# Modern Economic Issues

**Parts I–III**

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Professor Whaples was an undergraduate at the University of Maryland, College Park, where he earned a double B.A. in Economics and History in 1983. He received a Ph.D. in Economics from the University of Pennsylvania in 1990. After teaching in the Department of History at the University of Wisconsin–Milwaukee for three years, he moved to the Department of Economics at Wake Forest University in 1991.

His Ph.D. dissertation, "The Shortening of the American Work Week: An Economic and Historical Analysis of Its Context, Causes and Consequences," was awarded the Allen Nevins Prize for the Outstanding Dissertation in American Economic History by the Economic History Association. In 1999 he won the Economic History Association's Jonathan Hughes Prize for Excellence in Teaching Economic History. He regularly teaches three courses at Wake Forest University: Introduction to Economics, Current Economic Issues, and American Economic History; he also has taught courses in labor economics and microeconomics, as well as seminars on the role of government in the economy, the future of humanity, immigration and the American economy, and war and the American economy. He teaches summer courses in economics for BB&T Bank and in economic history for the Foundation for Teaching Economics.

In addition to research on Historical American Labor Markets and the U.S. Monetary System, he has published numerous articles on consensus and disagreement among economists, edited two books, and written a study guide in microeconomics.

Professor Whaples is the director of EH.Net, which operates the Economic History Services Web site and several electronic mailing lists to provide resources and promote communication among scholars in economic history and related fields and to make research in economic history accessible to the worldwide public. He edits EH.Net's book review series and is the editor of the *Encyclopedia of Economic and Business History*, all of which can be found online at http://www.eh.net.

Professor Whaples and his wife Regina live in Winston-Salem, North Carolina. They are the parents of five children: Their eldest son graduated from Wake Forest University in 2007 with a degree in computer science, two daughters are students at Wake Forest University, and a daughter and son are in high school.

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# Modern Economic Issues

**Scope:**

The goal of this course is to examine some of most important issues facing economic policymakers in the United States today and in the years to come. We will seek to understand the forces underlying these economic dilemmas and use straightforward economic analysis along with empirical and historical evidence to consider policy options that may help solve them. Economists have reached a consensus on some important policy issues but are sharply divided on other issues. Rather than identifying the "best" policy option, we must humbly acknowledge that there are few perfect solutions, since most economic issues involve trade-offs, because there is uncertainty about these trade-offs, and because people do not agree on the appropriate goals of economic policy. Rather than asserting and defending my own preferences, I will try to rely on results from surveys of professional economists (including one specially commissioned for this course) about how the economy works and which policies will be most effective.

The course begins by explaining the "economic" approach to public policymaking. If individual decision makers—buyers and sellers in households and businesses—pursue their own self-interests, the forces of competition will often bring the market to the efficient level of output, as if guided by an "invisible hand." Economists argue that markets should be left alone in such cases. Markets will fail in this goal under a range of circumstances, however, including cases where competition is weak, there are spillover effects, and economic agents are myopic; and market outcomes are often regarded as unfair by observers. In such cases, government has the capacity to improve on markets through taxes, subsidies, and regulations. We must acknowledge, however, that just because government intervenes in a market does not necessarily mean it will improve things; both the market and the government must be examined with a critical eye.

Next we will survey the recent record of the U.S. economy, which by most measures has performed remarkably well in recent years. The forces generating this economic growth are ubiquitous, and most economists foresee continued, robust economic growth for generations to come—projecting that average inflation-adjusted incomes will more than triple in the next 60 years and that many currently underdeveloped countries (including China) will become as rich as the United States is today.

Subsequent lectures will examine what we should do about particular economic problems. The first set of these lectures will consider how the United States can maintain strong productivity growth, low inflation, and low unemployment. Economists generally conclude that low inflation requires a central bank that is politically independent and committed to moderate growth in the money supply—and that holding inflation down sometimes means that unemployment must rise. Low unemployment seems to be best achieved by open and flexible labor markets, and similarly, high productivity growth requires stiff competition in flexible product markets. Unfortunately, these policies also appear to increase the level of inequality in the economy; inequality in the United States is high by international standards and has risen in recent decades.

Next we will consider the impact of international trade on the U.S. economy. Economists have generally concluded that outsourcing brings more gains than losses but are careful to point out the trade-offs involved. A related concern is that the United States has run chronic trade deficits. Economists conclude that the underlying cause of trade deficits is that investment opportunities in the economy outstrip domestic savings; we will consider both the international factors at work and ways to boost the U.S. savings rate. Our low national savings rate is pulled down by persistent government budget deficits, which we will assess in the next lecture as we consider warnings that a soaring fiscal gap will impose crushing burdens on future generations. We will consider how to solve this problem both by altering spending and by changing the tax code.

Economists identify issues related to the aging of society and escalating health-care costs as the two most important economic challenges to be faced in the next two generations. They overwhelmingly agree that the gap between Social Security funds and expenditures will become unsustainably large within the next 50 years if current policies remain unchanged. We will examine the operations, strengths, and weaknesses of the Social Security system, bold plans to overhaul it, and the less radical changes we are likely to implement. Part of the Social Security funding gap is due to aging and low birth rates, which are near the replacement level in the United States and well below it in many countries in Europe and Asia. After considering the impacts of and potential responses to this birth dearth, we will analyze the forces that have caused health expenditures and health insurance costs to accelerate and the trade-offs involved in reining in this spending.

Almost as daunting as concerns about aging and health expenditures are worries about energy prices and the environment. We will study the operation of international energy markets and the forces that have driven oil prices sharply higher in recent years. Are we running out of oil? What can and should we do to wean ourselves from our dependency on imported oil? Should we subsidize alternative fuels like ethanol? After grappling with these questions, we will consider the economic approach to dealing with pollution and then turn our attention to global climate change. Perhaps surprisingly, economists do not think that global warming will do much to damage the economy—mainly because temperature and climate are not significant components of most economic activities and because our economic institutions are designed to flexibly sidestep economic bottlenecks. We will consider proposals to limit, tax, and offset greenhouse gas emissions—and their likely impact on the economy.

The next set of lectures considers the impact of immigration, race, gender, and unions on labor markets and how to best fight poverty. We will consider recent changes in the welfare system, debates about the appropriate level for the minimum wage, subsidies to low-wage workers such as the Earned Income Tax Credit, and the impact of soaring rates of children raised in single-parent families.

Competitive markets are a powerful force, yet society is sometimes hesitant to unleash them. The next group of lectures considers a series of problems that might be solved by greater market competition, and problems that could arise if competition goes too far. Should we pay people to donate their organs? Should we allow for-profit firms to compete with the U.S. Postal Service? Should we increase or reduce competition in agricultural markets? We will examine concerns about the soaring price of higher education and that our school systems are failing to adequately and cost-effectively educate the next generation—and potential solutions to these problems, including expanding market competition, which most economists favor. Has competition gone too far in our retail markets? We will examine debates about the impact of megaretailers (especially Wal-Mart) and how they affect the communities in which they operate. What should we do about corporate "greed," excessive CEO pay, Enron-style fraud, and corporate mismanagement? Have markets let these problems get out of hand? Have government solutions worked? Is competition for status in society a zero-sum game that wastes our time and resources while stressing us out in a race to outdo one another? Should we rein in excessive spending and conspicuous consumption? What role, if any, should the government play in the economics of the baseball industry—or other sports?

Then we briefly turn to international concerns, examining the economic and noneconomic forces behind international terrorism, the policy responses to it, and what the United States and its citizens can do to help people living in the poorest countries.

Some Americans seem to be addicted to a few bad habits. The next quartet of lectures examines our vices: long commutes, gambling, and lousy diets. Have we failed ourselves? If so, what actions should the government take?

The final lecture recaps the major themes of the course by looking at a seemingly trivial debate—whether or not the United States should eliminate the penny—and then assessing the really big question of the course: Can changing economic policies *really* make us better off? The lecture draws on research about the economic and noneconomic determinants of happiness and considers more eternal questions as well.

## Lecture One

## The Economic Approach to Public Policy

**Scope:** The economic approach to public policy generally begins with the assumption that most adults know their own self-interest and are generally capable of effectively pursuing it—in how they spend their time and money and in the risks they take. In this case the demand for a product reflects the marginal benefits that buyers perceive. In a competitive market with profit-maximizing firms, the supply curve reflects the marginal cost of making the product. The price in a competitive market moves toward an equilibrium at which the quantity demanded equals the quantity supplied and the marginal benefit of the last unit consumed equals the marginal cost of the last unit produced. Thus, the self-interest of buyers and sellers will bring the market to the efficient output, as if guided (as Adam Smith put it) by an "invisible hand," and economists generally advise that the market should be left alone under these conditions.

However, these conditions don't always hold. Government has the potential to solve market failures that arise from monopoly, spillover effects (externalities), public goods, myopia, misinformation, and other sources and to improve upon the fairness of the market—although fairness is a hotly debated concept. Government is needed as an umpire to protect property rights and freedom. While government has the potential to do much good, it also has the potential to mess things up. Public choice economics explains that the mix of rationally ignorant voters, special interests, election-seeking politicians, and self-interested bureaucrats can lead to political outcomes that don't improve upon the market—outcomes that may be wracked by "rent seeking" behavior.

## Outline

**I.** Economics begins with the concept of scarcity, which exists whenever your wants or desires exceed your resources or what is available to you.

- **A.** Due to scarcity, we have to prioritize the rest of our resources.
- **B.** The problem is that almost all choices involve trade-offs. Economists, therefore, point out that the cost of something is its opportunity cost: the best other thing that you could have gotten with your resources (what you sacrifice to get it).

**II.** Economists assume that most people are rational utility maximizers and use "utility" as a synonym for well-being.

- **A.** Rational maximizers, according to Joseph Stiglitz, "act in a consistent manner, with a reasonably well-defined notion of what they like and what their objectives are, and with a reasonable understanding of how to attain those objectives."
- **B.** When people make a decision, they implicitly or explicitly weigh the expected cost versus the expected benefit of the action. If they think that the expected benefits are greater than the expected costs, they do it; if they think that the expected costs are greater than the expected benefits, they do not do it.
- **C.** Most economists think that most people act as rational maximizers most of the time, and our whole analytical tool kit is framed by this approach.

**III.** Most decisions are made on the margin; that is, they are questions about whether one should do a little more or a little less of something.

- **A.** We make marginal decisions all the time. The rational maximizer assumption implies that we opt in favor of doing more if we expect the extra benefits of the action to exceed the extra costs.
- **B.** A situation we have all faced is deciding what temperature at which to set the thermostat.
  1. Most people do not heat their homes all the way to the upper 70s because they have to prioritize—the opportunity cost of more warmth is getting less of the other things they want.
  2. The rational maximizer will raise the temperature whenever he or she thinks the extra benefit of another degree outweighs the extra cost of another degree.
  3. Not everyone stops at the same temperature because not everyone has the same circumstances, tastes, or resources.

**IV.** The decision of how much to purchase—of heating oil or anything else—depends on the interaction of supply and demand.

- **A.** The quantity that you desire to buy at each price defines your demand curve; most people desire to buy more when the price falls and desire to buy less when the price rises.
- **B.** Each person's demand curve depends on his or her circumstances.
- **C.** How much we collectively buy and what price we end up paying depends on our demand but also on the supply from oil producers in the market—determined by the marginal cost of producing the good.
- **D.** If the market is competitive, the price will settle at an equilibrium level where the supply curve and the demand curve intersect.
- **E.** In our example, the outcome of $2 per gallon and a billion gallons is appealing because in one sense the quantity of the good produced in this market is exactly the amount that we would want it to produce—what economists call the efficient amount.
  - **1.** The efficient amount is the quantity at which the marginal benefit of the good is exactly equal to the marginal benefit from the good. If we stop short of this amount, we've neglected an activity whose extra benefits exceed its extra costs. If we go beyond this point, we've produced too much—producing units whose extra costs exceed the additional benefits.
  - **2.** A competitive market gravitates to the price and quantity where the demand curve and supply curve intersect.
  - **3.** This is why economists like competition: because the interaction of numerous buyers and sellers, each pursuing their own self-interests, brings us to a socially desirable outcome.

**V.** Sometimes, however, markets do not behave this way, and we usually want more than efficiency from our markets.

- **A.** The reasons that markets can fail to achieve efficiency are multifold.
  - **1.** The market may not be competitive.
  - **2.** The buyers and sellers might ignore some of the costs.
  - **3.** The buyers and sellers might ignore some of the benefits.
  - **4.** The price is somehow blocked from moving to equilibrium.
  - **5.** The good in question may be a public good, which can be used simultaneously by everyone and from which no one can easily be excluded.
  - **6.** The good in question may be a common resource—a good that is privately used but from which no one can be excluded (e.g., fish in the sea).
  - **7.** Sellers and buyers might be confused or misinformed about their own interests.
- **B.** Even when markets achieve efficiency, people sometimes do not like the result, which may be the major reason we collectively ask the government to intervene in the economy.
  - **1.** In our heating oil example, one family in town may not have many resources, but many people may have empathy for them.
  - **2.** While the market is efficient in this case, we are concerned and so collectively redistribute resources to them, subsidizing their heating oil purchases or giving them other monetary assistance.
  - **3.** Such redistribution is the main activity of the federal government, but the line between what is fair and what is not fair is always hotly contested.
- **C.** The government's most fundamental role is providing the peace and security that we need to live meaningful lives and to use our economic resources to produce valuable things.

**VI.** Just because government has the ability to make things better does not mean that it will do so.

- **A.** Public choice economists argue that people will behave along the same lines in the political arena as they do in the economic arena.
- **B.** Most voters are rationally ignorant about vital policy issues—the very problems we hope government will solve. They believe the marginal benefit of obtaining this information is unlikely to exceed the marginal cost.
- **C.** We must be wary of self-interested, politically connected people dressing up projects that benefit themselves and convincing us they are for the broader public's good; economists call this rent-seeking behavior.

**VII.** This course will use the approach I have just outlined to examine and grapple with some of the most important issues facing economic policymakers in the United States today and in the years to come.

- **A.** Each lecture will consider a particular economic problem. We will assess the magnitude of the economic challenge, attempt to understand the forces behind it, and use straightforward economic analysis along with empirical and historical evidence as we consider policy options that may help solve the problem.
- **B.** Rather than identifying the "best" policy option, we must humbly acknowledge that there are few perfect solutions.
- **C.** At the end of this course, we will pull things together by considering whether or not changing economic policies really makes us better off, by drawing on research about the economic and noneconomic determinants of happiness, and by considering more eternal questions.

**Essential Reading:**

Winter, Harold. *Trade-Offs: An Introduction to Economic Reasoning and Social Issues.*

**Supplementary Reading:**

Lemieux, Pierre. "The Public Choice Revolution."

**Questions to Consider:**

1. Why do economists like competitive markets so much?
2. Is government action essential for achieving our economic goals? If so, why?

# Lecture Two

# Assessing the American Economy

**Scope:** How is the U.S. economy doing? This lecture will explore several ways in which we measure economic performance. We will concentrate on the most important and comprehensive of these: gross domestic product (GDP). GDP is the market value of final goods and services produced in the economy in a year; currently, the U.S. GDP is the largest in the world. From there, we will examine two other indicators of economic health: the unemployment rate and the inflation rate. The U.S. unemployment rate has recently stayed below its longer-term average, the inflation rate has been low and steady, and productivity has been growing at a remarkable pace. These indicators, according to some critics, hide weaknesses in the U.S. economy, including sizeable budget deficits and a substantial drop in the personal savings rate.

## Outline

**I.** Economists have several useful ways of measuring economic performance that allow us to make historical and international comparisons. None of these measures is perfect, so each must be examined carefully. In this lecture we will look at three measures: unemployment, inflation, and especially gross domestic product.

**II.** The most important and comprehensive measure of economic performance is gross domestic product (GDP).

- **A.** In the early 20th century, people looked at a variety of narrower economic indicators that were useful but incomplete because they left out a lot of products and double counted other products.
- **B.** The key breakthrough of the GDP was to count everything produced in the economy only once and to count it right.
- **C.** GDP is the market value of all final goods and services produced in the economy in a year.
  - **1.** The GDP does not count everything bought and sold; it ignores intermediate products and inputs.
  - **2.** The Commerce Department's Bureau of Economic Analysis estimates that the U.S. output produced in 2006 was worth about $13.3 trillion.
  - **3.** Dividing this by the U.S. population reveals that in 2006 the output equaled about $44,200 per person.
- **D.** GDP statistics are hard to compare from country to country and one period to another because prices differ from place to place and year to year.
  - **1.** To make comparisons over time and across space, economists use real GDP, which adjusts nominal GDP for price changes or differences.
  - **2.** To do this, economists deflate the nominal GDP by taking out inflation; this procedure must always be used when making GDP comparisons.
  - **3.** When making international comparisons, we have to adjust for differences in purchasing power—what money can actually buy—from country to country.
- **E.** The United States has approximately the highest average income per person in the world but is likely to break its own world record if recent trends continue. GDP per capita in the United States is much higher than in most other developed countries.
- **F.** While long-term growth in GDP per person has been persistent, the economy has a lot of ups and downs.
  - **1.** Recession—which economists define as a period in which the real GDP falls for more than one quarter—was once very common in the United States.
  - **2.** Over time, recessions have become so rare that their popular definition has shifted. Now it is common for people to label periods of slow economic growth as recessions.
  - **3.** Most economists are wary of tying macroeconomic success or failure to the policies of the president currently in office.
- **G.** Since 1950, the average inflation-adjusted rate of GDP growth in the United States has been about 3.4% per year—about one percentage point higher than our per capita growth rate.
  - **1.** The difference between 2% growth (a disappointing rate) and 4% growth (a fast rate) is huge if sustained over time.
  - **2.** The Rule of 72 is the mathematical regularity that the number 72 divided by a growth rate equals the approximate number of years that it takes something to double.
  - **3.** In recent years, almost all the world has experienced strong economic growth; in 2006, world GDP grew by more than 5%.

- **H.** There are some shortcomings to official GDP statistics.
  - **1.** GDP comparisons are hampered by problems with accurately measuring price changes and differences.
  - **2.** The GDP has a hard time dealing with government, since the goods and services it produces are not usually bought and sold in the market.
  - **3.** The GDP does not count output that is produced in households.
  - **4.** GDP estimates also omit the "underground economy"—purchases that occur in the market but are not reported to authorities.
  - **5.** The GDP leaves out other things (such as the value of a life, environmental equality, natural resources) because it is designed to measure the value of items we produce.

**III.** Our next key economic-health indicator is the unemployment rate.

- **A.** Most people who are not working are not counted as unemployed.
  - **1.** Most nonemployed people are counted by the Bureau of Labor Statistics in the "not in the labor force" category.
  - **2.** To be counted as unemployed, you must actively be seeking work.
- **B.** The unemployment rate divides the number who are unemployed by the sum of employed and unemployed individuals (the total labor force).
  - **1.** The highest unemployment rate ever recorded in the United States was nearly 25%, in 1933.
  - **2.** In recent years the rate has followed a distinct pattern: spiking upward during a recession, reaching a plateau as the economy regains its momentum, and then dropping as the economy expands.
  - **3.** It seems to take a GDP growth rate of over 2% to get the unemployment rate to fall.
- **C.** The U.S. unemployment rate averaged 4.8% in the 1960s, 6.2% in the 70s, 7.3% in the 80s, 5.8% in the 90s, and 5.1% from 2000 to mid-2007.
- **D.** The United States has an unemployment rate considerably below that of other industrialized countries.

**IV.** The third key macroeconomic measure is the inflation rate.

- **A.** Inflation occurs when the overall price level in the economy rises and is usually measured via the consumer price index (CPI), which is estimated by the Bureau of Labor Statistics.
- **B.** Using survey data, the bureau constructs a basket of goods purchased by a typical household and then measures how the price of this basket changes from month to month and year to year.
- **C.** Throughout history, the United States has usually had a low inflation rate, but there have been important exceptions: the Revolutionary War, the Civil War, and the 1970s.
- **D.** The U.S. inflation rate averaged 7.5% in the 1970s, 3% in the 1990s, and 2.6% from 2000 to mid-2007.
- **E.** Most economists see the ideal inflation rate at about 2%.

**V.** Critics worry that these major indicators hide some serious and looming weaknesses in the U.S. economy.

- **A.** While average incomes have been rising strongly, wages for many people have not been rising as strongly—especially for people at the lower end of income distribution.
- **B.** U.S. incomes are considerably higher than the European average, but income per hour worked is closer.
- **C.** The federal government began running sizeable deficits—spending more than it earned—in the 1970s. These deficits were erased by the end of the 1990s but have returned, worrying many.
- **D.** The personal saving rate in the United States plummeted during the 1980s and 1990s and became negative in 2005.

**Essential Reading:**

The Bureau of Economic Analysis (http://www.bea.gov) and the Bureau of Labor Statistics (http://www.bls.gov) calculate the latest macroeconomic statistics (and provide bountiful supporting and explanatory documentation).

**Supplementary Reading:**

Council of Economic Advisors. *Economic Report of the President*.

*The Economist* magazine includes a weekly table with the latest international economic indicators—including the GDP growth rate, unemployment rate, and inflation rate—inside the back cover.

**Questions to Consider:**

1. What are some reasonable benchmarks for deciding: whether the economic growth rate is slow, moderate, or fast; whether the unemployment rate is low, moderate, or high; whether the inflation rate is low, moderate, or high?
2. If you could design a measure to replace the GDP as the primary gauge of economic health, what would it include?

# Lecture Three
# Economists' Views of the Future

**Scope:** Will the world in which our children and grandchildren live be a better place, or will things fall apart? This lecture explains the forces pushing long-term economic growth and outlines the main hazards to smooth economic sailing that economists foresee. Once, economists were counted among the pessimists embracing the Malthusian point of view, but the forces impelling continued economic growth are ubiquitous. Technological change, capital accumulation, and catch-up are the main sources of recent economic growth. The factors that have driven this recent growth are not likely to disappear, despite the criticism of modern Malthusians. There should, however, be concern for the challenges of the future, including the effects of an aging population, flaws in the Social Security system, exploding health-care and health insurance costs, and maintenance of productivity growth to keep up with international competitors—issues that we will confront in future lectures.

## Outline

**I.** Some disciplines are increasingly pessimistic about the U.S. economy's future. The moniker "the dismal science" for economics stuck for so long because so many economists followed the lead of Thomas Malthus in predicting that population growth in the face of resource constraints would inevitably squelch hopes for a broad-based rise in standards of living.

- **A.** Most of the world's economic history up to the time of Malthus was fairly gloomy.
  - **1.** Standards of living were abysmally low, life expectancies were short, and people were malnourished.
  - **2.** Discoveries and institutional adaptations brought slow population growth, but the long-term growth rate of income per capita was essentially zero.
- **B.** Let us briefly examine the Malthusian model in economic terms.
  - **1.** The model focuses on the supply and demand for labor and applies best to a period in which almost everyone earns their living directly from the land.
  - **2.** The demand for labor—the amount that an employer or the earth itself is willing to pay—is tied to a worker's productivity; however, there is a fixed amount of resources to go around.
  - **3.** As more workers are employed, the marginal productivity of the additional worker eventually falls because he has fewer resources to use.
  - **4.** This phenomenon is known as the "law of diminishing marginal returns": When more workers are crowded into one space, the average output per worker falls, as does the marginal product and the wage.
  - **5.** In the strictest Malthusian model, the wage is driven down to the "subsistence rate"—the rate at which the standard of living is so low that the overall birth rate must be equal to the overall death rate.
  - **6.** A breakthrough will boost this society's average wages only for a while; the population will grow, and the wage rate will get pushed down until we are back where we started.
- **C.** Around the time that Malthus explained this model, it began to become a less accurate reflection of reality.
  - **1.** Technological productivity improvements began to swell.
  - **2.** The link between higher wages and higher birth rates broke down.
- **D.** Economists' pessimism continued even after modern economic growth kicked in, bringing unmistakable evidence of rising incomes.
  - **1.** Simon Kuznets pointed out that, throughout the 1800s, most American economists continued this unwarranted gloom for fear that progress had been so great that it could not possibly continue.
  - **2.** Robert Fogel shows that forecasts of economic growth from World War II through the 1950s were pessimistic as well.

**II.** Today there are strong indications that the gloom among economists has evaporated. In late 2005 I surveyed members of the American Economic Association and found that they are very optimistic about the future growth of the U.S. economy.

- **A.** The largest group (49%) expects per capita income growth in the United States to slow down a little over the next decade, and 40% expect it to grow at about the same strong pace as the past decade. No one expects economic decline in the coming decade.

**B.** Almost half (49%) forecast an economic growth rate over the next 60 years that is equal to or greater than that of the past 60 years. This prediction implies that average inflation-adjusted incomes in the U.S. will approximately triple in the next 60 years.

**C.** Economists believe that the United States will continue to be one of the richest countries in the world 60 years from now (28% predict that the United States will have the highest per capita income in the world by 2065).

**D.** Asked what countries or regions will have an income per capita that equals or surpasses today's level in first-world nations 60 years from now, 62% of economists put China on the list.

**E.** However, most economists expect all or most of sub-Saharan Africa to remain poor. Among those surveyed, 94% believe that all or parts of Africa will continue to have high rates of absolute poverty (20% or higher living on $2 per day) 60 years from now.

**III.** Modern Malthusians say that we are living on borrowed time by using up resources, but studies generally conclude that the primary source of economic growth in countries like the United States is due to "total factor productivity": our ability to get more and more with the same inputs.

**A.** The New Growth Theory focuses on the supply and demand for this new technology or knowledge.

**1.** At one point in history, the demand for new ideas in most places was pretty low.

**2.** As the modern era opened, the Scientific Revolution led to a torrent of new ideas.

**3.** The key economic change was that the rate of return on the investment in innovation climbed high enough to equal or surpass the rate of return on other traditional investments in land and machines.

**4.** The New Growth Theory points out that discoveries are not random but come from choices driven by incentives.

**B.** The key differences between knowledge capital (ideas) and traditional capital (e.g., buildings, machines) are that knowledge capital is a public good and that knowledge capital doesn't suffer from the law of diminishing returns.

**C.** Economists seem to have embraced the logic of the New Growth Theory. Julian Simon argued that the ultimate resource is people because more people means more minds to think and solve problems.

**IV.** The optimism of mainstream economists does not mean that they have no concerns about the future.

**A.** According to the surveyed economists, the most important economic challenges the U.S. economy is likely to face in the next decade are tied to the following:

**1.** Aging, Social Security, and pensions (45%).

**2.** Health care and health insurance (42%).

**3.** Trade imbalances and globalization (39%).

**B.** According to the surveyed economists, the top challenges for our children and grandchildren are the following:

**1.** Aging, Social Security, and pensions (50%).

**2.** Health care and insurance (34%).

**3.** Education; trade or globalization; sustaining productivity growth and competitiveness (each 24%).

**C.** Most of the challenges listed by these economists concern dimensions of the economy wherein complicated government programs play a large role, or where government attempts to solve problems are identified as the source of difficulty.

**Essential Reading:**

Whaples, Robert. "Collapse? The 'Dismal' Science Doesn't Think So: Economists' Views of the Future."

**Supplementary Reading:**

Easterlin, Richard. *Growth Triumphant: The Twenty-First Century in Historical Perspective.*

**Questions to Consider:**

**1.** Why are economists so optimistic about the future?

**2.** Why do modern economies not behave as Malthus's model predicted?

# Lecture Four
# Productivity and Productivity Growth

**Scope:** As our last two lectures explained, the American economy has grown a lot in the past, and economists expect the American economy to grow a lot in the future. Productivity growth (producing more output per hour of work) is the key to this economic growth. This lecture will begin by examining the basic channels through which productivity can grow, using the example of farming. Next we will look at trends in American productivity growth, examining reasons why it slid in the 1970s and rebounded in the 1990s. We will explore the sources of recent productivity growth, relating it not only to technology but also to broader economic, institutional, and cultural conditions—what economists call "creative destruction"—by comparing the recent productivity surge in the United States with the weaker performance of Europe. We will close by asking some policymakers' questions: What should we do about productivity growth? How can we boost it? Is it worth the trouble?

## Outline

**I.** Labor productivity equals the total output produced per hour of labor.

- **A.** This sounds easy to compute but can be difficult in practice because sometimes it is hard to measure output. Also, the concept of an hour of labor can be slippery since not every hour of labor, nor every worker, is equal.
- **B.** Consider a farmer who grows corn.
  - **1.** The farmer produces only corn and at the end of a year harvests 2,000 ears; if he worked for 500 hours during the year, this works out to a productivity of 2,000 ears divided by 500 hours, or 4 ears per hour.
  - **2.** If the corn sells for $0.25 per ear, the farmer's productivity of 4 ears per hour equals only $1 per hour.
- **C.** There are three ways to boost productivity: more inputs, better inputs, and better use of inputs.
  - **1.** If the farmer used two mules, he could get the job done in 400 hours, which would raise his productivity by 25%. Adding more labor increases output but usually does not boost productivity because the increase in output is smaller than the increase in labor.
  - **2.** If the farmer traded in his mules for a tractor, he might be able to produce 10 times as much corn per hour; inputs (and output) can be improved in a lot of different dimensions.
  - **3.** If the farmer figures out a new way to save time and other resources, his productivity will jump as he is able to use his inputs better. This ability to get more output from the same inputs is called total factor productivity growth and is ultimately the key to almost all growth in labor productivity.
- **D.** Economists usually model the economy or a sector of the economy as one giant mathematical equation.
  - **1.** On the left side of the equation is output and on the right side is a complex function showing how the varied inputs (especially labor, capital, land, and raw materials) interact to produce output.
  - **2.** Over the years, economists have found some consistent regularities including the "one-third rule," which implies that if the United States increased its capital stock by 30%, its real GDP would rise by 10%.
- **E.** Economists who generate these estimates seem to be in consensus about the sources of American productivity growth.
  - **1.** Back in the 1800s, the major source of our productivity growth was a rising level of capital.
  - **2.** Since then, our major source of economic growth has been increases in total factor productivity because we have squeezed more output from our inputs.

**II.** Let us take a look at historical labor productivity growth in the United States and Western Europe.

- **A.** In the 1800s and the first half of the 20th century, the United States pulled ahead of Europe in productivity; after 1950, Europe began to catch up with the United States due to a backlog of inventions and innovations.
- **B.** After 1973, productivity growth in the United States fell to 1.5% a year and slowed to 2.2% in Europe.
  - **1.** People were concerned during the 1980s that Japan would surpass the United States.
  - **2.** Productivity growth in the United States jumped back to its historical level, rising 2.5% from 1995 to 2000 and 3.1% per year between 2000 and 2005.

**C.** What explains the slowdown that began in 1973 and the divergence between the United States and Europe since 1995?

   **1.** The price of energy soared in the wake of the 1973 Yom Kippur War and the Arab oil embargo, followed by an even bigger oil price spike during the Iranian Revolution and much of the Iran-Iraq War.

   **2.** The United States, as a technological leader, had simply used up the major gains that could be extracted from a series of technological breakthroughs in the early 20th century.

**D.** What caused the rebound in productivity growth of the mid-1990s?

   **1.** Most observers point to a new wave of technological breakthroughs tied to electronics, microchips, and information technology.

   **2.** American firms found that harnessing the computer required numerous complimentary changes and adaptations.

   **3.** They also found that firms that made these adaptations could earn big profits while those that did not were severely hampered and even driven out of business.

   **4.** Firms are forced to adopt productivity-enhancing innovations if markets are competitive; those who conceptualize and then implement the changes necessary are entrepreneurs.

   **5.** Competition and the rewards from successful competition set our best minds up in a race to come up with and implement better ideas for the future; this dynamic was called "creative destruction" by Joseph Schumpeter.

**III.** American institutions and social choices encourage and promote creative destruction more than those in other places, and American financial markets welcome innovation more than elsewhere. The European system, on the other hand, emphasizes a corporatism that dampens competition and inhibits the entry of new firms in a market, which is crucial for productivity growth.

**A.** Data indicate that the productivity growth acceleration in the United States has been centered in the information and communications technology (ICT)-producing and -using sectors, with the chief ICT-using sectors being retail, wholesale, and finance.

   **1.** European firms have the same technology at their disposal but face greater impediments to utilizing them, including land-use restrictions, shop-closing time regulations, and a population that uses mass transit and has restrictive labor rules.

   **2.** Edmund Phelps argues that many European countries see their productivity growth retarded almost on purpose by corporatist institutions designed to protect incumbent producers and inhibit new entry.

**B.** Robert Gordon identifies productivity-enhancing advantages of the United States over Europe.

   **1.** He sees a unified market not hobbled by differences in customs and language.

   **2.** He points to the system of peer review and meritocracy that guides U.S. government support of research.

   **3.** He notes a dynamic capital market.

   **4.** He sees that the U.S. welcomes foreign graduate students and highly skilled immigrant engineers (plus the fact that English has become the language of the world's educated population).

   **5.** The U.S. has a competitive system of public and private universities.

**IV.** What should we do about productivity growth?

**A.** One reply is that we should keep doing whatever we are doing because it seems to be working, yet there are many industries in which the United States is not at the forefront, and our current productivity surge might soon end.

**B.** Another reply is that the European system is better and we should move toward it. This reply does not appeal to most Americans and ignores some real problems in Europe (e.g., high unemployment rates).

**C.** Since productivity gains create positive spillover effects to society at large, almost any economist would encourage governmental action that is likely to enhance productivity growth. Economists generally recommend the following tactics:

   **1.** In a recent survey, 85% of economists agreed that "appropriately designed fiscal policy can increase the long-run rate of capital formation."

   **2.** If we really want to boost productivity, we probably need to redirect the educational system to encourage more studying of math, science, and engineering.

3. The U.S. government could do more to encourage innovation through direct support for research and development.
4. The United States can remain as open as possible to foreign investment.

**D.** Ultimately, the primary source of productivity growth is new technology, the flow of which may be accelerating over time as higher education is globalized.

**Essential Reading:**

Gordon, Robert. "Why Was Europe Left at the Station When America's Productivity Locomotive Departed?"

**Supplementary Reading:**

Council of Economic Advisors. "Productivity Growth."

**Questions to Consider:**

1. What should we do about productivity growth? How can we boost it? Is it worth the trouble?
2. Do you think productivity growth is likely to continue apace, slow down, or accelerate in the future?

# Lecture Five
# Inflation

**Scope:** In Lecture Two we briefly examined inflation, seeing that the consumer price index grew at an alarming rate of about 7.5% per year in the 1970s as prices more than doubled. Fortunately, the annual inflation rate has been much lower in recent years, averaging 3% in the 1990s and about 2.6% since then. In this lecture we will look more closely at how inflation is measured, criticisms of official inflation statistics, the problems that inflation—and deflation—can cause, and estimates of the "optimal" inflation rate. Then we will turn to an examination of the underlying causes of inflation and a discussion of what economists think policymakers—especially the Federal Reserve Bank—should do about inflation.

## Outline

**I.** The most widely used estimate of inflation is the consumer price index (CPI), which is calculated monthly by the Bureau of Labor Statistics.

**A.** The CPI begins by constructing a market basket to reflect the purchases of the average urban household. This basket is developed from detailed expenditure information provided by families and individuals on what they actually bought.

1. More than 30,000 individuals and families provide expenditure information for use in determining the importance (or weight) of the more than 200 categories in the CPI.
2. To see where consumers are buying, the CPI uses another sample of about 17,000 families who serve as the basis for the Point-of-Purchase Survey. For each item category, the bureau chooses several hundred specific items to represent the thousands of varieties in the marketplace.

**B.** The current CPI uses the years 1982 to 1984 as the reference base—setting this basket's price equal to 100.

1. In March 2006, the CPI reached 199.8, indicating that consumer prices had almost doubled since 1982 to 1984.
2. A year later, the CPI hit 205.3, a 2.8% increase from the previous March—indicating a one-year inflation rate of 2.8%.

**C.** This method of estimating inflation hides some problems that critics believe make it overstate the true rise in the cost of living.

1. Substitution bias arises because the CPI's method essentially locks consumers into buying exactly the same basket no matter how relative prices change—something no rational consumer would do.
2. Another problem involves the rotation of new retail outlets into the CPI sample.
3. The CPI's market basket is a little skewed; the people responding to the underlying Consumer Expenditure Survey sometimes forget what they have purchased, do not know what other family members have bought, and even fib about what they buy.
4. When new goods come onto the market, their prices often fall rapidly; this initial price decline is not picked up by the CPI since the goods are not yet part of the representative market basket, which gets updated only once a decade.
5. The quality of many goods gets better over time, and the CPI does not generally value these quality improvements.
6. The Boskin Commission estimated in 1996 that the biases in the CPI added up to overstate inflation by about 1.1 percentage points per year. In a survey I designed for this course, professional economists concurred with these studies.
7. If these economists are correct, we could measure the rise in the cost of living more accurately by subtracting about one percentage point off the CPI's inflation rate.
8. The CPI reported an inflation rate of 2.8% from March 2006 to March 2007; subtracting 1% probably gives a more accurate estimate of a 1.8% increase in the cost of living.

**II.** Inflation imposes big costs on the economy and also generates some benefits.

**A.** When inflation occurs, it requires one to do more price comparisons, which waste time and other resources (economists refer to these as shoe leather costs).

**B.** Inflation can have some nasty tax consequences. When people hire tax consultants and economic analysts, the talent is wasted trying to figure out how to beat inflation rather than doing something productive such as making more goods and services.

**C.** Inflation requires businesses to change their prices more often, which can sometimes be costly (economists refer to these costs of changing prices as menu costs).

**D.** The greatest cost of inflation is the uncertainty it creates. Empirical evidence shows that when the inflation rate is high, it is also more variable; low inflation means that it is a lot easier to predict what prices will be next year.

**III.** Adding all these costs together, inflation will sap economic growth by diverting resources to unproductive uses and squelching investment. On the other hand, deflation (falling prices) might be even worse than inflation.

**A.** Deflation generates the same uncertainty, menu costs, and shoe leather costs, but it can also cause the economy to choke.

**1.** Deflation makes it harder to pay off debts. People who do not walk away from these debts often have to tighten their financial belts to pay them off, which can cut spending in the rest of the economy, dragging it down.

**2.** If prices are falling, it might be safer for a lender to hold onto his or her money, which appreciates in value when there is deflation. Real interest rates rise as credit becomes scarcer, so borrowing and investment fall.

**3.** Deflation can cause people to put off purchasing, leading to less demand and hiring.

**IV.** If inflation and deflation are bad, does this mean that the optimal inflation rate is zero?

**A.** A little inflation allows the possibility of negative real interest rates.

**1.** If bankers lend at 2%, and inflation is 3%, then the real interest rate is –1%.

**2.** If the Federal Reserve can push the real interest rate this low, it might spur a stagnant economy.

**B.** A little inflation seems to make labor adjustments easier.

**C.** Professional economists find the ideal inflation rate to be about 2% per year.

**V.** In order to achieve this inflation rate, we need to understand the causes of inflation.

**A.** Most economists believe the underlying root of inflation is the expansion of the money supply.

**B.** Inflation arises whenever the overall demand for goods and services (aggregate demand) in the economy grows faster than the overall supply of goods and services (aggregate supply).

**C.** The job of keeping these forces in balance has fallen primarily into the hands of the Federal Reserve Bank (“the Fed”).

**1.** Politicians, policymakers, and citizens want the Fed to steer the economy so that it grows strongly and unemployment and inflation stay low. It has to increase the money supply at the right pace (but no one knows for sure what that pace is).

**2.** Many macroeconomic models judge the economy in comparison to its potential.

**3**. If we are below potential, the unemployment rate is high and inflation is low, so we have room to boost the economy through tax cuts, increased government spending, or increased money supply to cut interest rates.

**4.** If we go above potential and then cut taxes, the economy will grow a little and unemployment will fall a little, but prices will rise rapidly.

**5.** The Fed’s assignment is to push us right up to potential without pushing us past it.

**D.** The Fed has not always done its job well.

**1.** When the Fed started, it was very constrained in its ability to increase or decrease the money supply.

**2.** Since the U.S. went off the gold standard (during the Great Depression), the Fed has been able to increase the money supply by printing more dollar bills or buying government debt from banks or the public and crediting their accounts with extra deposits.

**E.** Why did the Fed and other central banks allow such rapid inflation to arise during the late 1960s and 1970s?

**1.** Policymakers of the time did not realize that pushing the economy above potential would cause so much inflation.

2. Many economists in the 1960s were tantalized by the historical record, which showed that low unemployment rates coincided with inflation rates that were only a little higher than average (a regularity dubbed the Phillips curve). They advocated trying to hold down the unemployment rate, mistakenly thinking that only modest inflation would arise.
3. Policymakers have learned that in the long run, lower inflation means lower unemployment rates and faster economic growth.
4. Boosting the money supply in the short run can spur extra economic growth, but in the long run it results in inflation and hampers economic growth.

**E.** During the era of high inflation, it became more obvious that central banks with greater independence held inflation rates lower. Accordingly, countries began to grant their central banks greater autonomy.

**F.** The Fed is unusually independent.

1. Members of its board of governors are political appointees but have staggered 14-year terms and cannot be dismissed.
2. Today, presidents and Congress do not play politics with Fed appointments; they tend to select members who have solid reputations for conducting monetary policy with the goal of keeping inflation in check.

**VI.** What, then, should we do about inflation? The consensus I see among economists is that we should be doing exactly what we are doing. In a recent survey, 70% of economists agreed that the Fed should focus on a low rate of inflation rather than other possible goals such as employment or economic growth.

**Essential Reading:**

Federal Reserve Bank of San Francisco. “U.S. Monetary Policy: An Introduction.”

**Supplementary Reading:**

Bureau of Labor Statistics. “Frequently Asked Questions.”

———. “How BLS Measures Changes in Consumer Prices.”

Mishkin, Frederic. “Monetary Policy Strategy: How Did We Get Here?”

**Questions to Consider:**

1. How can inflation harm the economy? How can deflation harm the economy?
2. Should the Federal Reserve Bank adopt an official inflation target? Why or why not?

# Lecture Six
# Unemployment

**Scope:** While most people are not enamored with work, they are much more fearful of unemployment—the inability to find a job when looking for one; the term "unemployment" brings the haunting specter of bread lines during the Great Depression to many people's minds. In this lecture we will look closely at how the unemployment rate is measured and consider who is more likely to be unemployed. Then we will turn to an examination of the underlying types and causes of unemployment and a discussion of what economic policies can do to influence the unemployment rate, by comparing the differing strategies used in the United States and Europe. Economics is all about trade-offs; greater labor market protections—which help many workers—seem to yield higher unemployment rates.

## Outline

**I.** In the United States, unemployment estimates come from the Bureau of Labor Statistics in conjunction with the Census Bureau, which every month contacts about 60,000 households that are representative of the U.S. population.

- **A.** A series of questions is asked to categorize each person in the household who is 16 years or older as either "employed," "unemployed," or "not in the labor force."
  - **1.** People with jobs are "employed"; people who are jobless, looking for a job, and available for work are "unemployed"; people who are neither "employed" nor "unemployed"—retirees, full-time homemakers, full-time students—are counted as "not in the labor force."
  - **2.** Omitted from the sample are those in institutions such as prisons or mental hospitals and those on active duty in the armed forces.
- **B.** The lines do get fuzzy sometimes.
  - **1.** "Employment" counts part-time and temporary work; you are counted as "employed" if you have a job but did not work for reasons such as vacation or illness.
  - **2.** To be "unemployed," one must have "actively" looked for a job within the prior four weeks and be currently available for work.
  - **3.** The bureau defines "actively looking for work" as including contacting an employer, sending out résumés, and checking union or professional job registers.
  - **4.** Workers expecting to be recalled from layoff are counted as "unemployed."
  - **5.** The person must be available for work to be "unemployed."
  - **6.** "Discouraged workers" are people who could not find a job match, got discouraged, and gave up trying to get a job.
- **C.** Currently, there are about 146 million employed people and 6.8 million unemployed people in the U.S., yielding an unemployment rate of 4.5%. Adding in the 400,000 who looked for jobs within the last year but not the last four weeks would boost the unemployment rate from 4.5% to 4.7%.
- **D.** The U.S. unemployment rate has been fairly low so far in the 21$^{st}$ century [from 2000 to 2007, at the time this course was recorded].
- **E.** Unemployment differences are more persistent by population subgroup.
  - **1.** The unemployment rate usually is about the same for adult men and women, but teenagers have a much higher unemployment rate.
  - **2.** The rate for African-Americans is generally much higher—about twice as high as for whites.
  - **3.** The rate for Hispanics is only a little above that for whites; the Asian-American rate is a bit lower.

**II.** Economists typically subdivide unemployment into three categories—frictional, structural, and cyclical—and point out that not all unemployment is bad.

- **A.** Frictional unemployment arises due to the normal turnover of labor and involves the process of finding the best match between employer and employee.
  - **1.** It allows better employment matches and allows more productive firms to replace less productive firms, both of which make the economy more productive.
  - **2.** The number of unemployed workers is equal to the number of vacancies, but it takes time to fit workers into these vacancies.

3. **3.** The better and faster the labor market processes information, the lower this frictional unemployment will be.

**B.** Structural unemployment is much more worrisome; in this case, the number of vacancies is about equal to the number of unemployed workers, but these workers do not fit well into the vacancies.

- **1.** Structural unemployment may arise due to a geographic or skill mismatch between workers and employers.
- **2.** Another source of structural unemployment occurs when an employer is considering hiring a worker and a worker would like the job, but some rule or law prevents the job match.

**C.** Frictional and structural unemployment together are often called the natural rate of unemployment.

- **1.** The Congressional Budget Office puts the current natural rate around 5%, down from 6.3% in the late 1970s.
- **2.** This decline may be due to a range of factors, including the decline in the portion of the labor force who are very young workers, the increased generosity of the disability insurance system, an uptick in productivity growth, and the end of the restructuring of the 1970s and 1980s.

**D.** Cyclical unemployment arises when the economy falls into a recession and employers stop hiring or lay off a lot of workers. One reason this type of unemployment arises is that wages are sticky—that is, employers do not generally cut their workers' wages unless things get very, very bad.

**E.** Unemployment insurance (UI) can have a tremendous impact on the unemployment rate.

- **1.** The UI tax rate is experience rated—that is, it rises when an employer has a history of laying off more workers—which means that employers have an incentive to cut back on layoffs so their tax rate will not rise.
- **2.** Workers are eligible for unemployment insurance if they worked "enough" in the previous year or so (usually enough to earn a couple thousand dollars), if they became unemployed through no fault of their own, and if they show willingness to take an appropriate job opening.
- **3.** According to the Department of Labor, average UI benefits in the United States are about $270 a week, and the average replacement rate—unemployment insurance benefits as a percentage of previous wages—is about 36%.
- **4.** In most cases, workers are eligible for benefits for a maximum of 26 weeks.

**III.** What explains why U.S. unemployment rates have come down while rates in much of Europe are now higher than in the United States?

**A.** In the most recent period, the U.S. rate is 4.5% and the Euro zone rate is about 7.5%.

**B.** Much of the gap is because unemployment spells tend to last much longer in Europe.

**C.** The "not in the labor force" category is generally a lot larger in Europe than in the United States.

**D.** Labor economists conclude that these variations have to do with labor market institutions and rules, which differ dramatically. The United States has a broad set of institutions that make employers willing to hire more workers and workers more willing to go out and fill job openings.

**E.** European laws tend to compress the wage distribution, boosting unemployment but reducing inequality.

- **1.** European unionization rates are much higher than in the United States.
- **2.** The minimum wage is much higher relative to the median wage in most European countries.
- **3.** Unemployment insurance in the United States is much less generous to job losers.

**F.** Holding down the unemployment rate requires pushing some workers into somewhat less-desirable, lower-paying jobs.

**IV.** What should we do about unemployment?

**A.** When unemployment has soared due to an economic slowdown, almost everyone agrees that the answer is to have the government boost the economy by spending more, cutting taxes, or cutting interest rates.

**B.** The solution to a higher natural rate of unemployment is less clear.

- **1.** One solution is to allow labor markets to be flexible and move toward equilibrium, but this leads to higher inequality.
- **2.** The other tactic is to hold down inequality, which seems to lead to more unemployment.

**C.** Requirements like mandated severance pay might lead employers to lay off fewer workers, but they will also make employers less likely to want to hire those workers in the first place.

**D.** Pushing employees to share work could be done by cutting the maximum workweek or setting exorbitant overtime penalties, but numerous studies have concluded that such laws have little impact on overall employment.

**E.** Training unemployed workers has broad popular appeal even though it requires the government to spend taxpayers' money. However, most research finds that government job training programs have small effects on wages and reemployment.

**F.** The principal way to a low unemployment rate is to have a flexible labor market devoid of institutions that push wages above the equilibrium level, discourage employers from hiring, and discourage workers from getting jobs—unfortunately, these same institutions seem to increase economic inequality.

**Essential Reading:**

Blau, Francine, and Lawrence Kahn. *At Home and Abroad: U.S. Labor-Market Performance in International Perspective.*

**Supplementary Reading:**

Bewley, Truman. *Why Wages Don't Fall During a Recession.*

Bureau of Labor Statistics. "How the Government Measures Unemployment" and other materials.

Ehrenberg, Ronald G., and Robert S. Smith. *Modern Labor Economics: Theory and Public Policy*, 9th ed.

**Questions to Consider:**

**1.** Are some types of unemployment good? If so, which ones and why?

**2.** Should the United States increase unemployment insurance benefits? If so, why?

## Lecture Seven

## Economic Inequality

**Scope:** The last lecture concluded that economic inequality is higher in the United States than in many other economically advanced nations, partly due to policies we have adopted that hold down the unemployment rate. In this lecture we will begin by examining measures and trends in inequality. Then we will look at the forces that drive inequality—forces that give some individuals much higher consumption, income, and wealth levels than others—and that have increased inequality in recent decades. Technological changes are seen by most economists as the primary force driving up inequality in the United States in recent decades. We will close by examining programs designed to reduce inequality, especially by transferring resources from the rich to the poor. Because reducing inequality generally means also reducing economic efficiency and because reducing inequality benefits some people at the expense of others, it is hard to reach a consensus on what we should do about inequality.

## Outline

**I.** There is a wide range of measures of economic inequality, none of them perfect. The most widely used measure looks at households' incomes using data collected in the Census Bureau's Current Population Survey.

- **A.** Every year, the Census Bureau asks a representative set of respondents about almost two dozen categories of income they might have received.
  - **1.** The income data cover monetary income received before payments for income taxes and social security taxes and do not reflect the fact that some families receive noncash public benefits.
  - **2.** The data leave out the monetary value of nonwage job benefits such as retirement and health insurance packages.
  - **3.** The Census warns that households tend to underreport their nonwage sources of income.
- **B.** In 2005, the 20% of households with the lowest incomes had monetary incomes averaging about $11,000 per year; the top 20% averaged about $160,000 per year.
- **C.** In the past three decades or so, the bottom's share of income has fallen from 4.3% to 3.4%, the middle's share has fallen from 17% to 14.5%, and the top's has risen from about 44% to about 50%.
- **D.** Critics of these statistics say they overstate income inequality and its rise in important ways.
  - **1.** Poor households tend to be smaller and rich households tend to be larger.
  - **2.** Due to misreporting and temporary aberrations, it might be better to look at the inequality of money spent (consumption) rather than income.
  - **3.** The top 20% consume about three times as much per person as the bottom 20%.
  - **4.** Financial wealth is much less equally distributed than either consumption or income.
- **E.** Official estimates suggest that income inequality in the United States rose consistently from about 1975 to the early 1990s and has risen more slowly since then.
- **F.** Economists convert these income data into a graph called the Lorenz curve, which plots the cumulative share of income on the vertical axis and the cumulative share of households on the horizontal axis.
  - **1.** The Lorenz curve bulges out from the 45° line; one can calculate the ratio of the area between the Lorenz curve and the line of equality to the total area below the line of equality.
  - **2.** This ratio is called the Gini coefficient—a single number that summarizes inequality.
  - **3.** A Gini coefficient of zero means that all households have the exact same income; a Gini coefficient of 100 means that one household gets everything.
  - **4.** The U.S. Gini coefficient is currently about 41.
  - **5.** The U.S. level is average by world standards but somewhat high by the standards of rich countries.
  - **6.** Ironically, the Gini coefficient for the world as a whole is almost higher than for any single country—at about 60—since rich people tend to live with other rich people fairly equally in rich countries, and poor people tend to live with other poor people fairly equally in poor countries.
- **G.** The income of any individual or household is determined by a complex mix of individual choices, societal choices, and luck.

**II.** What has caused the recent rise in inequality in the United States?

**A.** Most economists focus on the labor market, since the vast majority of income is earned in the labor market for all groups except the bottom quintile.

**B.** Wages at the top of the educational distribution have risen relative to those at the bottom, despite an increase in the share of the workforce that is college educated. This implies that demand-side forces are the key to rising inequality.

**C.** In a recent survey, 65% of economists put technological change as the primary reason for increased income inequality.

   **1.** Technological innovations have increasingly allowed machines to do many routine production jobs once done by less-educated workers.

   **2.** Real wages of less-educated workers have risen somewhat because of a rising demand for in-person services.

   **3.** Technology has been especially potent in accelerating the payoffs of economic "superstars" (e.g., singers and athletes).

   **4.** Analysts believe that new technology and machines have been a substitute for lower-educated workers and a complement for better-educated workers.

**D.** The next major factor driving up income inequality is increased international trade.

**E.** There are two important demographic factors that seem to have increased economic inequality: immigration and the rise of single-parent families.

**III.** What should we do about relatively high and gradually rising income inequality in the United States?

**A.** To answer this question, let us examine the widespread efforts by the government to reduce inequality.

   **1.** The income taxation system is decidedly progressive, so the rich pay a greater share of their incomes in taxes.

   **2.** Publicly funded education is designed in part to offset another type of inequality: intergenerational inequality.

**B.** Increasing equality via redistribution will probably mean reducing economic efficiency.

   **1.** Arthur Okun referred to this as "the big trade off."

   **2.** He argues that income is carried from the economic well of the rich to the cups of the poor using a "leaky bucket."

   **3.** Because of the "leaky bucket," taking a dollar from the rich and giving it to the poor makes the rich more than a dollar poorer and the poor less than a dollar richer.

**Essential Reading:**

Blau, Francine, and Lawrence Kahn. *At Home and Abroad: U.S. Labor-Market Performance in International Perspective.*

**Supplementary Reading:**

Ehrenberg, Ronald G., and Robert S. Smith. *Modern Labor Economics: Theory and Public Policy*, 9th ed.

Reynolds, Allan. "Has U.S. Income Inequality Really Increased?"

———. "Interrogating Inequality."

**Questions to Consider:**

**1.** Why does the United States have a higher level of income inequality than most other economically advanced countries?

**2.** Why has income inequality increased in the United States over the past few decades?

# Lecture Eight

# International Trade and Outsourcing

**Scope:** In the opening sentence of *The Wealth of Nations*, Adam Smith identifies the division of labor as the key to improvements in productivity. His third chapter opens by explaining that this productivity-improving division of labor is limited by the extent of the market; according to Smith, larger markets allow more division of labor, more specialization, higher productivity, and higher standards of living. Belief in the benefits of free trade is almost universal among economists; it is virtually our identity badge. In this lecture we will build on Adam Smith's insights, explaining why 92% of economists in a recent survey agreed that barriers to trade—tariffs and import quotas—"usually reduce the general welfare of society." We will use a numerical example to demonstrate David Ricardo's concept of comparative advantage and to quantify the gains that can arise from trade. Next, we will examine why, despite these big potential gains, barriers to international trade have existed historically and continue to exist today. Finally, we will discuss what can be done to help those who lose out due to shifts in trading patterns and the outsourcing of U.S. jobs.

## Outline

**I.** Following the great 19th-century English economist David Ricardo, economists' understanding of the potential gains from trade begins with the simple case of two goods and two people (or countries).

- **A.** Ricardo's insight was that two parties can gain if they specialize in producing where they have a comparative advantage and then trade. You have a comparative advantage if you can perform an activity or produce a good at a lower opportunity cost than other people (measured by how much you give up to produce more of a good).
  - **1.** Mary had two loaves and one fish to start, but trading brings her to two loaves and two fish.
  - **2.** Peter had half a loaf and two fish to start, but trading brings him to two loaves and two fish.
- **B.** Trade makes both parties better off even if one of them has an absolute advantage and is able to make more of both things.
- **C.** Trade does not make both parties better off in a few important cases.
  - **1.** Tastes must be compatible.
  - **2.** If the costs of trade are too high, there is no net gain from trade.
  - **3.** Fraud and coercion derail gains from trade.
- **D.** Trade works even better when specialization leads to learning by doing. At a national level, trade can also have three other big advantages.
  - **1.** Trade allows firms within a country to expand output for the international market and tap into economies of scale—adopting mass production methods that cut average costs per unit.
  - **2.** Trade between countries allows the transfer of knowledge.
  - **3.** Trade can vastly increase the variety of goods available.
- **E.** Straightforward economic theory implies that trade increases average productivity, especially by assigning to each person the task that he or she can do at the lowest opportunity cost.
- **F.** Numerous statistical analyses using country-level data over time show that, holding everything else constant, higher levels of trade are associated with higher levels of income per capita and more rapid growth in incomes.

**II.** Why has international trade been restricted so much throughout history, and why is it such a contentious political issue now?

- **A.** One of the most important roadblocks to trade throughout history has been concerns over national security.
  - **1.** If your potential trading partners are your enemies or potential enemies, and you fear that they will use what they have gained from trade to harm you, you will refuse to trade with them.
  - **2.** You cannot rely on trade for certain things, because if war arises, your supplies may be cut off.
  - **3.** However, most vital resources have substitutes, and stockpiling imported goods often accomplishes the same goal as protecting domestic production of them through tariffs (import taxes).
- **B.** It is often easier for the government to raise revenues via tariffs than through other taxes.

**C.** Tariffs can protect vulnerable young domestic industries, giving them the chance to get started and turn into international powerhouses.

**D.** Added to these arguments against free trade are a few newer ones.

**1.** Some argue that free trade is bad for the environment, allowing polluting industries to escape from countries with strong environmental protections to those with lax standards.

**2.** Some argue that free trade leads to the exploitation of workers in poor countries.

**3.** Evidence supporting these two arguments is fairly weak.

**E.** One of the most compelling new arguments against free trade is that our international rivals do not play fair, so we need to level the playing field. This is the rationale for antidumping legislation.

**1.** A good is said to be "dumped" in the importing countries if it is sold for less there than in the exporting countries, or if it is sold abroad for less than its cost of production.

**2.** The World Trade Organization permits antidumping measures by governments against any country practicing either type of dumping.

**3.** Most economists are very critical of U.S. antidumping efforts, finding them both ineffective and misapplied.

**F.** Another antitrade argument says that protection of domestic industry is sometimes needed to protect the national culture; some imports are banned because many believe they harm people directly (e.g., cocaine).

**III.** Most economists seem to concur that the major reason domestic industries are protected from international competition is rent seeking. Rent seeking, however, is tied to perhaps our most gnawing fear about international trade: that it has cost and will continue to cost a lot of Americans their jobs.

**A.** If the overall labor supply curve is very steep and there is a natural rate of unemployment, then trade does not destroy jobs and it does not really create them.

**1.** Employment in the sectors in which a country has its comparative advantage will expand as trade expands; employment will contract by about the same amount in the sectors in which it does not have a comparative advantage.

**2.** The problem arises if the people losing their jobs have a hard time getting new ones or face big wage cuts in the new jobs.

**B.** Protecting jobs via tariffs, import quotas, and other barriers to trade is very expensive. For example, in the apparel and textile industries about 170,000 jobs have been "saved," at about $200,000 per job per year—costing consumers almost $34 billion in total.

**C.** Before thinking more about how to protect workers who lose out from expanded trade, let us recap the forces at work expanding international trade.

**1.** Trade is expanding because of technological changes that cut the costs of transportation and communication.

**2.** The drop in communications costs has been even more spectacular with the development of the Internet and the decrease in the cost of international phone calls, which allow businesses to easily move many of their routine operations to countries with lower labor costs (outsourcing) and still oversee production and quality standards.

**3.** Some economists have become increasingly worried about the possibilities of outsourcing.

**4.** My survey of professional economists asked whether the United States should restrict employers from outsourcing work to foreign countries. Only 6% of the respondents liked the idea; 90% rejected it.

**D.** It is probably easier to provide a safety net for workers who actually have lost their jobs due to international competition—paid for by those of us who have benefited from increased trade.

**1.** In addition to unemployment insurance, the United States has in place two major programs aimed at those displaced by international competition: Trade Adjustment Assistance (TAA) and North America Free Trade Agreement Transitional Adjustment Assistance, which help trade-impacted workers gain or enhance job-related skills and find new jobs.

**2.** When I asked professional economists whether these benefits should be expanded, 51% agreed and only 38% disagreed.

**Essential Reading:**

Bhagwati, Jagdish. *In Defense of Globalization.*

Irwin, Douglas A. *Free Trade under Fire*, 2nd ed.

**Supplementary Reading:**

Federal Reserve Bank of Dallas. *The Best of All Worlds: Globalizing the Knowledge Economy*.

———. *Fruits of Free Trade*.

**Questions to Consider:**

1. If free trade is such a slam dunk, why has international trade been restricted so much throughout history, and why is it such a contentious political issue now?
2. How should the United States respond to trading partners that do not play fair?

## Lecture Nine

## Trade Imbalances and Saving

**Scope:** In the last lecture, we examined why economists advocate unfettered international trade and how to protect individuals who are economically harmed by shifts in trade patterns and international comparative advantage. In this lecture, we will confront another worry that many people have about international trade: that the United States seems to chronically run up huge trade deficits. Our task will be to understand what has caused such deficits and what can and should be done about them. Most economists believe that these big trade deficits are a symptom of imbalances between high investment demand in the United States and our low savings rates, so we will close by discussing what can be done to boost savings in the United States.

## Outline

**I.** In recent years, reductions in trade barriers and developments in transportation and communications have caused American exports to rise to almost their highest-ever share of GDP. A new trend, however, has emerged: The level of imports has grown faster than the level of exports, and since 1980 this gap has been fairly large.

- **A.** Do such large balance of trade deficits have adverse effects on the economy? When asked this question in a recent survey, many economists said "yes," but more said "no."
- **B.** We can begin to understand this split verdict by asking why the United States is buying so much more goods and services from the rest of the world than it is selling to them.
  - **1.** During decades of running trade surpluses (selling more to the rest of the world than it bought from them), the United States built up a lot of foreign assets and developed a positive net international investment position.
  - **2.** Then the United States began to sell less to the rest of the world than it bought, so after 1988 the U.S. net international investment position became increasingly negative. By the end of 2005, U.S.-owned assets in foreign countries were valued at about $10 trillion, but foreign-owned assets in the United States were valued at $12.7 trillion.
  - **3.** In 2005, when Americans' imports exceeded their exports by almost $800 billion, to balance things out foreign investors simultaneously purchased about $800 billion more in U.S. assets than U.S. investors purchased in foreign assets. Thus, the U.S. ran a capital account surplus equal to its current account deficit.
- **C.** The question of why the United States is running a big trade deficit becomes the question of why foreigners are buying more of our assets than we are buying of theirs.
  - **1.** Savings equals the excess of income over consumption; investment is the purchase of new capital.
  - **2.** If a country did not interact with the rest of the world, the interest rate would adjust so that the domestic supply of savings would reach equilibrium with the domestic demand for investments; however, when funds can cross international borders, savings and investment within a country need not be equal.
  - **3.** Because there are so many great investment opportunities in the U.S. and Americans would rather spend their money than save it, foreigners have been stepping into the gap and investing in the American economy; this is ultimately what drives our capital account surplus and its flip side, the trade deficit.

**II.** To understand our trade imbalances, we need to understand why foreigners are so willing to invest their money in the United States and why Americans do not feel like saving much.

- **A.** Recently, the U.S. economy has been growing more rapidly than economies in other rich countries; big exporters of capital to the United States are countries that generally have a lot of savings but not a lot of good investment opportunities at home.
  - **1.** Japan's recent net capital outflows have resulted primarily from a falling domestic investment rate. Japan faces a shrinking population, which reduces its need for physical capital.
  - **2.** Germany has ranked very high on indexes of employment rigidity and has an unemployment rate of around 9%, which has depressed domestic investment prospects and caused German households and businesses to invest their savings abroad.

3. Saudi Arabia and Russia are the world's two biggest oil exporters; investing extra revenue at home does not make sense to them, so they have looked for good investments abroad.
4. Although China's economy is growing faster than any in the world, its savings rate exceeds 50% of the GDP, outstripping its high investment rate.

**B.** Many fear that this arrangement is unsustainable and that when it unravels, the United States will be in a tight spot—but the problem shouldn't be overstated

1. One worry is that these foreign investors will eventually begin to fear that U.S. debts are too large and reduce lending to the United States, which will cause the dollar to depreciate and could threaten its status as the primary international currency, making it harder for the United States to borrow internationally.
2. The United States does not face the problem of Argentina and other developing countries because it has promised to pay its creditors back in its own currency, not theirs.
3. Very few investors seem to fear that the U.S. government will not be able to afford its interest payments in the next couple of decades.
4. Despite a net negative investment position that equals almost a quarter of the U.S. GDP, the United States continues to earn more income on its foreign assets than foreigners earn on their American assets.

**C.** Most economists believe that the U.S. capital account surplus will shrink in the coming years.

1. Based on an examination of past decreases, Sebastian Edwards estimates that if the U.S. deficit shrinks abruptly by 3% to 6% of the GDP, the U.S. dollar will depreciate by about 21% to 28% during the first three years of the adjustment. If so, the United States is likely to have a significant reduction in economic growth or fall into a recession.
2. Almost all economists think that our ability to continue attracting so much international investment funds will wane and the United States will have to rely on more domestic savings to fuel economic investment and growth.

**III.** Why does the United States have one of the lowest savings rates in the world, and what can be done about it?

**A.** In recent years, the American savings rate (savings by households, businesses, and governments) has slipped to about 13% of GDP.

**B.** Though U.S. business saving has remained strong, the rest of the actors in the economy currently dissave—that is, they save less than they spend.

**C.** The motives for household savings are varied.

1. The leading theory of personal saving is the life-cycle hypothesis: The major reason people save is to smooth out consumption over their life cycle.
2. Many people would like to have some money left over to pass on to their heirs—economists call this the bequest motive.
3. Often, people will save for a particular goal—economists call this target saving.
4. People worry that they might lose their jobs or something unforeseen might arise—economists call this precautionary saving.

**D.** In recent years, the need for each of these types of savings has fallen.

1. Because our financial sector is very competitive, it has gotten easier and easier over time to obtain a line of credit. If one has access to credit, there is little need for precautionary or target savings.
2. The imperative of saving for old age has eased because of the existence of Social Security and due to the appreciation of housing and stock market assets.

**IV.** What can be done to boost the U.S. savings rate, help people attain financially secure retirements, and simultaneously close up our trade deficits?

**A.** Perhaps the easiest way to increase the national savings rate is to cut the federal budget deficit or run surpluses.

**B.** Another proposal is to boost savings by moving away from Social Security towards a system that invests directly in the stock market.

**C.** To encourage personal savings, people have proposed making the payoff from savings higher by exempting interest income from taxation and making it harder for people to borrow money and get into debt.

**D.** If economic incentives to save are too weak, we could try to change the psychological and cultural landscape.

**Essential Reading:**

Council of Economic Advisors. "The U.S. Capital Account Surplus."

**Supplementary Reading:**

Bernheim, B. Douglas. *The Vanishing Nest Egg: Reflections on Saving in America.*

Eichengreen, Barry J. *Global Imbalances and the Lessons of Bretton Woods.*

**Questions to Consider:**

1. Why do you think the American savings rate is so low?
2. What, if anything, should be done to boost the American savings rate?

## Lecture Ten
## Government Budget Deficits

**Scope:** American government has a big appetite. In fact, combined federal, state, and local government spending in the United States exceeds the GDP of every other country in the world. In 2006 federal revenues reached an eye-popping $2.4 trillion; spending was even higher at $2.65 trillion, leaving a budget deficit of roughly $250 billion. In this lecture we will put this deficit into historical and international perspective, examine the magnitude and impact of our accumulated national debt, and look forward using the generational accounting approach to compare the government's projected future revenues to payments it has promised to make. This forward-looking budget gap dwarfs official estimates of the national debt and has some observers deeply worried. We will close by considering ways in which these persistent budget deficits could be trimmed.

## Outline

**I.** In fiscal year 2006, the federal government spent about $250 billion more than it raked in, and this gap is projected to exceed $200 billion in fiscal year 2007 as well. In most years, in fact, the federal government spends more than it collects in revenues.

- **A.** Most governments around the world run budget deficits. To put things in perspective, it is useful to compare the size of the deficit to the size of the economy. The American federal budget deficit is about 1.7% of its GDP.
- **B.** Throughout most of American history, the government ran big deficits only during wartime. Since the Great Depression, however, budget deficits have become standard for both wartime and peacetime.

**II.** Are deficits bad for the economy, or are they good for it? How did big budget deficits become the norm?

- **A.** At the onset of the Great Depression, both Herbert Hoover and Franklin Delano Roosevelt argued that if ordinary households were required to balance their budgets by tightening their belts during hard times, it was only fair for the federal government to do the same.
- **B.** Some pointed out, however, that during emergencies the government funded the added spending not by taxing but by borrowing. In wartime it made sense to spread the burden of payment over many years and not concentrate it all during a time of emergency.
- **C.** Added to this logic was a new argument advanced by British economist John Maynard Keynes and his allies.
  - **1.** Keynes argued that the Great Depression had been caused by a lack of spending. Having the government balance its budget by cutting its own spending only made things worse.
  - **2.** The Keynesian logic added that every dollar spent by the government boosted economic output by more than a dollar, through a snowball effect dubbed the "multiplier."
- **D.** In good economic times, however, deficits are not such a good idea.
  - **1.** Deficits cause the crowding out of private sector investment. When the government runs big deficits, it is forced to borrow, which can drive up interest rates.
  - **2.** Instead, taxes should be boosted or government spending reined in to make sure the economy does not climb above potential—so the government does not add fuel to the fires of inflation.
- **E.** Analyzing budget deficits since 1950 in industrialized nations shows that the United States has followed a pattern similar to that of other countries.
  - **1.** In fact, throughout this period the United States has had somewhat lower than average deficits.
  - **2.** Deficits in industrialized countries averaged a bit over 1% of GDP from 1951 until the early 1970s, and then they soared everywhere, peaking at almost 7% of GDP in the first half of the 1980s, before subsiding virtually everywhere.
- **F.** Three important political factors yielded the atypical surpluses in the late 1990s.
  - **1.** Research suggests that budget deficits may be lower when the highest offices of government are deadlocked.
  - **2.** Research suggests that spending and deficits are reined in during a president's second term.

3. The 1990s were a period of international calm after the end of the Cold War and the crumbling of the Soviet Union, which allowed for cuts in military spending.

**III.** Now let us turn to the U.S. government's debt—the amount it has borrowed over time due to the rarity of budget surpluses and the commonness of deficits.

- **A.** At the end of fiscal year 2006, the gross federal debt was about $8.5 trillion—about 65% of the GDP.
- **B.** Most economists see crowding out as the true bane of recurring big deficits and debts. Big government deficits and crowding out cut investment done by Americans and help create a trade deficit, according to standard macroeconomic theory.
- **C.** Laurence Bell and Greg Mankiw wonder how different the world would be if every U.S. government bond were replaced with a piece of U.S. capital.
  1. The debt-free U.S. government would not need to pay interest on its debts. These interest payments currently equal 1.7% of GDP.
  2. Becoming debt free would increase national output by about the size of the debt times the rate of return on capital, boosting GDP and wages by about 8%.
  3. The extra capital would make capital more abundant, driving down its rate of return somewhat.
- **D.** These calculations assume that eliminating the federal debt would have no effect on private savings. Some economists argue that when the government runs a deficit and racks up debt, households adjust by increasing their savings to prepare for the higher-tax, inflationary future.

**IV.** The generational accounting approach argues that these official debt numbers we have been looking at are backward looking and fairly meaningless. Rather than looking at how much official debt the government has piled up, we need to look toward the future by comparing promised or expected spending and projected revenues of the government.

- **A.** The generational accountant thinks that debt is uninformative because the government is virtually free to choose how it wants to label its receipts and payments.
- **B.** The generational accountant thinks that the government does not necessarily recognize a moral obligation to pay back its debts, frequently paying off its creditors with cheap money via inflation.
- **C.** Because of these economic and political realities, the generational accountant thinks that the implicit debt of Social Security, Medicare, Medicaid, and other entitlement promises are as real (or more real) than the official explicit government debt.
- **D.** Generational accountants estimate the fiscal gap between projected future spending and projected future tax revenues is currently about $66 trillion dollars.
- **E.** The only way to close up this looming gap is to scale back government promises or hike taxes.
  1. A loss of faith among the government's creditors and the specter of big tax hikes could easily trigger an economic collapse according to pessimistic economists, but most economists predict that the U.S. economy will continue to grow strong for the next 60 years or so.
  2. Investors do not appear to be leery of the U.S. government, which continues to attract lenders at very low interest rates even on 20- and 30-year bonds.

**V.** Let us ponder systematic ways to reduce the federal budget deficit.

- **A.** One solution is to cut wasteful spending.
  1. Critics complain that much government spending is wasteful, is ineffective, favors special interests, or harms society.
  2. "Pork" (special interest) spending by Congress has exploded in recent years.
  3. One proposed solution to pork spending is greater budget transparency. The name of the politician requesting each project could be listed in the legislation, and spending request letters sent by members to appropriators could be made publicly available.
- **B.** A more effective tactic may be for the federal government to adopt policies already in place in the states. Almost all states have a constitutional or statutory limitation restricting their ability to run general-fund deficits. However, attempts to adopt balanced-budget policies at the federal level have gone nowhere.

**Essential Reading:**

Ball, Laurence, and N. Gregory Mankiw. "What Do Budget Deficits Do?"

**Supplementary Reading:**

Kotlikoff, Laurence, and Scott Burns. *The Coming Generational Storm: What You Need to Know about America's Economic Future.*

**Questions to Consider:**

1. Is the fiscal gap—which currently exceeds $60 trillion—a reason for concern? Why or why not?
2. How can we get elected officials to reduce deficits and the national debt?

## Lecture Eleven
## Taxes and the Income Tax Code

**Scope:** Jean-Baptiste Colbert, King Louis XIV's finance minister, said that, "The art of taxation consists in so plucking the goose as to obtain the largest amount of feathers with the least possible amount of hissing." In recent years, American local, state, and federal governments have plucked a lot of feathers—and American taxpayers have done their fair share of hissing. In this lecture, we will examine the primary sources and types of taxes used in the United States and then consider principles of efficient and fair taxation developed by economists. A closer look at the federal income tax code will show that it is incredibly complex, that it collects most of its revenues from the highest earners, and that it is open to plenty of room for criticism on grounds of both efficiency and equity. We will close by contemplating proposals to overhaul this tax code, including switching to consumption-based taxes or to a flat tax.

## Outline

**I.** American taxes are high when compared to the wishes of many voters but low compared to similar countries; sources of American taxes also differ from the norm.

- **A.** The most important taxes in the United States are personal income taxes—which equal about 11.5% of GDP—followed by social insurance taxes like Social Security. Most other rich countries have substantial value-added taxes that average about 6.5% of GDP, but the U.S. doesn't use this tax.
- **B.** Taxes in the United States come in a wide variety of flavors, but the official categories do not tell us who pays these taxes.
  - **1.** The group whose response is less elastic—not cutting back purchases or sales in the face of the tax—is the one that will bear most of the tax.
  - **2.** If either the suppliers or demanders are completely unresponsive to changes in the final price, they will bear all the tax.
- **C.** Governments tend to tax the things that people will keep doing regardless of the tax; thus, the primary sources of taxation are individual income and wages.

**II.** There are several principles behind an effective tax system.

- **A.** All other things held equal, taxes should minimize the excess burden—the loss of welfare above and beyond the taxes collected.
- **B.** We also want it to be fair; unfortunately, there is rarely a common understanding of what exactly is fair.
  - **1.** A tax system is regressive if the share of income paid in taxes falls as incomes rise.
  - **2.** A tax system is progressive if the average tax rates become progressively higher as incomes rise. Taken as a whole, the U.S. tax system is quite progressive.
  - **3.** In between regressive and progressive systems is a flat or proportional tax system in which everyone pays the same share of their incomes in taxes.
- **C.** Most Americans believe that vertical equity is achieved with a progressive system due to an ability-to-pay argument and a declining marginal benefit of income argument. The issue of vertical equity then is torn between two competing notions: the ability-to-pay principle versus the benefit principle, which argues that taxes should be directly tied to the benefits received.
- **D.** The second big principle of tax fairness is horizontal equity: equal treatment of equals. On a broad scale, most people believe this, yet our lawmakers have created a lot of exceptions to this rule.
- **E.** A final principle of an effective tax system is that it be simple and enforceable. Compliance with it should not require that an excessive amount of resources be used up, and tax evasion should not be rampant.

**III.** Let us examine the federal income tax system, which collects almost 10% of national income and is the primary source of revenue paying for our national government's expenditures on everything from defense to diplomacy.

- **A.** The U.S. income tax code is immensely complicated.
- **B.** The U.S. income tax system is hobbled by noncompliance. IRS estimates put evasion losses at about 20% of income tax liability and suggest that evasion is greatest for those who can hide earnings the most easily (e.g., the self-employed).

**C.** The tax code entirely exempts some kinds of compensation from taxation, including interest earnings from municipal government bonds, fringe benefits, and pension contributions.

**D.** Two other items that chip away at taxable income are an exemption for each dependent and the standardized or itemized deduction, which allows people to cut their taxable income due to certain expenses they have incurred.

**E.** The two deductions that seem to irk economists the most as clear violations of the principle of horizontal equity are the deduction for state and local tax payments and the home mortgage interest deduction.

**F.** When we add up items that are not taxed, exemptions, deductions, and unreported income, it is estimated that only about half of all income is taxed. This means that to collect a certain amount of revenue, the federal government must set the marginal tax rate for each additional dollar earned about twice as high as would be the case if every dollar earned was taxed.

**IV.** Complaints abound about the federal income tax system, and because of these complaints, many plans to overhaul the system thoroughly have been put forward. Among these are getting rid of all exemptions, moving to a flat tax with only one marginal tax rate, and switching to a consumption-based tax.

**A.** Proponents of consumption-based taxes say that they are both fairer and more efficient.

**1.** An income tax system discourages the earning of income and discourages productive behavior. A consumption tax system removes this penalty and discourages people from spending their money, therefore encouraging them to save more.

**2.** Critics of consumption taxes worry that if we give the government the green light for a new tax on consumption it will keep the old taxes on income and simply spend and tax more. They also argue that it is difficult to make a consumption tax progressive and that the transition to a consumption tax system will be unfair to a lot of people.

**B.** Moving to a flat tax with no tax breaks for special behaviors and activities and the same marginal tax rate for everyone has become decidedly popular in some places.

**1.** Although many credit it as the key reform behind the growth of former communist countries in Eastern Europe, its popularity in the United States has always been tenuous.

**2.** Most flat tax proposals would exempt the first $15,000, $25,000, or even $35,000 of income and then impose a tax percentage in the high teens or low 20s on everything above this.

**3.** While many people like the idea in principle, they shy away from it in practice because it would boost the taxes of the poor and middle somewhat and cut taxes for those in the top 1% or 2%.

**C.** My reading of history, politics, and economic arguments is that we are not likely to dramatically change our federal income tax system anytime soon. If anything, politically effective arguments probably will continue to be made to add even more complications and tax breaks in an effort to encourage favored activities and implicitly penalize everything else.

**Essential Reading:**

Slemrod, Joel, and Jon Bakija. *Taxing Ourselves: A Citizen's Guide to the Debate over Taxes*, 3rd ed.

**Supplementary Reading:**

Rosen, Harvey, and Ted Gayer. *Public Finance*, 8th ed.

Symposium: U.S. Tax Policy in International Perspective. *Journal of Economic Perspectives*.

**Questions to Consider:**

1. Is the U.S. tax system efficient? Is it fair? Is it overly complex? Why or why not?
2. What is fairer: a system with regressive taxes, flat taxes, or progressive taxes? If a progressive tax system is the fairest, how progressive should it be?

# Lecture Twelve
# Social Security

**Scope:** In the last lecture, we discussed the federal income tax, which collects about 11.5% of the national income. In this lecture, we will turn to another large federal program: the Social Security system, which currently collects about 5% of the GDP. We will begin by examining the system's funding and how retirees' benefits are determined. Critics complain that Social Security is a poor investment and that, due to funding inadequacies, it will not be able to pay off its current set of promises, it depresses the national savings rate, and it systematically shortchanges certain population groups. We will look at each of these criticisms and then examine proposals to overhaul the system. We will close by examining economists' favored solutions to this complex set of challenges.

## Outline

**I.** The term "Social Security" generally designates the federal government program officially known as Old Age, Survivors, and Disability Insurance (OASDI) and run by the Social Security Administration.

- **A.** This insurance system, created in 1935 as part of Franklin Delano Roosevelt's New Deal, is paid for by a payroll tax.
  - **1.** Initially, the tax was 2% on an earnings base covering the first $3,000 earned by employees; the tax rate is now 12.4%.
  - **2.** The earnings base on which Social Security taxes are levied has also increased to $97,500 in 2007; dollars earned over this base generate no additional Social Security taxes or benefits.
- **B.** The tax is automatically deducted from payroll and is officially evenly split between the employer and the employee; however, most economists believe that the tax is effectively paid almost entirely by employees.
- **C.** What do all these payments earn you?
  - **1.** The payments protect you if you become disabled before retirement age.
  - **2.** The payments protect your dependents if you die young.
  - **3.** The payments entitle you and your spouse to a stream of benefits after you retire.
- **D.** Retirement benefits are calculated in several steps. First, the worker's average indexed monthly earnings (AIME) are calculated.
  - **1.** All earnings on which a worker paid Social Security taxes up until the year he or she turns 60 are wage indexed to compensate for past inflation and real wage growth.
  - **2.** Each year's wage is multiplied by an indexing factor that equals the ratio of the average national wage in the year the worker turned 60 to the average national wage in the year to be indexed.
  - **3.** From this set of indexed earnings, the worker's 35 best years are selected, added together, and divided by 420—this amount is the AIME, the average that the worker earned each month after adjusting for the effects of rising national wages.
- **E.** The second step determines the worker's primary insurance amount (PIA) by applying a progressive formula to the AIME to calculate the monthly benefit to be received if he or she retires at the "normal" retirement age.
  - **1.** The normal retirement age is now 65 years and 8 months; it will reach 67 in 2027.
  - **2.** The progressive formula has been selected so that low-earning workers receive payments that are disproportionately higher—compared to taxes that they paid in—than those of high-earning workers.
- **F.** After the PIA is calculated, there are a few final adjustments.
  - **1.** Individuals are eligible to take early retirement as young as 62, meaning they will receive more monthly benefit checks, but their monthly benefit will get cut so that the present value of lifetime payments will be roughly the same.
  - **2.** Payments for married couples are increased by as much as 50% if the retiree has a spouse who has little or no earnings.
  - **3.** If the retiree has an unmarried child under 18 or an unmarried disabled child, the monthly benefit is boosted by 50% of the PIA.
  - **4.** The monthly benefit check is adjusted annually for changes in the cost of living (determined by the rate of inflation in the CPI).

**G.** The bottom line for most people is the replacement rate—the monthly Social Security check as a percentage of previous average monthly earnings. The replacement rate is 90% for the lowest earners, 39% for average single earners, and 25% for those at the top of the earnings base.

**II.** Is Social Security a good deal?

**A.** Social Security can be a great deal for those who live especially long. It was designed to insure against the risk of outliving one's financial resources.

**B.** In its earliest years, Social Security offered an exceptional rate of return (up in the double digits), but as the system matured, rates of return diminished because recipients had paid in for a greater percentage of their lives. The average rate of return for the system as a whole is about 2.5%.

**1.** Rates of return are purposely highest for lower earners and for one-earner couples, but they are also about 1% higher for single women than single men.

**2.** Rates of return are scheduled to fall somewhat in the future to about 2% for the system as a whole.

**3.** Most critics do not think these rates of return are good. The stock market has historically vastly outperformed these Social Security rates.

**C.** Another huge problem with Social Security is that it faces a tremendous funding gap.

**1.** Currently, the system collects about 5% of GDP in tax revenues and pays out a little more than 4% of GDP in benefits.

**2.** Around 2018, Social Security will begin paying out more each year than it brings in; in the long run, the system will take in about 4.5% of GDP each year and pay out 6.5% of GDP.

**3.** In anticipation of the baby boom generation's retirement, Social Security has begun to build up a trust fund that now equals 3.5 years of annual costs; however, the system's actuaries suggest that this fund will be exhausted by 2040.

**D.** A third criticism of Social Security is that it systematically lowers the national savings rate.

**1.** Social Security immediately spends about three-fourths of the revenues it brings in by transferring income from the working generation to retirees; the remainder of the revenue is lent to the rest of the government.

**2.** Martin Feldstein estimates that Social Security's pay-as-you-go system has reduced national savings because households cut back their savings by $0.50 for every dollar of Social Security wealth they accumulate.

**E.** A fourth major criticism of Social Security is that it methodically shortchanges certain population groups while improperly favoring others.

**1.** Social Security systematically redistributes income from high earners to low earners, from single workers and married couples with high earnings to married couples with a low-earning or nonearning member, from those with low life expectancies to those with high life expectancies, and from those who work more than 35 years to those who concentrate their earnings in 35 or fewer years.

**2.** Most estimates show that black males do poorly under Social Security's formula.

**III.** What can be done to repair Social Security?

**A.** The Social Security Advisory Council was unable to achieve a consensus recommendation but offered three competing options in 1997.

**1.** The "maintain benefits" option proposed to maintain the historical structure of Social Security by increasing taxes and slightly reducing benefits.

**2.** The "personal security accounts" option advocated a partial privatization of Social Security, proposing to divert nearly half of the Social Security tax into mandatory personal retirement accounts, allowing individuals to put their own Social Security funds into the stock market.

**3.** The "individual accounts" option proposed that Social Security payroll taxes be increased, but that this money be put into government-run individual retirement accounts invested in the market.

**B.** Advocates argue that investing Social Security funds in the market has the potential to solve all of the problems we have discussed. Critics, however, are more skeptical and wonder whether the market really will continue to generate such high rates of return.

**1.** They argue that while the average rate of return on market investments is likely to be high, there is a great deal of variance.

**2.** In designing a plan that can answer these criticisms, there are many successful international examples that can be examined (e.g., Chile's privately managed mandatory savings program).

**C.** Perhaps the biggest problem with moving away from the pay-as-you-go system to one that invests funds in the market is the looming funding gap itself.

   **1.** Franco Modigliani and Arun Muralidhar, however, argue that Social Security could feasibly offer a fully funded pension with a fairly high real guaranteed rate of return around 5% to 5.5%.

   **2.** They propose a transition that begins with a hike in taxes equaling 4.8% of taxable payroll, which will decline to zero after 25 years, eventually allowing the pension tax to fall to a rate that is 75% lower than the long-term cost would be under the pay-as-you-go system.

**D.** In a survey I conducted, professional economists were offered four simple choices about the best way to resolve Social Security's funding gap.

   **1.** Twenty percent favored increasing payroll taxes.

   **2.** By a margin of three to two, the respondents rejected moving to mandatory, personally controlled accounts invested in the market.

   **3.** Fifty-seven percent favored decreasing Social Security benefits.

   **4.** Seventy-seven percent see an increase in the normal retirement age as the best option.

**Essential Reading:**

Diamond, Peter A., and Peter R. Orszag. "Saving Social Security."

Feldstein, Martin. "Structural Reform of Social Security."

**Supplementary Reading:**

Modigliani, Franco, and Arun Muralidhar. *Rethinking Pension Reform*.

Rejda, George E. *Social Insurance and Economic Security*, 6th ed.

Schulz, James H. *The Economics of Aging*, 7th ed.

Turner, John. *Individual Accounts for Social Security: International Perspectives on the U.S. Debate*.

**Questions to Consider:**

**1.** What are the key challenges facing the Social Security system?

**2.** Do you think Social Security should be privatized? Why or why not?

## Lecture Thirteen
## An Aging Population and the Birth Dearth

**Scope:** In this lecture we will begin by looking at the challenges that population aging imposes on the economy. Recall from Lecture Three that according to a survey of professional economists, the greatest challenges that Americans will face in the future are tied to aging. Rising life expectancies and low fertility rates have led to a rise in the median age of the population around the world. We will see that aging, while the primary force behind the Social Security funding gap, can also influence productivity, innovation, savings, and health spending. After exploring ways in which policymakers can help narrow the ratio between working-age adults and retirees, we will spend the remainder of the lecture focusing on the fertility rate in the United States and weighing the costs and benefits of raising children. Ultimately, we will question whether the United States should encourage or discourage higher fertility rates.

## Outline

**I.** America and the world are growing up.

- **A.** In 1850 the median age of the U.S. population was only 19 years; in 2000 the median age reached 35.5 years, and it is expected to rise to about 41 years by midcentury.
- **B.** Americans are becoming more elderly. Only 2.5% of the population was 65 and above in 1850; the UN projects that this will reach 21.5% by midcentury.
- **C.** The UN expects the world's median age to rise by almost 10 years over the next half century, with median ages reaching almost 50 in Europe and 53 in Japan.
- **D.** Such aging is caused by rising life expectancies and low fertility rates.

**II.** Aging is the primary force behind the Social Security funding gap that we examined in the last lecture, but it creates additional potential problems as well, including effects on productivity, innovation, savings, and health spending.

- **A.** The first big worry about an aging population is that beyond a certain age, productivity appears to decline as people get older; this relationship differs considerably from job to job.
- **B.** Laurence Kotlikoff and Jagadeesh Gokhale estimate that productivity for office workers, salesmen and -women, and managers peaks in the early to mid-40s.
- **C.** Steven Nyce and Sylvester Schieber suggest that older populations are less likely to change and adapt, and firms in countries with younger populations have somewhat higher rates of return on their assets—suggesting that they can do more with the same set of resources.
- **D.** Thomas Lindh and Bo Malmberg find that a greater portion in the 50–64 age group has a positive influence on the GDP per worker, although more people in the 65 and over category contributes negatively.
- **E.** Another concern about an aging population is that it might reduce the national savings rate. In the United States the savings rate peaks for those aged 45 to 54 and turns negative for those over 65.
- **F.** A larger concern is the impact of aging on health-care costs; most analysts expect the share of the GDP spent on the health care of those aged 65 and up (currently 5.2%) to double by 2030.
- **G.** The primary aging-related challenge may be that society essentially has promised to support older citizens once they reach a certain age—largely because these individuals have paid taxes to support the previous generation of retirees.
  - **1.** The ratio of those aged 20 to 64 (working-age adults) to those aged 65 and over (retirees) is currently almost 5:1.
  - **2.** According to the Social Security Administration's projections, this ratio will fall to 3.6 in 2020 and to 2.8 in 2030.

**III.** The big question for policymakers is how to find more workers to support our retirees. One solution is to convince more older people to work and fewer to collect their Social Security retirement benefits; another solution is to make sure there are more young people around to work.

- **A.** One of Social Security's initial purposes was to reduce unemployment by pushing older workers into retirement.

1. Throughout most of its history, Social Security had a Retirement Earnings Test.
2. In 2000, as unemployment reached its lowest rate in over a generation, Congress voted to eliminate the test for workers above the normal retirement age.
3. Social Security's rules have encouraged older people to continue working but have not done as much to discourage these same people from collecting retirement benefits.

**B.** Making Social Security payments less generous by pushing back the normal retirement age or cutting monthly payments will effectively make older workers poorer—making it harder for them to retire; however, this will probably be offset to a fair degree by disability insurance.

1. While their health has improved, the new rules have made it easier and more remunerative for low-earning workers in their 50s and early 60s to qualify for disability benefits.
2. If Social Security's retirement benefits become less generous, it is likely that many workers will successfully apply for disability awards.

**C.** The other way of keeping the worker-to-Social Security benefit ratio high enough is to make sure there are more young workers around. One way to do this is to boost immigration rates, although this only postpones the fall in the worker-retiree ratio for a generation.

**IV.** The remainder of this lecture focuses on the decision to bear children.

**A.** The total fertility rate equals the number of births per woman if each woman in the population experienced the population's age-specific fertility rate throughout her life.

1. In the colonial era, the total fertility rate in the United States was off the charts; in 2006 the United States was almost exactly at the replacement rate, with a total fertility rate per woman at 2.09 children.
2. Total fertility rates are fairly similar for most ethnic and racial groups in the United States.
3. The U.S. fertility rate is high by the standards of other rich countries; the world's total fertility rate has fallen from 4.5 children per woman in the early 1970s to 2.6 children today.

**B.** Most economists believe that the rising costs and declining benefits of having children are at the heart of the fertility decline.

1. The world has clearly moved away from having children as investments.
2. Research suggests that Social Security systems are one of the causes for declining fertility rates; higher-paying systems that make retirement more secure discourage family formation.
3. Urbanization and industrialization seem to have reduced the demand for children because children are easier to employ and can be tended to more easily by rural and agricultural parents.
4. The opportunity costs of children have risen substantially as women's relative wages have risen, so that taking time off from work to bear and raise children eats up a larger fraction of a couple's potential income.
5. Other factors—such as the legalization of abortion and the shifting of preferences away from children towards other goods and services—are at work as well.

**C.** Should the United States encourage or discourage higher fertility rates?

1. More children may exacerbate global environmental problems and generate a host of negative spillovers.
2. Children, however, will pay the taxes to support the Social Security system and public goods in the future, and they will come up with new ideas that will advance our well-being.
3. No research can definitively answer what the optimal U.S. fertility level is; however, the government has in place a host of programs and policies that influence fertility decisions, including a $1,000 per year per child tax credit, subsidies for child-care expenses and prenatal medical care, and funds for schools.

**Essential Reading:**

Nyce, Steven A., and Sylvester J. Schieber. The Economic Implications of Aging Societies: The Costs of Living Happily Ever After.

**Supplementary Reading:**

Autor, David H., and Mark G. Duggan. "The Growth in the Social Security Disability Rolls: A Fiscal Crisis Unfolding."

Harris, Fred, ed. The Baby Bust: Who Will Do the Work? Who Will Pay the Taxes?

**Questions to Consider:**

1. Should government policies aim to increase the retirement rate, decrease it, or keep it about the same? Why?
2. Should government policies attempt to increase the fertility rate, decrease it, or keep it about the same? Why?

# Lecture Fourteen
# Health Care

**Scope:** The American medical system has pioneered treatments, procedures, and medicines that have extended life expectancies and made life better for people all over the world—yet only a fifth of Americans think their health system works well. In this lecture we will examine the successes of the American health-care system, then turn to the litany of symptoms that show why so many are disgruntled with American medicine. The most fundamental complaint is that we simply do not get enough value for what we spend, which is about twice as much as other rich countries, whose health outcomes are not substantially different from ours. The crux of this lecture will be an examination of the fundamental reasons that our health-care system is so inefficient—overspending in many areas and underspending and misspending in others. Economists point to the often misguided incentives facing medical practitioners as the key to this inefficiency. We will close by considering what can be done to fix these problems, unfortunately finding no panaceas.

## Outline

**I.** Most analysts believe that, in economic terms, the benefits of recent medical advances clearly exceed the costs. To compare costs and benefits, however, we need to find an appropriate measuring stick that puts costs and benefits into the same units.

- **A.** In our everyday actions we are willing to take on some life-threatening risks if it means gaining or saving money to spend on other things.
  - **1.** We can approximate the value that workers place on their own lives by seeing how much more they must be paid to accept a job that increases their risk of death.
  - **2.** Another way to extract the same information is to look at the product market. For example, some cars are built to be safer than others, but they also cost more.
  - **3.** We can deduce how much people value their own lives by seeing how much they are willing to spend to reduce their risk of death by driving a safer car or working a safer job.
- **B.** David Cutler argues that most health economists calculate the value of a statistical life to be around $5 million.
  - **1.** Someone who values his or her remaining life at $4 million and who has a remaining life expectancy of 40 years implicitly values each year at $100,000—the number Cutler uses to weigh the costs versus the benefits of medical innovations.
  - **2.** Cutler concludes that benefits from increasing the life expectancy of low-birth-weight babies and cardiovascular disease patients over the past half century equal the entire increase in medical costs since the mid-20$^{th}$ century.
  - **3.** Adding in the value of other medical breakthroughs, the benefits of our increased medical spending clearly outweigh the costs.

**II.** Let us survey the total costs of American health care and who foots the bill.

- **A.** Americans originally did not spend much on health care; they did not get much for their money either.
  - **1.** In the mid-20$^{th}$ century, the United States spent about 4% of GDP on medical care.
  - **2.** In 2006, health-care spending reached 16% of GDP; government forecasters expect this figure to be nearly 20% of GDP in 2016.
- **B.** Medical spending all told is $2 trillion, which equals about $6,700 per American; this spending is high by international standards.
  - **1.** About 47% is paid for by the government, which picks up the tab mainly for the poor and the elderly.
  - **2.** Private health insurance and other private third-party payments equal about 41% of national health spending.
  - **3.** The remaining 12% is for out-of-pocket payments by individuals.
- **C.** Private health insurance costs are usually nominally paid partly by employers and partly by employees; however, most economists conclude that employees ultimately pick up almost all the tab for their insurance.

1. A typical health insurance policy costs more than $8,000 for a family and over $3,000 for an individual; figures are climbing much faster than the rate of inflation.
2. As medical technologies advance, economists forecast that health insurance costs will get more and more expensive. The value of health insurance will rise, but the cost will rise also—which may lead more and more families to stop purchasing it.

**D.** The U.S. Census estimates that about 15% of the U.S. population is uninsured at any point in time—a major concern of many policymakers.

1. The most insured demographic group is the elderly, who are almost always covered by Medicare.
2. The least insured are young adults (a relatively healthy group).
3. Some people opt against buying health insurance because they are in good health and have only a slim chance of running up big medical bills soon.
4. Some people do not have health insurance because they are in poor health or at a high risk to run up big medical bills, so insurers are unwilling to cover them or will charge exceptionally high premiums.

**E.** The uninsured in the United States do not lack all access to health care.

1. They can go to an emergency room and be treated as charity cases.
2. They are able to go to doctors and pay out of pocket.
3. There are often free or inexpensive public health clinics that uninsured families can visit.
4. The uninsured person saves money but pays a price by getting second-rate service.
5. Severe auto accident victims without health insurance had an increased mortality rate of 1.5 percentage points; looking at all medical conditions, the Institute of Medicine estimates that about 20,000 adults die each year because they are uninsured.

**F.** The high cost of health care is a big problem because we could be getting about the same level of treatment much cheaper.

1. The United States spends about twice as much per person on health care as Japan, Canada, Britain, or Germany, yet the life expectancy in the United States is about 78 years, lower than the life expectancy in these other countries.
2. Researchers at Dartmouth have documented enormous amounts of overused care, suggesting that about 20% of Medicare spending could be eliminated with no adverse effects on health.
3. Other evidence points to misused care, including drug prescriptions with adverse interactions, incorrect dosages, and erroneous treatments.
4. Many effective treatments are underused; for example, only half of heart attack survivors receive prescriptions for beta-blockers when best practice says that almost all of them should take beta-blockers.
5. Health economists conclude that these inefficiencies remain largely because incentives are often poorly designed.

**G.** The American health insurance system was originally a fee-for-service system.

1. Just about all insurance is subject to what economists call the moral hazard problem: Once something is insured, people are more likely to have the bad outcome occur because it is insured and someone else is picking up the tab.
2. To stop this, employers began to switch over to managed care, which saved families money by requiring that tests and procedures be approved, which in turn cut the expenses of marginally beneficial treatments by steering customers to less expensive medicines, limiting hospital use, and bargaining with suppliers to receive more favorable rates.

**H.** The primary incentive for single insurers is to hold down costs rather than to improve quality. Health insurers generally are not able to earn higher profits when they improve the quality of care because of adverse selection.

1. If an insurer sets up a system that gets doctors to do little things that improve the health of a particular high-cost group (such as diabetics), it soon becomes clear that this insurer is great for that particular group.
2. By giving these patients higher-quality care and attracting them, the insurer’s costs often rise and its profits fall.
3. Because individuals and employers often change insurers, if an insurer develops a system that improves the long-term health of its pool, most of the benefits are likely to go to the other insurers who cover the individuals 5 or 10 years later.

**III.** Health care and health insurance in the United States are exceptionally expensive, leading about one in seven Americans to run the risk of being uninsured. What can we do about it?

- **A.** Some suggest wholesale changes such as moving to a national health service where doctors are government employees and taxes pay for almost all medical treatments, as is done in Britain.
  - **1.** The British system gives the government almost complete say over what gets covered and what does not.
  - **2.** Many economists favor this approach, but it has engendered considerable complaints among the British.
  - **3.** Most people think the odds of the United States moving to this model are miniscule due to the powerful vested interests of the medical establishment.
- **B.** The primary goal of many proposals is to make insurance available to everyone or at least to more individuals and families.
  - **1.** However, past cases of extending government insurance to previously uninsured groups show that this won't be able to pay for itself.
  - **2.** Once subsidized insurance becomes more widely available, some of those with private insurance will quit buying it. One study finds that when 100 new cases were added to government insurance rolls, the net number insured rose by only about 40.
- **C.** The federal government already encourages employers to offer more health insurance to their workers by exempting health benefits from income taxes, making it cheaper to buy through one's employer. Most economists, however, believe that forcing employers to expand health insurance coverage is not a good idea.
- **D.** Making it profitable for medical providers to focus more on health-care outcomes may be the key to making the health-care system produce more value per dollar spent. Doing this, however, would require a concerted effort, especially by the government, to assess and reward quality and marginal impacts on outcomes.

**Essential Reading:**

Cutler, David M. Your Money or Your Life: Strong Medicine for America's Healthcare System.

**Supplementary Reading:**

Fuchs, Victor R. Who Shall Live? Health, Economics, and Social Choice.

**Questions to Consider:**

**1.** How do economists estimate the value of a human life? Is this method reasonable?

**2.** Should the United States move toward universal health insurance? How much would this cost?

# Lecture Fifteen

# Energy

**Scope:** Energy prices—especially oil prices—have skyrocketed in recent years, and there are growing fears that it will be nearly impossible to expand or even maintain global oil production in the years ahead. If so, growing demand and shrinking supply are likely to push prices even higher; at the same time, the United States imports most of its oil. Is there any way to insulate ourselves from these price swings and our dependence on foreign oil? Is there any effective way to pull down the price of energy? This lecture will examine these crucial questions by first looking at how the forces of supply and demand determine oil prices and then analyzing how shifting supply and demand would influence the price of oil. We will examine why Americans tend to get lousy gas mileage and whether upping the Corporate Average Fuel Economy standards is a wise policy. The higher oil prices stay, the more sensible it is to look toward alternative fuels like ethanol, which we will consider in closing.

## Outline

**I.** Because of low production and shipping costs, the oil market is a global market—with crude oil selling at roughly the same price everywhere.

- **A.** Because the oil market is global, just about any change in supply or demand anywhere in the world affects the global price we pay.
- **B.** Because both the supply and demand curves are inelastic, minor shifts in supply or demand can cause prices to change considerably.
- **C.** About one quarter of the world's oil is consumed in the United States; on a per capita basis, people in the United States consume more oil than just about any place in the world.
  - **1.** The principal reasons for high oil consumption in the United States are that we can afford the steep price and the cars and other things that consume oil.
  - **2.** American population densities are lower than other rich countries, which leads to more travel.
  - **3.** Our gasoline taxes tend to be much lower than in other affluent countries.
- **D.** Since the United States produces about 8.4 million barrels per day but consumes about 20.6 million barrels per day, it has to import about 60% of its oil. Most economists view this as an example of comparative advantage—if people in other countries can produce oil more cheaply than the United States, we should trade what we can produce best for their oil.
- **E.** Contradicting a common assertion, the U.S. doesn't import most of its oil from the Middle East.
  - **1.** In 2007 our top foreign suppliers were Canada, Mexico, Nigeria, Saudi Arabia, Venezuela, and Angola. Only 15% of total consumption comes from Middle Eastern countries
  - **2.** However, because the oil market is a world market, events in an oil-producing country (such as Iran) with which we have no dealings whatsoever will influence the price of our oil.

**II.** Let us think through the impact of drilling for oil in the Arctic National Wildlife Refuge (ANWR) in Alaska—a hotly debated topic.

- **A.** Proponents for drilling tout the need to reduce the price of oil and dramatically decrease U.S. dependence on foreign oil.
- **B.** Opponents for drilling counter that the additional oil will only feed our oil addiction by pushing down the price at the pump and encouraging people to buy and drive more gas-guzzlers, which will create more pollutants.
- **C.** Both sides significantly overestimate the impact, says supply and demand analysis.
  - **1.** The Energy Information Service estimates that production from the ANWR would average about 800,000 barrels per day; however, because worldwide output is a little over 80 million barrels per day, this drilling would increase the world supply by only 1%.
  - **2.** Adding the production from the ANWR onto the market will cut the world price from its recent average of about $60 per barrel to about $59.20 per barrel; total worldwide consumption would rise by about 460,000 barrels per day, or about 0.5%.

    3. Selling this oil would earn the government $77 billion. While this would generate $58,000 per Alaskan, the benefits to the typical American would be a lot lower ($128 per person, spread out over a decade or two).
    4. When I polled professional economists and asked whether or not the United States should drill for oil in the ANWR, 55% said "no" and 36% said "yes."

**III.** If Americans collectively decided to buy cars that averaged 5 miles per gallon more than currently, this would cause the price of oil to fall from its recent average of $60 per barrel to about $58.40, almost a 3% drop. A typical two-car household could save about $400 per year merely by owning cars that get 5 miles per gallon more. If the benefits from higher fuel economy are so great, why do we not drive more fuel-efficient vehicles?

- **A.** If drivers are rational maximizers, then they pass up the opportunity to buy more fuel-efficient cars because they have weighed the marginal costs (including reduced safety and power) and benefits of fuel efficiency and decided greater fuel efficiency is not worth it.
- **B.** The value of fuel economy varies with the price of gasoline.
- **C.** Since 1975 the federal government has enforced Corporate Average Fuel Economy (CAFE) standards.
    1. The standard for passenger cars is 27.5 mpg, and the standard for light trucks (including SUVs and minivans) is 22.2 mpg.
    2. The penalty for failing to meet CAFE standards recently increased to $5.50 for each tenth of a mile per gallon under the target, times the number of vehicles sold for a given model year.
    3. An increase in CAFE standards would be a good idea if saving gas means a little less pollution, if each barrel of oil imported to the United States has hidden costs, or if people do not known how to properly weigh their personal costs and benefits in picking a car.
    4. On the other hand, mandating increased fuel economy standards would be bad if it pushed people to buy cars they did not want, especially if these cars were less safe.
    5. Fifty-four percent of professional economists said CAFE standards should be increased, 11% said they should be kept about the same, and 35% said they should be eliminated.
- **D.** Tightening energy standards is one way to deal with rising energy prices. Even if the government does not raise CAFE and other energy standards, private businesses and households will almost automatically opt for more fuel efficiency when they believe that energy price increases are permanent, since the optimal efficiency rises when energy prices rise.

**IV.** Analysts are not entirely sure about the most important reasons for the recent spike in the price of oil.

- **A.** Most analysts peg supply restrictions as the cause for the big run-up in oil prices in the 1970s and early 1980s, which coincided with international events that cut the flow of oil by 5% in 1975 and over 12% from 1979 to 1983.
- **B.** The recent run-up in oil prices is trickier; in each year, the quantity rose *and* the price rose—suggesting that rising international demand for oil has been the key.
- **C.** In the past, such tremendous oil price rises seem to have harmed the U.S. economy considerably.
    1. The United States fell into a recession when the oil price spiked in the mid 1970s, early 1980s, and early 1990s.
    2. Today, however, the United States is less vulnerable. Currently, oil costs make up a little more than 3% of GDP—about half the rate of a quarter century ago.
- **D.** Many observers say that oil and other energy production increases cannot keep up with rising global demand. Other economists think that, as prices rise, previously neglected sources of oil will become economical.

**V.** The high prices of recent years are sending out two important signals: They tell consumers that oil is scarce and they had better economize, and they tell producers that oil is valuable and they should find more or come up with other things to take its place.

- **A.** Oil prices in the future are contingent on many things, from fuel-saving innovations to the development of alternative fuels; in the long run, however, it is very likely that human ingenuity will develop new energy technologies to create cheaper substitutes for oil.
- **B.** Ethanol is the most widely discussed alternative to oil and receives a federal government subsidy of $0.51 per gallon, which is estimated will cost taxpayers about $6 to $9 billion per year in the coming years.

1. Ethanol’s proponents argue that it will move us toward energy independence and is better for the environment than petroleum, as it does not add to global carbon dioxide levels.
2. When asked about government subsidies on ethanol in the United States, 57% of the professional economists surveyed said the subsidies should be eliminated, 23% said they should be cut, 12% favored the current level, and only 10% favored an increase.
3. Rising demand for ethanol has pushed up food prices around the world.
4. Studies seem to concur that ethanol production yields about 25% more energy than it takes to produce it.

**Essential Reading:**

Energy Information Administration Web site. http://www.eia.doe.gov.

**Supplementary Reading:**

Kotchen, Matthew, and Nick Burger. “Should We Drill in the Arctic National Wildlife Refuge? An Economic Perspective.”

Portney, Paul R., Ian W. H. Parry, Howard K. Gruenspecht, and Winston Harrington. “Policy Watch: The Economics of Fuel Economy Standards.”

**Questions to Consider:**

1. Should the United States drill for oil in the Arctic National Wildlife Refuge? What impact would this have on the oil market?
2. If the benefits from higher fuel economy are so great, why don’t we all drive more fuel-efficient vehicles?

## Lecture Sixteen
## Pollution

**Scope:** Pollution levels in the U.S. have fallen considerably in recent decades. Reducing pollution levels has obvious benefits—from clear skies to better health—but it also has costs. The economist asks: Has all this reduction in pollution really been worth it? Two lectures ago we learned that, on average, the benefits of extra spending on health care have been much higher than the costs, but at the margin there are lots of cases where money is misspent. Likewise, this lecture will conclude that, on average, cleaning up our atmosphere really has been worth it—but at the margin there are many cases of misallocated resources. In this lecture we will examine economists' preferred solutions to the problem of pollution, especially the ideas of a Pigovian tax and trading the right to emit pollution. Then we will use these approaches to consider how to gain a cleaner environment at the lowest possible cost by exploring gas taxes and the use of nuclear power.

## Outline

**I.** Air in the United States is far cleaner than it used to be.

- **A.** According to the U.S. Environmental Protection Agency, from 1980 to 2005 the days per year exceeding the eight-hour ground-level ozone pollution standard fell 79%.
- **B.** Nitrogen dioxide and sulfur dioxide concentrations have fallen by 37% and 63% respectively; carbon monoxide levels fell 74%, and atmospheric lead fell 96%.
- **C.** Between 1980 and 2005, concentrations of fine particulate matter that are made up of aerosols, smoke, fumes, dust, and other bits of matter have fallen by 40%.
- **D.** Emissions of carbon dioxide—considered by some to be a pollutant—are up, however.
- **E.** These gains in cleanliness have been most dramatic where the air was once worst.
  - **1.** Air in rich countries like the United States is much cleaner than in middle-income countries, whose air is dirtier than in the poorest countries.
  - **2.** Economists call this the environmental Kuznets curve—the overall environmental quality falls and then rises with economic growth.
  - **3.** Gene Grossman and Alan Krueger found the nadir to be reached in economies with average incomes of about $11,000 per year in year 2007 dollars.

**II.** Reducing pollution levels has obvious benefits, but it also has costs.

- **A.** The benefits of pollution are the savings from producing something in a dirty manner rather than a more expensive, clean manner. The marginal benefits of polluting tend to fall as pollution rises.
- **B.** The first few bits of pollution do not usually cause us much harm, so if we add a few more particles the effect will be initially infinitesimal. However, as we pollute more and more, the marginal costs of pollution begin to rise.
- **C**. Modern science has only recently been able to pin down the worst culprits of air pollution and begun to figure out the true marginal costs. It is now estimated that particulate matter less than 2.5 microns in diameter is a major health concern—especially to the young and old.
- **D**. The payoff from cleaning up our air in recent decades seems pretty high—a greater than 5:1 ratio of benefits to costs.
- **E.** One line of economic research looks at how air pollution affects the housing market.
  - **1.** A recent National Bureau of Economic Research paper concluded that a reduction in suspended particulate matter by one microgram per cubic meter of air boosted housing values by 1% during the 1970s and 1980s, since people were willing to pay more to live in cleaner neighborhoods.
  - **2.** More recent data from the 1990s concludes that the median household would pay about $300 to $370 in year 2007 dollars for a one-unit improvement in ambient concentrations of particulate matter, implying a gain from pollution reductions between 1960 and 1990 of about $1.5 trillion.

**III.** We've cut our pollution emissions through many adaptations—by mandating installation of catalytic converters in cars, engineering cars to run cleaner, mandating installation of scrubbers on power plant smokestacks, moving power plants away from urban areas, and switching from coal and oil heat to natural gas. How should we decide which pollution-reducing strategies to use?

**A.** The traditional approach to regulating pollution, especially from big emitters like power plants, has been the command and control system, under which the government requires polluters to use specific types of technology.

   **1.** This approach implicitly assumes that there is one best way to control pollution and that, once this method is known, the regulator should require everyone to use it.

   **2.** Unfortunately, circumstances differ tremendously from power plant to power plant.

   **3.** Rather than using a one-size-fits-all type of regulation, economists tend to prefer giving power plants and other polluters the incentive to cut pollution and then letting them figure out the best way to do so.

**B.** The best incentive is generally to levy a tax that is equal to the damages imposed by the pollution.

   **1.** This kind of tax (a Pigovian tax) is designed to prevent the producer from getting away with ignoring pollution's costs, forcing the producer to incorporate pollution in with the other costs of doing business by accurately measuring the damages that are done by the pollution and then setting the tax equal to this.

   **2.** Measuring the costs of pollution, however, is difficult.

**C.** An alternative to Pigovian taxes is to give polluters leeway and incentives to cut back their levels of emissions by setting a maximum amount of pollution that can be emitted.

   **1.** Pollution quotas equaling this amount can be given or sold to polluters.

   **2.** Some polluters will find that they can cut emissions easily and will sell their quota to other polluters whose costs of abatement are higher.

   **3.** In this case, we are cutting pollution at the least possible cost.

   **4.** Economists convinced the government to use this method to manage sulfur dioxide emissions in the Clear Air Act amendments of 1990.

   **5.** Trading emissions quotas is another idea, one tied to property rights and the Coase theorem. The Coase theorem states that if property rights exist and transaction costs are low, then private transactions will be efficient.

**D.** In a recent survey, 93% of economists agreed that pollution taxes or marketable pollution permits are a more economically efficient approach to pollution control than emission standards.

**IV.** In early 2007, combined state, federal, and other taxes on gasoline averaged about $0.46 per gallon. Are these taxes too high, too low, or just about right?

**A.** In 2006, Greg Mankiw proposed a $1.00 per gallon gasoline tax. (Mankiw's blog is highly recommended: http://gregmankiw.blogspot..com.)

**B.** In the mid-1990s, Kenneth Small and Camilla Kazimi found that because emissions from automobiles had fallen so much, the external damages from a new car's emissions were only about $0.06 per gallon—well below the current gasoline tax.

**C.** These figures, however, miss some damages from driving and using fuel.

**D.** Economists concede that a uniform gas tax is not perfect because some cars burn their fuel cleanly and others need a tune up.

   **1.** Still, most economists believe that energy taxes should be somewhat higher.

   **2.** When I asked professional economists whether the United States should increase energy taxes, 65% said "yes," and 22% said "no."

**E.** The market cost of energy supplies hides external costs, and it is vital for economic efficiency, safety, and health that these costs be incorporated into the final price so that the buyer can make the wisest decision.

**V.** At least 16 utilities are making tentative plans to build more nuclear power plants, and the industry hopes that a nuclear power resurgence is about to begin. Is this a good idea?

**A.** A study by MIT professors concluded that nuclear power deserves more consideration.

   **1.** Nuclear power's cost per kilowatt hour (about $0.067 in 2003) was only a bit above that of natural gas and coal, but a plausible reduction in capital and operating costs, along with an end to delays in construction, could reduce the gap.

   **2.** With modern advances, reactor designs can offer a very low risk of serious accidents, proliferation risks can be reduced, and geological waste disposal can be feasible; in addition, nuclear power does not release carbon dioxide into the atmosphere.

**B.** The United States is already the world's leading producer of nuclear power, producing nearly 100,000 megawatts—roughly 30% of the world's total. However, other countries, including France, generate a much larger share of their electricity using nuclear power.

**C.** Sixty-three percent of professional economists favor the idea of relying on more nuclear power.

**Essential Reading:**

Environmental Protection Agency. "Air Trends." Available athttp://www.epa.gov/air/airtrends/index.html.

**Supplementary Reading:**

Lomborg, Bjorn. The Skeptical Environmentalist: Measuring the Real State of the World.

**Questions to Consider:**

1. What are the *benefits* of pollution? How can the optimal amount of pollution be determined?
2. Should the United States turn more toward nuclear power? Why or why not?

## Lecture Seventeen
## Global Climate Change

**Scope:** In this lecture, we will consider the likely economic impact of rising levels of greenhouse gases. We will start with what may be a surprising consensus among economists—that rising greenhouse gas levels probably will not have much of an impact on the size of the U.S. economy. Next we will consider the complexities that global warming and climate change throw into the analysis of pollution we developed in the last lecture. We will grapple with how to weigh the costs of cutting back emissions today against benefits that are likely to come mainly far in the future. We will look at how uncertainty complicates the task of weighing costs and benefits and how to value noneconomic goods like biodiversity and habitat loss. We will close by considering what we should do about global climate, assessing the Kyoto Accords, tradable emissions, carbon-equivalent taxes, and the potential technological means of undoing climate change.

## Outline

**I.** In late 2005, I surveyed professional economists and asked what impact rising levels of greenhouse gases would have on GDP per person in the United States at the end of this century. Would rising concentrations of greenhouse gases cause GDP to rise or fall; if so, by how much?

- **A.** The vast majority (73%) replied that rising greenhouse gas concentrations will not have much of an impact on the size of the economy. Only 12.5% predicted a negative impact of more than 10% of GDP.
- **B.** This comes out to an average estimate that rising greenhouse gas levels will cut GDP a century from now by only 1.9%.
- **C.** These predictions are in line with the most thorough analyses by economists studying climate change.
  - **1.** William Nordhaus and Joseph Boyer use two sophisticated economic models to capture the likely impacts of rising temperatures on various segments of the U.S. economy.
  - **2.** The models predict that a warming of 2.5°C will shrink GDP by about 0.5%, while a 6°C warming will shrink GDP by about 3%.

**II.** Climate has only a small impact on most sectors of the American economy.

- **A.** The service sector dominates the U.S. economy, producing over 80% of the value of output, and its costs and productivity are not very vulnerable to the estimated range of climate changes.
- **B.** Its impact on the manufacturing sector may be even smaller; manufacturing costs and locations are not closely tied to climate.
- **C.** The sector most vulnerable to climate change is probably agriculture, which makes up only about 2% of GDP.
  - **1.** If the climate changes, making it harder to grow some crops where they are grown currently, it is expected that farmers will adapt by growing these crops in new locations while adopting new crop varieties that will be developed by suppliers using the latest advances in biotechnology.
  - **2.** Warmer weather generally means a longer growing season, and higher levels of carbon dioxide in the atmosphere have a fertilization effect, which helps most important agricultural crops and trees grow faster.
- **D.** Only if catastrophic events occur will economic damages be substantial, according to most economic researchers; most scientists see these catastrophic outcomes as fairly unlikely.
- **E.** Most economists estimate that greenhouse gases generate negative spillovers that are likely to be a small share of GDP but that might be a larger share of GDP.

**III.** Greenhouse gases appear to generate some negative externalities, so it makes sense to raise the costs of emitting them. Global warming, however, brings in a few additional complications that we did not have to face in the last lecture.

- **A.** Resources spent to reduce emissions today will generate benefits that are likely to come far in the future.
  - **1.** Economists point out that people are impatient and try to estimate this rate of impatience (the discount rate).

2. If people are only moderately impatient, big amounts received far in the future have a pretty insignificant value to us today.
3. At a 5% discount rate, $10,000 received 100 years from now is worth only $76 today—we discount something a century from now by more than 99%.

**B.** What discount rate should we use in weighing the costs and benefits of combating global warming?

1. Spending $10,000 to combat global warming today in order to give our descendents $10,000 in benefits 100 years from now strikes most economists as absurd.
2. People in the future are likely to be much richer than we are today; why should we be willing to transfer money from the poor (us) to the rich (them)?
3. In weighing the present against the future, most economists use a nonzero discount rate—such as the inflation-adjusted rate of return on government bonds, the rate of growth in per capita GDP, or the stock market's rate of return.

**C.** Most people dislike uncertainty and prefer a sure bet to a risky one. If you are more risk averse, you are willing to pay a lot to avoid the slim chance that the polar ice caps will melt; if you are less risk averse, you are not willing to pay much to reduce this outcome's likelihood.

**D.** Unlike traditional pollutants, the biggest damages from greenhouse gases seem to fall on other living creatures rather than us exceptionally adaptable humans. How can we bring damages to nature into our cost/benefit calculus?

1. From the economic point of view, species loss and environmental damage have a cost that is not reflected in the market.
2. The issue of how to value species simply has not been solved well, and the magnitude of the value of biodiversity is not estimated with much precision.

**IV.** Let us consider proposals to combat global warming, beginning with the Kyoto Accords, which were negotiated in 1997 and signed by most of the rich countries of the world (but not the U.S. or Australia).

**A.** The stated objective is to stabilize greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system.

1. The Kyoto Accords call for signatories' greenhouse gas emissions for 2008–2012 to fall, on average, to about 5% below emissions levels from 1990.
2. The greenhouse gases covered are carbon dioxide, methane, and nitrous oxide, along with sulfur hexafluoride, hydrofluorocarbons, and perfluorocarbon compounds.

**B.** Many people see the Kyoto Accords as an important starting point in the fight against global warming, but there are numerous critics even among those who see global warming as an important threat.

1. One worry is that the methods by which emissions are being reduced, including the new carbon emissions trading systems, are inefficient and do not work well.
2. The emissions targets are difficult to reach for countries that did a lot to conserve and achieve energy efficiency in 1990, but they are easy to reach for countries that wasted energy in 1990.
3. Perhaps the greatest political shortcoming of the Kyoto Accords is that they exclude developing nations (including China and India), whose emissions are soaring due to rapid economic growth.

**C.** Many signatories are not on target to reach their 2008–2012 emission reduction goals.

**D.** William Nordhaus argues that setting the price of emissions through a carbon tax is wiser than setting emissions quantities.

1. Taxing emissions is fairer and more efficient in comparison to the percentage quantity reduction approach.
2. Quantity-type regulations have led to extremely volatile prices for emissions permits because of the complete inflexibility of the supply of permits.
3. Such rapid fluctuations are undesirable and make rational planning by carbon emitters very difficult; carbon tax rates, on the other hand, do not jump around.
4. Quantity-targeting systems are open to corruption; taxing emissions would be much simpler, and governments would have the incentive to make sure that all emitters paid into the nation's coffers instead of turning a blind eye.
5. Emissions taxes could generate considerable revenue, allowing governments to fund other needy projects or cut the types of taxes that reduce economic efficiency.

**E.** If a carbon tax makes sense, how high should it be?

1. The optimal carbon tax varies considerably from study to study due to differences in the discount rate used, how uncertainty is handled, and other principles.
2. Richard Tol finds a clustering of estimates that suggests the optimal carbon tax would start at a fairly modest level today: around $14.00 per ton.
3. A $14-per-ton carbon tax implies a tax of $0.50 per gallon of gasoline and would more than double the effective price of coal power, encouraging a shift to natural gas.

**V.** This optimal tax, however, will not curb overall greenhouse gas emissions considerably because the benefits of cutting emissions are *not* very high according to most economic models. What, then, shall we do as the planet continues to warm?

**A.** Maybe we should breathe a collective sigh of relief because greenhouse gas emissions may be delaying the onset of the next ice age.

**B.** A second response to global warming is adaptation; for example, moving to more comfortable places, turning up the air conditioning, and switching the crops we grow.

**C.** A final possibility is true abatement by implementing geoengineering technologies that "undo" global warming, such as injecting carbon dioxide into the ocean or underground, or increasing the Earth's reflectivity by changing our cloud cover by putting sulfur dioxide into the stratosphere.

**Essential Reading:**

Nordhaus, William D., and Joseph Boyer. Warming the World: Economic Models of Global Warming.

**Supplementary Reading:**

Nordhaus, William D. "To Tax or Not to Tax: Alternative Approaches to Slowing Global Warming."

Ruddiman, William F. Plows, Plagues and Petroleum: How Humans Took Control of Climate.

**Questions to Consider:**

1. How will rising greenhouse gas concentrations impact the GDP per capita by the end of the century?
2. Are the Kyoto Accords a good framework for tackling global climate change? What is the best response to global climate change?

# Lecture Eighteen

# Low Wages and the Minimum Wage

**Scope:** The mean wage in the United States in 2006, according to the Bureau of Labor Statistics, was $18.84 per hour. But pay is much lower in many occupations, averaging on $7.24 per hour for fast-food preparation and serving workers, for example. Such wages strike many observers as distressingly low. How can people live on such low wages? What can we do about them? In this, our first labor market–oriented lecture, we will begin with a quick refresher using supply and demand to analyze how wage rates are determined. Then we will turn to an important public policy designed to push up the wages of low-paid workers: raising the minimum legal wage. Economists have mixed opinions about the wisdom of raising the minimum wage, so we will explore the trade-offs at stake in this lively debate.

## Outline

**I.** In a competitive labor market, wages are determined by the interaction of labor demand and labor supply.

- **A.** The demand for labor—the employer's willingness to pay—equals the extra amount of output produced by an additional worker times the extra revenue from selling each unit he or she produces.
  - **1.** This equals the extra profits that will be generated from hiring an additional worker.
  - **2.** If an employer paid more than the going rate, its costs would inevitably be higher than its competitors', and its profits would be lower, so it would have less to reinvest, and its competitors' businesses would expand at its expense.
- **B.** The supply of labor is determined by workers and how many hours they would prefer to work at each wage rate. Unless an employer pays about as much as its competitors, it will not be able to attract capable workers; if it pays more than the going wage for this type of worker, it will have a long line of applicants.
- **C.** In a competitive labor market, the wage rate will settle at the intersection of the demand curve and the supply curve; as the supply gets larger, the wage is lower but more people are hired.
- **D.** Anything that shifts the demand curve out—pushing up the value of the output produced by workers—will increase their wage.
  - **1.** One way to boost wages is for workers to work harder or gain more skills.
  - **2.** Another way to boost low wages is to decrease the supply of labor to a particular type of job.

**II.** A third way to push up wages without increasing demand or decreasing supply is for the government to mandate that wages must be higher.

- **A.** The first U.S. minimum wage laws, passed in 1912, covered only women and children. After New Deal–era changes in judicial interpretation, minimum wages spread to adult men.
  - **1.** The hourly minimum wage was increased almost 20 times over the years, from $0.25 in 1938 to $5.15 in 1997.
  - **2.** Congress passed an increase that upped the minimum wage to $5.85 beginning in July 2007, with a second step to $6.55 effective one year later, and a third step to $7.25 effective in July 2009.
- **B.** Critics complain that the inflation-adjusted minimum wage has fallen considerably over time.
  - **1.** Adjusting for inflation using the consumer price index indicates that the highest minimum wage was reached back in 1968, when the real minimum wage measured in 2006 dollars hit $9.27 per hour.
  - **2.** However, stripping out the 1% bias from the CPI implies that the 1968 minimum was around $6.29 per hour—lower than the rates that have just been adopted.
- **C.** Let us assess the likely impact of boosting the minimum wage, supposing the equilibrium wage for entry-level workers is $5.00 per hour but the government mandates that the lowest wage that can legally be paid is $10.00 per hour.
  - **1.** At $10.00 per hour, more people would be willing to work in these jobs, but employers would not be willing to hire as many employees.
  - **2.** An employer might hire someone who is more skilled and fire the less-skilled or less-productive employee; in addition, costs are higher so an employer is likely to raise prices.
  - **3.** With higher costs and lower sales, profits seem likely to slip at first, but in the long run profits should not change much if the market is competitive.

4. This is because the declining rate of profits in the short run will induce some of the suppliers in this market to fold up shop and move elsewhere, raising prices and pushing profits back up toward the going rate.

**D.** The big question to most economists studying the impact of the minimum wage is about the first trade-off: How many workers lose their job when the minimum wage is increased, and who are they?

1. The vast majority of economists agree that increasing the minimum wage reduces employment among young and less-skilled workers, but researchers disagree about the magnitude.
2. In a survey from the mid-1990s, I asked labor economists about the impact of a 10% increase in the minimum wage from the then-current level; the median estimate was a small drop of 2%.
3. If estimates from this and other surveys are approximately correct, increasing the minimum wage to $7.25 in July 2009 would cut teen employment by about 8% to 12% and have a similar impact on other low-wage workers.

**E.** The debate over the impact of the minimum wage heated up in the 1990s.

1. Using data from New Jersey and Pennsylvania, David Card and Alan Krueger concluded that raising the minimum wage actually boosted fast-food employment, perhaps because the fast-food labor market was not competitive but had elements of a monopsony (the demand-side equivalent of a monopoly).
2. David Neumark and William Wascher reevaluated the minimum wage's impact using actual payroll records and found an elasticity of employment with respect to the minimum wage of –0.24, which is within the traditional range and implies that a 10% minimum wage increase cuts hours worked by 2.4%.

**F.** While the research by these four and others seems to have lowered estimates of the employment impact of a minimum wage hike, few economists have been convinced that there are no job losses.

1. One reason that employment does not seem to drop precipitously when the minimum wage is boosted is that employers have a number of margins along which they can adjust in addition to adjusting the number of workers or hours.
2. Employers can cut fringe benefits, can push the workers harder by telling them they need to be more productive to justify the higher pay, or can simply ignore the law.

**G.** The small net effects on employment seem to hide a shuffling of who is employed.

1. Evidence points to disemployment effects that are concentrated among young minority men.
2. A higher minimum wage raises the probability that some higher-skilled teenagers leave school and displace lower-skilled workers from their jobs, thereby pulling down school enrollment rates and pushing up the number of people who are neither in school nor employed.

**III.** Is boosting the minimum wage a good idea or a bad idea?

**A.** Boosting the minimum wage seems to involve a series of trade-offs.

1. It helps the majority of lower-wage workers, who keep their jobs, but harms some of them, who lose their jobs.
2. It hurts the profits of those employing low-wage workers in the short run but not in the long run.

**B.** In 2005, I asked professional economists if the federal minimum wage in the United States should be eliminated, decreased, kept at the current level, increased by about $0.50 per hour, increased by about $1.00 per hour, or increased by more than $1.00 per hour. Forty-seven percent said it should be eliminated, 14% voted to keep it the same, and 38% nodded toward an increase.

**C.** One reason that almost half of all economists seem to oppose the idea of a minimum wage is that it seems to be pretty ineffective in accomplishing what most see as its primary purpose: fighting poverty.

1. Most low-wage workers do not live in poor households.
2. Most poor households do not have workers at or close to the minimum wage.

**Essential Reading:**

Neumark, David. "The Economic Effects of Mandated Wage Floors."

**Supplementary Reading:**

Burkhauser, Richard, and Joseph Sabia. "Raising the Minimum Wage: Another Empty Promise to the Working Poor."

Card, David, and Alan B. Krueger. Myth and Measurement: The New Economics of the Minimum Wage.

**Questions to Consider:**

1. Why is it so hard to measure the impact of an increase in the minimum wage?
2. Should the federal minimum wage be eliminated, increased, decreased, or kept at its current level? Why?

# Lecture Nineteen
# Poverty and Families

**Scope:** Average incomes in the United States are about the highest in the world, but according to the Census Bureau 37 million Americans live in poverty. How can this be? Is there anything we can do about it? In this lecture we will begin by examining how the poverty rate is calculated, trends in official poverty statistics, and who lives in poverty according to these measures. Then we will explore criticisms of these statistics and identify forces that have prevented the poverty rate from falling, especially the rise of single-parent families. Finally, we will explore the economic and social impact of marriage and close by considering how we combat poverty among our neediest citizens, with a focus on the Temporary Assistance to Needy Families program and the Earned Income Tax Credit.

## Outline

**I.** The poverty thresholds used by the federal government have their origins in guidelines developed in 1963 by Mollie Orshansky, an economist at the Social Security Administration.

- **A.** The thresholds were constructed by estimating the dollar cost of the Department of Agriculture's "economy food plan" for different family sizes.
  - **1.** The food costs measured were then multiplied by three to construct the poverty thresholds (based on a 1955 survey that showed that on average one third of after-tax income was spent on food).
  - **2.** The initial poverty thresholds were officially adopted in 1969, and the dollar cutoffs have been adjusted each year since then based on changes in the cost of living as measured by the consumer price index.
  - **3.** The census has several thresholds based on family unit size that in 2004 ranged from $9,600 for a single person to $39,000 for nine people or more.
- **B.** According to the U.S. Census Bureau, the overall poverty rate fell substantially during the 1960s; since then, the overall rate has stayed the same, equaling 12.6% in the most recent year available (2005).
  - **1.** The rate is lowest among the elderly, at 10%, and highest among children under 18, at 17.6%.
  - **2.** The rate is 25% among blacks, 22% among Hispanics, 11% among Asians, and 8% among non-Hispanic whites.
  - **3.** Regional variation ranges from about 11% in the Northeast and the Midwest to 14% in the South.
  - **4.** The biggest variation is by family structure, with about 7% for two-parent families and 40% for one-parent families.
- **C.** Some critics think the statistics do an adequate job and need minor tweaking; others say they are essentially meaningless and that the official poverty trend is fundamentally incorrect.
  - **1.** Friendly criticisms of the poverty rate say that it would be improved by recognizing that the cost of living differs from place to place.
  - **2.** A second criticism concerns how households are measured. If a married woman and man live together with their children, they are counted as a household, but if an unmarried woman and man live together with children they are counted as two separate households.
  - **3.** Official poverty measures include only incomes before taxes and transfers, ignoring, for example, the value of cash payments like welfare payments and the Earned Income Tax Credit.
- **D.** More fundamental criticisms say that official poverty measures are virtually meaningless. Some Americans are still very poor, but these critics argue that the purchases and possessions of those officially categorized as impoverished show that many (and perhaps most) are not truly poor.
  - **1.** They point out that the average annual consumption expenditures of the poor are about 125% higher than their income.
  - **2**. According to the 2000 census, 46% of all impoverished households owned their own home—and the median value was only 30% below the overall median; nearly three quarters of poor households own a car, and 30% own two or more; 62% have cable or satellite TV.
  - **3.** When asked, 89% of poor households reported they had "enough food to eat" during the year.
- **E.** Despite these important criticisms, considerable attention is paid to the official poverty rate and its failure to fall in the long term.

1. One reason the official rate has not fallen is the consumer price index bias, which effectively sets the bar about 1% higher each year.
2. Another key to the persistence of the poverty rate is the rise in income inequality.
3. Almost as important have been changes in family structure, especially the doubling of the percentage of households headed by single females.
4. While the official poverty rate has dipped since 1969 among households with American-born heads, it has risen by about 6% among immigrant households, whose population share has tripled from 4% to 12%.
5. Rising income inequality seems to be driven mainly by technological changes and is difficult to combat because doing so generally reduces economic flexibility and pushes up the unemployment rate.

**II.** Let us turn our attention to the other key force that has elevated the official poverty rate: the decline of marriage.

**A.** One of the most well-documented findings in labor economics is that married men earn between 10% and 30% more than unmarried men. Studies show that most of the gap arises after marriage; that getting married causes men to earn more, to become more productive at work, and to be promoted more rapidly.

**B.** Marriage also encourages people to save and behave more responsibly with their money.

**C.** Marriage appears to have a profound impact on health—especially for men.

**D.** Marriage has important positive effects on children as well.

1. Infant mortality rates are considerably lower for babies born to married mothers.
2. Children in one-parent families are twice as likely to drop out of school as those in two-parent families.
3. Boys raised in single-parent homes are about twice as likely to have committed a crime that leads to incarceration by their 30s.
4. The gap between the black and white poverty rates appears to be driven mainly by differential marriage patterns.

**III.** Several important government policies discourage marriage among the poor. The most important of these are eligibility criteria for need-based assistance programs that penalize married couples in comparison to those that cohabitate.

**A.** Total spending on welfare transfers in the United States was about $460 billion in 2004 (around 4% of GDP according to the Tax Foundation). The most important of the nonmedical, antipoverty, in-kind programs are for energy assistance (about $3 billion per year), housing assistance (about $23 billion per year), and food assistance.

**B.** The food stamp program was established in 1964 as part of Lyndon Johnson's War on Poverty.

1. It initially gave poor households paper certificates that could be used only to buy food at registered retail stores; now electronic debit cards are used.
2. In a typical recipient household, food stamp benefits equal almost one third of their cash income; in recent years, only about 45% of eligible working people received food stamps, leading some critics to argue that it is too difficult for poor families to use the system.

**C.** The traditional cash welfare assistance program, Aid to Families with Dependent Children, was replaced by Temporary Assistance to Needy Families (TANF) under the Personal Responsibility and Work Opportunity Reconciliation Act of 1996.

1. One key change is that states have been given much greater discretion in designing their own public assistance programs, funded via block grants from the federal government rather than through matching funds.
2. The law required that by 2002 at least 50% of all recipient families and 90% of two-parent families must be working or in work preparation programs and limited individuals to a lifetime maximum of 60 months of TANF-funded aid.
3. Welfare reform occurred after a bipartisan consensus was reached that the traditional welfare system was not working because it encouraged dependency, ultimately increasing poverty in the long run; research on the impact of this welfare reform has concluded that it has been fairly benign.
4. Despite an overall reduction in the average gap between the income of single-female families and the poverty line, there is some evidence that welfare reform has coincided with a rise in deep poverty (the percentage living more than 50% below the poverty line).

**D.** The new emphasis on taxpayers helping the working poor and encouraging the poor to work can be seen in the Earned Income Tax Credit (EITC), which has become the largest federally funded, means-tested cash assistance program in the United States.

1. The EITC goes only to low-income households with labor market earnings.
2. In the range between $0 and the maximum payment, households with more than one child receive a subsidy equaling 40% of their labor earnings; the subsidy rate is 34% for one-child households and 7.65% for childless households.
3. A family with two children and one full-time worker earning about the minimum wage ($11,700 per year) will receive an EITC of $4,536, boosting the effective wage from $5.85 to $8.12 per hour.
4. One notable advantage of the EITC is that it is inexpensive to administer, adding only slightly to the costs of running the Internal Revenue Service; however, because there is little investigation into recipients' eligibility, the system is open to abuse.

**E.** Supplemental Security Income (SSI) provides a monthly stipend to poor aged, blind, or disabled people. It is a need-based supplement to the Social Security system that pays about $38 million annually to roughly 7 million recipients.

**F.** Economists strongly prefer the EITC and its incentives—which have modest impacts on total employment—to the minimum wage, which tends to reduce employment.

**Essential Reading:**

Schwartz, Joel. "The Socio-Economic Benefits of Marriage: A Review of Recent Evidence from the United States."

**Supplementary Reading:**

Blank, Rebecca. "Evaluating Welfare Reform in the United States."

Hoynes, Hilary, Marianne Page, and Ann Stevens. "Poverty in America: Trends and Explanations."

**Questions to Consider:**

1. How does the federal government determine the poverty threshold? What are the strengths and weaknesses of measuring poverty this way?
2. Is the Earned Income Tax Credit (EITC) a good policy? Why or why not?

# Lecture Twenty
# Pay Gaps by Sex and Race

**Scope:** According to the most recent figures from the Bureau of Labor Statistics, the median weekly pay for women working full time in the United States is about 19% less than for men. Pay gaps exist virtually everywhere in the world; in addition, there are pay gaps across racial and ethnic lines. Why do these pay gaps exist? Why do women tend to earn about one-fifth less than men, while blacks and Hispanics earn less than whites and Asians? In this lecture we will examine economists' understanding of these pay gaps. If the labor market is competitive, these pay gaps are likely to arise due to differences in productivity—the value of the additional output produced by the worker. Our society, however, has historically placed numerous roadblocks on the path to economic success for women and minorities, so we must also look at evidence that these gaps are caused by discrimination and examine theories about how discrimination operates in the economy.

## Outline

**I.** To assess the determinants of pay, economists generally begin with a lot of data and a little bit of theory. Most of these data sets are collected by government agencies, but some data come from employers' records.

- **A.** The data begin with measures of compensation, ideally including the value of fringe benefits in addition to weekly, monthly, or annual pay and the number of hours worked.
  - **1.** Because direct measures of productivity are rare and cannot be compared well across a range of occupations, economists instead rely on measures of personal characteristics that are likely to influence productivity and pay.
  - **2.** Characteristics that any useful data set must contain include age, years of experience, education level, occupation, industry, and region.
- **B.** Once the researcher has constructed a data set, the next step is to run a series of statistical sets to isolate the impact of one particular characteristic, such as sex or race, holding constant all others in the data set that probably influence pay.
  - **1.** The most popular statistical method is called "multivariate ordinary least-squares regression," in which a computer essentially runs a line through a cloud of data points in a manner that minimizes the sum of the squared distances from the line (which predicts each worker's earnings) to the data points (which are the worker's actual earnings).
  - **2.** Once the regression is run, the researcher can look at the payoff for each characteristic and assess how pay between the groups would differ if the members had exactly the same characteristics.
- **C.** The big debate is about how to interpret the remaining pay gap—which says that, holding other factors constant, members of one group earn *x*% less than members of the other.
  - **1.** It may be that there are some hidden productivity-related characteristics that we simply have not or cannot measure that reflect an important talent or aptitude tied to economic success.
  - **2.** On the other hand, the unexplained pay gap may be due to non-productivity reasons and may reflect unfair treatment and inefficient use of talent.
  - **3.** An examination of economic differences between left-handers and right-handers suggests that we must be very careful in attributing unexplained pay gaps to discrimination, but this point obviously does not erase the very real existence of the many forms of discrimination in our society.

**II.** Since it is clear to many people that discrimination still exists in America, let us consider the different possible sources of discrimination and how they play out in the labor market.

- **A.** Gary Becker points out that there are three sets of players whose personal prejudices need to be analyzed: employers, fellow employees, and customers.
- **B.** When an employer discriminates, he or she essentially assumes that someone from the disfavored group is less productive than other workers.
  - **1.** If the supply of workers in the disfavored group exceeds the demand by nondiscriminating employers, their wage will fall below the wages of the other workers.
  - **2.** The more competitive labor and product markets there are, the harder it will be for employers to engage in their taste for discrimination.

C. A second potential source of discrimination is fellow employees.
   1. If members of one group just cannot stand members of another group, an employer will have to pay them more to work with members of the other group.
   2. Employee-based discrimination suggests that workers will be segregated, unless the costs of segregation are too high.
   3. This type of discrimination was historically especially harmful for African-Americans because it was often impossible to set up an all-black facility since African-Americans never got the chance to learn many skills.

D. If customers are the source of discrimination, we would expect workers in the disfavored group to be pushed into occupations with less interaction with customers, especially into the production of goods rather than services.

E. The societal consensus seems to be that it is good for employers, customers, and fellow employees to discriminate in certain ways but not in others.
   1. Discrimination can be wise if it is on the basis of productivity; more productive workers should be hired, paid more, and promoted faster because we want our economic system to encourage people to be productive.
   2. Discrimination on the basis of characteristics that are not linked to productivity is morally wrong in most Americans' eyes, yet there is evidence suggesting that personal prejudice matters in important ways.

F. If personal prejudice is the source of the discrimination, the discriminator generally must pay to indulge in this predilection. This is not the case, however, with statistical discrimination.
   1. Employers with limited information may assume that random members from a less productive group are less productive than random members of a more productive group and therefore statistically discriminate, offering them lower pay.
   2. This outcome depends on the assumption that members of the less productive group don't have good ways to signal their productivity independent of their group identity—but it's in each employer's interest to pick up on these signals.

G. A final set of discrimination models argues that labor markets are not very competitive, giving power to groups to discriminate without forgoing earnings by crowding workers in a disadvantaged group into certain corners of the labor market and colluding to hold down their pay and exploit them.
   1. Powerful groups in the Jim Crow South used the coercive force of government to give them an advantage over disfavored groups or to stop others from hiring members of the underpaid minority group.
   2. During the civil rights era, a number of crucial laws were passed to root out overt discrimination, the most important of which was Title VII of the Civil Rights Act of 1964, which made it unlawful for any employer to refuse to hire or to discharge an individual based on his or her race, color, religion, sex, or national origin.

H. How much does continued discrimination against African-Americans affect the labor market decades after these events?
   1. There is no consensus estimate of the economic losses faced by African-Americans due to discrimination.
   2. Many economists argue that discrimination has no impact on the margin because so few employers, employees, and customers now discriminate; others disagree.
   3. Most agree, however, that African-Americans lag economically largely because their education levels lag.

III. What about pay gaps between men and women?

A. One important reason women earn less is that they tend to enter lower-paying occupations, especially jobs that allow them to attend to family needs; however, because barriers to entering higher-paying occupations have disappeared, women are now well-represented in most of them.

B. Most economists believe that discrimination is no longer an important obstacle to women.

C. The pay gap between women and men has declined substantially over the years.
   1. Before industrialization, the pay gap was perhaps as large as 70%.

2. From the 1950s to the 1970s, barriers to women's employment fell and opportunities for women opened up, triggering the entry of a wave of less-experienced women into the labor market and shifting the pay gap from 36% in 1955 to about 40% in the early 1970s.
3. With more open doors and experience, however, the gap eventually fell to 19% in 2007.

**IV.** The earnings gap between blacks and whites also has fallen considerably over time.

**A.** The earliest reliable figures are from 1890, when the earnings of African-American men were almost 60% below the earnings of white males.

**B.** The gap fell significantly between 1960 and 1970 with federal legislation and changing attitudes toward discrimination.

**C.** The gap has closed only a bit in recent decades, falling to about 25% in 2007.

**D.** Much of this stagnation seems to be tied to the continued education gap between blacks and whites. Two other factors are the recent relative decline in demand for less-educated workers and the rise in immigration.

**Essential Reading:**

Ehrenberg, Ronald G., and Robert S. Smith. *Modern Labor Economics: Theory and Public Policy*, 9th ed.

**Supplementary Reading:**

Blau, Francine, Marianne Ferber, and Anne Winkler. *The Economics of Women, Men and Work*, 5th ed.

O'Neill, June. "The Role of Human Capital in Earnings Differences between Black and White Men."

Ruebeck, Christopher, Joseph Harrington Jr., and Robert Moffitt. "Handedness and Earnings."

**Questions to Consider:**

1. What is the "unexplained" pay gap, and what does it imply?
2. What is likely to happen to gender and racial pay gaps in the future?

# Lecture Twenty-One

# Immigration

**Scope:** The sustained level of high immigration to the United States in the late $19^{th}$ and early $20^{th}$ centuries triggered a major backlash that led to highly restrictive immigration quotas after World War I. Likewise, reactions to immigration have grown increasingly hostile in many quarters in recent years, often for the same—mainly economic—reasons. Accordingly, this lecture will examine the economics of immigration. We will begin by looking closely at changes in the economic characteristics of immigrants coming to the United States and then turn to the central question in the current immigration debate: How do immigrants affect the labor market and government expenditures? We will close by briefly pondering proposals to overhaul our nation's immigration policies.

## Outline

**I.** For generations, immigrants have come to the United States due to economic opportunity, undesirable conditions in their countries, and family ties. In recent years this combination has unleashed a growing wave of immigration to the United States.

- **A.** Despite manifold restrictions, in absolute terms the legal immigration rate is near an all-time high.
  - **1.** Over the past decade, the number of legal immigrants has averaged about 900,000 per year.
  - **2.** The net flow of illegal immigrants into the United States has been more than 500,000 per year since 2000, according to estimates from the Pew Hispanic Center.
- **B.** The current legal immigration rate is a little over 3 people per 1,000 Americans per year; adding in illegal immigrants, the rate is about 5 newcomers per 1,000 Americans—well below the average rate that held from the 1840s until World War I.

**II.** In some ways, the characteristics of America's immigrants have changed considerably over the past two centuries; in other ways, they have not.

- **A.** Throughout most of the 1800s, immigrants came primarily from northern and western Europe, with Britain, Ireland, and Germany as the top three sources.
- **B.** In the late 1800s, the primary source shifted to southern and eastern Europe, with Italians, Russian Jews, and Poles emerging as the top groups.
- **C.** Since World War II, the sources have shifted toward Latin America and Asia, which have sent two-thirds of all legal immigrants and about three-quarters of all immigrants in recent years.
- **D.** The standard of living in the countries providing the United States with most of its immigrants is low, so there is a strong economic imperative to relocate that seems to have strengthened over time.
  - **1.** While the wage gap between the United States and source countries has continued to widen, American labor markets have remained flexible and free of most restrictions, welcoming immigrants rather than shutting them out or relegating them to low-paying jobs.
  - **2.** George Borjas documents that because immigrants increasingly come from countries that are substantially poorer and less educated than the United States, the earnings gap between immigrants and natives has widened over the years.

**III.** What impact does this influx of immigrants have on the U.S. labor market?

- **A.** One simple popular model of the labor market is that there are a certain number of jobs to go around, so whenever an immigrant gets a job, a native-born worker must lose the job. This model, however, does not fit well with the facts.
  - **1.** The unemployment rate in the U.S. economy has been low by historical standards in recent years despite the swelling of immigration.
  - **2.** Most empirical estimates suggest that the labor demand curve in the United States is very elastic and that employers are willing to hire many more workers at lower wages.
- **B.** A second simple model realizes that the demand for labor curve does slope downward, but it argues that the supply of labor curve is nearly vertical.
  - **1.** If this is the case, the immediate impact of shifting out the labor supply curve by adding immigrants would be to increase GDP, while pushing down wages and leaving native employment unchanged.

2. This model, and variations on it, is probably the source of the consensus among economists that overall gains in American society from immigration exceed losses.
3. This model, however, oversimplifies by assuming that all immigrants are essentially the same and are perfect substitutes for native-born workers.
4. This model is essentially a Malthusian model assuming that there are a fixed number of nonlabor resources in the economy, so that whenever the supply of labor rises the wage rate must fall.

**C.** The more realistic and complex theories suggest that immigrants will benefit the native population as a whole slightly, but that they will push down the real wages of the groups with whom they are the closest substitutes and push up the wages of workers who are not close substitutes.

**IV.** The impact of immigration on the economy is often so subtle and far-reaching that it is virtually impossible to isolate its effects convincingly.

**A.** The best studies must be more creative, focusing on "natural experiments"; even in these cases, it is hard to be certain of immigration's impact.

1. David Card examined the immediate impact of immigrants into southern Florida due to the Mariel boatlift in 1980 and found that Miami's overall labor force increased by 7% and that the wages of unskilled workers in Miami did not fall relative to higher-skilled workers or unskilled workers in unaffected cities.
2. A comparison with a proposed boatlift that did not happen in 1994 suggests that these impacts might be due to random events not tied to immigration.

**B.** Rather than looking at spatial variation in wages, it is probably best to examine nationwide impacts by population and skill subgroups.

1. The closest substitute for new immigrants is immigrants who arrived a few years earlier and also African-Americans, since a disproportionately high share of both groups have lower-than-average education levels.
2. A study by George Borjas, Jeffrey Grogger, and Gordon Hanson suggests that a 10% immigrant-induced increase in the supply of a particular skill group reduced the African-American wage by 4%, lowered the employment rate of African-American men by 3.5%, and increased the incarceration rate of African-Americans by almost 1%.
3. Even though most native-born workers can adjust to immigration to a particular locality fairly easily, they do not have such an easy time switching from one highly skilled profession to another after an influx of skilled foreign workers.
4. Unfortunately, even studies examining impacts by skill group may be uninformative because they take a partial-equilibrium approach by confining the effects of immigration to the relative wages of workers.

**C.** The most ambitious and theoretically sound attempts to assess immigration's labor market impacts require the economist to build a mathematical model of the whole economy that allows the effects of immigration to filter through the entire economic structure.

1. George Borjas uses such a model in estimating that U.S. workers lost, on average, about 3% of the real value of their wages due to immigration over the period 1980–2000—a loss that reached almost 9% for native workers without a high school degree.
2. Gianmarco Ottaviano and Giovanni Peri, however, conclude that recent immigration has a slight positive effect on the wages of all U.S.-born workers with at least a high school degree and has a small negative effect on the wages of U.S.-born workers with no high school degree.

**D.** Pulling these studies together, a neutral observer can conclude that almost all estimates show the average impact to be pretty small and that if any American workers are being harmed by immigration, it is the least-educated workers.

**E**. Overall, recent immigration to the United States has probably caused the native-born sector of the economy to grow ever so slightly, but its main impact is primarily redistributive. Less-educated American workers seem to have lost out a bit, better-educated workers may lose or gain a hair, and the immigrants themselves see their wages rise severalfold when they move to the United States.

**F**. The other big redistributive impact from immigration occurs outside the labor market, due to its impact on government spending and taxes to pay for education and antipoverty programs.

1. A comprehensive study by the National Research Council in 1997 concluded that immigrants and their descendents generally have a positive fiscal impact: a present discounted value of $106,000 per immigrant on average in 2007 dollars.
2. However, this finding assumes that the government will shift its fiscal policy. Under the assumption of no change in taxation and government spending patterns, immigrants' contributions were projected to be slightly negative.

**V**. In light of this range of findings, there are many proposals to overhaul our immigration system.

**A.** Many proposals argue that the criteria for admitting immigrants to the United States should be changed to a point system that awards points to those with scarce skills, higher education levels, and fluency in English rather than basing the decision primarily on familial ties to those already living in the United States.

**B.** Fewer openings for legal immigrants from nearby poor countries are likely to cause the supply of unauthorized immigrants to swell even more.

**Essential Reading:**

Borjas, George J. Heaven's Door: Immigration Policy and the American Economy.

**Supplementary Reading:**

Hanson, Gordon H. Why Does Immigration Divide America? Public Finance and Political Opposition to Open Borders.

Pew Hispanic Center. "The Size and Characteristics of the Unauthorized Migrant Population in the U.S."

**Questions to Consider:**

1. How and why have the volume and characteristics of immigrants to the United States changed over time?
2. Why is it so difficult to assess the overall impact of immigration on the economy?

# Lecture Twenty-Two
# Labor Unions

**Scope:** The primary purpose of labor unions seems to be to provide workers with more of everything they want: more pay, more fringe benefits, more paid time off, more job security, more respect, and more job satisfaction. However, the power of American labor unions has waned in recent decades. In this lecture we will start with a brief history of American labor unions and public policy toward them. Then we will examine the contemporary role of labor unions in the United States economy, starting with the impact of unions on compensation. Next, we will turn to their impact on productivity, investment, profits, and job satisfaction, before closing with a brief discussion of recent proposals to change laws affecting organized labor.

## Outline

**I.** Labor unions have had a tenuous existence throughout much of American history, with unionization rates never climbing above 5% in the 1800s.

- **A.** Popular support of organized labor arose when employers were especially unfair or brutal in their treatment of workers, but support was fleeting because so many Americans were self-employed and unions were commonly linked with higher prices, violence, and radical foreign ideas.
  - **1.** Under the common law inherited from Britain, labor unions were initially considered to be illegal attempts to restrain trade.
  - **2.** After this doctrine faded, the courts still routinely intervened in labor-management disputes, frequently siding with management by issuing injunctions blocking union activities.
- **B.** Over time, judges began to develop the doctrine of agency—that unions could temporarily act on behalf of workers if the workers granted them authority. The Supreme Court unanimously accepted this doctrine in 1922, ruling that unions could have legal standing as agents of workers, allowing them to negotiate and sign binding contracts on behalf of workers.
- **C.** The capstone of New Deal–era labor union legislation was the passage in 1935 of the National Labor Relations Act (the Wagner Act), which established a procedure by which organizers could petition the National Labor Relations Board to hold a certification election at a particular workplace.
  - **1.** If a majority of the workers voted in favor of a particular union, it became the sole collective-bargaining agent of the workforce, and the employer was required to bargain with it "in good faith."
  - **2.** Under the aegis of the Wagner Act, labor unions grew rapidly in the 1930s and 1940s, with union strength taking root in the heart of industrial America.
- **D.** As organized labor grew powerful, a backlash developed, fueled by the Communist links of some organizers, rough tactics, and fears that unions had the entire economy in a choke hold.
  - **1.** The Taft-Hartley Act of 1947 allowed the president to call a cooling-off period before a strike, restricted the use of secondary boycotts, and permitted individual states to pass right-to-work laws prohibiting the requirement of a person to become a union member as a condition of employment.
  - **2.** The Landrum-Griffin Act attempted to increase union democracy and financial propriety.
- **E.** At the beginning of the Great Depression, about 12% of the nonagricultural labor force was unionized. This rose to 27% in 1940, peaked at 35.5% in 1945, and settled at 31% in 1950 and 1960, before unionization began to collapse after 1980.
  - **1.** Part of this drop was due to rapid industrial restructuring and rising competitive pressures due to international competition and deregulation during this period.
  - **2.** Most analysts believe that employer resistance toward unions was rising, and this was accompanied by increased suspicion of unions in the electorate.
  - **3.** Especially important were the policies and appointments of the Reagan administration.
  - **4.** Despite continued attempts by organized labor and its allies to stem the tide, the unionization rate has continued to drop every year, reaching 12% in 2007; unionization has fallen to 7.4% in the private sector.

**II.** Questions of whether unions deliver on their promises to provide workers with more of what they want and whether they are good for the overall economy have been the subject of intense debate.

**A.** Richard Freeman and James Medoff argue that unions have two faces: a monopoly face (which raises wages above the competitive level and results in a loss of economic deficiency) and a collective-voice face (which enables unions to channel worker discontent into improved workplace conditions, thus increasing productivity and efficiency).

**B.** Economists David Blanchflower and Alex Bryson find that, on average, unionized workers earn about 15% more than otherwise similar, nonunionized workers.

**C.** Unionization has a large positive impact on fringe benefits.

**D.** How employers react to this higher level of total compensation depends on what unions do to productivity.

**1.** If unionization reduces productivity or increases it by less than compensation, it will eat into employers' profits and reduce employment.

**2.** If unionization increases workplace productivity by the same percentage that employee compensation rises, then it will have no real downside.

**3.** If it increases productivity by more than wages, employers will eagerly race to be unionized.

**4.** A range of studies concludes that unionization cuts a firm's profits by about 10% to 20% and that it cuts the firm's employment and output; but it appears to have no noticeable affect on a firm's survival.

**E.** Freeman and Medoff pushed the idea that unionization substantially boosts productivity by representing the collective voice of workers; in addition, unionization could force a poorly run firm to revamp itself.

**1.** These arguments do not sit well with critics, who say that unions spoil workplace relations and put in place work rules that decrease flexibility and diminish productivity.

**2.** Virtually every study from the past couple of decades has concluded that unionization does not boost total factor productivity and that unionized firms have substantially lower productivity growth than nonunion firms.

**F.** Unions provide a mixed bag in delivering on the promise of more job security. While they may reduce arbitrary firings, they also reduce their firm's overall employment, undermining job security for less senior employees.

**G.** Why do unionized workers report lower levels of job satisfaction?

**1.** Unions tend to organize among workers who have unpleasant or unrewarding jobs and/or managers.

**2.** Union leaders may "manufacture" discontent by raising members' expectations about job outcomes, imposing restrictive work rules, or increasing confrontation and conflicts after unionization.

**III.** Should public policy tilt the playing field to favor unions more or less?

**A.** The vast majority of the population, which is not unionized, is probably a little worse off because of unions.

**1.** Taxpayers face bigger tax bills because public sector union workers are paid more.

**2.** Consumers must pay more because higher labor costs increase prices.

**B.** The appropriate public policy depends on how you view the tug-of-war between employers and workers.

**1.** If an employer's profit comes from an unfair advantage, there is nothing wrong with workers collectively wresting a chunk of the economic pie for themselves.

**2.** If the profits come because the employer is exploiting his workforce, almost everyone will applaud their bold effort to get their fair share.

**C**. Economists use the term exploitation precisely and carefully.

**1.** They generally define exploitation by comparing what the worker gives with what the worker gets; thus, the worker is exploited only if his or her compensation is less than the value of the additional profits he or she earns for the employer.

**2.** In a competitive labor market, wages will reach equilibrium where the supply equals the demand, which is where the employee's compensation equals the employer's added profits; thus, the worker is not exploited in a competitive market.

**3.** James Bennett and Bruce Kaufman argue that the demand for unionization among workers has declined in recent years because of the erosion of employers' abilities to exploit workers.

**D.** Most analysts conclude that unions will not make a comeback if current labor laws remain in force.

**1.** One important change that could reverse the tide would be replacing the secret ballot in union certification elections with a public card-check system.

**2.** Congress could bolster unions in other ways, such as requiring employers to provide organizers with lists of employers' contact information, restricting the use of replacement workers, and requiring binding arbitration when bargaining reaches an impasse.

3. Opponents hope to clip unions' wings further by removing some policies that favor them, such as the Davis-Bacon Act, which requires that the federal government pay prevailing wages on construction contracts for public-works projects.

**Essential Reading:**

Bennett, James T., and Bruce E. Kaufman, eds. *What Do Unions Do? A Twenty-Year Perspective*.

**Supplementary Reading:**

Bennett, James T., and Bruce E. Kaufman, eds. The Future of Private Sector Unionism in the United States.

Wheeler, Hoyt N. The Future of the American Labor Movement.

**Questions to Consider:**

1. Why has membership in labor unions fallen in recent decades? Why is the unionization rate in the United States much lower than in other industrialized countries?
2. Should public policy tilt the playing field to favor unions more or less? Why?

## Lecture Twenty-Three
## Underperforming Schools

**Scope:** This lecture examines another one of the challenges we face over the next few generations: our underperforming educational system. We will begin by inspecting productivity trends in elementary and secondary education by closely examining educational outcomes and costs. Next we will assess an array of proposals that have been offered to improve educational outcomes, ranging from reducing class sizes to high-stakes testing and monetary incentives for educators to improve student success. Finally, we will turn to the more fundamental reform of increasing competition within the educational sector, including the idea of giving parents vouchers that they can use at the public or private schools of their choice.

## Outline

**I.** Average levels of education in the United States were once the highest in the world, but by the end of the 20th century, many other countries had discovered this key to economic success.

- **A.** The mean of schooling years in the United States is still above average among the 29 relatively rich countries of the Organization for Economic Cooperation and Development (OECD), but it now trails several countries.
- **B.** In the most recent rankings by the OECD's Program for International Student Assessment, American rankings on math, science, and reading skills slide as students age.
  1. Fourth graders in the U.S. rank above average in math, science, and reading skills.
  2. Among 15-year-olds, Americans rank 24th out of 29 in math, 19th in science, and 15th in reading.
  3. All of these nations spend less per student on education than the United States.
- **C.** These trends concern many economists because for nearly a century the American comparative advantage has been in producing goods and services that make extensive use of educated labor.
  1. Eric Hanushek finds a clear, sizeable link between math and science knowledge and economic growth.
  2. This suggests that the United States' subpar educational outcomes may shave about 0.5% off GDP growth each year.

**II.** While the United States has an enviable productivity record, productivity has fallen in the educational sector.

- **A.** The costs of education seem fairly easy to measure, but measuring output is a bit trickier.
  1. One approach would be to equate educational output with total enrollment; by this standard, productivity has fallen dramatically.
  2. This simple calculation may miss some of the many improvements in education during this period (e.g., more individualized attention, better textbooks).
  3. Another approach is to measure educational attainment by students' scores on standardized tests.
  4. Caroline Hoxby estimates that productivity—measured as test points per dollar spent—was 55% to 73% higher in 1971 than in 1999; the gap continues to widen over time.
  5. Critics of this points-per-dollar-spent calculation warn that the trend is driven partly by forces outside the control of the educational system: a change in the mix of students and the rise in wages for educated women.
- **B.** Nationally we spend over $10,000 per public school pupil today; however, this average hides a good deal of variance from state to state. Will spending even more money help things?
  1. Some argue that we need to spend more money these days to achieve the same level of education because there are countervailing pressures outside of schools that hobble educational success (e.g., more working mothers, more distractions for children).
  2. One reason that costs per pupil almost doubled from 1970 to 2000 is that the pupil-to-teacher ratio fell considerably, dropping from 22.3 students per teacher in 1970 to 16 students per teacher in 2000.
  3. However, Eric Hanushek reports that only 27% of educational production function estimates found a statistically significant positive link between expenditure per pupil and student performance, and only 14% found a significant positive link between the teacher-pupil ratio and student performance.
- **C.** The effect of smaller class sizes has been especially closely studied.
  1. Caroline Hoxby finds that improvements in math, reading, and writing were insignificantly related to class size.
  2. An experiment in Tennessee, however, showed that smaller classes boosted student performance, although the gains were fairly small and came in the first year of being assigned to a smaller class.

**D.** By most standards, average teacher pay in the United States is currently fairly good.

**III.** If channeling more resources into our schools has such a low or even nonexistent payoff, is there any other way to improve educational outcomes?

**A.** One possibility is to force students to put more effort into their own educations through high-stakes exit exams.

**1.** John Bishop finds that students from countries with medium- and high-stakes exit-exam systems outperform students from other countries at a comparable level of economic development by 1.3 grade level equivalents in science and one grade level equivalent in math.

**2.** Such exams seem to work because they give students clear external national benchmarks. Comparing students to external national standards also reduces pressure on teachers to dumb down material and grade on curves.

**3.** There are downsides to this practice: Students must give up other pastimes, and states with the stiffest exit exams discourage weaker students and boost dropout rates by about 5%.

**4.** The effect of exams in the United States is usually incremental rather than all-or-nothing.

**B.** Many analysts have suggested giving teachers and school administrators greater incentives to add value in the classroom.

**1.** Merit pay for teachers is beginning to gain favor and has even been endorsed by some teachers' unions; however, economists are quick to point out that we must be careful in designing and implementing incentives.

**2.** Incentives to teach may be greater where schools are put into competition with each other. Caroline Hoxby finds that more competition among school districts yields better student outcomes.

**C.** An even bolder way to inject competition into schooling would be to allow parents to spend their share of school funds at the public or private school of their choice.

**1.** If parents were given vouchers allowing them to shop around for schools, they would abandon weak schools, cutting off their financing and forcing them to shut down or clean up their acts.

**2.** In 1990, Wisconsin's legislature approved a program to provide vouchers to low-income students in Milwaukee.

**3.** Analysis of the program showed that parents had greater satisfaction with choice schools; evaluating the academic impact is trickier because students are not randomly assigned to the program and may come from households more motivated for academic success.

**4.** Caroline Hoxby argues that the Milwaukee public schools seem to have improved their product in the face of this new competition; public schools with the greatest number of students eligible to enter the program saw their students' test scores increase relative to other schools not faced with competition.

**5.** Critics worry that pitting public schools against subsidized private schools will leave public schools with less able students. This effect could be overcome by linking the size of the voucher to the roadblocks facing the student (e.g., parental education level and income).

**IV.** What do economists think?

**A.** When polled, most economists favored the idea of extending consumer sovereignty to the educational field.

**B.** Advocates of increasing competition in education argue that we can get an equal or better education at a lower cost if we pit educators against one another, giving them incentives to deliver a good product at a reasonable price.

**Essential Reading:**

Hoxby, Caroline. "School Choice and School Productivity (or, Could School Choice be a Tide that Lifts All Boats?)."

**Supplementary Reading:**

Ladd, Helen F. "School Vouchers: A Critical View."

**Questions to Consider:**

**1.** Should the United States move toward high-stakes testing in high schools? Why or why not?

**2.** What incentives should be given to teachers and school administrators to improve educational outcomes?

# Lecture Twenty-Four

## The High Cost of Higher Education

**Scope:** The good news is that American universities are the best in the world, attracting talented faculty and students from around the globe. The bad news is that American universities are also expensive, and college tuition continues to soar. Why have college costs exploded in recent years? In this lecture, we will explore the factors behind rising tuition, both the forces driving the increase in the demand for a college education and the forces that have held back a strong increase in the supply of higher education. We will see that, unlike other businesses, most colleges do not have such strong incentives to expand output or hold down their overall costs. We will close by considering whether there is anything we can do to make college more affordable and boost enrollments—without undermining quality.

## Outline

**I.** Since 1983, real college tuition has climbed more than 150%—three times faster than real income per person. Only one other major component of the consumer price index has risen faster than higher education. The key to this consistent rise in college costs seems to be that the demand for a college education is rising strongly, while the supply has not been so responsive.

- **A.** On the demand side, college is an investment that can yield a handsome rate of return for those who have the proper aptitude and attitude.
  - **1.** It is clear to most observers that this payoff has surged in recent decades due to the technological changes that have increased the productivity of better-educated workers.
  - **2.** College education boosts one's social status, opens doors to more prestigious jobs, and offers the joy of learning.
  - **3.** Many students do not bear most of the financial cost of their education; the demand for college is as much a demand by parents and other donors as it is by students.
  - **4.** Over the past few decades, third-party financial aid to higher education has risen substantially—especially government aid.
- **B.** On the supply side, the market for higher education is nothing like the market in most competitive industries.
  - **1.** Most colleges and universities are run by state governments or are not-for-profit corporations.
  - **2.** Most existing higher education firms scale up very slowly in the face of rising demand, and many do not expand at all in the face of excess demand for their product.
  - **3.** The supply curve is almost vertical at the top schools, but it is more elastic for the industry as a whole.

**II.** The most fundamental difference between colleges and other businesses is that higher education firms are not seeking profits.

- **A.** Rather than having a single bottom line like for-profit businesses, colleges have a range of goals, and their bottom line seems to be to maximize prestige.
  - **1.** The most well-known marker of prestige for American colleges is the annual *U.S. News and World Report* ranking.
  - **2.** Instead of cutting costs, colleges are rewarded by the *U.S. News* rankings and by their customers—who become their alumni donors later in life—for *increasing* costs.
  - **3.** If a college were to expand significantly, it would need to accept a greater proportion of its applicants, reducing its selectivity and retention rate and dragging down its ranking.
- **B.** Another easily quantifiable way to assess a college's prestige is to look at its endowment.
  - **1.** College endowments have climbed to collectively reach about $380 billion, with endowments topping $1 billion at 62 colleges.
  - **2.** In the long run, colleges want to attract students who will be successful and make sizeable donations later in life; attracting students from wealthier backgrounds is more likely to accomplish this than merely attracting students with the highest academic potential.
  - **3.** Those with fortunes to give away rarely give the money to colleges with small endowments and subpar faculties and facilities; they usually give money to colleges that already have a lot of resources.

**III.** The productivity of the higher education sector is in a free fall.

- **A.** Spending per student in year 2003 dollars rose from about $10,800 in 1980 to $18,400 in 2000.
  - **1.** This is due to the modestly rising real wages of faculty members, the rise in the faculty-to-student ratio, and rising levels of non–faculty members per student.
  - **2.** Faculty-to-student ratios are rising not because class sizes are falling but because faculty members teach fewer courses due to a strong incentive for college professors to conduct research.
  - **3.** Critics warn that a shift toward research at second- and third-tier schools is costly—pulling professors away from teaching and driving up tuition.
- **B.** Despite rumors to the contrary, state government support for higher education has grown in the last three decades, although the growth has been too slow to hold down tuition.
  - **1.** Ronald Ehrenberg estimates that inflation-adjusted state appropriations per student at public higher education institutions grew by 0.6% per year from 1974 to 2004.
  - **2.** Some critics wonder whether government should support higher education at all, especially if much of the support goes to research that is of marginal value and taxpayers receive little from their investment.
- **C.** Most economists find compelling evidence of significant positive spillovers from higher education; some critics point out that it is not clear if these spillovers are from faculty research rather than student learning.
- **D.** One idea for reining in the spiraling cost of higher education is for state legislatures to scale back their funding of research and push colleges to reallocate resources toward teaching. Opponents argue that the solution to high tuition is simply for state legislatures to increase funding for higher education.
- **E.** Congress's favorite method for holding down the cost of education and boosting enrollment is to funnel more aid directly to students and families.
  - **1.** Most research indicates that grants administered this way have little marginal impact on college enrollment.
  - **2.** Programs administered through the tax code are even more unwieldy and less likely to pull additional students into higher education—especially since they determine educational subsidies after the fact.
- **F.** The most surefire way to make college more affordable is to increase higher education's productivity (students educated per dollar spent). Increasing this measure of productivity is virtually impossible within the current system because education is very labor-intensive.

**Essential Reading:**

Ehrenberg, Ronald G. Tuition Rising: Why College Costs So Much.

**Supplementary Reading:**

Clotfelter, Charles. Buying the Best: Cost Escalation in Elite Higher Education.

Vedder, Richard. Going Broke by Degree: Why College Costs Too Much.

**Questions to Consider:**

**1.** Are *U.S. News and World Report*'s ranking criteria appropriate? If not, how would you change them?

**2.** Should subsidies to higher education be increased, decreased, or kept at the current level? Should the subsidies go to colleges and universities or directly to students and their families?

# Lecture Twenty-Five
## Wal-Mart

**Scope:** Wal-Mart is the world's largest corporation, with 1.8 million employees worldwide and 1.3 million employees in the United States. Its weekly revenue in 2007 topped $7 billion, with annual revenue reaching over $350 billion. "Wal-Mart," however, has become a dirty word in some circles. If Wal-Mart announces that they will be opening a new store in your town, which side are you on? Should you fume or cheer? In this lecture, we will address this question by examining the impact of Wal-Mart using the tools of economics. First we will take a look at how it affects consumers and its competitors, and how it is able to offer its everyday low prices. Next we will examine its impacts on labor markets and its labor policies. Finally, we will turn to its relations with suppliers.

## Outline

**I.** Wal-Mart is the world's largest corporation, with 1.8 million employees worldwide and 1.3 million employees in the United States. Its weekly revenue in 2007 topped $7 billion, with annual revenue reaching over $350 billion.

**II.** When I asked a random selection of professional economists whether a Wal-Mart store typically generates more benefits to society than costs, 73% agreed.

- **A.** Economists in the survey agreed that Wal-Mart lives up to its billing by offering everyday low prices and saving consumers money.
  - **1.** Wal-Mart's price advantage ranges from about 8% to 39%, depending on the market and the selection of products.
  - **2.** When Wal-Mart charges lower prices, its competitors are forced to lower their prices too. Emek Basker finds these effects to be largest in smaller cities.
  - **3.** Adding together the direct saving and induced price drops elsewhere and using ACNielsen's exact household purchasing data, Jerry Hausman and Ephraim Leibtag find that poorer families, female-headed households, and nonwhites have gained the most from Wal-Mart.
  - **4.** Jason Furman concludes that in 2003 the savings from groceries alone equaled $782.00 per household per year—the equivalent of a 1.5% increase in income.
  - **5.** My back-of-the-envelope estimate suggests that annual gains to consumers from Wal-Mart exceed $100 billion.
  - **6.** When Wal-Mart rolls into town, the big winners are consumers. The closer you live to a Wal-Mart or a store that directly competes with it, the more likely you are to have saved, even if you never set foot inside.
- **B.** The primary losers are Wal-Mart's direct competitors.
  - **1.** Each new Wal-Mart reduces local competitors' demand and profit margins; on average about four competitors close within five years of Wal-Mart's entry.
  - **2.** Some businesses are helped; because Wal-Mart saves families about $1,000 per year, they have significantly more to spend at other businesses.
  - **3.** Sometimes Wal-Mart's prices are so low that it is accused of predatory pricing—setting its prices below cost in an effort to drive competitors out of business.
  - **4.** Research shows little, if any, support for the idea that Wal-Mart's victims are primarily "mom-and-pop" stores, since these stores are not general merchandise sellers but specialty shops.
- **C.** Wal-Mart can offer lower prices than its competitors and still earn healthy profits because its costs of doing business are exceptionally low—mainly because its productivity is so high.
  - **1.** Wal-Mart has been a pioneer in effectively using technology such as bar codes, a company-wide satellite communications network, and radio frequency identification.
  - **2.** Its sheer size allows it to develop these systems more cheaply because it can spread their fixed costs over a greater sales volume; in addition, Wal-Mart's size also allows it to bargain incredibly hard to get the best, cheapest deals from its suppliers.
  - **3.** Wal-Mart can also tap into economies of scope (savings from selling a range of products) and economies of density (when it builds a new store close to an old one, it cannibalizes some sales but cuts costs from training, distribution, and advertising).

**D.** Wal-Mart has increased its productivity remarkably, increasing inflation-adjusted sales per worker by about 55% from 1982 to 2002. The McKinsey Global Institute estimates that one-eighth of the productivity growth for the entire nation in the last half of the 1990s was due to Wal-Mart.

**III.** The most serious complaints about Wal-Mart concern its labor market practices and impacts.

**A.** What does the empirical evidence say about Wal-Mart's net effect on employment?

1. Wal-Mart does not randomly select its sites; it may pick areas that are poorer because it appeals more to low-income buyers, but it is also more likely to pick areas that are growing faster because of better demand conditions.
2. Emek Basker finds that Wal-Mart has little net impact on employment.

**B.** Wal-Mart's toughest critics point to its impact on wages.

1. It is hard for Wal-Mart to pay less than other employers because the labor market for the types of workers it hires is very competitive.
2. Arindrajit Dube, Barry Eidlin, and Bill Lester estimate that Wal-Mart pushes down wages in the general merchandise and grocery sectors by a little less than 1% and that in 2000, total earnings of retail workers nationwide were reduced by $4.7 billion due to Wal-Mart's presence.
3. Part of the small negative effect of Wal-Mart on wages arises because some of its competitors are unionized, and unionized retail workers' wages are estimated to be about 11% higher than average.

**C.** Wal-Mart is castigated especially for its stiff antiunion tactics.

**D.** Wal-Mart has been sued in at least 30 states for requiring off-the-clock work. It has also been cited for allowing young employees to work too late, for not providing them with mandatory meal breaks, and for hiring contractors who employ illegal immigrants.

**E.** Some complain that Wal-Mart's benefits packages (especially its health insurance packages) are stingy. Jason Furman points out, however, that substantially more Wal-Mart employees are eligible for health insurance than in the retail sector as a whole, and even slightly more than the nationwide total.

**F.** Additional complaints about Wal-Mart arise because some of its stores cause traffic congestion, because it has accepted about $1 billion in taxpayer-supported developmental incentives, and because it refuses to sell some products.

**IV.** The final big worry is about how Wal-Mart treats its suppliers.

**A.** Rather than charging suppliers slotting fees, display fees, and handling charges for the right to sell in its stores, it removes these fees and negotiates relentlessly for low prices.

**B.** It tends to set up partnerships with suppliers, sharing information so that they know exactly what people want to buy, and offering a huge and predictable volume, which lets suppliers keep their factories running full and steady.

**C.** Sometimes Wal-Mart can turn against its suppliers, cutting them out of the picture; since price matters immensely to Wal-Mart's customers, the store's cut-rate house brands can eat into the sales of traditional suppliers.

**Essential Reading:**

Basker, Emek. "The Causes and Consequences of Wal-Mart's Growth."

**Supplementary Reading:**

Furman, Jason. "Wal-Mart: A Progressive Success Story."

Vedder, Richard, and Wendell Cox. *The Wal-Mart Revolution: How Big-Box Stores Benefit Consumers, Workers, and the Economy*.

**Questions to Consider:**

1. Who are the big winners and who are the big losers when a Wal-Mart store opens?
2. If Wal-Mart announces that they will be opening a new store in your town, do you cheer or fume? Why?

# Lecture Twenty-Six
## Corporate "Greed," Fraud, and Mismanagement

**Scope:** In the last lecture we examined what most economists view as a true corporate success story: Wal-Mart founder Sam Walton did a great job of earning profits, as have his CEO successors. Other companies' executives, however, have not done as well, and all too often their mismanagement has crossed the line and broken the law—the name Enron strikes a raw nerve in almost everyone. In this lecture we will examine the dark side of corporate life: greed, fraud, and mismanagement. We will begin by thinking about greed and then turn to the nature of corporations and the problems that arise when owners do not run things themselves but choose managers as their agents. We will look at methods that try to solve corporate governance problems, recent corporate scandals, and the policy response to them, especially the Sarbanes-Oxley Act.

## Outline

**I.** Greed is the excessive or uncontrolled desire for or pursuit of material goods, especially money.

- **A.** What separates a functional economy from a dysfunctional one is its ability to channel greed and our other selfish urges to get ahead to promote socially desirable ends.
- **B.** If the aspiration to earn a lot of money drives corporate executives to offer better products at a cheaper price, this "greed" has been put to good use; if it leads executives to "rip off" investors, then it has not.

**II.** How do corporations and the market economy harness individuals' desires to earn a lot of money?

- **A.** A corporation is an entity that has a legal personality apart from its owners and employees.
  - **1.** It has the ability to sue and be sued, to hold assets in its own name, to hire agents, to sign contracts, and to make rules governing its internal affairs.
  - **2.** By incorporating, the owners of a business limit their liability for damages and losses to the amount they have invested in the firm.
- **B.** Today, the incorporation process is open to everyone and is free of political wire-pulling; instead of greasing palms to gain limited liability, the corporation agrees to pay a tax on its profits.
  - **1.** Federal tax rates on profits are in the mid-30% range for those earning more than a small amount.
  - **2.** Corporate profits are subject to double taxation—first when they are earned by the corporation and then when the owner receives the profit as a dividend or capital gain.
- **C.** Setting up a large company often requires thousands of investors to pool their resources; since many of these shareholders do not have the expertise or time to run the company, they elect representatives (the board of directors) to oversee the company for them.
  - **1.** Corporations are usually democratic, although the rule is that one share equals one vote, with exceptions that include stock shares with no voting rights and others with extra voting rights.
  - **2.** One of the primary functions of the board of directors is to select the company's CEO—the chief executive officer—and other top executives within the firm.
  - **3.** The CEO runs the business on a day-to-day basis, although the board can exercise its power to approve major moves.

**III.** The ultimate job of the CEO and the board of directors is to act in the shareholders' best interests, especially by earning strong profits for them.

- **A.** Unfortunately, corporations are wracked by what economists call the "principal-agent problem," which is that the interests of the agent are not perfectly aligned with the interests of the principals.
  - **1.** The owners' goal is to maximize their own profits, but is the board trying to maximize the owners' profits?
  - **2.** Is the CEO trying to maximize the owners' profits or is he or she trying to make his or her own life as comfortable as possible?
  - **3.** There is no perfect solution to this problem, but there are some partial solutions: closely monitoring the performance of the agent, rewarding the agent for doing what is in the principals' best interests, or punishing the agent for failing to do what is in the principals' best interests.

**B.** The ultimate negative incentive is to fire the CEO if he or she is doing a lousy job; unfortunately, this is not always easy.

  **1.** Firing the CEO may require disgruntled shareholders to fire the board of directors too, which they can do by proposing alternative candidates when elections roll around and lining up enough stockholder votes to bring in new people.

  **2.** If the CEO is doing a terrible job, the firm will not earn many profits, and its shares will sell at a fairly low price, providing an opening for someone to buy the entire company; this lights a fire under CEOs to improve company performance so that their companies do not become takeover targets and they do not lose their jobs.

  **3.** Positive incentives include paying top executives more when the company earns bigger profits and, more recently, granting stock options.

**C.** Neither negative nor positive incentives for performance work perfectly.

  **1.** The company's value may rise even when the CEO is doing a subpar job due to factors outside the CEO's control such as a booming economy or rising prices in the company's market segment.

  **2.** What if the CEO and other insiders manipulate company processes just to line their own pockets?

**D.** CEOs are required to report their company's most important economic data to the board of directors and, if it is a public company, are required to file financial reports with the Securities and Exchange Commission.

  **1.** Unfortunately, the CEO and people working at the firm can manipulate the flow of information, hide information, or simply lie about its financial performance.

  **2.** Measuring a company's assets, liabilities, and bottom line is open to much debate.

**E.** To guide the crafting of earnings reports, accountants must use generally accepted accounting principles promulgated by the Financial Accounting Standards Board (FASB).

  **1.** The Securities and Exchange Commission has delegated to the FASB the job of creating a detailed set of rules and principles for the measurement, valuation, and reporting of assets, liabilities, and earnings; however, these rules must allow firms leeway in estimating these important numbers.

  **2.** This leeway also leaves room for management to manipulate data earnings, which is widespread but not necessarily a bad thing if kept within certain bounds.

**IV.** How widespread are genuine abuses that significantly mislead investors about the firm and use fabricated numbers that blatantly break accounting rules?

**A.** One useful measure is the outcome of class action suits by shareholders, termed 10b-5 cases after the section of the 1934 Securities Exchange Act that prohibits the public dissemination of fraudulent financial information.

  **1.** The number of settlements of accounting fraud law suits averaged about 30 per year in the late 1990s, with corporations paying about $1.2 billion per year.

  **2.** Since 2000, however, the number of cases has averaged about 80 per year, with settlements reaching about $5.6 billion per year.

**B.** Another measure of the scale of accounting malfeasance is the frequency with which companies restate their earnings.

  **1.** From the mid-80s till the mid-90s, the numbers were less than 50 per year. Then the rate began to soar, breaking 300 in 2002.

  **2.** Investors' reactions show that the restatements are bad news—knocking about 11% off the stock's price on average.

**C.** Some critics say that these lawsuits and restatements are the tip of the iceberg in terms of economic damages caused by accounting fraud.

  **1.** In 2002 the overall stock market plunged and cost investors over a trillion dollars, right as revelations of improprieties at WorldCom, Xerox, Qwest, Global Crossing, Adelphia, and Tyco arose.

  **2.** Some observers blame this market dip on plummeting confidence in corporations' earnings reports.

**D.** The Enron case is especially fascinating because it used complex accounting tricks in its misrepresentation of earnings and apparently broke many laws along the way.

  **1.** Enron was lying to risk-taking investors by breaking accounting conventions. The favored trick was the use of special purpose entities (SPEs)—arrangements between Enron and supposedly independent third parties. The SPEs were designed so that Enron's owners took the risks, but its executives earned the profits.

2. To guard against fraud like this, the board of directors of a company selects an auditing committee to look over the company's finances. Enron's auditing committee had to rely on management for information, which management hid.
3. Firms also hire external auditors from professional accounting firms to examine a company's books, which can be compromised if the auditor does other business with the firm (which appeared to be behind some of the problems at Enron).

**E.** Faced with worries that the broad drop in stock prices in 2002 was caused by widespread lack of confidence by investors in corporate earnings reports, Congress passed the Public Company Accounting Reform and Investor Protection Act of 2002, better known as the Sarbanes-Oxley Act.

1. The act included several provisions intended to ensure better monitoring for potential fraud by corporations' own agents: mandating that a board's auditing committee consist entirely of outside members, requiring executives to certify reports, and mandating disclosures concerning a firm's internal control structure.
2. The act requires more disinterested performance by outsiders and more disclosure of off-balance-sheet transactions, prohibits corporate loans to insiders, and requires the return of incentive-based compensation following accounting restatements.
3. Critics say that the act does virtually nothing to solve the problem of corporate accounting fraud and that the big winners from the act are accountants and auditors because the law increases the demand for their services without providing investors any meaningful new protections.
4. Critics worry that the act diverts executive talent from value-adding activities to bureaucratic hoop jumping.
5. According to a survey I conducted, only 25% of economists felt the act should be repealed; 47% disagreed with repeal; 28% were neutral.

**Essential Reading:**

Lev, Baruch. "Corporate Earnings: Facts and Fictions."

**Supplementary Reading:**

Butler, Henry N., and Larry E. Ribstein. *The Sarbanes-Oxley Debacle: What We've Learned; How to Fix It*.

Demski, Joel S. "Corporate Conflicts of Interest."

Healy, Paul M., and Krishna G. Palepu. "The Fall of Enron."

**Questions to Consider:**

1. Why are limited liability laws important in a modern economy?
2. Is the Sarbanes-Oxley Act good public policy? Why or why not?

## Lecture Twenty-Seven
## Conspicuous Consumption

**Scope:** Some economists argue that billionaires at the top of the economic pyramid—like Microsoft founder Bill Gates and Google founders Larry Page and Sergey Brin—are spreading a certifiable disease that is gripping the country: "luxury fever." Hordes of people are spending lavishly on cavernous homes, designer clothes, high-priced watches, gas-guzzling automobiles, and the like. A century ago, economist Thorstein Veblen labeled such patterns "conspicuous consumption"—spending driven not so much by the inherent satisfaction derived from the goods but by the status they convey and their ability to set the owner apart from the crowd, increasing his or her relative position in society. Critics argue that the quest for status through conspicuous consumption is a zero-sum game, wastes resources, and is a sign of an inefficient economy. In this lecture we will examine this argument, especially as presented by Cornell economist Robert Frank in his provocative book, *Luxury Fever: Why Money Fails to Satisfy in an Era of Excess*. Then we will consider whether there is any way to cure the fever and discuss objections to this diagnosis.

## Outline

**I.** Hordes of people, rich and not-so-rich, are spending lavishly. A century ago, economist Thorstein Veblen labeled such patterns "conspicuous consumption"—spending driven not so much by the inherent satisfaction derived from goods but by the status they convey and their ability to set the owner apart from the crowd, increasing his or her relative position in society.

**II.** Most economists ignore the idea of conspicuous consumption. It is rarely mentioned in introductory textbooks, and little research has been done on the subject, probably because it is difficult to define adequately and virtually impossible to measure.

- **A.** Many economists are suspicious of this notion, but others argue that it is as old as mankind and is crucial to understanding the contemporary American economy.
  - **1.** They argue that conspicuous consumption has surged during certain periods.
  - **2.** According to observers like Robert Frank, signs of another outbreak of luxury fever began to emerge a few decades ago, tied to the widening income distribution and the amassing of new fortunes.
- **B.** Critics argue that we are simply producing too much because, at a societal level, the marginal benefit from these luxury goods is less than their marginal cost.
  - **1.** The market is failing to achieve efficiency because buyers of luxury goods ignore some of the marginal costs, causing us to misallocate our resources—to work too much and spend too much in an attempt to outdo each other.
  - **2.** Luxury spending seems to generate negative spillovers
- **C.** Keeping up with the Joneses is an ancient problem, and if this is what drives our spending patterns, it is clearly wasteful in economic terms.
  - **1.** Almost all of us have an intense, partially biological desire for relative status; harmful, wasteful rivalry infects much of human interaction.
  - **2.** Economists call this failure to cooperate "the prisoners' dilemma"—cooperation to stop spending so much money on conspicuous consumption will make everyone better-off, but people cannot coordinate their efforts, so they end up competing and are worse off for it.
  - **3.** Erzo Luttmer finds that living among richer neighbors makes people less happy.
  - **4.** Economists who are worried about this issue argue that, at its worst, conspicuous consumption can be a prerequisite for economic and social success.
- **D.** Many economists worry that people are spending too much and working too hard. When I asked a random sample of professional economists, 49% agreed that the typical American consumes too much; likewise, 35% said that the typical American works too much.

**III.** If excess consumption and excess work is indeed the problem, what is the best solution?

- **A.** Overcoming the problem individually probably will be futile, and ignoring the problem will not make it go away.

**B.** Conspicuous consumption is a negative externality like pollution. Robert Frank argues that because each individual's consumption affects the frame of reference within which others must make important choices, this frame of reference is no less a legitimate object of public concern than the quality of our air.

**C.** An ancient response to excessive luxury was sumptuary laws, which limit the amount that can be spent on certain classes of items.

**D.** The best solution may be a hefty consumption tax on any type of spending beyond a certain level per year. This argument has a compelling economic logic that sways many economists, but the majority of them do not seem to buy it.

**E.** Those who question the contention that conspicuous consumption is a substantial problem begin by rejecting the idea that luxury spending can be equated with pollution.

  **1.** The assertion that conspicuous consumption by the rich causes others to waste their time is not backed by solid evidence.

  **2.** Even if conclusive evidence existed, many observers would still disagree with taxing luxury spending.

  **3.** Averting your gaze and attention from luxury items is simple in comparison to avoiding a polluter's smoke.

  **4.** People have an immense amount of leeway in choosing their comparison groups; we can curb excessive conspicuous consumption by living next to the Joneses of our choice.

**F.** Is conspicuous consumption the cause of overwork?

  **1.** Mark Aguiar and Erik Hurst find that since 1965 the leisure time of American men has increased by eight hours per week and that of American women by about six hours per week.

  **2.** One reason that Americans work as much as they do is that many of them like their jobs; according to the General Social Survey, 47% of Americans say they are very satisfied with their jobs.

  **3.** Time diary studies show that both men and women are spending more recreational time with their children.

**G.** Those who do not see conspicuous consumption as a big problem see our larger and fancier homes, cars, and grills as a reflection of the fact that higher income allows us to afford things that we do genuinely care about.

**IV.** Is conspicuous consumption a big problem for the American economy? I think both camps make good points.

**A.** The case in favor of rampant conspicuous consumption is overstated, but it is hard to argue that relative status does not matter to many people.

**B.** The biggest problem arising from conspicuous consumption seems to be one of envy, a problem that no tax can solve.

**Essential Reading:**

Frank, Robert H. *Luxury Fever: Why Money Fails to Satisfy in an Era of Excess*.

**Supplementary Reading:**

Frank, Robert H. *Choosing the Right Pond: Human Behavior and the Quest for Status.*

**Questions to Consider:**

**1.** Do you think America is in the grips of luxury fever? Why or why not?

**2.** Should public policy be altered to reduce conspicuous consumption? Why or why not?

## Lecture Twenty-Eight
## Mail Delivery

**Scope:** In an economy marked by vigorous competition, the U.S. Postal Service has enjoyed a unique monopoly position. In an economy dominated by private enterprise, it is a government-owned seller of services. The postal service, however, has many economic problems: Its productivity is lower than that of other delivery companies, its employees are paid more than similar workers, it has massive unfunded retirement-related liabilities, and it is supported by hidden subsidies and yet does not return a profit to the government or enjoy a reputation for pleasing its customers. Critics argue that these problems actually arise from its privileged monopoly position and warn that its future looks troubling. In this lecture we will begin by exploring the history of the postal service, and then we will analyze its current structure and performance. We will close by examining the recent wave of postal reforms around the world, where corporatization, privatization, and demonopolization have yielded encouraging results in terms of prices, consumer service, and productivity.

## Outline

**I.** We will begin by exploring the history of the U.S. Postal Service (USPS).

- **A.** The USPS traces its roots back to England's Royal Post.
  - **1.** Established for official correspondence in 1516, it was granted a monopoly when Charles I forbade private postal services in 1635.
  - **2.** There was no regular postal service in the American colonies until 1692, when a court favorite was granted an exclusive license and began rudimentary service.
  - **3.** This charter later was absorbed into the British Post Office, and the system deteriorated during the Revolutionary War.
- **B.** The Post Office Act of 1792 established a system of post offices and post roads, using extremely high prices for the delivery of letters to subsidize the delivery of newspapers and the establishment of additional post offices and routes in rural areas.
  - **1.** The Post Office soon became the largest enterprise in America and employed about three-quarters of all federal government civilian workers by 1830.
  - **2.** Post Office critics increasingly complained that it was inefficient and wracked by patronage problems.
- **C.** The arrival of railroads and steamboats brought considerable competition to the Post Office in the 1830s.
  - **1.** Entrepreneurs began offering to carry private mail between cities, which the courts ruled did not violate the Post Office's monopoly on delivery over postal routes.
  - **2.** The political clout of postal employees and transportation contractors, and the desire of politicians to reward supporters with postal positions, saved the Post Office.
  - **3.** Congress responded in 1845 by cutting postage rates by almost 80%, granting the Post Office a monopoly on the carriage of all intercity mail, and forbidding private competition.
- **D.** Expansion of services and experiments with delivery (including speedier service, metered postage, and airmail delivery) developed between the Civil War and World War II. Postal employment grew steadily from 37,000 in 1870 to 816,000 in 1990.
- **E.** In March 1970, the first-ever nationwide strike of federal postal employees prevented mail delivery.
  - **1.** The strike was ended when President Nixon threatened to use the military to deliver the mail.
  - **2.** Congress reorganized the system by removing the postmaster general from the cabinet and creating the USPS as an independent agency of the federal government.
- **F.** The late 20th century brought renewed competition to the USPS. In 1979 its monopoly on express mail was lifted, and private businesses such as UPS and FedEx entered the market, easily outperforming the USPS.

**II.** Let us take a look at the USPS's current structure and performance.

- **A.** The USPS is truly colossal, handling 40% of the world's mail volume.
  - **1.** The 2006 revenues of the postal service were close to $73 billion.
  - **2.** USPS employment in 2006 equaled 796,000, making it the nation's second-largest employer, after Wal-Mart.

- **B.** The postal service enjoys two distinct monopolies: a legally enforced monopoly over the delivery of anything defined as a letter and a mailbox monopoly that does not allow anyone else to deliver mail into the boxes it uses.
- **C.** By law, the USPS is self-financing, so it must break even over time and receive no cash subsidies from the rest of the federal government; however, there are implicit subsidies.
  - **1.** It is exempt from all taxes.
  - **2.** It can borrow from the U.S. Treasury at low rates and has the power of eminent domain.
  - **3.** It is not subject to several laws, including truth-in-advertising regulations, paying parking tickets, and paying vehicle registration fees.
- **D.** Postal rates are set by the Postal Rate Commission. Because the USPS has a monopoly, it can set its own prices and is not expected to turn over profits to anyone else—and thus has little incentive to hold down costs or be efficient.
  - **1.** Postal workers' wages are about 30% more than for comparable workers in the private sector; adding in fringe benefits, the gap grows to about 40%.
  - **2.** Annual compensation for urban carriers and vehicle drivers is about $61,000, while clerks and mail handlers average about $59,000.
- **E.** The USPS is pressured to preserve jobs by keeping open low-volume facilities and delaying the employment of efficient, new mail-handling technologies; however, its ability to pass these high costs along to customers has eroded in recent years, pushing it to make some important strides in productivity.
  - **1.** Among the key reasons for these recent productivity gains is the automation of mail handling and sorting.
  - **2.** Although these moves have reined in costs to a degree and allowed the USPS to trim employment, the postal service increasingly risks seeing its revenue base shrink.
- **F.** Unfortunately for the USPS, each piece of first class mail brings in about twice as much revenue as each piece of junk mail.
  - **1.** But from 2002 to 2006, first class mail volume fell about 5%, while junk mail volume rose by 17.5%.
  - **2.** Econometric studies estimate that junk mail volume is considerably more sensitive to price increases than first class mail.

**III.** The traditional explanation for why a government agency should be given a monopoly on the delivery of mail is that such a monopoly is needed to guarantee universal mail delivery—that a monopoly can use profits from its high-density routes to subsidize its money-losing rural routes.

- **A.** This argument, however, has several flaws.
  - **1.** A government regulator also could require nonmonopoly deliverers to provide universal service.
  - **2.** Statistical evidence indicates that the USPS does not need cross-subsidies from urban areas to fund rural delivery, whose costs are surprisingly low because delivery is not made to homes but to roadside boxes.
  - **3.** It would not be difficult to make all routes profitable by charging route-dependent rates to bulk mailers, who send the majority of mail volume.
- **B.** Some observers believe that mail delivery is a natural monopoly—that is, having more than one firm deliver the mail would be more costly than having only one firm do it.
  - **1.** Natural monopolies have high overhead costs and low marginal costs.
  - **2.** However, 80% of the USPS's costs are for labor—a marginal cost.
- **C.** Critics of the USPS argue that it is an inefficient monopoly and the only thing keeping competitors off its back is the law that bars them from entering this lucrative market. They point to international events in arguing that more attention to the bottom line and more competition will serve the market well.
- **D.** Rick Geddes shows that international reforms have taken three forms.
  - **1.** The first is corporatization, whereby age-old, nationally run post offices have been turned into free-standing corporations whose job is to maximize profits.
  - **2.** The second is to eliminate or chip away at the post office's monopoly.
  - **3.** The third is to regulate mail delivery after it has been corporatized or opened up for competition.
  - **4.** Geddes concludes from events in New Zealand, Sweden, and Germany that postal reforms have brought impressive efficiency improvements and that maintaining universal delivery has not been a big problem, contrary to the worries of demonopolization's foes.

**IV.** Will corporatization, privatization, or demonopolization come anytime soon to the United States?

- **A.** From an economic standpoint, there appears to be little downside.
- **B.** The big political downside is that postal reform probably will mean that postal workers will see their above-market wages fall by 20% or 30%, and total employment at the USPS will fall even more rapidly than it is now.
- **C.** In discussing these arguments with my students, many raise the objection that the United States is different; this objection misses two key points.
  - **1.** Few competitors who enter this market will be gigantic; most will set up locally within a single metropolitan area.
  - **2.** It is not impossible to imagine a big nationwide company emerging as a competitor to the USPS; UPS and FedEx already have.
- **D.** Geddes's survey of economists who have published on the issue finds that all but one advocate demonopolization and privatization. A broader survey of economists also found supporters of the idea significantly outnumbering opponents.

**Essential Reading:**

Geddes, R. Richard. "Policy Watch: Reform of the U.S. Postal Service."

**Supplementary Reading:**

Geddes, Rick. "Do Vital Economists Reach a Policy Conclusion on Postal Reform?"

**Questions to Consider:**

1. How could the United States Postal Service (USPS) reduce the costs of mail delivery? How could it improve efficiency?
2. Are there other federal government entities or activities that should be privatized? If so, which ones?

# Lecture Twenty-Nine
# Organ Shortages

**Scope:** In the opening lecture of this course we examined why economists like competitive markets so much: Market competition has the power to bring society to the point where resources are used efficiently. A competitive market also forces producers to make their goods without wasting inputs, producing a good of a certain quality at the lowest possible price by economizing on scarce inputs and using the most appropriate technology. We are more than three-quarters of the way through our course, however, and we have seen on several occasions that markets do not always achieve efficiency. Human beings, justice, political offices, grades—there are a lot of things that our society agrees should not be bought and sold. This lecture grapples with where we should set the boundaries of the market. As a model for this issue, we will spend most of our time considering the case of human organs. Thousands of people die each year waiting for organ transplants because there is a shortage of donated organs. Is paying people for donations a good solution for this problem?

## Outline

**I.** The boundaries of what is acceptable to be bought and sold in the market are ever-changing and often flexible.

- **A.** Americans buy and sell plots of land everyday, but for many traditional cultures the idea of selling sacred land was taboo.
- **B.** The buying and selling of human beings has an ancient lineage in virtually every society, but forced labor is almost completely forbidden in every country.
- **C.** In the early 20th century, the tide turned in countries like the United States, and the sale of recreational drugs started to be banned.
- **D.** Charging interest on loans is part of the fabric of today's richest economies, but it has been banned as usury at many points in history and is still forbidden in most Islamic countries.
- **E.** People have been hunting whales and killing elephants for ivory since time immemorial, but now (with a handful of exceptions) these practices are banned.
- **F.** In each case, the boundaries of the market have shifted considerably over time, and it has been the job of the government to police this boundary. In most of these cases the societal consensus about what is good and just has shifted over time.

**II.** Consider the case of body organs.

- **A.** The first successful kidney transplants were made in the 1950s; by the mid-1960s the list of transplanted organs included lungs, livers, and hearts.
  1. Prompted by this new phenomenon, Congress passed the Uniform Anatomical Gift Act in 1968 to harmonize the laws in the 50 states.
  2. In 1983 the Food and Drug Administration approved cyclosporine, an antirejection medication that greatly improved the success of transplants.
  3. A year later, Congress passed the National Organ Transplant Act, which established a nationwide computer registry and organizations to oversee organ distribution.
- **B.** In the ensuing years the success of transplant surgery has continued to improve. In 2005 the one-year survival rate for kidney transplants was 95% from living donors and 89% from deceased donors.
- **C.** Critics say we can do much better.
  1. The registry of patients waiting on transplant lists reached almost 97,000 in 2007, with over 72,000 of those awaiting new kidneys.
  2. Because the demand for transplants has risen, the number dying while waiting has steadily climbed, rising about 70% in the past decade, to 7,200 in 2005.
  3. The median waiting time for a transplant is high—about 320 days for a liver, 230 days for intestines, 130 days for a heart, 200 days for a lung, and over three years for a kidney.
  4. The problem is on the supply side—the supply of healthy donated organs could easily be much higher.
- **D.** Let us take a closer look at kidney transplants, since they are the largest part of the problem.

1. The United States has one of the highest transplant rates in the world for two reasons: Its cadaver donation rate is well above average, and its live donation rate is off the charts.
2. Unfortunately, there are no great ways to economize when kidney shortages arise, and postponing transplants means that almost 4,200 Americans die each year while waiting for kidneys.
3. As the shortages have grown, doctors have responded by loosening the previously strict guidelines about acceptable organs.

**III.** Are there more viable ways to increase the supply of donations from both living and recently deceased donors?

- **A.** In some countries the procurement of organs from cadavers is based on the principle of presumed consent.
  1. Under presumed consent legislation, a deceased individual is classified as a potential donor in absence of explicit opposition to donation before death.
  2. Under informed consent law (as in the United States), the removal of organs from a cadaver requires the explicit consent of the donor before death.
  3. Regardless of the type of legislation, in most countries families are allowed to have the last word on whether organs will be donated.
- **B.** Many observers argue that legislative defaults affect the decisions of potential donors and families; families are more likely to consent to donation if that is what the law presumes.
- **C.** In the United States, hospitals have very little incentive to make sure that organs are donated.
  1. One study found that expenditures on activities directed at procuring donated human organs is very low; it concluded that increasing exhortation expenditures by about 10% will lead to an increase in the quantity supplied by 2% to 2.5%.
  2. A more recent study, on the other hand, finds that simply increasing educational spending aimed at industry professionals does not seem to increase supply.
- **D.** Currently, about the only inducement to supply a badly needed organ is altruism. A recipient’s health insurance will typically pay for the donor’s medical costs, but no monetary compensation is allowed.
  1. Advocates of allowing direct cash payments argue that even small payments will bring large responses.
  2. Others argue that if a donation turns into a sale, the altruistic reward will disappear, shifting the whole supply curve inward as those who were once willing to supply for nothing are now only willing to do so at a high price.
- **E.** A deeper worry about selling organs concerns live donations.
  1. Up to 1 in 10 kidney transplants worldwide are received by “medical tourists” in poorer countries where organ sales are allowed; there is a thriving black market for kidneys in some developing countries.
  2. Proponents of paying for organ donations note that the bad outcomes of the black market are symptoms of the market being thwarted; if the practice were made legal, potential donors would have many buyers actively bidding for their services, and the legal code would develop strict guidelines.
- **F.** Two final supply responses are xenotransplantation (implanting organs from another species) and regenerating organs.
- **G.** When I asked professional economists whether the United States should allow payments to organ donors and their families, 70% agreed that it would be a good idea.

**Essential Reading:**

Howard, David H. “Producing Organ Donors.”

**Supplementary Reading:**

Becker, Gary S., and Julio Jorge Elías. “Introducing Incentives in the Market for Live and Cadaveric Organ Donations.”

Roth, Alvin E. “Repugnance as a Constraint on Markets.”

**Questions to Consider:**

1. Should the United States shift from informed consent to presumed consent for organ donations? Why or why not?
2. Should the United States drop the ban on payments for organ donations from cadavers and live donors? Why or why not?

# Lecture Thirty
# Baseball

**Scope:** Usually the opening of a gorgeous, state-of-the-art stadium is an occasion for celebration and even awe, but lately taxpayers' mouths have dropped open for another reason: These architectural marvels are extremely expensive, and taxpayers have been stuck with much of the bill. The nine Major League stadiums that have opened in the past seven years have cost about $400 million each in year 2007 dollars. In this lecture we will look closely at the trend in stadium building and at arguments about whether sports franchises merit these hefty subsidies. Then we will take a look at the economics of the baseball industry more generally—at the unique antitrust exemption enjoyed by Major League Baseball and the charges that it has abused its monopoly position.

## Outline

**I.** The building of grand sports palaces at taxpayer expense is a relatively new phenomenon.

- **A.** In the first half of the 20th century, big league sports franchises played in stadiums built exclusively with private funds.
- **B.** Since the 1950s, however, almost 130 stadiums and arenas have been built in the United States for teams in the National Football League, the National Basketball Association, the National Hockey League, and Major League Baseball at an inflation-adjusted cost of almost $28 billion—taxpayers have picked up almost 80% of the tab.

**II.** Is this public largesse a good idea? What drives public funding?

- **A.** Proponents of financial aid to professional sports teams argue that these subsidies yield large benefits to local citizens. Without the subsidy, the local big league franchise might pull up stakes and leave.
  - **1.** Proponents argue that spending on both the stadium and the games played there has a huge economic impact on the host city. Promotional campaigns cite multipliers of two or three—meaning that each dollar spent at the stadium will boost the overall economy by $2 or $3.
  - **2.** Stadiums can be essential for revitalizing run-down neighborhoods.
  - **3.** Being the home of a sports franchise can put a city on the map, providing unlimited free advertising.
  - **4.** There are uncountable benefits to the fans in the city, especially when the team wins a pennant or championship.
- **B.** Economists are suspicious of these arguments.
  - **1.** One study found no meaningful difference in personal income growth when comparing 36 metro areas that hosted a team in one of the big four sports leagues and 12 otherwise similar areas that did not.
  - **2.** Dennis Coates and Brad Humphreys found that player strikes and lockouts resulting in lengthy work stoppages have no impact on the economies of host cities.
  - **3.** One study by these authors concludes that new stadiums and sports franchises actually reduce per capita income a bit in host cities.
- **C.** Boosters of the idea that sports spending has a big positive economic impact argue that the money spent at the stadium will have a big multiplier effect, causing the local economy to grow. The problems with this argument, however, are manifold.
  - **1.** Even if these multiplier effects were correct, it is unlikely that they would have a big economic impact, because professional sports are fairly small potatoes economically.
  - **2.** These big multiplier estimates are implausible because they overestimate the amount of money sports franchises attract from outside the local economy and because there is strong evidence that most out-of-state fans come to town for other reasons.
  - **3.** Owners and workers at a local restaurant, bowling alley, or golf course aren't in high tax brackets and spend most of their money locally, but professional athletes and team owners are in high tax brackets and spend much of their money elsewhere—creating a very low multiplier.
  - **4.** Economists point out that stadiums revitalizing run-down neighborhoods amounts mostly to a spatial reorganization of economic activity—the stadium effectively pulls away spending and development from other neighborhoods.
- **D.** There is little evidence for the claim that big league teams are necessary to make a city a "big league."

- **E.** Most economists are wary of transferring money from the rest of the population to fans.
  1. Fans tend to be richer than average, and the taxes that support new stadiums tend to be regressive, taking proportionately more from the poor.
  2. In a survey I conducted of professional economists asking whether local and state governments should eliminate subsidies to professional sports franchises, 85% agreed with the idea.

**III.** Why are sports franchises in a position to demand and receive such big subsidies from local taxpayers?

- **A.** Most economic analysts argue that this is tied to the monopoly power of the four big sports leagues. The teams within these leagues are in a great bargaining position with cities because the supply of franchises seems to be outstripped by the demand for teams.
- **B.** If there are so few franchises that a lot of big cities are left without a team, there will be room for a new league to enter the market.
  1. The threat of entry into the baseball market by the Continental League in 1960 pushed the National and American Leagues to add four teams in 1961 and 1962.
  2. Setting up a new league is not that difficult, especially if done in concert with a broadcast network.
  3. Existing teams are reluctant to expand their leagues because doing so dilutes their share of league revenues; yet the threat of entry constrains their exercise of monopoly power to a degree.
- **C.** Why do cities vying to attract and hold teams use stadium subsidies rather than cash subsidies?
  1. Stadium subsidies are much easier to sell to the public.
  2. The federal government implicitly underwrites stadium subsidies.
  3. Many stadium deals are put before voters in referenda that approve the special taxes to pay for the deal.
  4. Team owners are able to wage sophisticated PR campaigns to sell the new stadium.

**IV.** Regarding the issue of monopoly power, Major League Baseball has a very special legal standing.

- **A.** Major League Baseball was formed in 1903 when the older National League and the upstart American League agreed to stop competing with each other for players. This merger allowed them to earn healthy profits and soon attracted the entry of a rival league, the Federal League, in 1913.
- **B.** The Federal League folded after a couple of years but sued the Major League for blocking access to players.
  1. The Supreme Court ruled that Major League Baseball games do not constitute interstate commerce.
  2. This ruling gave Major League Baseball a unique position—virtually exempting it from the federal antitrust laws that enforce competition.
- **C.** One of the nastiest historical abuses of Major League Baseball's antitrust exemption is the reserve clause. Once included in every Major Leaguer's contract, it stated that the team with which he signed had complete control over him.
  1. This bargaining power was so one-sided that players were paid less than half of what they would have earned in a competitive market.
  2. The reserve clause was struck down when the Major League Baseball Player's Association gained strength and a judge ruled in its favor in an arbitration case.

**V.** New worries about the state of baseball have emerged.

- **A.** While baseball owners regularly pretend that they are now paying players so much that they are in danger of going bankrupt, no one really believes this.
  1. Average franchise values have climbed strongly over time, quadrupling in real terms from 1985 to 2001.
  2. One reason teams can earn princely sums but report only paltry profits is that the federal tax law allows them to depreciate players' contracts as if they were capital expenses.
  3. Part of this run-up in franchise values is driven by rising ticket prices, which roughly doubled in real terms from 1980 to 2007. Today the average ticket price is about $22.70—putting the Major League experience out of reach for many households.
  4. Teams have been able to arrange lucrative cable TV deals, and many of them are now owned by broadcasting companies and/or have established cable networks of their own.
  5. Big-city teams are able to pay their players more, creating competitive imbalances.
- **B.** All these problems have their root in baseball's monopoly position, say some critics.

1. Andrew Zimbalist proposes that Congress formally revoke baseball's antitrust exemption and then step in to break up the current monopoly into two competing leagues.
2. Many are skeptical, arguing that such an approach would ruin many of baseball's hallowed traditions and that one of the competing leagues would quickly become dominant, recreating the old monopoly.

**Essential Reading:**

Zimbalist, Andrew. *May the Best Team Win: Baseball Economics and Public Policy*.

**Supplementary Reading:**

Siegfried, John, and Andrew Zimbalist. "The Economics of Sports Facilities and Their Communities."

**Questions to Consider:**

1. Who gains when government subsidizes professional sports stadiums and franchises? Who loses?
2. Should we break Major League Baseball into two leagues that compete in the economic arena and not just on the playing field? Why or why not?

# Lecture Thirty-One
# Terrorism

**Scope:** The terrorist attacks of September 11, 2001, clearly had a significant impact on American society and the American economy. In this lecture, we will begin by assessing the short-term and long-term economic impact of these attacks and terrorism in other countries. Then we will consider whether economic conditions foster terrorism. We will look at evidence of where terrorism occurs, who is most likely to commit terrorist acts, and the economic logic at work. Next we will consider how we can reduce terrorism, including a controversial proposal to establish a market to predict terrorist events. We will close by examining the federal government's primary economic response to the threat of terrorism: the Terrorism Risk Insurance Act.

## Outline

**I.** The terrorist attacks of September 11, 2001, clearly had a significant impact on American society and the American economy.

- **A.** Let us try to tally up the economic damages of the attacks.
  - **1.** Physical property damage alone equaled roughly $23 billion.
  - **2.** Nearly 3,000 people lost their lives; estimating the value of a statistical life at $5 million adds another $15 billion.
  - **3.** There were widespread losses because businesses could not operate as usual; these are harder to assess.
  - **4.** Adding up these totals, the direct immediate economic losses attributable to the attacks are almost $70 billion.
- **B.** Insurers bore much of these losses.
  - **1.** According to a report by the RAND Corporation, insured losses from the attacks added up to $38 billion, with a little more than half paid by private insurers and most of the rest paid by the federal government.
  - **2.** Most of the private insurance companies who paid claims had purchased reinsurance—that is, they bought insurance from secondary insurers in case they had massive concentrated losses.
- **C.** Perhaps the biggest immediate costs arose from the immense uncertainty created by the attacks.
  - **1.** The stock market turned bearish on worries of low spending, recession, and massive declines in profitability; added together, this created a paper loss of about $1.7 trillion.
  - **2.** However, because there were no major attacks afterward, the overall economy (shrinking in the months preceding the attacks) turned the corner and began to grow in November 2001.
- **D.** The attacks may have permanently increased transportation and other costs, including the costs of fitting airliners with antiterrorism devices and hiring additional sky marshals and security personnel at critical sites throughout the country.
- **E.** Some worried that the biggest of these permanent costs would be the value of time wasted due to increased security screening.
  - **1.** As it turns out, delays have not been long, and the extra waiting time is not completely wasted.
  - **2.** On the other hand, it is estimated that the new security tax and somewhat longer screening times have diverted many travelers out of the skies and into their cars—perhaps costing 100 lives per year.
- **F.** There are increased costs due to military response after the attack. Expenditures on Operation Enduring Freedom (mainly in Afghanistan) totaled about $127 billion by the end of fiscal year 2007.
- **G.** On the fifth anniversary of the attacks, a *Wall Street Journal* article looked at some indicators of how the economy had reacted in the aftermath.
  - **1.** The essential point was that terror precautions had not put the economy into gridlock and therefore had little noticeable impact on the economy.
  - **2.** International evidence suggests that longer-lived reigns of terror can have a much larger impact.
  - **3.** While the 9/11 attacks had a massive short-term impact on the U.S. economy, their long-term nonmilitary impact has been surprisingly small.

**II.** Let us examine evidence about where terrorist acts occur, who commits these acts, and what economic forces are at work.

**A.** Adequately defining terrorism is inherently difficult.

**1.** The national Memorial Institute for the Prevention of Terrorism (MIPT) says that terrorism occurs "when groups or individuals acting on political motivation deliberately or recklessly attack civilians/non-combatants or their property and the attack does not fall into another special category of political violence, such as crime, rioting, or tribal violence."

**2.** There is considerable room for debate about a particular incident since the party's motivation must be assessed; the threshold for violence to count as terrorism is ill-defined as well.

**B.** The MIPT's time series shows a broadly rising number of international terrorist events through the 1970s and 1980s, a strong decline in the 1990s, and a huge upswing since 2000 due to Middle Eastern violence. The vast majority of incidents and casualties come from three groups: religious, nationalist/separatist, and Communist/Socialist.

**C.** Data show that the United States has been one of the most terror-free regions in the world, aside from the 9/11 attacks.

**D.** Why is terrorism so rampant in places like the Middle East but much less common in the United States?

**1.** Many observers have pinpointed poverty as an important cause, but economists have found this theory wanting.

**2.** Alberto Abadie suggests that the risk of terrorism is low in authoritarian regimes and in countries with high levels of political freedom but peaks for countries that are between these stages.

**3.** Other factors correlated with higher levels of terrorism risk are linguistic fractionalization, mountainous terrain, and tropical jungles.

**4.** The weak link between poverty and the propensity for terrorism seems to hold at the individual level, not just the national level.

**5.** There is, in some sense, both a supply of and a demand for terrorism.

**6.** Alan Krueger and Jitka Maleckova find that Hezbollah's terrorists were better educated and less impoverished than the rest of the Lebanese population of a similar age.

**7.** Efraim Benmelech and Claude Berrebi conclude that older and more educated suicide bombers are assigned by their terror organization to more important targets, are less likely to fail in their missions, and more likely to cause higher casualties.

**8.** In democracies like the United States, the educational system tends to soften differences between members of different groups; in countries that export terrorism, however, schools often teach hatred and deliberately educate students to become operatives in extremist movements.

**III.** Let us close our discussion of the economics of terrorism by considering two policy responses.

**A.** One controversial idea is to harness the power of markets to help assess the risks of terrorism. Economists have long pointed out that, in addition to bringing buyers and sellers together, markets also generate a lot of information.

**1.** Perhaps the best known pure prediction market is the Iowa Electronic Market, in which participants "invest" up to $500 on political events, such as the outcome of presidential elections.

**2.** In 2003, reports surfaced about the Defense Advanced Research Projects Agency's development of a Policy Analysis Market that would allow trading in various forms of geopolitical risk.

**3.** Critics charged that this market would reward and encourage terrorists by allowing them to bet that they themselves would set off a bomb, thereby awarding them a big payoff.

**4.** Fans of using prediction markets argue that such markets would be hard to manipulate if there were many traders and that they would be especially good at getting informed players in the intelligence profession to give honest, precise estimates of politically sensitive probabilities.

**B.** While the U.S. government pulled the plug on its proposed prediction market, it has created another controversial terror-related project: the Terrorism Risk Insurance Act of 2002.

**1.** Under this act insurers are obligated to make available insurance against terrorism to all their clients, with coverage limits and deductibles identical to nonterrorism coverage.

**2.** Proponents of the government's role argue that it helps to fix a genuine market failure: The market has failed to offer this product on its own because the uncertainties about the risks are just too great for it to assess.

3. Opponents of a government role say that the private market has not failed and that it charged high premiums because risks were believed to be very high; these premiums fell as it became clearer that risks were not so catastrophic.

**Essential Reading:**

Krueger, Alan B., and Jitka Malechova. "Education, Poverty and Terrorism: Is There a Causal Connection?"

**Supplementary Reading:**

Benmelech, Efraim, and Claude Berrebi. "Human Capital and the Productivity of Suicide Bombers."

Kunreuther, Howard, and Erwann Michel-Kerjan. "Policy Watch: Challenges for Terrorism Risk Insurance in the United States."

Wolfers, Justin, and Eric Zitzewitz. "Prediction Markets."

**Questions to Consider:**

1. Why did the stock market take a nosedive after 9/11? Why did it rebound so quickly?
2. Should the Terrorism Risk Insurance Act be renewed or allowed to lapse? Why or why not?

## Lecture Thirty-Two
## Helping Poor Countries

**Scope:** The era of modern economic growth dawned sometime in the late 1700s or early 1800s in Britain, western Europe, and North America; economic prosperity has subsequently spread across much of the globe. However, a number of places—including almost all of sub-Saharan Africa and pockets of Asia and Latin America—have largely been left behind. In this lecture we will examine the magnitude of the poverty in these forgotten places and economists' understanding of why these regions have failed to prosper. Then we will turn to the policies that the world's richest countries have adopted in a largely unsuccessful attempt to encourage economic growth in these regions and explanations of why these aid policies have failed. We will close by considering what, if anything, can be done by people and governments in wealthy countries like ours to help our neighbors escape the blight of poverty and enjoy the fruits of economic growth, focusing on the conclusions of eight prominent economists who met in Copenhagen, Denmark.

## Outline

**I.** Most development economists, following the World Bank's lead, define absolutely poverty using the benchmarks of income less than $1.00 or $2.00 per day in terms of 1985 U.S. dollars, which approximately translates into less than $2.00 or $4.00 per day in year 2007 dollars.

- **A.** One method, used by Shaohua Chen and Martin Ravallion of the World Bank, estimates the number of people living below these levels based on household security data.
- **B.** A competing method, used by Xavier Sala-i-Martin of Columbia University, estimates the number living below these thresholds using countries' official national income accounts.
- **C.** According to the lower estimates, around the turn of the millennium about 350 million people lived on less than $2.00 per day and almost 1 billion on less than $4.00 per day. Higher estimates say that 1.2 billion lived on less than $2.00 per day and 2.8 billion on less than $4.00 per day.
  - **1.** Both sets of estimates suggest that the proportion of the world's population living in poverty has been falling.
  - **2.** The upper bound estimates say that, due to population growth in poor countries, the total number of people living on less than $2.00 or $4.00 per day is rising, even though their global proportion is falling.
- **D.** A century and a half of intermittent growth has left sub-Saharan Africa with a standard of living equaling Europe's at the beginning of the Industrial Revolution. Seven explanations of why this region's growth has been so weak have been identified by David Bloom and Jeffrey Sachs. To this list could be added low levels of education and literacy.
  - **1.** External conditions, including the legacy of slave trading and colonial rule.
  - **2.** Dependence on a small number of primary exports whose volatile relative prices have tended to fall over time.
  - **3.** Internal politics marked by authoritarianism, corruption, and political instability.
  - **4.** National economic policies directed toward protectionism, fiscal profligacy, and centralized state growth.
  - **5.** Rapid population growth.
  - **6.** Deep ethnic divisions and high levels of ethnolinguistic and religious diversity.
  - **7.** Severe geographic disadvantages.

**II.** How can a region break away from these disadvantages to achieve economic growth? Let us follow the evolution of the conventional wisdom dispensed by development economists over the decades.

- **A.** Following decolonization in the 1950s, 1960s, and 1970s, most development economists argued that economic growth was a fairly simple matter of raising the investment rate.
  - **1.** They recommended investment for roads, dams, irrigation works, schools, and electricity—made by the national government rather than the private sector.
  - **2.** Unfortunately these investments didn't bring growth; a good chunk of the money was wasted and/or lined the pockets of political elites.

B. The success of East Asian economies became the justification for structural adjustment packages, which predicated new loans on the restructuring of poor nations' economies by removing tariff barriers and other price distortions and reducing budget deficits. Unfortunately, these loans met the same fate—there was little growth, so the loans couldn't be repaid

C. This led economists to stress the importance of political, legal, and social institutions.

D. By this time, there were decades of data on individual nations' economic performances, allowing growth economists to examine empirically for the first time which conditions best fostered economic growth.
   1. Economists identified over 100 independent variables that helped determine economic growth, yet many countries continued to stagnate in poverty because too many factors were involved.
   2. Economists know that poor nations need to emulate the many things that other countries have done to get rich; often, however, these nations will not do these things because it would undermine those with political power.

E. Some development economists argue that outsiders can structure aid packages in just the right way to make them work and that these packages can be made contingent on reforms that will spur economic growth.
   1. Over the past four decades, over $550 billion in development assistance has flowed into Africa, yet African countries' per capita incomes have barely grown.
   2. A recent meta-analysis of studies on the impact of aid on growth concludes that, at best, aid has a positive but insignificant impact on growth.
   3. Much aid appears to have gone to ill-conceived and poorly executed projects and programs, often coming with strings attached that undermine the potential for growth.
   4. Critics of aid argue that most aid agencies pay little attention to the political incentives facing recipient governments and that institutions like the World Bank prefer going through the motions rather than really doing good.

F. Even if aid has not led to economic growth, it may have eased suffering.

III. If there is any consensus on how we can make the world a better place by correctly targeting aid, it is that aid should go to certain medical and nutritional projects. I say that based on my own reading and the conclusions of the Copenhagen Consensus—a project that seeks to establish priorities for advancing global welfare using the tools of economics.

A. The conference brought together 38 international economic experts to examine issues including climate change, communicable disease, conflicts, education, governance and corruption, malnutrition and hunger, migration, sanitation, and trade.
   1. A second conference asked eight prominent economists who attended the first conference to prioritize the projects that could best address these global crises.
   2. The group ranked four policies as very good bets to deal with the world's most pressing economic challenges: combating AIDS, combating malaria, fighting malnutrition, and freeing trade.

B. Health has important direct and indirect effects on a nation's economy. The most direct impact is that populations in poorer health due to diseases like malaria and AIDS are less productive.
   1. One study concluded that countries in which a high proportion of the population lived in regions of malaria transmission in 1965 had annual economic growth rates that were 1.3% lower than in otherwise similar countries over the next 25 years.
   2. The costs of malaria include direct health care expenditures, working days lost due to sickness, days lost in education, and decreased productivity.
   3. Malaria also scares away foreign investors and tourists.
   4. Although combating malaria is surprisingly inexpensive, until recently international spending on malaria control in poor regions has been incredibly low: less than $100 million per year.
   5. The eight economists of the Copenhagen Consensus group believe that fighting malaria can have a huge economic payoff.

C. Like communicable diseases, malnutrition is a severe problem inflicting huge economic damages.
   1. The UN's Food and Agriculture Organization estimates that at the turn of the millennium there were about 800 million undernourished people in the developing world, although the prevalence rate seems to have fallen in recent decades.
   2. Many of these vitamin and mineral deficiencies could be treated cost-effectively by subsidizing or giving away nutritional supplements.

**D.** The last of the Copenhagen Consensus group's favored policies is to tear down trade barriers.

1. Evidence from the last half of the 20th century suggests that countries that have liberalized their trade have enjoyed an average 1.5% increase in annual GDP growth compared with the prereform rate.
2. Not all trade distortions hurt the poorest countries; two recent papers by Margaret McMillan suggest that agricultural subsidies help more than they harm in impoverished countries (with exceptions being sugar and cotton).
3. While labor-intensive manufactured goods like clothing, toys, and sneakers would seem to be the natural comparative advantage of a region with low skills and low wages, institutional impediments keep getting in the way.

**Essential Reading:**

Easterly, William. *The Elusive Quest for Growth: Economists' Adventures and Misadventures in the Tropics.*

**Supplementary Reading:**

Easterly, William. "Can Foreign Aid Buy Growth?"

Lomborg, Bjorn, ed. *How to Spend $50 Billion to Make the World a Better Place*.

Sachs, Jeffrey, and Pia Malaney. "The Economic and Social Burden of Malaria."

**Questions to Consider:**

1. Why has it been so difficult for most African countries to achieve economic growth?
2. If you had $50 billion to spend to make the world a better place, how would you spend it?

# Lecture Thirty-Three
# Urban Sprawl

**Scope:** Much of this course has been about investigating cases where critics argue that we collectively overdo (or do not do enough of) some activity such as conspicuous consumption, stadium construction, or organ donations. In the next three lectures we will look at three more cases where this concern arises: urban sprawl, gambling, and overeating. In this lecture we will look at the issue of urban sprawl, beginning with measures of sprawl and explanations of the primary factors that are believed to cause it. Is urban sprawl a good thing or a bad thing? Major metropolitan areas are eating up more and more real estate and have become less densely populated. We will look at the potential downsides of sprawl and the obvious upsides as well. We will close by briefly considering the wisest policies to adopt in the face of evidence about the mixed impact of urban sprawl.

## Outline

**I.** Economists seem to have reached a consensus on the subject of urban sprawl: The benefits of sprawl generally outweigh the costs, but certain negative side effects should be dealt with using better public policies.

- **A.** Sprawl occurs when the same amount of people are spread out over more space.
  - **1.** In 1950 about 35% of the urbanized population lived in the suburbs; by 1990 this rose to 65%.
  - **2.** At the same time, density has fallen in central cities—from about 10,000 people per square mile in 1950 to about 6,000 people per square mile in 1980.
  - **3.** Suburban densities started much lower and fell, too.
- **B.** The leading explanation for urban sprawl is the historical drop in transportation costs, which began in the early and mid-20$^{th}$ century with the development of the automobile.
  - **1.** While expenditures on automobiles are high, the personal cost per mile traveled is pretty low when you consider the time cost.
  - **2.** Given the waiting costs of public transportation, the time and convenience advantage of cars is even greater; as people's wages have risen, their time has gotten more valuable, giving more incentive to take a faster mode of transportation.
  - **3.** Automobiles broke the pattern of high per-mile transportation costs leading to high-density areas.
  - **4.** An examination of American cities from 1990 shows that as urban density doubles, the share that commutes by car drops about 6.6%.
- **C.** Rising incomes have increased the demand for land and larger yards, explaining about half the surge in suburbanization between 1950 and 1980.
- **D.** An alternative theory suggests that urban sprawl is largely driven by people fleeing the social problems of the inner city. One study concludes that a 10% increase in crime corresponds to a 1% decline in central city population.
- **E.** A variant of this story says that urban sprawl and suburbanization is driven by people fleeing the high taxes of central cities that often fund redistribution from the rich to the poor.
- **F.** Some critics blame urban sprawl on government policies that favor the automobile, arguing that spending and subsidies for roads and highways, plus relatively low gas taxes and little subsidization of public transportation, made America's dependence on cars inevitable.
  - **1.** Nationwide, automobiles carry about 2.6 trillion passenger miles a year on urban highways and streets. Urban mass transit carries less than 50 billion passenger miles a year—only 2% of urban travel.
  - **2.** However, government subsidies to highway users amount to about half a cent per passenger mile, but they equal almost $0.50 per passenger mile on mass transit.

**II.** Is urban sprawl a bad thing or a good thing?

- **A.** The most vilified aspect of sprawl may be traffic congestion.
  - **1.** A recent study of 75 urban areas in the United States calculated that the increase in commuting costs from congestion is about $70 billion per year, averaging a bit over $500 per person.
  - **2.** Traffic congestion is a classic form of market failure: Each driver travels to the point where his or her own marginal cost of travel is about equal to the marginal benefit; however, as the road gets more

clogged each driver begins to impose a marginal cost on the other. If drivers ignore this cost, this is a negative externality that leads to overproduction.

3. Congestion fees have been proposed to offset the negative side effects of urban sprawl. Foes of these fees argue that this will only encourage sprawl since the most congested areas are near central business districts.
4. Ironically, data show that average commute times rise in less-sprawled, denser cities—sprawl may reduce congestion somewhat because these cities have decentralized employment nodes.

**B.** Environmental damages are another potential downside of urban sprawl that worries many observers.

1. The first concern is that sprawling suburbs are eating up more of the countryside and encroaching on valuable farm land; economists think this worry is pretty far off the mark.
2. Many worry about the suburbs eating up our forests. The appropriate response is to leave pockets of undeveloped land, which might have to be funded by local governments and used as public parks.
3. A third worry is that additional sprawl-induced driving leads to extra emissions of greenhouse gases. If so, the appropriate response is to tax all activities that emit greenhouse gases, not merely urban sprawl–related driving.
4. The last big worry is that urban sprawl is a major cause of smog; however, there is surprisingly little support for a link between air pollution and city density.

**C.** These concerns about economic efficiency, however, do not exhaust the anxieties generated by urban sprawl.

1. The biggest worry in many quarters is that sprawl has important redistributive and social side effects in that it allows higher income residents and better jobs to flee the central city, leaving poorer residents worse off and increasing social stratification and racial segregation.
2. Others argue that suburbs are dysfunctional and that sprawl and suburbs increase social isolation; although the evidence on this is mixed.

**D.** What about the benefits of sprawl?

1. The clearest benefit is that housing and living space are much cheaper outside of crowded cities and will have lower prices when population densities are lower.
2. If sprawl didn't occur, more people would be packed into central cities, so housing and rental prices there would be even higher. Thus sprawl saves city dwellers money.
3. Sprawl allows retailers like Wal-Mart to open massive stores that can offer lower prices, partly because cost savings relate to store size.

**III.** Most economists conclude that sprawl brings more benefits than costs and therefore are skeptical of policies aimed at squelching it, such as increased subsidies to mass transit. They almost uniformly argue, however, that developers and property buyers should have to bear the full cost of the infrastructure.

**A.** Zoning restrictions can be useful if they help preserve local undeveloped spaces that people seem to value highly.

1. Unfortunately, these policies have the potential to be very unfair—reducing the value of the land owned by those who are the last to develop it.
2. Another problematic zoning tactic aims to limit sprawl, keeping people inside currently developed areas by banning development in the localities that abut developed areas.

**B.** Many economists suggest that public policies could be designed to help the poor, whom urban sprawl may harm.

**C.** Since Americans love their cars and love large yards in the suburbs and exurbs, and since urban sprawl does not appear to generate extensive negative spillovers, perhaps the best policy is simply to accommodate it by widening highways and enhancing in-car productivity and enjoyment.

**Essential Reading:**

Glaeser, Edward L., and Matthew E. Kahn. "Sprawl and Urban Growth."

Nechyba, Thomas J., and Randall P. Walsh. "Urban Sprawl."

**Questions to Consider:**

1. Why do most people prefer privately owned cars to mass transit?
2. On the whole, is urban sprawl a good thing or a bad thing? Why?

# Lecture Thirty-Four
# Gambling

**Scope:** Gambling has a perplexing history in the United States. At times it has been vilified, rejected by respectable society, and suppressed by law. Early disdain for gambling, however, has largely vanished now. Today, legal gambling is widespread and warmly embraced in many communities. In this lecture we will look at the evolution of casino gambling in the United States by trying to isolate the impact of casinos on consumer well-being, employment, and income levels. We will try to determine whether or not casinos are a useful economic development tool. Because of strong evidence that casinos have a big downside, we will close by considering ways by which we could reduce the substantial social costs from gambling.

## Outline

**I.** Gambling has a perplexing history in the United States.

- **A.** From 1931 to 1976, Nevada was the only place in the United States where casino gambling was legal. This monopoly helped fuel a remarkable economic boom in the state, whose population grew from 91,000 in 1930 to about 650,000 in 1976.
- **B.** Hoping to copy this success, New Jersey legalized casino gambling in Atlantic City in 1976.
- **C.** The Supreme Court's 1987 decision in *California v. Cabazon Band of Mission Indians*, which held that California lacked the authority to regulate gambling activities conducted on Indian reservations, triggered a rush of casino expansion.
  - **1.** Congress responded to this ruling with the passage of the Indian Gaming Regulatory Act in 1988, which sparked an explosion of casino building on tribal lands; partly in response, many states began to allow commercial casinos to open.
  - **2.** The economic revitalization argument was almost always at the forefront of the decision to grant casino licenses.
- **D.** According to the American Gaming Association, in 2006 there were 460 commercial casinos in 11 states, plus 372 tribal casinos in 28 states, and 36 racetrack casinos in 11 states. In 2006 casinos' gross gaming revenues (the amount lost by gamblers) exceeded $60 billion.
- **E.** Commercial casinos are now geographically widespread. Many observers point out that the vast majority of them are within two miles of state borders; they argue this accelerates the spread of casinos.

**II.** How does spending money in casinos impact the overall economy?

- **A.** One unique feature of casino expenditures is that they are more heavily taxed than most other forms of spending.
  - **1.** In 2003 the effective tax on commercial casinos' gross revenues was 16.4%, with the tax on racetrack casinos at 38.5% and on tribal casinos at 4.7%—collectively yielding revenues of $6.7 billion.
  - **2.** One argument in favor of allowing casinos to open is that this new source of tax revenue will allow state governments to cut other taxes. Edward Morse and Ernest Goss, however, find little support for this point.
- **B.** The gains to consumers from casinos are tricky to conceptualize and measure, but they are still very real.
- **C.** The most ambitious attempt to measure the consumer surplus from casinos is made by Earl Grinols, who finds that casino expenditures drop about 30% to 35% for each doubling of the distance to the casino.
  - **1.** He uses this pattern in conjunction with a mathematical simulation to estimate gains of about $43 per adult American per year from reducing the distance to the nearest casino from 500 miles to 5 miles. Stripping out losses to problem and pathological gamblers puts this gain at $34 per adult per year.
  - **2.** One reason we know that people are willing to pay a lot to gamble at casinos is that many of them travel long distances to do so.
  - **3.** My calculations suggest that if casinos opened near everyone, consumers would save travel costs and come out ahead $112 to $135 per year, on average.
- **D.** What about casinos' impacts on the local economy?

1. Morse and Goss find that the compound annual change in employment in counties where casinos open is about twice as high as in counties where they do not; the unemployment rate drops about 0.5% in comparison to noncasino counties.
2. They also find that per capita income growth in casino counties is a little less than in noncasino counties.
3. They conclude that casinos do not make the average person in the surrounding area much better off; averages, however, can hide a lot.

**E.** Unlike more mundane industries, entry into the casino industry is severely restricted.
1. In a few places, if another casino wants to enter the industry, it does not need special permission, although it must live under a host of regulatory restrictions.
2. In most places, however, special permission is needed to open a casino.
3. In most cases, each casino enjoys a bit of monopoly power as the only casino within a surrounding area, allowing it to earn profits that are higher than the going rate earned elsewhere in the economy.

**III.** Adding things up, then, there are clear benefits and costs to the expansion of casinos.

**A.** First and foremost are the gains to consumers and potential customers, which I have estimated to reach at least $25 billion a year if entry into the market is unlimited.

**B.** The social costs from gambling include negative externalities (costs imposed on innocent third parties) and additional costs borne by gamblers themselves.
1. With respect to gambling, the latent propensity of problem and pathological gambling becomes overt when the opportunity to gamble becomes available and sufficient time has elapsed.
2. Earl Grinols pulls together estimates of the average social costs per pathological gambler from a range of studies. If one uses the medians of these studies, the losses per pathological gambler are about $7,300; the costs per problem gambler are about 30% as high.
3. Grinols estimates the social costs of gambling as ranging from $37 to $61 billion per year, while Morse and Goss put them at $67 billion to $162 billion per year. However, these costs cannot be attributed to casinos unless the presence of a casino causes gambling problems to emerge—and the evidence strongly suggests that it does.

**C.** It should be emphasized that all of these cost and benefit estimates leave a lot to be desired.

**IV.** Unfortunately, a small percentage of gamblers harm themselves and innocent bystanders. What should be done?

**A.** A traditional response has been to ban gambling to protect the losers, but this is unlikely to happen any time soon.

**B.** It might be wise to cap the further spread of casinos if the costs do outweigh the benefits, as most economists have concluded.

**C.** A third solution would be a Pigovian tax on the negative spillovers from casino gambling.

**D.** Is there any way to keep the benefits of casinos while decreasing their costs?
1. Because a disproportionate share of problem gamblers are also alcoholics, one strategy would be to ban casinos from giving gamblers free drinks or ban patrons from drinking while gambling.
2. Another suggestion is to boost appropriations to treat problem gambling.
3. Perhaps most effective would be the issuance of gambling licenses.

**Essential Reading:**

Grinols, Earl L. *Gambling in America: Costs and Benefits*.

**Supplementary Reading:**

Morse, Edward A., and Ernest P. Goss. *Governing Fortune: Casino Gambling in America.*

**Questions to Consider:**

1. Why have states ended their long-standing bans on casinos and other forms of gambling in recent decades?
2. Is there any good way to increase the benefits of casinos while decreasing their costs? If so, how?

## Lecture Thirty-Five
## Overeating

**Scope:** Almost all of us are faced with the temptation of food on a daily basis. Sometimes we do not give in; sometimes we happily give in; sometimes we regret giving in; sometimes we give in too much and our weight climbs above what we want it to be. In this lecture we will take a close look at overeating. At first glance this might not seem to be an economic issue, but most economists think it is. We will begin with definitions of "overweight" and "obese," think about a person's optimal weight, and turn to problems that arise when people get too heavy. Next, we will explore the economic forces that explain why Americans and people around the world have gotten heavier, before closing by discussing public policies that might help solve this problem.

### Outline

**I.** The U.S. Centers for Disease Control and Prevention (CDC) defines "overweight" and "obese" using the body mass index (BMI; Table 1), which equals weight divided by height squared (kilograms/meter$^2$).

**A.** According to the standards of the CDC, an adult with a BMI below 18.5 is classified as "underweight," a BMI of 18.5 to 24.9 as "healthy," a BMI of 25 to 29.9 as "overweight," and a BMI of 30 or higher as "obese."

**B.** Critics of these standards point out that they can be misleading if someone's weight comes from muscle rather than fat. A recent study concluded that BMI is an accurate proxy for more precise measures of obesity among women but much less so among men, who are capable of being very muscular.

**C.** The most popular alternative to the BMI is the waist-to-hip ratio: If your waist gets too wide, you are considered "obese." A waist-to-hip ratio above 0.9 for men and above 0.85 for women is a common benchmark for obesity, but there is no official definition.

**D.** Scholars who investigate obesity generally rely on data from the National Health and Nutrition Examination Study (NHANES).

**E.** The CDC caused a stir in the late 1990s when it revised its definition of "overweight" from a BMI of 27.8 for men and 27.3 for women to a BMI of 25 for everyone.

**F.** From an economic point of view, the optimum weight for a person would be where the marginal benefit of extra weight equals the marginal cost of additional weight; someone is overweight, then, if the marginal cost of the last pound exceeds its marginal benefit.

Table 1. Relationship between height and weight determines BMI.

| | Weight in Pounds | | |
|---|---|---|---|
| Height | BMI = 19 | BMI = 25 | BMI = 30 |
| 4' 10" | 91 | 119 | 143 |
| 4' 11" | 94 | 124 | 148 |
| 5' 0" | 97 | 128 | 153 |
| 5' 1" | 100 | 132 | 158 |
| 5' 2" | 104 | 136 | 164 |
| 5' 3" | 107 | 141 | 169 |
| 5' 4" | 110 | 145 | 174 |
| 5' 5" | 114 | 150 | 180 |
| 5' 6" | 118 | 155 | 186 |
| 5' 7" | 121 | 159 | 191 |
| 5' 8" | 125 | 164 | 197 |
| 5' 9" | 128 | 169 | 203 |
| 5' 10" | 132 | 174 | 209 |
| 5' 11" | 136 | 179 | 215 |

| | | | |
|---|---|---|---|
| 6' 0" | 140 | 184 | 221 |
| 6' 1" | 144 | 189 | 227 |
| 6' 2" | 148 | 194 | 233 |
| 6' 3" | 152 | 200 | 240 |
| 6' 4" | 156 | 205 | 246 |

**II.** What are the costs of carrying around extra pounds, especially in the form of extra fat tissue?

**A.** The first and most obvious set of costs are health related.

**1.** Most people know that obesity is associated with various illnesses including diabetes, coronary heart disease, and high blood pressure.

**2.** In addition, many obese people simply feel less healthy, and there is clear evidence that obesity kills. The CDC estimates that obesity causes 112,000 premature deaths per year.

**3.** David Cutler, Ed Glaeser, and Allison Rosen find that obesity increases the odds of death during a 10-year period by about 44% through its association with other health conditions; by itself, obesity boosts the odds of dying by about 28%.

**B.** Several studies have tried to estimate the dollar costs of obesity on health-care spending.

**1.** A recent study in *Health Affairs* finds that annual medical spending in the late 1990s was about $732 higher for obese adults than for those in the healthy range, estimating that obesity's medical costs reach about $35 to $62 billion per year in year 2007 dollars.

**2.** By law, insurers providing group health plans have almost no leeway to individualize insurance rates based on differences in risk factors like obesity; thus, if an obese person (spending an extra $732 annually) joins an insurance pool covering 732 people, each member will see their insurance rate rise by $1.00 unless the employer makes another adjustment.

**3.** A recent National Bureau of Economic Research paper finds that employers do make an adjustment to offset this effect—the additional health-care costs associated with obesity are passed on to obese workers with employer-sponsored health insurance in the form of lower wages.

**C.** The economic impact of obesity extends beyond health and health-care costs.

**1.** From a purely cosmetic point of view, most people have in mind an ideal body size and shape; in our society, adding extra pounds beyond a certain point makes one feel worse about oneself and reduces social status.

**2.** Obesity reduces some workers' productivity, as it is associated with higher rates of absenteeism and disability leave.

**3.** Many studies have found that heavier women are especially likely to have less economic success and to have husbands who earn less.

**III.** These costs of obesity are the reason so many policy analysts are worried about the recent rise in obesity rates.

**A.** From 1960 to the end of the 1990s, the average weight of adult men and women in the United States rose by about 12 pounds.

**B.** According to the NHANES, the obese proportion of the adult U.S. population rose from 13% in the early 1960s to 32% in 2003–2004.

**C.** Obesity rates are rising worldwide, but the United States has the highest rate in the world.

**D.** Obesity rates differ considerably by demographic group within the United States.

**E.** Why have average weights and obesity rates risen?

**1.** David Cutler, Ed Glaeser, and Jesse Shapiro find that the key is a rise in calories, not a drop in physical activity.

**2.** The U.S. Department of Agriculture's Continuing Surveys of Food Intake by Individuals show that between the mid-1970s and the mid-1990s, daily intake rose by about 268 calories among men and 143 calories among women.

**3.** In recent decades, a string of technological breakthroughs have reduced the time needed to prepare food at home, especially by making it possible to prepare food centrally and commercially.

**4.** Cutler, Glaeser, and Shapiro point out that Americans have shifted their eating habits toward prepackaged foods, especially snacks; that obesity has grown most rapidly among women—especially those who no longer spend as much time in food preparation; and that obesity has risen the most in countries that have introduced these new technologies the most rapidly and thoroughly.

- **F.** To answer the question of why we consume too much, we have to think about human nature.
  - **1.** Our bodies are designed to demand food even when we are too heavy, and our brains have a hard time overruling these signals even when we know we are overeating.
  - **2.** Marketdata Enterprises estimates that in 2004, 71 million Americans were actively dieting to lose weight and that the nation spent about $46 billion on weight-loss products and services.

**IV.** What can public policy do to offset or even reverse this trend toward obesity?

- **A.** One possibility is to adopt the same kinds of policies that have helped reduce cigarette smoking.
  - **1.** Tobacco usage was curbed by a combination of education, labeling requirements, regulations, advertising bans, taxes, and lawsuits.
  - **2.** Obesity rates will be tougher to reduce, partly because the health costs of obesity are clearly much lower than the health costs of smoking.
- **B.** One proposal is to develop school-based strategies, such as requiring students to spend more time in physical education classes.
  - **1.** John Cawley, Chad Meyerhoefer, and David Newhouse find that state physical education requirements have no detectable impact on youth BMI or the probability that a student is overweight.
  - **2.** Patricia Anderson and Kristin Butcher conclude that a 10% increase in the availability of junk food is correlated with a 1% higher BMI for the average student.
- **C.** With obesity a growing health concern, many critics argue that the federal food stamp program needs to be rethought; a recent paper by Neeraj Kaushal, however, finds virtually no link between food stamp eligibility and obesity.
- **D.** Advertising regulations seem to have real potential. Shin-Yi Chou, Inas Rashad, and Michael Grossman find that a ban on fast-food restaurant ads reduces the number of overweight children and adolescents by 10% to 12%.
- **E.** Labeling seems to work a little. Jayachandran Variyam and John Cawley estimate that when the Nutritional Labeling and Education Act went into effect, label users decreased their body mass and obesity probability relative to non–label users.
- **F.** When I asked professional economists about the idea of taxes on unhealthy foods, 61% disagreed.
  - **1.** Such a tax would be difficult to craft; what exactly counts as “unhealthy”?
  - **2.** The tax is unlikely to reduce obesity unless it is set very high, and it would penalize the vast majority, who are not obese.

**Essential Reading:**

Cutler, David M., Edward L. Glaeser, and Jesse M. Shapiro. “Why Have Americans Become More Obese?”

**Supplementary Reading:**

Wang, Youfa, and May A. Beydoun. “The Obesity Epidemic in the United States.”

**Questions to Consider:**

**1.** Are the official standards for being overweight or obese good guidelines? Why or why not?

**2.** What, if anything, should the government do about the rising obesity rate?

# Lecture Thirty-Six
# Concluding Thoughts

**Scope:** Much of the advice offered by economists is about how to make the economy work more efficiently—about how to increase the size of the economic pie and average incomes. This advice, however, raises some hard questions that we will tackle in this lecture. Is increasing economic prosperity really an appropriate goal? Does economic growth make us happier? Has economic growth brought us closer to our ultimate goals? After examining evidence about the link between economic growth, incomes, and happiness, we will turn to a second set of hard questions. Does the advice of economists really matter? Do economists sway policymakers and the public with their arguments? We will reexamine some of the survey results from earlier in the course, and I will discuss my own experience as a policy advocate. Then we will wrap things up by recapping the most important points of the course and the most important advice that economists have offered on the key challenges facing the American economy now and in the coming years.

## Outline

**I.** Changing economic policies can improve economic efficiency and boost average incomes, but does this really make people better-off?

- **A.** The affirmative case looks at the correlation between income and happiness within American society.
  1. In a 2005 survey by the Pew Research Center, 34% of Americans reported being “very happy,” 50% reported being “pretty happy,” and 15% reported being “not too happy.”
  2. There is a pretty consistent rise in self-reported happiness as family income rises, and the same result is found in a wide variety of studies.
  3. The affirmative case points to international evidence that shows that average happiness or satisfaction levels are higher in rich countries than in poor countries.
- **B.** The “money does not buy happiness” argument points out that the positive international correlation between average income and happiness vanishes past a certain point.
  1. Happiness rises with income up to about an average national income of $10,000 or $15,000 per year, but higher incomes above this level do not seem to matter.
  2. The percentage of Americans reporting themselves to be happy has been roughly constant over the past 35 years, despite a doubling in average inflation-adjusted incomes.
  3. Studies show that happiness has a genetic component. Studies that follow individuals over time show that happiness rises when incomes rise, but that the effect is largely temporary—once the person gets adjusted to the higher income level, he or she is not much happier than before.
- **C.** Despite the difficulty in interpreting happiness indicators, economists have plunged into the data and noticed several intriguing patterns.
  1. Married people are considerably happier than those who are single.
  2. Church-goers are happier, while the unemployed and those in poor health are much less happy.
  3. The impact of widowhood or marital separation on happiness dwarfs the impact of higher income.
- **D.** If money is worth so little, should our society continue to pursue policies that will make the economy grow?
  1. When I asked professional economists whether economic growth in developed countries led to greater levels of happiness, 49% agreed.
  2. When I asked them whether economic growth in developed countries led to greater levels of well-being, 87% agreed.
  3. Now that we have reached a high standard of living, growth does not seem to make people happier; some argue that pursuing it is wasteful because relative status is what matters most.
- **E.** According to a 2002 Pew Research Center study, the fraction saying that religion is very important to them was relatively low in rich countries and high in poor countries.
  1. The United States is the greatest outlier in the world—despite having the highest incomes in the world, 59% of Americans say religion is very important to them.
  2. Some economists do not accept the validity of this overall negative correlation between religious faith and income, attributing the low numbers in rich countries to other causes and arguing that religion flourishes best where there is the most active religious competition.

**II.** Now to the question of whether or not the advice of economists really matters.

**A.** Alan Blinder states that, "Economists have the least influence on policy where they know the most and are most agreed; they have the most influence on policy where they know the least and disagree most vehemently."

**1.** He points to three reasons why voters and politicians do not pay attention when there is a clear consensus among economists: ignorance of how the economy works, ideology, and interest groups.

**2.** Some of the survey findings we discussed in this course would seem to back up Blinder's argument.

**3.** I am not sure I agree with Blinder, but to the extent that it is true, the best way to thwart it may be for someone to forthrightly explain the consensus opinion, arguments, and evidence of economists to the broader public.

**B.** Consider the case of the lowly penny.

**1.** For many years the consensus among economists has been that it is time to get rid of the penny, but the arguments (coming from economists with opposing political affiliations) have not swayed the public.

**2.** Before a debate I participated in at West Virginia University, only 21% of people felt it was time to pitch the penny. After hearing the facts, the audience was polled and 25% of them said we should get rid of the penny.

**3.** After all my arguments, the numbers were virtually the same—at most I had convinced about 1 person in 25 to change their minds.

**III.** It is time to wrap up the course with a list of 10 important lessons that we have learned over the previous 35 lectures.

**A.** The most important lesson about the contemporary American economy is that Americans have collectively built an incredible economic growth machine, which has delivered Americans approximately the highest level of productivity and income per person in the world.

**1.** Economists expect it to continue to deliver solid rates of economic growth well into the future.

**2.** The big potential threats that worry many noneconomists do not scare economists much, largely because this growth machine has such a good track record of jumping over or sidestepping such hurdles.

**B.** Economic life involves trade-offs. Public policy cannot simply hope to do good but must coldly and carefully measure and weigh the hoped-for benefits against the inevitable costs.

**C.** Specialization and trade can bring gigantic economic gains; because of these gains, most economists are very skeptical of protectionist measures and are staunch proponents of free international trade.

**D.** Be wary of rent seeking—attempts by individuals and groups to advance their narrow economic interests at the expense of others in the political arena.

**E.** Competition can be very powerful and is a vital part of a healthy economy, but it should be channeled through the marketplace, where it earns profits for the most effective competitors while also bringing gains to consumers.

**F.** Beware of spillovers; competitive markets will fail to deliver if there are big spillovers.

**G.** One of the inescapable economic trade-offs is between economic efficiency and equality. If we want more equality, we will probably have to give up some output.

**H.** There are some big economic challenges that will face the United States for decades to come: dealing with the effects of aging (including Social Security's funding problems), holding down rising health-care costs, and fixing our underperforming educational system. In all three cases, there are no easy solutions.

**I.** The impacts of some economic forces—such as immigration—are so far reaching and subtle that they are virtually impossible to measure.

**J.** Be a wise and wary consumer of official statistics; every statistic we have discussed during the course is open to some criticism.

**K.** Lesson 11 (I warned you to be wary of official statistics) is that economic analysis can be useful, interesting, and fun.

**Essential Reading:**

Blanchflower, David, and Andrew Oswald. "Well-Being over Time in Britain and the USA."

**Supplementary Reading:**

Di Tella, Rafael, and Robert MacCulloch. "Some Uses of Happiness Data in Economics."

Kahneman, Daniel, and Alan B. Krueger. "Developments in the Measurement of Subjective Well-Being."

**Questions to Consider:**

1. Should America pitch the penny? Why or why not?
2. What other important lessons from the course would you add to the top 10 list?

# Glossary

**adverse selection**: The tendency of a contract offered to everyone to be most attractive to those most likely to benefit from it (e.g., the tendency of those with the highest risks to purchase insurance).

**AIME (average indexed monthly earnings)**: Part of the formula for determining Social Security benefits. First, a worker's 35 highest-earning years are indexed to adjust for wage growth up to the year the worker turns 60; then these wage-indexed annual earnings are averaged and divided by 12 months to get a monthly amount.

**antitrust**: Policies that regulate or prohibit monopolies and monopolistic behavior.

**balance of payments**: The total of all the money coming into a country from abroad minus all of the money going out of the country during the same period. This is usually broken down into the current account and the capital account.

**big trade-off**: The tendency of the goals of economic efficiency and economic equality to conflict with each other.

**budget deficit**: The amount by which a government's expenses exceed its revenue.

**budget surplus**: The amount by which a government's revenue exceeds its expenses.

**CAFE (Corporate Average Fuel Economy)**: The sales-weighted average fuel economy, in miles per gallon, of a manufacturer's fleet of passenger cars or light trucks.

**capital**: The equipment, buildings, and other man-made tools used to produce goods and services.

**central bank**: A bank that controls a country's money supply and monetary policy (e.g., the Federal Reserve in the United States).

**Coase theorem**: The proposition that if property rights exist and if transaction costs are low, then private transactions will be efficient; that is, no market failure will arise due to externalities.

**comparative advantage**: The ability to produce a good or perform an activity at a lower opportunity cost than anyone else.

**complement**: A good used in conjunction with another good; an input that is used in conjunction with another input.

**conspicuous consumption**: Spending driven not so much by the inherent satisfaction derived from the goods but by the status they convey and their ability to increase the owner's relative position in society.

**consumer surplus**: The value of a good minus the price paid for it.

**core inflation rate**: A measure of inflation that leaves out items with volatile prices, especially food and energy.

**corporatism**: The system of reaching economic decisions through negotiation between centralized corporate bodies representing economic groups, especially employers and workers.

**corporatization**: The process of turning a government agency into a freestanding corporation whose goal is to maximize profits.

**CPI (consumer price index)**: The leading gauge of inflation in the United States. The CPI measures the average price paid by urban consumers for a basket of goods and services.

**creative destruction**: The process by which innovation and progress in the economy drive out older producers, products, and/or production processes.

**crowding out**: The tendency of a government budget deficit to drive up interest rates, thereby reducing private investment.

**current account**: The portion of the balance of payments that includes visible trade (exports and imports), invisible trade (receipts and payments for services like banking, intangible goods like copyrights, and cross-border dividend and interest payments), private transfers (e.g., worker remittances), and official transfers (e.g., international aid).

**cyclical unemployment**: Unemployment arising when the economy falls into a recession.

**demand**: The relationship between the price of a good and the quantity of it demanded (i.e., the quantity that buyers desire/plan to purchase).

**demand curve**: A curve that shows the relationship between the quantity demanded of a good and its price when all other influences on planned purchases remain the same. The "law of demand" says that the quantity demanded will rise as the price falls; thus, the demand curve slopes downward. A change in a good's price causes a movement along the demand curve. A change in income, quality, the price of another good, or something *other* than the price of the good itself can cause the demand curve to shift.

**discount rate**: The rate of interest at which the Federal Reserve lends reserve to banks; an individual's rate of impatience—the rate at which he or she discounts a future payment to find its present value.

**dumping**: When an imported good is sold for less than in the country from which it is exported or sold abroad for less than its production cost.

**economies of scale**: Factors that make it possible for larger organizations to produce goods or services more cheaply than smaller ones (e.g., when the long-run average cost per unit of output falls as output rises).

**efficient quantity**: The quantity at which the marginal benefit of something exactly equals the marginal cost; every unit for which the marginal benefit exceeds the marginal production cost.

**EITC (Earned Income Tax Credit)**: The largest federally-funded, means-tested cash assistance program in the United States, through which the federal government grants payments to low-income families, subsidizing labor market earnings.

**elasticity of demand**: The responsiveness of the quantity demanded of a good to a change in its price. If the percentage change in the quantity demanded is greater than the percentage change in the price, demand is said to be elastic; if the percentage change in the quantity demanded is less than the percentage change in the price, demand is said to be inelastic.

**elasticity of supply**: The responsiveness of the quantity supplied of a good to a change in its price.

**entrepreneur**: Someone who organizes or runs a business venture and assumes the risk for it.

**environmental Kuznets curve**: The empirical finding that pollution levels tend to be lower in poor countries, higher in middle-income countries, and lower in rich countries.

**equilibrium price**: The price in a competitive market at which the quantity demanded equals the quantity supplied.

**excess burden of a tax**: The loss of welfare from a tax above and beyond the taxes collected.

**exploitation (neoclassical)**: When a worker's compensation is less than the value of the additional profits he or she earns for the employer.

**externality**: A cost or benefit that falls on a third party not involved in the activity. A negative externality arises when a cost is borne by someone other than the consumer or producer; a positive externality arises when a benefit goes to someone other than the consumer or producer.

**FASB (Financial Accounting Standards Board)**: A not-for-profit organization to which the Securities and Exchange Commission has delegated the job of creating a detailed set of rules and principles for the measurement, valuation, and reporting of companies' assets, liabilities, and earnings.

**fiscal gap**: The gap between government spending and taxes, or the gap between expected future government spending and expected future taxes.

**flat tax**: A tax under which the proportion of income paid in taxes is the same regardless of income.

**frictional unemployment**: Unemployment arising due to the normal turnover of labor—from people entering and leaving the labor force and from the ongoing creation and destruction of jobs.

**GDP (gross domestic product)**: The market value of all final goods and services produced in the economy in a period.

**generational accounting**: An accounting system that measures the lifetime tax burden and benefits of each generation.

**Gini coefficient**: A measure of inequality that equals the area between the Lorenz curve and the line of equality, divided by the area below the line of equality (often multiplied by 100). A Gini coefficient of zero indicates complete equality; a Gini coefficient of 100 indicates that one person receives everything and everyone else receives nothing.

**horizontal equity**: The concept that people in similar circumstances should be treated equally (e.g., two families earning the same amount should pay the same amount in taxes).

**inelastic**: See **elasticity of demand**.

**infant industry argument**: The argument that tariffs can protect vulnerable young domestic industries, giving them the chance to get started and become internationally competitive.

**inflation**: An overall rise in prices, generally measured by a price index such as the CPI (consumer price index).

**investment**: The purchase of new capital goods (equipment, buildings, etc.). Investment is done by firms and should be distinguished from saving, which occurs when households consume less than they earn.

**kleptocrats**: Government officials who enrich themselves through their positions.

**labor productivity**: The total output produced per hour of labor: output divided by labor.

**law of diminishing returns**: The eventual drop in the marginal product of an input (e.g., labor) when more of it is employed with a fixed input (e.g., land).

**Lorenz curve**: A graphical representation of inequality that arranges the population in ascending order and plots the cumulative percentage of something (e.g., income) against the cumulative share of the population.

**Malthusian model**: An economic model that assumes a fixed amount of some resource and predicts that standards of living will be driven to the subsistence level in the long run.

**marginal benefit**: The benefit received from consuming one more unit of a good or service.

**marginal cost**: The opportunity cost of producing one more unit of a good or service.

**marginal product**: The increase in total output that results from a one-unit increase in a single input (e.g., labor), holding all other inputs constant.

**marginal revenue product of labor**: The extra revenue gained from employing one more worker while holding other inputs constant.

**marginal tax rate**: The tax rate on each additional dollar earned.

**market failure**: The failure of an unregulated market to achieve efficiency.

**monopoly**: A market in which there is one seller (whose product has no close substitutes) and that is protected from competition by barriers to market entry.

**monopsony**: A market in which there is one buyer.

**moral hazard problem**: The danger that if a contract promises payments on certain conditions, people will change their behavior to make these unwanted conditions more likely to occur (e.g., someone who is insured will take fewer precautions, making the insured outcome more likely to occur).

**multiplier**: The amount by which an initial change in spending is magnified in an economy.

**national debt**: The amount that the government owes to everyone from whom it has borrowed money.

**natural rate of unemployment**: Frictional and structural unemployment added together. When the unemployment rate falls below this rate, the inflation rate may start to rise.

**net worth**: The value of assets minus the value of liabilities.

**normal retirement age**: The age at which Social Security retirement benefits are equal to the primary insurance amount (PIA).

**OASDI (Old Age, Survivors, and Disability Insurance)**: The federal program more commonly called "Social Security."

**opportunity cost**: The highest valued alternative that is given up to get something.

**outsourcing**: The practice of buying goods or services from outside suppliers, especially those in a foreign country.

**Phillips curve**: A curve showing the relationship between inflation and unemployment. It suggests that as the unemployment rate lowers, the inflation rate will rise.

**PIA (primary insurance amount)**: The initial amount of Social Security benefits received by someone retiring at the normal retirement age. The PIA is calculated from the average indexed monthly earnings (AIME) using a progressive formula.

**Pigovian tax**: A tax on a good that produces a negative externality. If the tax equals the marginal cost of the damages caused by the negative externality, the efficient amount of the good will be produced.

**poverty threshold**: A standard for determining whether a household can buy an adequate amount of goods and services. In the United States, the federal poverty threshold is based on an estimate of the cost of the Department of Agriculture's economy food plan, multiplied by three and adjusted for changes over time in the CPI. In 2004 these thresholds were $9,600 for a single person, $12,300 for two people, $19,300 for four people, $25,800 for six people, and $39,000 for nine or more people. For impoverished countries, many economists use absolute poverty thresholds of less than $1 or $2 per day in terms of year 1985 U.S. dollars, which approximately translates into less than $2 and $4 per day in year 2007 dollars.

**principal-agent problem**: A type of conflict of interest. The problem arises because the interests of the person who wants something done (the principal) differ from the interests of the person hired to do the job (the agent).

**privatization**: The transfer to private ownership and control of enterprises or assets that were previously under government control.

**productivity**: See **labor productivity** and **total factor productivity**.

**progressive tax**: A tax under which the proportion of income paid in taxes rises as income rises.

**public good**: A good that can be used by everyone simultaneously without detracting from the consumption of others (nonrival) and from which it is impossible or very expensive to exclude someone (nonexcludable).

**rational ignorance**: Remaining ignorant about something because the marginal costs of becoming informed are expected to exceed the marginal benefits.

**rational maximizer**: Someone who acts in a consistent manner, with a reasonably well-defined notion of what they like and what their objectives are, and with a reasonable understanding of how to attain those objectives. This is often equated with someone who opts in favor of doing something if they expect the benefits to outweigh the costs and opts against doing something if they expect the costs to outweigh the benefits.

**real GDP**: The market value of all final goods and services produced in the economy in a year, when valued at constant prices. The real GDP removes the effects of inflation and price differences when making comparisons.

**recession**: A period in which the real GDP decreases during at least two quarters.

**regression (or ordinary least-squares regression)**: A statistical procedure by which a line is run through a cluster of data points, selecting the line that minimizes the sum of the squared distances from the line to the data points.

**regressive tax**: A tax under which the proportion of income paid in taxes falls as income rises.

**rent seeking**: Spending resources not on the production of goods and services but rather on trying to get the government to change the rules in one's favor.

**risk aversion**: The preference for more certain (safer) outcomes.

**risk neutrality**: Being indifferent between risky and risk-free outcomes.

**Rule of 72**: The mathematical regularity that 72 divided by a growth rate equals the approximate time it takes something to double; the calculation is more precise when 69.3 is divided by a growth rate.

**savings**: Income minus consumption and taxes during a period.

**scarcity**: When wants exceed resources.

**Social Security trust fund**: Assets of the Social Security Administration that consist of U.S. government bonds (i.e., loans to the rest of the federal government).

**statistical discrimination**: Discrimination that arises when the characteristics of a group are imputed to a member of that group.

**stock option**: The right to buy shares in a company on some future date at a prearranged price, often granted to executives as an incentive to increase the company's stock market value.

**structural unemployment**: Unemployment that arises when workers do not fit well into job vacancies (e.g., due to a mismatch in skills or location).

**supply**: The relationship between the price of a good and the quantity of it supplied (i.e., the quantity that producers desire/plan to sell).

**supply curve**: A curve that shows the relationship between the quantity of a good supplied and its price, when all other influences on planned sales remain the same. The "law of supply" says that the quantity supplied will generally rise as the price rises (i.e., the supply curve slopes upward). A change in a good's price causes a movement along the supply curve. In a competitive market, the supply curve equals the marginal cost of production, so a change in production costs will cause the supply curve to shift.

**TANF (Temporary Assistance to Needy Families)**: A federal government assistance program that is more commonly called "welfare" and that replaced the Aid to Families with Dependent Children (AFDC) program in 1997.

**total factor productivity**: The ability to get output from inputs. Total factor productivity grows whenever methods are developed to get more output from the same amount of inputs (labor, capital, raw materials) or fewer inputs are needed to produce a constant amount of output.

**total fertility rate**: The number of births per woman if each woman in the population experiences the age-specific fertility rate throughout her life.

**trade deficit**: The amount by which imports exceed exports.

**trade surplus**: The amount by which exports exceed imports.

**unemployment**: The inability to obtain a job when one is actively seeking employment (within the past four weeks) or because one is awaiting recall from a layoff.

**unemployment rate**: The number of unemployed people expressed as a percentage of all the people who have or are looking for jobs.

**unexplained pay gap**: The amount by which average pay differs between two groups of workers when their productivity-related characteristics (such as education and experience) are equal.

**value of a statistical life**: An estimate of the value that people place on their own lives that uses market data on the rate at which they are willing to trade money for risks that increase the odds of death.

**vertical equity**: The concept that people in different income groups should pay different rates of taxes or different percentages of their incomes as taxes.

For a much more complete set of economic terms, see John Black's *Oxford Dictionary of Economics* (Oxford University Press, 2002). There are several good online listings of terms from economics, including one by *The Economist* at http://www.economist.com/research/Economics/alphabetic.cfm.

# Thematic Bibliography

**Note:**

The works in this bibliography are ordered based on the economic themes as they are discussed in the lectures. For a bibliography of essential and supplementary readings, please see the Reading Bibliography in Part III. This bibliography may contain works and annotations not covered in the lectures.

**Getting Started:**

*The Economist*. I subscribe to this publication, which provides thorough coverage of unfolding economic issues and policies.

Ehrenberg, Ronald G., and Robert S. Smith. *Modern Labor Economics: Theory and Public Policy*. 9th ed. Upper Saddle River, NJ: Pearson Education, 2006. Many of the most important economic policy issues concern the labor market. For an excellent introduction to labor economics, I recommend this book.

*Journal of Economic Perspectives*. http://www.aeaweb.org/jep. The most approachable economics journal, with articles written by leading academics and designed for accessibility to college students. I frequently assign its articles to my undergraduates and have relied on it for many of this course's lectures. Each issue includes an annotated list of recommendations for further reading. Many of the articles can be found for free (often on authors' Web sites) with a little searching.

Lemieux, Pierre. "The Public Choice Revolution." *Regulation* (Fall 2004). A short, clear introduction to the subfield of public choice economics, which analyzes government, politics, and collective decisions using the tools of economics. As you will see, the public choice field has a bit of libertarian flair.

The National Bureau of Economic Research. www.nber.org. Probably the most useful stop for anyone interested in economic policy issues. The Web site has links to useful data including the NBER's dating of recession and expansion periods, which virtually everyone uses. NBER-affiliated scholars produce a raft of excellent empirical papers; summaries of this research can be found at the Web site. I have relied on NBER research extensively throughout the course, and it is the first place I look. The working papers are often full of mathematical notation and complicated statistical tests, making them unreadable for those without graduate training in economics, but the summaries and abstracts of these papers can be very informative.

Parkin, Michael. *Economics*. 2nd ed. Boston: Addison Wesley Longman, 1994. One of the best ways to begin using economic tools to analyze the modern economy is to pick up one of the excellent introductory economics textbooks on the market. I assign this book, which has remarkably clear and informative chapters related to many of the policy issues covered in this course.

*The Wall Street Journal*. I subscribe to this publication. In addition to providing thorough coverage of unfolding economic issues and policies, *The Wall Street Journal* regularly includes Op-Ed pieces by top-notch economists.

**Surveys of Economists:**

Throughout the course I refer to surveys of economists. My favorite two are:

Fuller, Dan, and Doris Geide-Stevenson. "Consensus among Economists: Revisited." *Journal of Economic Education* 34, no. 4 (Fall 2003).

Whaples, Robert. "Do Economists Agree on Anything?" *The Economists' Voice* 3, no. 9 (November 2006). Available free online (if you jump through a few hoops) at http://www.bepress.com/ev.

**Macroeconomic Statistics:**

Bureau of Economic Analysis: http://www.bea.gov.

Bureau of Labor Statistics: http://www.bls.gov.

Both Web sites release the latest macroeconomic statistics for the United States and offer bountiful supporting and explanatory documentation.

Carter, Susan B., Scott Sigmund Gartner, Michael R. Haines, Alan L. Olmstead, Richard Sutch, and Gavin Wright, eds. *Historical Statistics of the United States*. New York: Cambridge University Press, 2006.

To wade in even deeper, try this work, which can be found in most reference libraries. Council of Economic Advisors. *Economic Report of the President*. Available at http://www.gpoaccess.gov/eop/index.html. One of the best places to get up-to-date information on the state of the U.S. economy. These reports are written by topflight economists and throughout the years have been surprisingly nonpartisan.

FedStats. http://www.fedstats.gov. The gateway to the dizzying array of statistics collected by the federal government. It was the starting point in my search for many of the statistics I have used during this course.

*Journal of Economic Perspectives* 17, no. 1 (Winter 2003). This issue contains a series of accessible articles: “Toward a Cost-of-Living Index: Progress and Prospects” (Katharine G. Abraham); “Sources of Bias and Solutions to Bias in the Consumer Price Index” (Jerry Hausman); and “The Consumer Price Index: Conceptual Issues and Practical Suggestions” (Charles L. Schultze).

Lebow, David E., and Jeremy B. Rudd. “Measurement Error in the Consumer Price Index: Where Do We Stand?” *Journal of Economic Literature* 41, no. 1 (2003). Offers a very technical but essential overview of the debate over bias in the consumer price index and what to do about it (probably the most important dispute concerning our macroeconomic statistics).

Measuring Worth. http://www.measuringworth.com. For those with a more historical bent, this Web site has a trove of useful data for calculating long-term economic growth rates, inflation rates, consumer prices, exchange rates, interest rates, stock market values, and measures of worth. It includes clear explanations of how the data can be used and what they mean.

**Unemployment and Economic Inequality:**

Blau, Francine, and Lawrence Kahn. *At Home and Abroad: U.S. Labor-Market Performance in International Perspective*. New York: Russell Sage Foundation, 2002. I strongly recommend this work, which carefully lays out differences in labor market institutions and outcomes in the United States and Europe. Blau and Kahn’s analysis appears to match the profession’s consensus view.

Bowles, Samuel, Herbert Gintis, and Melissa Osborne Groves, eds. *Unequal Chances: Family Background and Economic Success*. Princeton: Princeton University Press, 2005. Finds that the correlation of income from one generation to the next is somewhat higher than earlier research had concluded and that the reasons for this correlation are very complex.

Frank, Robert H., and Philip J. Cook. *The Winner-Take-All Society: Why the Few at the Top Get So Much More Than the Rest of Us*. New York: Penguin, 1996. Probably states its case too strongly, but is provocatively argued nevertheless.

Freeman, Richard B. “Labor Market Institutions around the World.” National Bureau of Economic Research Working Paper No. 13242 (July 2007). Ably questions the profession’s consensus view on differences in labor market institutions and outcomes.

**Trade, Outsourcing, and Trade Deficits:**

Irwin, Douglas A. *Free Trade under Fire*. 2nd ed. Princeton: Princeton University Press, 2005. Gives an excellent general overview of trade policy issues facing the United States, providing what seems to be the consensus view among economists.

Baicker, Katherine, and Marit M. Rehavi. “Policy Watch: Trade Adjustment Assistance.” *Journal of Economic Perspectives* 18, no. 2 (Spring 2004).

Bernheim, B. Douglas. *The Vanishing Nest Egg: Reflections on Saving in America*. New York: Priority Press Publications, 1991. Though somewhat dated, this is an excellent introduction to savings behavior in the United States and how policies might affect it.

Bhagwati, Jagdish. *In Defense of Globalization*. New York: Oxford University Press, 2005. Offers a vigorous defense of expanding international trade and removing trade barriers.

Blinder, Alan. “How Many U.S. Jobs Might Be Offshorable?” Working Paper, March 2007. Available at http://www.princeton.edu/~blinder/articles.htm.

———. “Offshoring: Big Deal or Business as Usual?” Working Paper, June 2007. Available at http://www.princeton.edu/~blinder/articles.htm. Both this and “How Many U.S. Jobs Might Be Offshorable?” offer a less sanguine view on free trade.

Campbell, Doug. “Trade Wars.” *Region Focus*. Federal Reserve Bank of Richmond, Spring 2006. Provides a useful overview of and concerns about antidumping policies.

The Council of Economic Advisors. “The U.S. Capital Account Surplus.” *The Economic Report of the President*, 2006. The clearest explanation of recent trade imbalances that I have seen.

Edwards, Sebastian. “The U.S. Current Account Deficit: Gradual Correction or Abrupt Adjustment.” National Bureau of Economic Research Working Paper No. 12154, April 2006. This and other papers by Edwards provide a sober analysis of likely impacts and outcomes of these imbalances. See http://www.anderson.ucla.edu/faculty/sebastian.edwards/papers.htm.

Eichengreen, Barry J. *Global Imbalances and the Lessons of Bretton Woods*. Cambridge, MA: MIT Press, 2006. An accessible introduction to problems that may arise due to recent trade imbalances and their historical significance. Eichengreen's Web site has equally valuable and interesting papers: http://www.econ.berkeley.edu/~eichengr/index.html.

Federal Reserve Bank of Dallas. *The Best of All Worlds: Globalizing the Knowledge Economy*. 2006 Annual Report.

———. *Fruits of Free Trade*. 2002 Annual Report. In these two recent, accessible, and informative publications, the Federal Reserve Bank of Dallas cheers on free trade.

Mastel, Greg. "Why We Should Expand Trade Adjustment Assistance." *Challenge*, July–August 2006. Provides useful information and ideas about U.S. policies toward workers displaced by trade.

Whaples, Robert. "United States Trade." *History of World Trade since 1450*. John McCusker, ed. New York: Macmillan, 2005. Offers a concise historical overview of American trade.

**Budget Deficits and Taxation:**

Ball, Laurence, and N. Gregory Mankiw. "What Do Budget Deficits Do?" Federal Reserve Bank of Kansas City Symposium on Budget Deficits and Debt, 1995. Available at http://www.economics.harvard.edu/faculty/mankiw/papers.html. The clearest explanation I have seen of these issues. I highly recommend Mankiw's blog (http://gregmankiw.blogspot.com); I owe him many thanks because his mention of one of my papers on the blog led to an interview on National Public Radio, which got me noticed by The Teaching Company.

Kotlikoff, Laurence, and Scott Burns. *The Coming Generational Storm: What You Need to Know about America's Economic Future*. Cambridge, MA: MIT Press, 2004. A gripping analysis of how the gargantuan fiscal gap could ruin the economy and what we can do about it. I have assigned the book to students because it explains key economic points very clearly and is readable—although a bit over the top in places and (I believe and pray) overly pessimistic.

Slemrod, Joel, and Jon Bakija. *Taxing Ourselves: A Citizen's Guide to the Debate over Taxes*. 3rd ed. Cambridge, MA: MIT Press, 2004. Lives up to its subtitle. It explains the principles of taxation and the workings of the American tax system with authority and immense clarity.

**Social Security, Aging, and Health Care:**

Cutler, David M. *Your Money or Your Life: Strong Medicine for America's Healthcare System*. New York: Oxford University Press, 2004. A superbly clear and balanced introduction to the U.S. health-care system—specifically its strengths and weaknesses—by one of the leading health economists.

Harris, Fred, ed. *The Baby Bust: Who Will Do the Work? Who Will Pay the Taxes?* Lanham, MD: Rowman and Littlefield, 2006. The best work I have read on the birth dearth.

Modigliani, Franco, and Arun Muralidhar. *Rethinking Pension Reform*. New York: Cambridge University Press, 2004. Provides a sensible plan for Social Security reform, which may be close to politically feasible. The book is fairly technical, so it is not for the faint of heart.

Nyce, Steven A., and Sylvester J. Schieber. *The Economic Implications of Aging Societies: The Costs of Living Happily Ever After*. New York: Cambridge University Press, 2005. The best discussion of these issues available, this work is easily accessible and covers a marvelously wide range of issues.

Rejda, George E. *Social Insurance and Economic Security*. 6th ed. Upper Saddle River, NJ: Prentice Hall, 1999. Provides a clear overview of issues related to the Social Security system and aging.

Schulz, James H. *The Economics of Aging*. 7th ed. Westport, CT: Auburn House, 2001. Provides a clear overview of issues related to the Social Security system and aging.

The Symposium on Social Security Reform. *Journal of Economic Perspectives*, 19, no. 2 (Spring 2005). Includes two clear papers by top policy analysts. Peter A. Diamond and Peter R. Orszag, in "Saving Social Security," suggest modest changes, while Martin Feldstein's "Structural Reform of Social Security" points toward more fundamental reforms.

Turner, John. *Individual Accounts for Social Security: International Perspectives on the U.S. Debate*. Kalamazoo, MI: Upjohn Institute, 2006. A must read for anyone considering privatizing the Social Security system.

 

**Energy, Pollution, and Climate Change:**

"Atomic Renaissance." *The Economist*. September 6, 2007, 71–73.

Bayer, Patrick, Nathaniel Keohane, and Christopher Timmins. "Migration and Hedonic Valuation: The Case of Air Quality." National Bureau of Economic Research Working Paper No. 12106, March 2006.

Carlson, Curtis, Dallas Burtraw, Maureen Cropper, and Karen L. Palmer. "Sulfur Dioxide Control by Electric Utilities: What Are the Gains from Trade?" *Journal of Political Economy* 108, no. 6 (December 2000).

Energy Information Administration. Available at http://www.eia.doe.gov. Provides a wide array of statistics and information on domestic and global energy markets (including information on petroleum, natural gas, electricity, coal, nuclear, renewable, and alternative fuels), forecasts, and analyses.

Farrell, Alexander E., Richard J. Plevin, Brian T. Turner, Andrew D. Jones, Michael O'Hare, and Daniel M. Kammen. "Ethanol Can Contribute to Energy and Environmental Goals." *Science*, January 27, 2006. The best current attempt to measure the energy used in ethanol production.

Grossman, Gene M., and Alan B. Krueger. "Economic Growth and the Environment." *Quarterly Journal of Economics* 110 (1995). An important, pathbreaking work on the link between economic growth and measures of environmental quality.

Keith, David W. "Geoengineering the Climate: History and Prospect." *Annual Review of Energy and the Environment*, 2000. Gives an accessible overview of climate change techno-fixes, although he seems to inflate the costs of the easiest fixes.

Kotchen, Matthew, and Nick Burger. "Should We Drill in the Arctic National Wildlife Refuge? An Economic Perspective." National Bureau of Economic Research Working Paper No. 13211, July 2007. Came out shortly after the lecture on energy was taped. This working paper estimates that extracting oil from ANWR would generate about $251 billion in social benefits and then compares this to the social costs of drilling.

Lomborg, Bjorn. *The Skeptical Environmentalist: Measuring the Real State of the World*. New York: Cambridge University Press, 1998. Although critics say that Lomborg understates environmental problems in places, economists as a group seem to see eye to eye with him on most environmental issues.

MIT Nuclear Energy Study Advisory Committee. *The Future of Nuclear Power: An Interdisciplinary MIT Study*. 2003.

Nordhaus, William D., and Joseph Boyer. "To Tax or Not to Tax: Alternative Approaches to Slowing Global Warming." *Review of Environmental Economics and Policy* 1, no .1 (2007). A convincing examination of policies to deal with climate change.

———. *Warming the World: Economic Models of Global Warming*. Cambridge, MA: MIT Press, 2000. William Nordhaus is the leading economist researching global climate change. This work reflects the consensus view of economists. Nordhaus' work is available at http://nordhaus.econ.yale.edu.

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Portney, Paul R., Ian W. H. Parry, Howard K. Gruenspecht, and Winston Harrington. "Policy Watch: The Economics of Fuel Economy Standards." *Journal of Economic Perspectives* 17, no. 4 (2003). Provides a concise overview of economists' thinking about mandating fuel economy standards.

Ruddiman, William F. *Plows, Plagues and Petroleum: How Humans Took Control of Climate*. Princeton: Princeton University Press, 2005. I strongly recommend this book for an insightful analysis of the history and future of global climate change.

Small, Kenneth A., and Camilla Kazimi. "On the Costs of Air Pollution from Motor Vehicles." *Journal of Transport Economics and Policy* 29 (1995).

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**Low Wages:**

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Card, David, and Alan B. Krueger. *Myth and Measurement: The New Economics of the Minimum Wage*. Princeton: Princeton University Press, 1995. Caused a major reassessment of the minimum wage among economists. Card and Krueger have moved on to other issues, but you will find a lot of interesting labor market research at their Web sites: http://emlab.berkeley.edu/users/card/papers.html and http://www.krueger.princeton.edu. You will want to read the review symposium of the book by Charles Brown, Richard B. Freeman, Daniel S. Hamermesh, Paul Osterman, and Finis R. Welch: *Industrial and Labor Relations Review* 48, no. 4 (July 1995).

Neumark, David. "The Economic Effects of Mandated Wage Floors." Public Policy Institute of California, Occasional Paper, 2004. David Neumark has been the most active researcher on minimum wages and living wages in recent years. Surveys of economists suggest that his findings are the consensus view. This paper is a short, accessible overview of his research; more recent work can be found at his Web site: http://www.ppic.org/main/bio.asp?i=67.

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Fryer, Roland G., Jr., and Glenn C. Loury. "Affirmative Action and Its Mythology." *Journal of Economic Perspectives* 19, no. 3 (Summer 2005). Corrects several misconceptions about the overall impact of affirmative action.

Goldin, Claudia. *Understanding the Gender Gap: An Economic History of American Women.* New York: Oxford University Press, 1990. Provides an authoritative historical analysis of the issue. Goldin was my dissertation advisor in graduate school.

*Journal of Economic Perspectives* 12, no. 2 (Spring 1998). Includes several articles that are forced to agree to disagree about the pervasiveness of discrimination in a variety of markets. Reading all of them will give a good sense of the profession's diversity of opinion on this issue: "Evidence on Discrimination in Consumer Markets," by John Yinger; "Evidence on Discrimination in Mortgage Lending," by Helen F. Ladd; "Evidence on Discrimination in Employment: Codes of Color, Codes of Gender," by William A. Darity Jr. and Patrick L. Mason; "What Has Economics to Say About Racial Discrimination?" by Kenneth J. Arrow; "Detecting Discrimination," by James J. Heckman; and "Discrimination in the Post-Civil Rights Era: Beyond Market Interactions," by Glenn C. Loury.

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Ruebeck, Christopher, Joseph Harrington Jr., and Robert Moffitt. "Handedness and Earnings." National Bureau of Economic Research Working Paper No. 12387, July 2006. Includes a fascinating economic analysis of differences between right-handers and left-handers.

**Immigration:**

Borjas, George J. *Heaven's Door: Immigration Policy and the American Economy*. Princeton: Princeton University Press, 1999. Economist George Borjas publishes prolifically on all facets of the economics of immigration and is probably the leading authority on the subject. This work is an extremely accessible and capable book—an excellent starting place. A summary of the book can be found at http://www.cis.org/articles/1999/back1199.htm.

———. "The Labor Demand Curve is Downward Sloping: Reexamining the Impact of Immigration on the Labor Market." *Quarterly Journal of Economics* 118, no. 4 (2003). An important article that reflects Borjas's general conclusion that immigration policies should be reformed to keep out less-skilled immigrants because of their net negative impact on the native population—especially the least skilled members. His Web site (http://ksghome.harvard.edu/~GBorjas/FullBio.html) includes his most recent work.

Hanson, Gordon H. *Why Does Immigration Divide America? Public Finance and Political Opposition to Open Borders*. Institute for International Economics, 2005. Remarkably balanced and clear. The entire book is available at http://bookstore.petersoninstitute.org/book-store/4000.html. Hanson spoke recently at Wake Forest University, and a podcast of his comments can be found at http://www.wfu.edu/voices/immigration.media.html.

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**Labor Unions:**

Bennett, James T., and Bruce E. Kaufman, eds. *The Future of Private Sector Unionism in the United States*. Armonk, NY: M. E. Sharpe, 2002.

———. *What Do Unions Do? A Twenty-Year Perspective*. Edison, NJ: Transaction Publishers, 2007. Probably the best one-stop source on the economics of labor unions. I especially recommend the chapters "What Effect Do Unions Have on Wages Now and Would Freeman and Medoff Be Surprised" (by David G. Blanchflower and Alex Bryson) and "What Do Unions Do for Economic Performance?" (by Barry Hirsch).

Wheeler, Hoyt N. *The Future of the American Labor Movement*. New York: Cambridge University Press, 2002.

**Underperforming Schools:**

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Hoxby, Caroline. "Competition among Public Schools: A Reply to Rothstein." National Bureau of Economic Research Working Paper No. 11216, March 2005.

———. "Does Competition among Public Schools Benefit Students and Taxpayers?" *American Economic Review* 90, no. 5 (2000). A very influential paper.

———. "School Choice and School Productivity (or, Could School Choice be a Tide that Lifts All Boats?)." National Bureau of Economic Research Working Paper No. 8873, April 2002. The most active and respected economist studying elementary and secondary education is probably Caroline Hoxby. Her research papers are available at http://www.economics.harvard.edu/faculty/hoxby/papers.html and include this one, which I find very compelling.

Hoxby's rebuttal to Rothstein's critique. This and the other two related papers will be pretty stiff reading for most noneconomists.

Ladd, Helen F. "School Vouchers: A Critical View." *Journal of Economic Perspectives* 16, no. 4 (Autumn 2002). A very accessible summary of arguments against school vouchers.

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**Higher Education:**

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Ehrenberg, Ronald G. "Key Issues Facing American Higher Education." Cornell Higher Education Research Institute Working Paper 46, February 2004. Ehrenberg runs the Cornell Higher Education Research Institute. This and other useful papers can be found at http://www.ilr.cornell.edu/depts/cheri.

———. *Tuition Rising: Why College Costs So Much*. Cambridge, MA: Harvard University Press, 2000. Perhaps the most respected economist studying higher education is Ronald Ehrenberg—this work is a good place to start.

Long, Bridget Terry. "The Impact of Federal Tax Credits for Higher Education Expenses." *College Choices: The Economics of Which College, When College, and How to Pay For It*. Edited by Caroline M. Hoxby. Chicago: University of Chicago Press, 2004.

**Wal-Mart:**

Basker, Emek. "The Causes and Consequences of Wal-Mart's Growth." *Journal of Economic Perspectives* 21, no. 3 (Summer 2007). Emek Basker has done the most authoritative research on Wal-Mart; her research can be found at http://web.missouri.edu/~baskere/papers.

———. "Job Creation or Destruction? Labor-Market Effects of Wal-Mart Expansion." *Review of Economics and Statistics* 87, no. 1 (February 2005).

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**Corporate Greed, Fraud, and Mismanagement:**

Butler, Henry N., and Larry E. Ribstein. *The Sarbanes-Oxley Debacle: What We've Learned; How to Fix It.* Washington, DC: American Enterprise Institute Press, 2006. A very critical analysis of the Sarbanes-Oxley Act.

*Journal of Economic Perspectives* 17, no. 2 (Spring 2003). Includes three excellent articles on corporate fraud, published shortly after the Enron fiasco and the passage of the Sarbanes-Oxley Act: "Corporate Earnings: Facts and Fictions," by Baruch Lev; "The Fall of Enron," by Paul M. Healy and Krishna G. Palepu; and "Corporate Conflicts of Interest," by Joel S. Demski. All three articles are very accessible.

**Conspicuous Consumption:**

Frank, Robert H. *Choosing the Right Pond: Human Behavior and the Quest for Status*. New York: Oxford University Press, 1985.

———. *Luxury Fever: Why Money Fails to Satisfy in an Era of Excess*. Princeton: Princeton University Press, 2000. If you are interested in the topic of conspicuous consumption, this is the one "must read" book. Many reviews of this book attack it for overstating the problem.

**Postal Delivery:**

*Embracing the Future: Making Tough Choices to Preserve Universal Mail Service*. Report of the President's Commission on the U.S. Postal Service, 2003.

Geddes, Rick. "Do Vital Economists Reach a Policy Conclusion on Postal Reform?" *Econ Journal Watch* 1 no. 1 (April 2004). Finds a strong consensus among economists in favor of increased postal competition. Available at http://www.econjournalwatch.org.

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**Organ Shortages:**

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*Journal of Economic Perspectives* 21, no. 3 (Summer 2007). Contains an excellent symposium relating to organ donations: "Producing Organ Donors," by David H. Howard; "Introducing Incentives in the Market for Live and Cadaveric Organ Donations," by Gary S. Becker and Julio Jorge Elías; and "Repugnance as a Constraint on Markets," by Alvin E. Roth. All three articles are worth reading.

Thorne, Emanuel D. "The Shortage in Market-Inalienable Human Organs: A Consideration of 'Nonmarket' Failures." *American Journal of Economics and Sociology* 57, no. 3 (July 1998). Takes a skeptical look at paying organ donors.

**Baseball:**

Bradbury, J. C. *The Baseball Economist: The Real Game Exposed*. New York: Dutton, 2007. If you are a baseball fan and interested in how economic tools can be used to analyze the game itself, you will want to read this book or check out the author's Web site at http://www.sabernomics.com.

Haupert, Michael. "The Economic History of Major League Baseball." *EH.Net Encyclopedia*. Edited by Robert Whaples. http://eh.net/encyclopedia/article/haupert.mlb. Provides an informative historical overview.

*Journal of Sports Economics*. http://jse.sagepub.com.

Siegfried, John, and Andrew Zimbalist. "The Economics of Sports Facilities and Their Communities." *Journal of Economic Perspectives* 14, no. 3 (Summer 2000). A concise overview of the stadium subsidy issue, in clear accord with the professional consensus.

Zimbalist, Andrew. *May the Best Team Win: Baseball Economics and Public Policy*. Washington, DC: Brookings Institution Press, 2003. An excellent introduction to many of the economic issues surrounding baseball.

**Terrorism**

Abadie, Alberto, and Javier Gardeazabal. "The Economic Costs of Conflict: A Case Study of the Basque Country." *American Economic Review* 93, no. 1 (March 2003). An influential study of the long-term economic impacts of terrorism—although it will be tough going for noneconomists.

Benmelech, Efraim, and Claude Berrebi. “Human Capital and the Productivity of Suicide Bombers.” *Journal of Economic Perspectives* 21, no. 3 (Summer 2007). A more recent article on the economics of terrorism well worth reading.

Bram, Jason, James Orr, and Carol Rapaport. “Measuring the Effects of the September 11 Attacks on New York City.” *Economic Policy Review*. Federal Reserve Bank of New York, November 2002.

“Catastrophe Risk Insurance.” *Economic Report of the President*, 2007.

Dixon, Lloyd, and Rachel Kaganoff Stern. *Compensation for Losses from the 9/11 Terrorist Attacks*. Rand Institute of Civil Justice, 2005.

Krueger, Alan B., and Jitka Malechova. “Education, Poverty and Terrorism: Is There a Causal Connection?” *Journal of Economic Perspectives* 17, no. 4 (Fall 2003). My students have found the information and arguments in this article to be very eye-opening.

Kunreuther, Howard, and Erwann Michel-Kerjan. “Policy Watch: Challenges for Terrorism Risk Insurance in the United States.” *Journal of Economic Perspectives* 18, no. 4 (Fall 2004). Gives an informative and balanced overview of terrorism risk insurance.

The Memorial Institute for the Prevention of Terrorism. http://mipt.org.

The Memorial Institute for the Prevention of Terrorism’s Terrorism Knowledge Base. http://www.tkb.org.

Navarro, Peter, and Aron Spencer. “Assessing the Costs of Terrorism.” *Milken Institute Review*, 2001.

Wolfers, Justin, and Eric Zitzewitz. “Prediction Markets.” *Journal of Economic Perspectives* 18, no. 2 (Spring 2004). Gives an excellent overview of how prediction markets can be harnessed to yield information to policy analysts.

**Helping Poor Countries:**

Chen, Shao-hua, and Martin Ravallion. “How Have the World’s Poorest Fared since the Early 1980s?” World Bank Policy Research Working Paper No. 3341, 2004.

Easterly, William. “Can Foreign Aid Buy Growth?” *Journal of Economic Perspectives* 17, no. 3 (Summer 2003). I strongly recommend the work of William Easterly; his latest research findings can be found at http://www.nyu.edu/fas/institute/dri/Easterly/Research.html.

———. *The Elusive Quest for Growth: Economists’ Adventures and Misadventures in the Tropics*. Cambridge, MA: MIT Press, 2001.

———. “Was Development Assistance a Mistake?” *American Economic Review Papers and Proceedings* 97, no. 2 (2007).

Lomborg, Bjorn, ed. *How to Spend $50 Billion to Make the World a Better Place*. New York: Cambridge University Press, 2006. An invaluable work with individual chapters written by many of the leading development economists.

Sachs, Jeffrey. *The End of Poverty: Economic Possibilities for Our Time*. New York: Penguin, 2005. Although he focuses less on Africa, do not miss the writings of Jeffrey Sachs. Much of his research can be found at http://www.earth.columbia.edu/articles/view/1804.

Sachs, Jeffrey, and Pia Malaney. “The Economic and Social Burden of Malaria.” *Nature* 415 (February 2002).

Sala-i-Martin, Xavier. “The World Distribution of Income (Estimated from Individual Country Distributions).” National Bureau of Economic Research Working Paper No. 8933, 2002.

**Urban Sprawl:**

Glaeser, Edward L., and Matthew E. Kahn. “Sprawl and Urban Growth.” In *Handbook of Regional and Urban Economics*. Vol. 4. Edited by V. Henderson and J. Thisse. New York: Elsevier, 2004.

Nechyba, Thomas J., and Randall P. Walsh. “Urban Sprawl.” *Journal of Economic Perspectives* 18, no. 4 (Autumn 2004). Both this and the above work ably summarize the immense body of research on the subject by economists.

**Gambling:**

Grinols, Earl L. *Gambling in America: Costs and Benefits*. New York: Cambridge University Press, 2004. An excellent introduction to research on the economic impacts of gambling. Grinols provides a clear discussion of all the important concepts (although some chapters will be much too mathematical for most readers to follow), yet in my view, he underestimates the benefits from casinos.

Morse, Edward A. and Ernest P. Goss. *Governing Fortune: Casino Gambling in America*. Ann Arbor: University of Michigan Press, 2007.

*State of the States: The AGA Survey of Casino Entertainment*. American Gaming Association. Offers the latest statistics and developments in the industry. Available at http://www.americangaming.org/survey/index.cfm.

**Overeating:**

BMI—Body Mass Index: Introduction. Centers for Disease Control and Prevention. http://www.cdc.gov/nccdphp/dnpa/bmi. Contains the CDC's introduction to the body mass index and a BMI calculator.

Cawley, John. "The Impact of Obesity on Wages." *Journal of Human Resources* 39, no. 2 (2004).

Conley, Dalton, and Rebecca Glauber. "Gender, Body Mass, and Economic Status." National Bureau of Economic Research Working Paper No. 11343, May 2005. Both this and the Cawley article are important examinations of the economic impact of body weight, although both studies are fairly technical.

Cutler, David M., Edward L. Glaeser, and Jesse M. Shapiro. "Why Have Americans Become More Obese?" *Journal of Economic Perspectives* 17, no. 3 (Summer 2003). Provides an excellent introduction to the underlying reasons for the trend in obesity.

Gibbs, W. Wayt. "Obesity: An Overblown Epidemic?" May 23, 3005. http://www.scientificamerican.com.

Sunder, Marco. "Toward Generation XL: Anthropometrics of Longevity in Late Twentieth-Century United States." *Economics and Human Biology* 3 (2005). Both this and the Gibbs article offer criticisms of the official BMI standards.

Wang, Youfa, and May A. Beydoun. "The Obesity Epidemic in the United States." *Epidemiologic Reviews*, 2007. Offers the most recent, detailed statistics of obesity.

**Closing Thoughts:**

Blanchflower, David, and Andrew Oswald. "Well-Being over Time in Britain and the USA." *Journal of Public Economics* 88, no. 7–8 (2004).

Blinder, Alan. *Hard Heads, Soft Hearts: Tough-Minded Economics for a Just Society*. Boston: Addison-Wesley, 1987. The entire book is worth reading, although parts of it are now somewhat dated.

Deaton, Angus. "Income, Aging, Health and Wellbeing Around the World: Evidence from the Gallup World Poll." National Bureau of Economic Research Working Paper No. 13317, August 2007.

Di Tella, Rafael, and Robert MacCulloch. "Some Uses of Happiness Data in Economics." *Journal of Economic Perspectives* 20, no. 1 (2006).

Fey, Bruno S., and Alois Stutzer. *Happiness and Economics: How the Economy and Institutions Affect Human Well-Being*. Princeton: Princeton University Press, 2001.

Kahneman, Daniel, and Alan B. Krueger. "Developments in the Measurement of Subjective Well-Being." *Journal of Economic Perspectives* 20, no. 1 (2006).

Pew Research Center. "Among Wealthy Nations … U.S. Stands Alone in Its Embrace of Religion." December 2002. http://people-press.org/reports/display.php3?ReportID=167. Offers data on the international correlation between income per capita and the importance of religion.

———. "Are We Happy Yet?" February 2006. http://pewresearch.org/pubs/301/are-we-happy-yet. Offers a raft of fascinating empirical evidence on the economic and noneconomic correlates of happiness in the United States.

Whaples, Robert. "Time to Eliminate the Penny from the U.S. Coinage System: New Evidence." *Eastern Economic Journal* 33, no. 1 (Winter 2007). You will find my penny research here.

## Reading Bibliography

**Note:**

The works in this bibliography are ordered based on their definition at the end of each lecture as essential or supplementary reading. For a more detailed bibliography of readings grouped by economic themes, please see the Thematic Bibliography in Part II.

**Essential Reading:**

Ball, Laurence, and N. Gregory Mankiw. “What Do Budget Deficits Do?” Federal Reserve Bank of Kansas City Symposium on Budget Deficits and Debt, 1995. The clearest explanation I have seen of these issues. http://www.economics.harvard.edu/faculty/mankiw/papers.html.

Basker, Emek. “The Causes and Consequences of Wal-Mart’s Growth.” *Journal of Economic Perspectives* 21, no. 3 (Summer 2007). Emek Basker has done the most authoritative research on Wal-Mart; her research can be found at http://web.missouri.edu/~baskere/papers.

Bennett, James T., and Bruce E. Kaufman, eds. *What Do Unions Do? A Twenty-Year Perspective*. Edison, NJ: Transaction Publishers, 2007. Probably the best one-stop source on the economics of labor unions. I especially recommend the chapters “What Effect Do Unions Have on Wages Now and Would Freeman and Medoff Be Surprised” (by David G. Blanchflower and Alex Bryson) and “What Do Unions Do for Economic Performance?” (by Barry Hirsch).

Bhagwati, Jagdish. *In Defense of Globalization.* New York: Oxford University Press, 2005.

Blanchflower, David, and Andrew Oswald. “Well-Being over Time in Britain and the USA.” *Journal of Public Economics* 88, nos. 7–8 (2004).

Blau, Francine, and Lawrence Kahn. *At Home and Abroad: U.S. Labor-Market Performance in International Perspective*. New York: Russell Sage Foundation, 2002. Carefully lays out differences in labor market institutions and outcomes in the United States and Europe. Blau and Kahn’s analysis appears to match the profession’s consensus view.

Borjas, George J. *Heaven’s Door: Immigration Policy and the American Economy*. Princeton: Princeton University Press, 1999. Economist George Borjas publishes prolifically on all facets of the economics of immigration and is probably the leading authority on the subject. This work is an extremely accessible and capable book—an excellent starting place. A summary of the book can be found at http://www.cis.org/articles/1999/back1199.htm.

Bureau of Economic Analysis. http://www.bea.gov.

Bureau of Labor Statistics. http://www.bls.gov. Both of these Web sites release the latest macroeconomic statistics for the United States and offer bountiful supporting and explanatory documentation.

Council of Economic Advisors. “The U.S. Capital Account Surplus.” *The Economic Report of the President*, 2006. The clearest explanation of recent trade imbalances that I have seen.

Cutler, David M. *Your Money or Your Life: Strong Medicine for America’s Healthcare System*. New York: Oxford University Press, 2004. A superbly clear and balanced introduction to the U.S. health-care system—specifically its strengths and weaknesses—by one of the leading health economists.

Cutler, David M., Edward L. Glaeser, and Jesse M. Shapiro. “Why Have Americans Become More Obese?” *Journal of Economic Perspectives* 17, no. 3 (Summer 2003). Provides an excellent introduction to the underlying reasons for the trend in obesity.

Diamond, Peter A., and Peter R. Orszag. “Saving Social Security.” *Journal of Economic Perspectives* 19, no. 2 (Spring 2005). Suggests modest changes to help save Social Security.

Easterly, William. *The Elusive Quest for Growth: Economists’ Adventures and Misadventures in the Tropics*. Cambridge, MA: MIT Press, 2001. I strongly recommend the work of William Easterly; his latest research findings can be found at http://www.nyu.edu/fas/institute/dri/Easterly/Research.html.

Ehrenberg, Ronald G. *Tuition Rising: Why College Costs So Much*. Cambridge, MA: Harvard University Press, 2000. Ronald Ehrenberg is perhaps the most respected economist studying higher education—this work is a good place to start.

Ehrenberg, Ronald G., and Robert S. Smith. *Modern Labor Economics: Theory and Public Policy*. 9th ed. Upper Saddle River, NJ: Pearson Education, 2006. An excellent introduction to labor economics.

Energy Information Administration. Provides a wide array of statistics and information on domestic and global energy markets (including information on petroleum, natural gas, electricity, coal, nuclear, renewable, and alternative fuels), forecasts, and analyses. http://www.eia.doe.gov.

Environmental Protection Agency. "Air Trends." http://www.epa.gov/air/airtrends/index.html.

Federal Reserve Bank of San Francisco. "U.S. Monetary Policy: An Introduction."2004. http://frbsf.org/publications/federalreserve/monetary/index.html.

Feldstein, Martin. "Structural Reform of Social Security." *Journal of Economic Perspectives* 19, no. 2 (Spring 2005). Points toward more fundamental reforms for Social Security.

Frank, Robert H. *Luxury Fever: Why Money Fails to Satisfy in an Era of Excess*. Princeton: Princeton University Press, 2000. If you are interested in the topic of conspicuous consumption, this is the one "must read" book. Many reviews of this book attack it for overstating the problem.

Geddes, R. Richard. "Policy Watch: Reform of the U.S. Postal Service." *Journal of Economic Perspectives* 19, no. 3 (Summer 2005). An unusually informative, concise overview of research by economists on postal delivery and international policy responses.

Glaeser, Edward L., and Matthew E. Kahn. "Sprawl and Urban Growth." *Handbook of Regional and Urban Economics*. Vol. 4. Edited by V. Henderson and J. Thisse. New York: Elsevier, 2004. Ably summarizes the immense body of research on the subject by economists.

Gordon, Robert. "Why Was Europe Left at the Station When America's Productivity Locomotive Departed?" NBER Working Paper No. 10661. August 2004. Available at Gordon's Web site:http://faculty-web.at.northwestern.edu/economics/gordon/researchhome.html.

Grinols, Earl L. *Gambling in America: Costs and Benefits*. New York: Cambridge University Press, 2004. An excellent introduction to research on the economic impacts of gambling. Grinols provides a clear discussion of all the important concepts (although some chapters will be much too mathematical for most readers to follow), yet in my view, he underestimates the benefits from casinos.

Howard, David H. "Producing Organ Donors." *Journal of Economic Perspectives* 21, no. 3 (Summer 2007).

Hoxby, Caroline. "School Choice and School Productivity (or, Could School Choice be a Tide that Lifts All Boats?)." NBER Working Paper No. 8873, April 2002. The most active and respected economist studying elementary and secondary education is probably Caroline Hoxby. Her research papers are available at http://www.economics.harvard.edu/faculty/hoxby/papers.html and include this one, which I find very compelling.

Irwin, Douglas A. *Free Trade under Fire*. 2nd ed. Princeton: Princeton University Press, 2005. Gives an excellent general overview of trade policy issues facing the United States, providing what seems to be the consensus view among economists.

Krueger, Alan B., and Jitka Malechova. "Education, Poverty and Terrorism: Is There a Causal Connection?" *Journal of Economic Perspectives* 17, no. 4 (Fall 2003). My students have found the information and arguments in this article to be very eye-opening.

Lev, Baruch. "Corporate Earnings: Facts and Fictions." *Journal of Economic Perspectives* 17, no. 2 (Spring 2003).

Nechyba, Thomas J., and Randall P. Walsh. "Urban Sprawl." *Journal of Economic Perspectives* 18, no. 4 (Autumn 2004). Ably summarizes the immense body of research on the subject by economists.

Neumark, David. "The Economic Effects of Mandated Wage Floors." Public Policy Institute of California, Occasional Paper, 2004. David Neumark has been the most active researcher on minimum wages and living wages in recent years. Surveys of economists suggest that his findings are the consensus view. This paper is a short, accessible overview of his research; more recent work can be found at his Web site: http://www.ppic.org/main/bio.asp?i=67.

Nordhaus, William D., and Joseph Boyer. *Warming the World: Economic Models of Global Warming*. Cambridge, MA: MIT Press, 2000. Reflects the consensus view of economists. Nordhaus' work is available at http://nordhaus.econ.yale.edu.

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Schwartz, Joel. "The Socio-Economic Benefits of Marriage: A Review of Recent Evidence from the United States." *Economic Affairs* 25, no. 3 (September 2005). Concise, yet information packed.

Slemrod, Joel, and Jon Bakija. *Taxing Ourselves: A Citizen's Guide to the Debate over Taxes*. 3rd ed. Cambridge, MA: MIT Press, 2004. Lives up to its subtitle. It explains the principles of taxation and the workings of the American tax system with authority and immense clarity.

Whaples, Robert. "Collapse? The 'Dismal' Science Doesn't Think So: Economists' Views of the Future." *The Independent Review* 11, no. 2 (Fall 2006).

Winter, Harold. *Trade-Offs: An Introduction to Economic Reasoning and Social Issues*. Chicago: University of Chicago Press, 2005.

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**Supplementary Reading:**

Autor, David H., and Mark G. Duggan. "The Growth in the Social Security Disability Rolls: A Fiscal Crisis Unfolding." *Journal of Economic Perspectives* 20, no. 3 (Summer 2006).

Becker, Gary S., and Julio Jorge Elías. "Introducing Incentives in the Market for Live and Cadaveric Organ Donations." *Journal of Economic Perspectives* 21, no. 3 (Summer 2007).

Benmelech, Efraim, and Claude Berrebi. "Human Capital and the Productivity of Suicide Bombers." *Journal of Economic Perspectives* 21, no. 3 (Summer 2007). A more recent article on the economics of terrorism well worth reading.

Bennett, James T., and Bruce E. Kaufman, eds. *The Future of Private Sector Unionism in the United States*. Armonk, NY: M.E. Sharpe, 2002.

Bernheim, B. Douglas. *The Vanishing Nest Egg: Reflections on Saving in America*. New York: Priority Press Publications, 1991. Though somewhat dated, this is an excellent introduction to savings behavior in the United States and how policies might affect it.

Bewley, Truman. *Why Wages Don't Fall During a Recession*. Cambridge, MA: Harvard University Press, 1999.

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Blau, Francine, Marianne Ferber, and Anne Winkler. *The Economics of Women, Men and Work*. 5th ed. New York: Prentice-Hall, 2006. A useful supplement to the debate about pay gaps and discrimination

Bureau of Labor Statistics. "Frequently Asked Questions." http://www.bls.gov/cpi/home.htm#publications.

———. "How BLS Measures Changes in Consumer Prices." http://www.bls.gov/cpi/home.htm#publications.

———. "How the Government Measures Unemployment." http://www.bls.gov/cpi/home.htm#publications.

Burkhauser, Richard, and Joseph Sabia. "Raising the Minimum Wage: Another Empty Promise to the Working Poor." Employment Policies Institute, Policy Paper, August 2005. Richard Burkhauser has done more than anyone else to analyze the impact of minimum wage hikes on poverty. See this policy paper for a clear, thorough analysis athttp://www.epionline.org/study_detail.cfm?sid=87.

Butler, Henry N., and Larry E. Ribstein. *The Sarbanes-Oxley Debacle: What We've Learned; How to Fix It.* Washington, DC: American Enterprise Institute Press, 2006. A very critical analysis of the Sarbanes-Oxley Act.

Card, David, and Alan B. Krueger. *Myth and Measurement: The New Economics of the Minimum Wage*. Princeton: Princeton University Press, 1995. Caused a major reassessment of the minimum wage among economists. Card and Krueger have moved on to other issues, but you will find a lot of interesting labor market research at their Web sites: http://emlab.berkeley.edu/users/card/papers.html and http://www.krueger.princeton.edu. You will want to read the review symposium of the book by Charles Brown, Richard B. Freeman, Daniel S. Hamermesh, Paul Osterman, and Finis R. Welch—*Industrial and Labor Relations Review* 48, no. 4 (July 1995).

Clotfelter, Charles. *Buying the Best: Cost Escalation in Elite Higher Education*. Princeton: Princeton University Press, 1996.

Council of Economic Advisors. *Economic Report of the President*. One of the best places to get up-to-date information on the state of the U.S. economy. These reports are written by topflight economists and throughout the years have been surprisingly nonpartisan. http://www.gpoaccess.gov/eop/index.html.

———. "Productivity Growth." *Economic Report of the President*, 2007.

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Di Tella, Rafael, and Robert MacCulloch. "Some Uses of Happiness Data in Economics." *Journal of Economic Perspectives* 20, no. 1 (2006).

Easterlin, Richard. *Growth Triumphant: The Twenty-First Century in Historical Perspective*. Ann Arbor: University of Michigan Press, 1996.

Easterly, William. "Can Foreign Aid Buy Growth?" *Journal of Economic Perspectives* 17, no. 3 (Summer 2003).

*The Economist*. This magazine includes a weekly table with the latest international economic indicators (including the GDP growth rate, unemployment rate, and inflation rate) just inside the back cover.

Ehrenberg, Ronald G. and Robert S. Smith. *Modern Labor Economics: Theory and Public Policy*. 9th ed. Upper Saddle River, NJ: Pearson Education, 2006. This is the textbook that I use in my Labor Economics course.

Eichengreen, Barry J. *Global Imbalances and the Lessons of Bretton Woods*. Cambridge, MA: MIT Press, 2006. An accessible introduction to problems that may arise due to recent trade imbalances and their historical significance.

Federal Reserve Bank of Dallas. *The Best of All Worlds: Globalizing the Knowledge Economy*. 2006 Annual Report. In two recent, accessible, and informative publications—this and *Fruits of Free Trade*—the Federal Reserve Bank of Dallas cheers on free trade.

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Frank, Robert H. *Choosing the Right Pond: Human Behavior and the Quest for Status*. New York: Oxford University Press, 1985.

Fuchs, Victor R. *Who Shall Live? Health, Economics, and Social Choice*. Hackensack, NJ: World Scientific Publishing Company, 1998.

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Hanson, Gordon H. *Why Does Immigration Divide America? Public Finance and Political Opposition to Open Borders*. Institute for International Economics, 2005. Remarkably balanced and clear. The entire book is available at http://bookstore.petersoninstitute.org/book-store/4000.html.

Harris, Fred, ed. *The Baby Bust: Who Will Do the Work? Who Will Pay the Taxes?* Lanham, MD: Rowman and Littlefield, 2006. The best work I have read on the birth dearth.

Healy, Paul M., and Krishna G. Palepu. "The Fall of Enron." *Journal of Economic Perspectives* 17, no. 2 (Spring 2003).

Hoynes, Hilary, Marianne Page, and Ann Stevens. "Poverty in America: Trends and Explanations." *Journal of Economic Perspectives* 20, no. 1 (Winter 2006). A clear explanation of the main economic forces that have prevented the poverty rate—as measured by the federal government—from falling.

Kahneman, Daniel, and Alan B. Krueger. "Developments in the Measurement of Subjective Well-Being." *Journal of Economic Perspectives* 20, no. 1 (2006).

Kotchen, Matthew, and Nick Burger. "Should We Drill in the Arctic National Wildlife Refuge? An Economic Perspective." NBER Working Paper No. 13211, July 2007. Came out shortly after the lecture on energy was taped. This working paper estimates that extracting oil from ANWR would generate about $251 billion in social benefits and then compares this to the social costs of drilling.

Kotlikoff, Laurence, and Scott Burns. *The Coming Generational Storm: What You Need to Know about America's Economic Future*. Cambridge, MA: MIT Press, 2004. A gripping analysis of how the gargantuan fiscal gap could ruin the economy and what we can do about it. I have assigned the book to students because it explains key economic points very clearly and is readable—although a bit over the top in places and (I believe and pray) overly pessimistic.

Kunreuther, Howard, and Erwann Michel-Kerjan. "Policy Watch: Challenges for Terrorism Risk Insurance in the United States." *Journal of Economic Perspectives* 18, no. 4 (Fall 2004). Gives an informative and balanced overview of terrorism risk insurance.

Ladd, Helen F. "School Vouchers: A Critical View." *Journal of Economic Perspectives* 16, no. 4 (Autumn 2002). A very accessible summary of arguments against school vouchers.

Lemieux, Pierre. "The Public Choice Revolution." *Regulation*, Fall 2004. A short, clear introduction to the subfield of public choice economics, which analyses government, politics, and collective decisions using the tools of economics. As you will see, the public choice field has a bit of a libertarian flair.

Lomborg, Bjorn, ed. *How to Spend $50 Billion to Make the World a Better Place*. New York: Cambridge University Press, 2006. An invaluable work with individual chapters written by many of the leading development economists.

———. *The Skeptical Environmentalist: Measuring the Real State of the World*. New York: Cambridge University Press, 1998. Although critics say that Lomborg understates environmental problems in places, economists as a group seem to see eye to eye with him on most environmental issues.

Mishkin, Frederic. "Monetary Policy Strategy: How Did We Get Here?" NBER Working Paper No. 12515, September 2006. This and a wide range of Mishkin's papers are available at http://www.gsb.columbia.edu/faculty/fmishkin/research.html.

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O'Neill, June. "The Role of Human Capital in Earnings Differences between Black and White Men." *Journal of Economic Perspectives* 4, no. 4 (Autumn 1990). An influential article arguing that the "unexplained" racial pay gap can largely be explained by differences in education and abilities.

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Rejda, George E. *Social Insurance and Economic Security*. 6th ed. Upper Saddle River, NJ: Prentice Hall, 1999. Provides a clear overview of issues related to the Social Security system and aging.

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———. "Interrogating Inequality." A discussion of the issue raised in the above article. Available at www.cato-unbound.org/archives/february-2007.

Rosen, Harvey, and Ted Gayer. *Public Finance*. 8th ed. New York: McGraw-Hill, 2008.

Roth, Alvin E. "Repugnance as a Constraint on Markets." *Journal of Economic Perspectives* 21, no. 3 (Summer 2007).

Ruddiman, William F. *Plows, Plagues and Petroleum: How Humans Took Control of Climate*. Princeton: Princeton University Press, 2005. I strongly recommend this book for an insightful analysis of the history and future of global climate change.

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Sachs, Jeffrey, and Pia Malaney. "The Economic and Social Burden of Malaria." *Nature*, 415 (February 2002). Much of Sachs' research can be found at http://www.earth.columbia.edu/articles/view/1804.

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Symposium: U.S. Tax Policy in International Perspective. *Journal of Economic Perspectives* 21, no. 1 (Winter 2007).

 

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Vedder, Richard. *Going Broke by Degree: Why College Costs Too Much*. Washington, DC: American Enterprise Institute Press, 2004. See this work for a more hard-hitting and skeptical economic analysis of higher education's shortcomings.

Vedder, Richard, and Wendell Cox. *The Wal-Mart Revolution: How Big-Box Stores Benefit Consumers, Workers, and the Economy*. Washington, DC: American Enterprise Institute Press, 2006. Economists of all political persuasions seem to have a positive view of Wal-Mart. For the right-hand side of the political spectrum's views, see this work.

Wang, Youfa, and May A. Beydoun. "The Obesity Epidemic in the United States." *Epidemiologic Reviews*, 2007. Offers the most recent, detailed statistics of obesity.

Wheeler, Hoyt N. *The Future of the American Labor Movement*. New York: Cambridge University Press, 2002. Offers a thoughtful, sympathetic analysis of what labor unions can do to revive their fortunes.

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