands more than a short response and allows a number of gradations of correctness (students will spend 10 percent of their time on this).

Each content area includes knowledge and skills that can be measured with each of the three



£ ¥ \$



£ ¥ \$

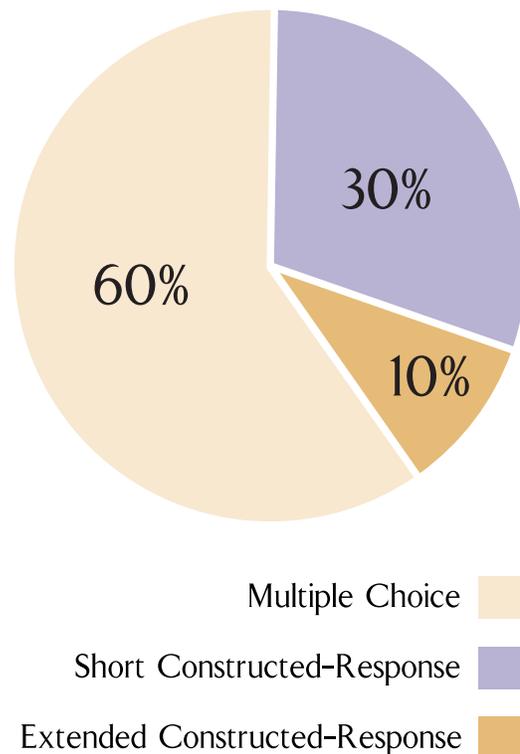


item formats, and each cognitive category can be measured by any of the item formats. All three types of items will be included in each of the content areas.

## ECONOMIC TERMINOLOGY

Because students learn economics in a number of ways, many may not know the terms used in standard economics courses and texts, although they understand the concepts. The essential parts of economic literacy are the abilities to use and apply economic concepts and analysis, which do not necessarily include the ability to name the concepts in all cases. Because the emphasis should be on assessing how well students understand the meaning of concepts and can use reasoning skills—not how well they can define technical and economic-specific language—certain economic-specific language should not be in the assessment. Examples of the 25 terms not allowed are “GDP”

Types of Questions  
(Percent of time spent)





(“gross domestic product” is recommended) “marginal benefit/cost” (“additional” or “extra” are recommended), and “oligopoly.”

## ACHIEVEMENT LEVELS

The framework uses the NAEP achievement levels of *Basic*, *Proficient*, and *Advanced* to describe what students should know and be able to do. The NAEP Economics achievement level descriptions are below.

### Basic

Students performing at the *Basic* level of achievement should be able to identify and recognize a limited set of economic concepts and relationships that are important for partial understanding of the market economy, national economy, and international economy. A limited set includes some of the following: (a) in the market economy—scarcity, opportunity cost, incentives, marginal decision-making, markets, prices, demand, supply, competition, economic institutions, income determination, entrepreneurship, investment, and government actions; (b) in the national economy—economic systems, money, interest rates, economic growth, gross domestic product, unemployment, inflation, fiscal policy, and monetary policy; and (c) in the international economy—comparative advantage, the benefits and costs of trade, and exchange rates. An example of the level of understanding that students should be able to demonstrate at the Basic level is the ability to recognize the inverse relationship between the market price of a product and the amount buyers are willing and able to purchase.

Students should be able to use a limited set of these economic concepts and relationships in simple applications. For example, when given data or information about an economic event or situation, they should be able to identify a likely economic outcome. Students should be able to interpret data or information presented in simple charts, graphs, or tables, such as those showing changes in economic data over time.

### Proficient

Students performing at the *Proficient* level of achievement should be able to identify and recognize a broader set of economic concepts and relationships that are important for solid understanding of the market economy, national economy, and international economy. A broader set includes many of the following: (a) in the market economy—scarcity, opportunity cost, incentives, marginal decision-making, markets, prices, demand, supply, competition, economic institutions, income determination, entrepreneurship, investment, and government actions; (b) in the national economy—economic systems, money, interest rates, economic growth, gross domestic product, unemployment, inflation, fiscal policy, and monetary policy; and (c) in the international economy—comparative advantage, the benefits and costs of trade, and exchange rates. An example of the level of understanding that students should be able to demonstrate at the *Proficient* level is the ability to explain the role of shortages in causing market prices to change.

Students should be able to use a broader set of these economic concepts and relationships



in more challenging applications that involve analyzing economic problems and decisions, and recommending policies and actions. Students should be able to interpret data or information presented in complex charts, graphs, or tables, such as those relating changes in one or more economic variables to changes in other economic variables, and to analyze economic data and information to describe events and trends.

## Advanced

Students performing at the Advanced level of achievement should be able to identify and recognize an extensive set of economic concepts and relationships that are important for thorough understanding of the market economy, national economy, and international economy. An extensive set includes most of the following: (a) in the market economy—scarcity, opportunity cost, incentives, marginal decision-making, markets, prices, demand, supply, competition, economic institutions, income determination, entrepreneurship, investment, and government actions; (b) in the national economy—economic systems, money, interest rates, economic growth, gross domestic product, unemployment, inflation, fiscal policy, and monetary policy; and (c) in the international economy—comparative advantage, the benefits and costs of trade, and exchange rates. An example of the level of understanding that students should be able to demonstrate at the Advanced level is the ability to identify factors that increase or decrease the demand for a product and to explain the effects of these changes on price and quantity.

Students should be able to use these economic concepts and relationships in complex applications that involve analysis and evaluation of economic data and information to explain events and their causes, and policies and their outcomes. Students should be able to use data or information presented in complex charts, graphs, or tables in their analysis and evaluation.

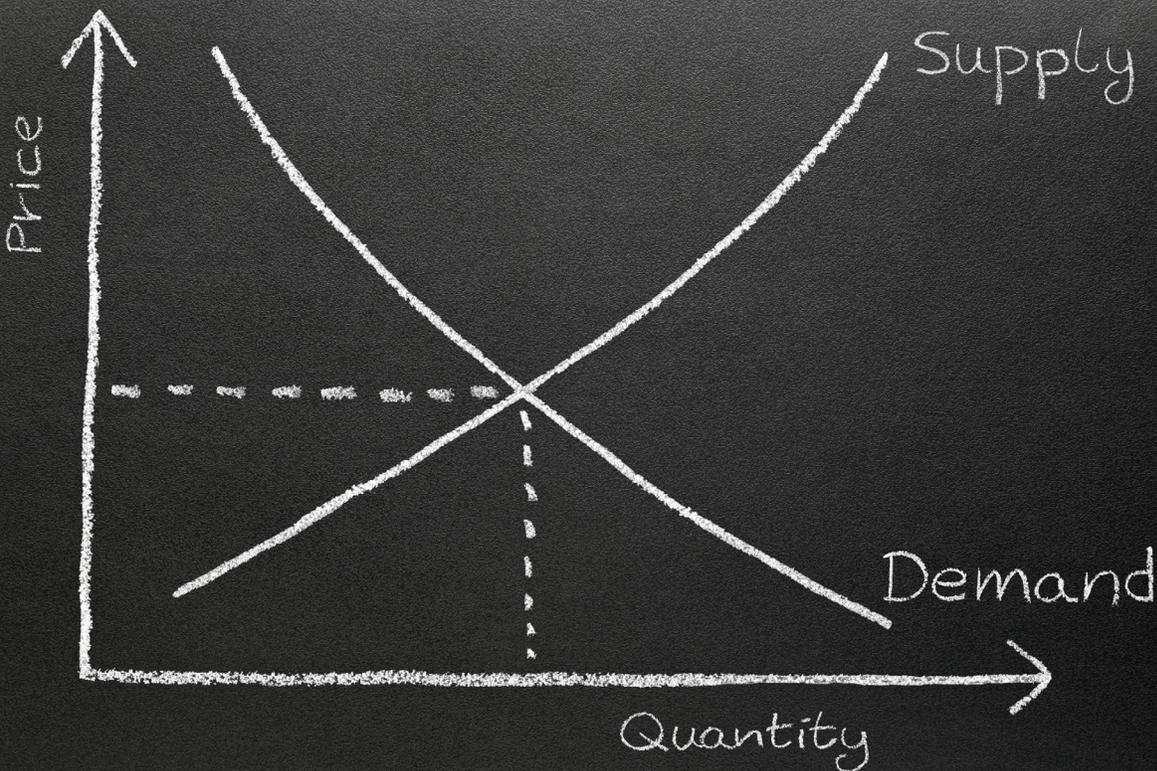




# Conclusion

More than ever, citizens need a strong knowledge of economics to navigate their everyday lives: Such a foundation is needed for a vast range of day-to-day decisions, be it what food to buy, whether to take the bus or drive, how to save money, where to live, which job or career to seek, or what public policies and candidates to support.

The goal of the NAEP Economics Assessment is to match in breadth and depth the complex ways of learning and applying economic knowledge. A fair and accurate assessment can provide guidance so that all students have the strong base of knowledge needed to live well and contribute to their families, communities, and the world around them.





The National Assessment Governing Board is an independent, bipartisan board whose members include governors, state legislators, local and state school officials, educators, business representatives, and members of the general public. Congress created the 26-member Governing Board in 1988 to set policy for the National Assessment of Educational Progress (NAEP).



For more information on the National Assessment Governing Board, please visit [www.nagb.org](http://www.nagb.org) or call us at 202-357-6938.