
Economists

(O*NET 19-3011.00)

Significant Points

- Slower than average job growth is expected as firms increasingly employ workers with titles that reflect specialized duties rather than the general title of economist.
- Job seekers with a background in economics should have opportunities in various occupations.
- Candidates who hold a master's or Ph.D. degree in economics will have the best employment prospects and advancement opportunities.
- Quantitative skills are important in all economics specialties.

Nature of the Work

Economists study how society distributes resources, such as land, labor, raw materials, and machinery, to produce goods and services. They may conduct research, collect and analyze data, monitor economic trends, or develop forecasts. Economists research a wide variety of issues including energy costs, inflation, interest rates, exchange rates, business cycles, taxes, and employment levels, among others.

Economists develop methods for obtaining the data they need. For example, sampling techniques may be used to conduct a survey and various mathematical modeling techniques may be used to develop forecasts. Preparing reports, including tables and charts, on research results also is an important part of an economist's job. Presenting economic and statistical concepts in a clear and meaningful way is particularly important for economists whose research is intended for managers and others who do not have a background in economics. Some economists also perform economic analysis for the media.

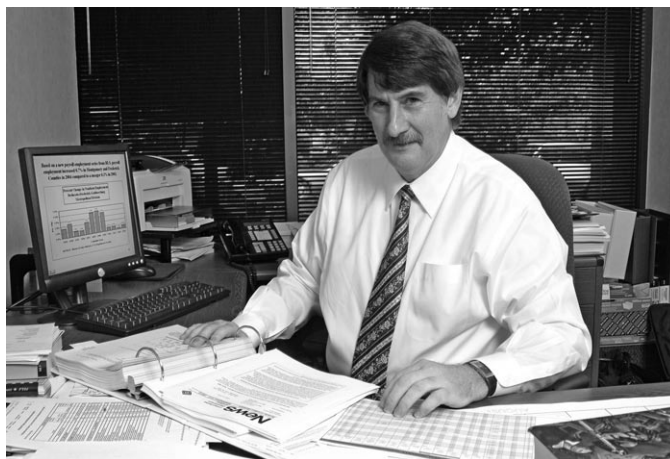
Many economists specialize in a particular area of economics, although general knowledge of basic economic principles is essential. *Microeconomists* study the supply and demand decisions of individuals and firms, such as how profits can be maximized and the quantity of a good or service that consumers will demand at a certain price. *Industrial economists* or *organizational economists* study the market structure of particular industries in terms of the number of competitors within those industries and examine the market decisions of competitive firms and monopolies. These economists also may be concerned with antitrust policy and its impact on market structure. *Macroeconomists* study historical trends in the whole economy and forecast future trends in areas such as unemployment, inflation, economic growth, productivity, and investment. Doing similar work as macroeconomists are *monetary economists* or *financial economists*, who study the money and banking system and the effects of changing interest rates. *International economists* study international financial markets, exchange rates, and the effects of various trade policies such as tariffs. *Labor economists* or *demographic economists* study the supply and demand for labor and the determination of wages. These economists also try to explain the reasons for unemployment and the effects of changing demographic trends, such as an aging population and increasing immigration, on labor markets.

Public finance economists are involved primarily in studying the role of the government in the economy and the effects of tax cuts, budget deficits, and welfare policies. *Econometricians* investigate all areas of economics and apply mathematical techniques such as calculus, game theory, and regression analysis to their research. With these techniques, they formulate economic models that help explain economic relationships and that can be used to develop forecasts about business cycles, the effects of a specific rate of inflation on the economy, the effects of tax legislation on unemployment levels, and other economic phenomena.

Many economists apply these areas of economics to health, education, agriculture, urban and regional economics, law, history, energy, the environment, or other issues. Most economists are concerned with practical applications of economic policy. Economists working for corporations are involved primarily in microeconomic issues, such as forecasting consumer demand and sales of the firm's products. Some analyze their competitors' growth and market share and advise their company on how to handle the competition. Others monitor legislation passed by Congress, such as environmental and worker safety regulations, and assess how the new laws will affect the corporation. Corporations with many international branches or subsidiaries might employ economists to monitor the economic situations in countries where they do business or to provide a risk assessment of a country into which the company is considering expanding.

Economists working in economic consulting or research firms sometimes perform the same tasks as economists working for corporations. However, economists in consulting firms also perform much of the macroeconomic analysis and forecasting conducted in the United States. These economists collect data on various economic indicators, maintain databases, analyze historical trends, and develop models to forecast growth, inflation, unemployment, or interest rates. Their analyses and forecasts are frequently published in newspapers and journal articles.

Another large employer of economists is the government. Economists in the Federal Government administer most of the surveys and collect the majority of the economic data about the United States. For example, economists in the U.S. Department of Commerce collect and analyze data on the production, distribution, and consumption of commodities produced in the United States and overseas, and economists employed by the U.S. Department of Labor collect and analyze data on the domestic economy, including data on prices, wages, employment, productivity, and safety and health.



Economists spend much of their time conducting research and writing reports.

Economists who work for government agencies also assess economic conditions in the United States or abroad to estimate the effects of specific changes in legislation or public policy. Government economists advise policy makers in areas such as the deregulation of industries, the effects of changes to Social Security, the effects of tax cuts on the budget deficit, and the effectiveness of imposing tariffs on imported goods. An economist working in State or local government might analyze data on the growth of school-age or prison populations and on employment and unemployment rates in order to project future spending needs.

Work environment. Economists have structured work schedules. They often work alone, writing reports, preparing statistical charts, and using computers, but they also may be an integral part of a research team. Most work under pressure of deadlines and tight schedules, which may require overtime. Their routine may be interrupted by special requests for data and by the need to attend meetings or conferences. Frequent travel may be necessary.

Training, Other Qualifications, and Advancement

Some entry-level positions for economists are available to those with a bachelor's degree, but higher degrees are required for many positions. Prospective economists need good quantitative skills.

Education and training. A master's or Ph.D. degree in economics is required for many private sector economist jobs and for advancement to more responsible positions. In the Federal Government, candidates for entry-level economist positions must have a bachelor's degree with a minimum of 21 semester hours of economics and 3 hours of statistics, accounting, or calculus.

Economics includes numerous specialties at the graduate level, such as econometrics, international economics, and labor economics. Students should select graduate schools that are strong in the specialties that interest them. Some schools help graduate students find internships or part-time employment in government agencies, economic consulting or research firms, or financial institutions before graduation.

Undergraduate economics majors can choose from a variety of courses, ranging from microeconomics, macroeconomics, and econometrics to more philosophical courses, such as the history of economic thought. Because of the importance of quantitative skills to economists, courses in mathematics, statistics, econometrics, sampling theory and survey design, and computer science are extremely helpful.

Whether working in government, industry, research organizations, or consulting firms, economists with a bachelor's degree usually qualify for entry-level positions as a research assistant, for administrative or management trainee positions, or for various sales jobs. A master's degree usually is required to qualify for more responsible research and administrative positions. A Ph.D. is necessary for top economist positions in many organizations. Also, many corporation and government executives have a strong background in economics.

Aspiring economists should gain experience gathering and analyzing data, conducting interviews or surveys, and writing reports on their findings while in college. This experience

can prove invaluable later in obtaining a full-time position in the field because much of the economist's work, especially in the beginning, may center on these duties. With experience, economists eventually are assigned their own research projects. Related job experience, such as work as a stock or bond trader, might be advantageous.

Other qualifications. Those considering careers as economists should be able to pay attention to details because much time is spent on precise data analysis. Candidates also should have strong computer and quantitative skills and be able to perform complex research. Patience and persistence are necessary qualities, given that economists must spend long hours on independent study and problem solving. Good communication skills also are useful, as economists must be able to present their findings, both orally and in writing, in a clear, concise manner.

Advancement. With experience or an advanced degree, economists may advance into positions of greater responsibility, including administration and independent research.

Many people with an economics background become teachers. (See the statement on teachers—postsecondary elsewhere in the *Handbook*.) A master's degree usually is the minimum requirement for a job as an instructor in a junior or community college. In most colleges and universities, however, a Ph.D. is necessary for appointment as an instructor. A Ph.D. and extensive publications in academic journals are required for a professorship, tenure, and promotion.

Employment

Economists held about 15,000 jobs in 2006. Government employed 52 percent of economists, in a wide range of agencies, with 32 percent in Federal Government and 20 percent in State and local government. The remaining jobs were spread throughout private industry, particularly in scientific research and development services and management, scientific, and technical consulting services. A number of economists combine a full-time job in government, academia, or business with part-time or consulting work in another setting.

Employment of economists is concentrated in large cities. Some work abroad for companies with major international operations, for U.S. Government agencies, and for international organizations, such as the World Bank, International Monetary Fund, and United Nations.

In addition to the previously mentioned jobs, economists hold faculty positions in colleges and universities. Economics faculties have flexible work schedules and may divide their time among teaching, research, consulting, and administration. These workers are counted as postsecondary teachers, not economists.

Job Outlook

Employment of economists is expected to grow about as fast as the average for all occupations. The demand for workers who have knowledge and skill in economics is projected to grow faster, but these workers are often in occupations other than economist. Job prospects will be best for those with graduate degrees in economics.

Employment change. Employment of economists is expected to grow seven percent from 2006 to 2016, about as fast as the average for all occupations. Demand for economic analy-

sis should grow, but the increase in the number of economist jobs will be tempered as firms hire workers for more specialized jobs with specialized titles. Many workers with economic backgrounds will work in related occupations with more specific job titles, such as financial analyst, market analyst, public policy consultant, researcher or research assistant, and purchasing manager. Overall employment growth also will be slowed because of the relatively high number of economists employed in slow growing or declining government sectors. Employment in Federal government agencies is expected to decrease, and employment in State and local government is expected to grow more slowly than employment in the private sector.

Employment growth should be fastest in private industry, especially in management, scientific, and technical consulting services. Rising demand for economic analysis in virtually every industry should stem from the growing complexity of the global economy, the effects of competition on businesses, and increased reliance on quantitative methods for analyzing and forecasting business, sales, and other economic trends. Some corporations choose to hire economic consultants to fill these needs, rather than keeping an economist on staff. This practice should result in more economists being employed in consulting services.

Job prospects. In addition to job openings from growth, the need to replace experienced workers who transfer to other occupations or who retire or leave the labor force for other reasons will create openings for economists.

Individuals with a background in economics should have opportunities in various occupations. As indicated earlier, some examples of job titles often held by those with an economics background are financial analyst, market analyst, public policy consultant, researcher or research assistant, and purchasing manager.

People who have a master's or Ph.D. degree in economics, who are skilled in quantitative techniques and their application to economic modeling and forecasting, and who also have good communications skills, should have the best job opportunities. Like those in many other disciplines, some economists leave the occupation to become professors, but competition for tenured teaching positions is expected to be keen.

Bachelor's degree holders may face competition for the limited number of economist positions for which they qualify. However, they will qualify for a number of other positions that can use their economic knowledge. Many graduates with bachelor's degrees will find jobs in industry and business as management or sales trainees. Bachelor's degree holders with good quantitative skills and a strong background in mathematics, statistics, survey design, and computer science also may be hired as researchers. Some will find jobs in government.

Candidates who meet State certification requirements may become high school economics teachers. The demand for sec-

ondary school economics teachers is expected to grow, as economics becomes an increasingly important and popular course. (See the statement on teachers—preschool, kindergarten, elementary, middle, and secondary elsewhere in the *Handbook*.)

Earnings

Median annual wage and salary earnings of economists were \$77,010 in May 2006. The middle 50 percent earned between \$55,740 and \$103,500. The lowest 10 percent earned less than \$42,280, and the highest 10 percent earned more than \$136,550.

In the Federal Government, the starting salary for economists having a bachelor's degree was \$35,752 in 2007. Those having a master's degree could qualify for positions with an annual salary of \$43,731. Those with a Ph.D. could begin at \$52,912, and some individuals with experience and an advanced degree could start at \$63,417. Starting salaries were higher in selected geographical areas where the prevailing local pay was higher. The average annual salary for economists employed by the Federal Government was \$94,098 a year in 2007.

Related Occupations

Economists are concerned with understanding and interpreting financial matters, among other subjects. Other occupations in this area include accountants and auditors; actuaries; budget analysts; cost estimators; financial analysts and personal financial advisors; financial managers; insurance underwriters; loan officers; and purchasing managers, buyers, and purchasing agents. Economists also rely heavily on quantitative analysis, as do mathematicians, statisticians, and operations research analysts. Other occupations involved in market research and data collection are management analysts and market and survey researchers. Economists also study consumer behavior, similar to the work of sociologists.

Sources of Additional Information

For information on careers in business economics, contact:

► National Association for Business Economics, 1233 20th St.NW., Suite 505, Washington, DC 20036.

Information on obtaining positions as economists with the Federal Government is available from the Office of Personnel Management through USAJOBS, the Federal Government's official employment information system. This resource for locating and applying for job opportunities can be accessed through the Internet at <http://www.usajobs.opm.gov> or through an interactive voice response telephone system at (703) 724-1850 or TDD (978) 461-8404. These numbers are not toll free, and charges may result. For advice on how to find and apply for Federal jobs, see the Occupational Outlook Quarterly article "How to get a job in the Federal Government," online at: <http://www.bls.gov/opub/ooq/2004/summer/art01.pdf>

Projections data from the National Employment Matrix

Occupational Title	SOC Code	Employment, 2006	Projected employment, 2016	Change, 2006-2016	
				Number	Percent
Economists.....	19-3011	15,000	16,000	1,100	7

NOTE: Data in this table are rounded. See the discussion of the employment projections table in the *Handbook* introductory chapter on *Occupational Information Included in the Handbook*.