

## Introduction

Economists have long taught that **economics** is a science that studies how people allocate scarce resources to satisfy their most important wants. It is also typical for students to take required introductory economics courses followed by, if they remain interested, one or more special topic courses in economics. Students are often more interested in those topical courses than in the principles that they learn by rote, if at all. Some economics principles texts are crammed with real-world applications, often at the expense of students understanding fundamental economic concepts. Alternatively, and especially at “better” universities that screen students on their willingness and ability to delay gratification, students are told that interesting applications courses are the prize for enduring the cost of focused principles courses. Alas, too often students infer that those applied courses are likely to be just as boring as the principles course and decide never to take another economics course.

Economists who purport to understand incentives should know that the “my way or the highway” philosophy to economics instruction is inefficient. I propose to combine principles of economics and one sustained application. The advantage of this approach is that students requiring a specific topic course—for example, the economics of discrimination—can learn the principles of economics they need as they explore their chosen application. The disadvantage—and in economics there is never a benefit without a cost—is that there may be some duplication of topics for students taking multiple economics courses. But we’ll worry about that problem after exploring the success of this approach for the economics of poverty and discrimination.

## What Is Economics?

The great economist Frank Knight stated:

[I]t ought to be the highest objective in the study of economics to hasten the day when the study and the practice of economy will recede into the background of men’s thoughts, when food and shelter, and all provision for physical needs, can be taken for granted without serious thought, when “production” and “consumption” and “distribution” shall cease from troubling and pass below the threshold of consciousness and the effort and planning of the mass of mankind may be mainly devoted to problems of beauty, truth, right human relations, and cultural growth.<sup>1</sup>

An idealist might attribute these sentiments to any scholar. Physicians wish to eradicate all disease and police officers dream of life without crime. Psychiatrists labor for a future in which all are sane. Lawyers yearn for a judicial system so fair and transparent that anyone can negotiate a contract without legal assistance. Social workers dream of a world inhabited by functional families whose incomes exceed the poverty level. Accountants dream of a tax system so simple and logical that complex accounting rules will become obsolete.

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<sup>1</sup> Frank H. Knight, “Social Economic Organization,” in *The Economic Organization* (New York: Harper & Row, 1951); quoted in Thomas M. Carroll, *Microeconomic Theory: Concepts and Applications* (New York: St. Martin’s Press, 1983), 2.

Cynics may scoff, “If a person’s livelihood is derived from helping people cope with a persistent problem, doesn’t that person have an interest vested in perpetuating that problem?” Recall that usually left-leaning social workers voted overwhelming for Richard Nixon in 1972 after his opponent George McGovern proposed a negative income tax that would have eliminated the role of social workers in enforcing the rules of the Aid to Families with Dependent Children program.<sup>2</sup> Why should economists behave any more nobly than other professionals? The answer lies in the nature of what economists study and what economists do. Why it is necessary for people to earn their living is one of the central concerns of economic inquiry. Because goods are scarce we must expend effort to obtain them, although we can never have all we want. If there were no scarcity, people would work only for recreation; imagine all those professional stair steppers and power lifters. So what would economists do if there was no economic problem? Why, anything they wanted, including economics, if they thought it was fun.<sup>3</sup>

The word *economics* is of both humble and practical origins: It is derived from the ancient Greek word *oikonomia*, which literally means “household management”. *Home economics* is redundant. Greek philosophers, such as Plato and Aristotle, believed that issues like balancing the household accounts or whether to plant figs or dates were too mundane to occupy a philosopher’s attention. After all, there were more important issues to be considered: beauty, truth, proper human relations, and cultural growth. Yet with all its disease and starvation, not to mention the enslavement of most of humanity, classical Greece can hardly be characterized as a golden age of plenty.

In this book we return to these ancient roots, studying how economics embraces both household behavior – the allocation of time between work, household production, and leisure – and the behavior of business – who purchases the services of land, labor and capital owned by households to produce goods and services they sell to households, ideally at a profit. Households and firms interact through markets, which set the price and quantity exchanged of goods and services. Within households, behavior is best explained by altruism: from each according to ability, to each according to need. Within firms, behavior is best explained by command – while employment is a voluntary contract, workers agree to obey the commands of owners and executives in exchange for wages and salaries.

### What Economists Do

Figure 1-1 relates economics inquiry to the physical and social sciences. The circle on the left depicts **economic resources**—land, labor, capital, and entrepreneurship—and the circle on the right depicts **human desires**. The “resources” circle is substantially smaller than the “wants” circle because of scarcity. People generally want more than they can have. The resources circle is also labeled **physical sciences**—disciplines such as physics, chemistry, biology, engineering, and mathematics—which explore properties of

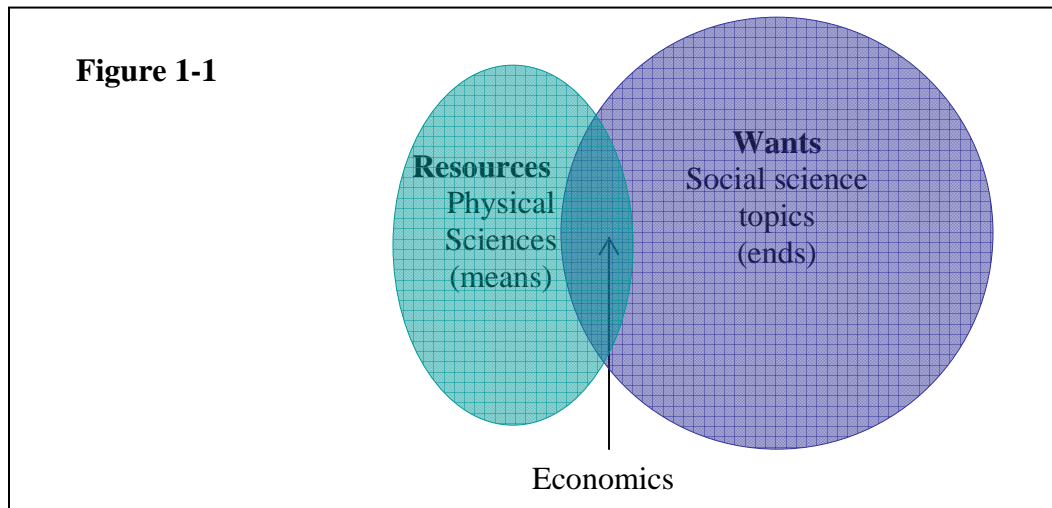
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<sup>2</sup> Technically, this argument relies on a *post hoc ergo propter hoc* logical fallacy—literally “after this, therefore because of this.” We know that McGovern proposed a welfare reform program that many social workers complained would cost their jobs. We know that almost everybody voted for Nixon in 1972 (who carried 49 of 50 states). However, the one is not necessarily dependent on the other.

<sup>3</sup> No doubt, one of the things that makes the *Star Trek* science fiction series so attractive is replicator technology, which morphs garbage into food, clothing, and entertainment. The only scarce factors of production are di-lithium crystals, whose acquisition has injected economics into the plots of a few episodes.

inanimate objects to find ways of bending those properties to serve humanity. The “wants” circle is also labeled **social sciences**—disciplines like sociology, anthropology, philosophy, not to mention marketing and education—which explore how people behave.

The overlapping area of these circles is labeled **Economics**; economists try to reconcile means (resources) with ends (human wants). Economics does not lay claim to the entirety of either sphere. Physics, chemistry, and engineering study explore physical laws that are outside the purview of economics. Economists do not ask *why* two atoms of hydrogen and one atom of oxygen combine to form one molecule of water. Economists understand that hydrogen, oxygen, and energy are often scarce.



A similar restriction rests on how economists treat human wants. Economists do not record history, but they can provide insights into historical events.<sup>4</sup> Economists do not specify the rules of government, but they do investigate their implications.<sup>5</sup> Today economists typically take what people want as given, instead of rendering moral or ethical judgments about what people want. This was not always the case. Originally economics was a branch of moral philosophy that preached why some desires are good and others are bad.<sup>6</sup> Today the overwhelming majority of economists are more concerned with how to allocate resources efficiently than how to restrict choices.

Two important intellectual documents were created in 1776: the *American Declaration of Independence* and Scottish economist Adam Smith’s *An Inquiry into the Nature and Causes of the Wealth of Nations*. In the *Declaration of Independence*, Thomas Jefferson declared that “all men are endowed by their creator with certain inalienable rights, among them life, liberty, and the pursuit of happiness.” In his *Wealth of Nations*, Smith argued that the “wealth” of a country reflects the standard of living of the population. Although Adam Smith was a moral philosopher by training, he asserted that the role of the

<sup>4</sup> That intersection of economics and history is called cleometrics. For instance, for a cleometrics analysis of American slavery, see <http://oyc.yale.edu/history/civil-war-and-reconstruction/content/transcripts/transcript-2-southern-society-slavery-king-cotton>.

<sup>5</sup> This branch of economics is called public economics or public choice.

<sup>6</sup> Most economists still do this, but now in our role of parents.

economist was to help people attain what they want rather than preaching about what people *should* want. With the *Wealth of Nations*, economics shifted focus from justifying ends to understanding means. And, straddling the physical and the social sciences, economists choose the scientific method over theology as their guide to understanding human behavior.

**Economics** span the social and the physical sciences. Like the other social sciences, economics studies the causes and effects of human behavior through the special lens of *scarcity*. Like the other social sciences, economists try to understand “what is” and contrast it with “what ought to be.” Like most people I have strongly held opinions about what works and what is broken and some ideas of how to fix broken things. I strive to separate my opinions (what *ought to be*) from my objective side (what *is*). Like other humans, what I believe filters what I (think) I see. I try, however imperfectly, to confirm or refute my beliefs by perusing evidence and listening to those whose world views differ from mine.

Like the other physical sciences, economics depends on the *scientific method* in its pursuit of the truth. Economists use well-tested **theories** to predict how people respond to incentives. Economists test their theories by contrasting real world events with the predictions of their theories. Unlike the physical sciences, and like the social sciences, economists cannot conduct controlled experiments. Instead, we rely on *statistical analysis* of actual events. Instead of controlling the experiment, we take into account the diverse influences on behavior through large samples drawn randomly from a population of interest. In this text, I will make extensive use of *The Current Population Survey*, a database collected by the U.S. Department of Commerce containing approximately 58,000 households, spanning the period between 1962 and 2006.

### Scarcity and Economic Behavior

Scarcity exists because people want more than they can have. Anyone who has escorted a five-year-old child down a candy aisle appreciates the fact that “what I want” is substantially greater than “what I can have.” Mothers, confronted by a crying child, face a **dilemma**<sup>7</sup> of buying candy for the child, temporarily securing quiet at the cost of encouraging future tantrums, or saying “no” and prolonging the current tantrum.

Any time we use scarce resources to satisfy one desire, we simultaneously sacrifice something else of value.<sup>8</sup> Reducing the number of undocumented migrants means not catching as many child molesters. Studying economics for two hours means not earning \$20 by working overtime. Actions always have consequences, and those consequences are not always the ones that we expect. The decision to execute convicted murderers may reduce the number of people who commit murder (because the potential price of the first murder is infinite), only to increase the number of murders per offender (since after incurring the liability of execution, subsequent murders are free). Whether capital punish-

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<sup>7</sup> Many people use the words *dilemma* and *problem* interchangeably. This is a mistake; a dilemma is a problem where all available options have undesirable aspects. How to rescue children from a burning building is a problem; deciding which of two children to save when there is only time enough to save one is a dilemma.

<sup>8</sup> Choices are not dilemmas when one option is efficient and the other is inefficient; choosing the efficient option creates more for all!

ment actually reduces the number of murder victims is uncertain. If an employer offers on-site childcare for working parents, she may have to reduce the wage offer to continue to earn a profit. One good (on-site daycare) requires the sacrifice of another good (the wage rate). Workers will find they face a trade-off. Those who prefer higher wages will sacrifice on-site child care. Those who value childcare will take the job, placing a greater burden on the employer's resources.

Economic activity can be *organized* in three ways. The oldest system is **tradition**, whereby people inherit their jobs and social status from their parents with everyone's standard of living socially (or divinely) ordained. There is little social mobility in a traditional system; traditional societies tend to stagnate. The unequal distribution of wealth, authoritarian political and social structure, and repressive theocracy create many of the problems of poor countries resulting from a traditional system. A second method of social organization is **command**, where people are rewarded for their submission to authority and where the social climate is also one of repression. Many of the current and former communist regimes are command economies, as were the economies of Nazi Germany, Fascist Italy, and Imperial Japan, which change incentives and society quickly, albeit more often for the worse than for the better. The third approach to economic organization is the most successful. In a **market** economy people (usually through families or **households**) own the factors of production whose services they *exchange* for money (income). Households, in turn, spend their money to buy the goods and services businesses provide at a profit. In a market economy one's standard of living depends on (1) one's endowment—what he or she inherits from one's relatives, and (2) one's effort. This text emphasizes how the market process causes three related but distinct outcomes: economic inequality, poverty, and discrimination.

Economics explores how people choose to satisfy some of their wants with resources available to them. But economists go further. We have developed theories that are based on *efficient* or optimizing behavior, whereby people attempt (not always successfully) to satisfy the desires *they* consider most important. People respond to incentives, shying away from activities whose *prices* (in money, time, or self-esteem) increase, and leaning towards activities whose prices decrease. The incentives people face may not always be obvious to the outside observer (such as the social worker). Economics teaches us to pay much more attention to what people do than to what they say, especially; people are more likely to lie in what they say than in what they do.

### Economics of Discrimination

We have seen that economics is a science that studies the relation between scarcity and human choice. The word *discrimination* typically has three meanings—one bad, one good, and one somewhat neutral—as shown in the following definition from the Microsoft® *Encarta*® definition:

#### discrimination

dis·crim·i·na·tion [di skrimə'nāysh'n]

*noun*

1. **treating people differently through prejudice:** unfair treatment of one person or group, usually because of prejudice about race, ethnicity, age, religion, or gender
2. **ability to notice and value quality:** the ability to appreciate good quality or taste

3. **awareness of subtle differentiation:** the ability to notice subtle differences <sup>9</sup>

The first definition is the one you probably use on a day-to-day basis: Discrimination has a negative connotation of *unfairness* in the treatment of a group (or a person who belongs to an “inferior” group). *Prejudice* in turn has to be defined. Here is its definition from the same source:

Prejudice, strictly defined, a preformed and unsubstantiated judgment or opinion about an individual or a group, either favorable or unfavorable in nature. In modern usage, however, the term most often denotes an unfavorable or hostile attitude toward other people based on their membership in another social or ethnic group. The distinguishing characteristic of a prejudice is that it relies on *stereotypes* (oversimplified generalizations) about the group against which the prejudice is directed.<sup>10</sup>

So “bad” discrimination is unfair treatment based on a stubborn lack of information or persistent inaccurate information. But “good” discrimination is the ability to recognize good quality or taste. The third definition refers to discrimination as the ability to notice subtle differences; a synonym would be “nuanced,” which was used to slander presidential candidate John Kerry during the 2004 election.

As a person living in a condition of scarcity, you are forced to make choices, most of which require the ability to notice subtle differences in the options you confront that allow you to be a discriminating consumer. However, if you are intellectually lazy or just plain pigheaded, you make some of your decisions based on inaccurate information that discriminates against others because of their gender, race, ethnicity, or religion. This is going to be fun!

In order for a market economy to operate, scarce resources—land, labor, capital—must be privately owned, meaning that owners have the right to exclude (discriminate against) others in the use of their property. Without property rights, societies invariably confront the *tragedy of the commons*, whereby resources are inefficiently allocated and both renewable and nonrenewable resources are squandered. But, with an irony that will become a hallmark of this text and this course, property rights are exchanged in a market that is all-inclusive. When sellers have the ability to exclude potential competitors from the market, they possess **monopoly** power which reduces overall economic well-being. When potential buyers have the ability to exclude potential competitors, they possess **monopsony** power which reduces overall economic well-being.

### **Economics and the Scientific Method**

One of the most important aspects of economics is that it is a *socialscience*. As scientists, economists develop theories that are abstract generalizations of reality. Typically, economic theories begin with a hypothesis—that individuals behave rationally, that

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firms attempt to maximize profits, that income is distributed according to the contributions of different factors of production to the value of output. These hypotheses in turn lead to testable predictions—that the increase in the price of a commodity will reduce its consumption, that increases in the supply of money will cause inflation, or that decreases in tax rates will stimulate economic growth.

Scientists admit their fallibility and entertain evidence contrary to their beliefs. But they wish to discriminate between their beliefs that are supported by the evidence and beliefs that are contradicted by the evidence. For instance, the theory of evolution predicts that random mutations will tend to persist if and only if those mutations improve the ability of a species to survive. If one found that a random mutation decreased the ability of a species to survive, yet that trait persisted, then the theory of evolution would be compromised. Formally, the evidence would **disverify** (contradict) the theory. Once the evidence was verified, the theory should be modified, or in the extreme, abandoned.

By contrast, consider the so-called theory of intelligent design (aka, creationism). This argument purports to explain that which evolution allegedly cannot—the complexity of nature. According to the argument, the world (or the universe) is too complex to have arisen by accident. Therefore, an alternative explanation is called for; the world must have been created or designed by an intelligent being. Presumably, this intelligent being was/is also complex, and so, by this argument, must have been created. And the creator of the creator must have been created, and so forth back into infinity. There is no way to prove the statement wrong, because each step backwards invokes another creator. But, if the creator is God, who was not created, then the infinite regression is short circuited. But none of this is science; this is faith.

Faith is a set of the beliefs we maintain in the absence of clear evidence. Sometimes faith goes so far as to deny evidence that contradicts beliefs. As we shall see, there are many people who treat economics as a type of faith. Marxists believe that since labor creates all value, labor should receive all value. There is no way to test this theory, so Marxists continue to believe that their way is the only way.<sup>11</sup> Libertarians place so much faith in free markets that they claim markets are perfect; however, their definition of perfection is “anything that markets create.” Since markets are perfect, the only role for government is to create an environment for markets to thrive. Conservatives typically place the interests of the elite above economic efficiency, marshalling government force to protect the privileged.<sup>12</sup> Political liberals also seek to use government force to override market outcomes arguing that they wish to help the less fortunate. Ironically, when liberals work against markets rather than with them, they may actually hurt their clients more than they help. Simply put, all people who put their faith in a political ideology and who refuse to learn from experience and ignore evidence that contradicts their beliefs have much to learn from economics.

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<sup>11</sup> Ultimately the unworkability of Marxism was its undoing. People in Marxist countries observed that, even if they were all equal, they had much lower standards of living than people in capitalist countries. This, in a way, was a kind of scientific outcome.

<sup>12</sup> An example of such conservative policies include Jim Crow laws that denied economic opportunity to southern blacks and prevented employers the right to hire the most qualified workers.

Scientific economics is ultimately an ethical standard. A good economist should be self-critical. A good economist, like any good scientist, should be willing to specify: “Here is what I predict, and this is the kind of evidence that would prove me wrong.” This is an ethical standard I will try to maintain in this text, as I do in my professional life. I will often express my opinion; but when I do, I will also provide a basis for proving myself wrong. If you will do me the same courtesy, we can learn much from each other.

Virtually every society has a creation myth about how a super being shaped the world, plants, animals, and people from raw material available. According to **polytheistic** religions (e.g., ancient Egypt, Greece, and Rome before Emperor Constantine, as well as Hinduism and pre-Columbian Native American beliefs), creation and human history involve an ongoing struggle between good gods and bad gods, the creators and the destroyers. I always found Greek mythology particularly entertaining because Greek gods were as imperfect and as unpredictable as humans. Eventually the Greeks and Romans outgrew their religions and largely converted to the major **monotheistic** religions—Judaism, Christianity, or Islam. Unfortunately, differences of opinion about religious beliefs cannot be resolved by logic or evidence because believers refuse to doubt their “holy” book (*Talmud*, *Bible*, or *Koran*), because that book assures them that their good god will punish nonbelievers. The prerequisite of science is doubt, which is also the greatest sin in religion. All other sins, save doubt, are forgiven—but doubters are sub-human. That seems a lot like discrimination to me.

### Summary

1. Economics is a social science that investigates the impact of scarcity on human behavior.
2. Modern economics concentrates on assisting people in attaining their goals by using scarce resources efficiently, instead of making judgments about what those goals should be.
3. Economics straddles both the social sciences and the physical sciences. It is similar to the social sciences because it seeks to understand human behavior. It is similar to the physical sciences because it employs the scientific method to produce and test theories. However, like the other social sciences, economists rely on statistical analysis, rather than controlled experiments, to test their theories.
4. Economists seek not just to understand problems, but also, by concentrating on efficiency, to solve those problems as well.
5. As scientists, economists attempt to develop objective, testable theories. What separates science from religion is the willingness to admit error.
6. In contrast to the scientific method, religion requires unquestioned adherence to a set of beliefs contained in some holy book. It really is not surprising that religion is the root of much discrimination.

## Glossary

**Economics:** The **social science** that studies how people make decisions in the face of scarcity.

**Physical sciences:** Disciplines that focus on the discovery of natural laws including economics, physics, chemistry, biology, geology, and mathematics. Physical sciences tend to focus on physical, as opposed to human or social, phenomena.

**Social sciences:** Disciplines that focus on human behavior including economics, psychology, sociology, political science, history, and anthropology.

**Scientific method:** A method of inquiry that strives for objectivity, with the ultimate goal of learning truth. The scientific method relies on observation and logic to develop **theories**, typically expressed in mathematical form. **Theories** generate **testable hypotheses**, which are compared to actual events (controlled experiments or statistical analysis) to determine if the theory accurately predicts or explains reality. A theory that is refuted by real events is discarded or modified in such a way to take account of the contradictory evidence.

**Scarcity:** A condition encountered when people want more than they can have. Scarcity implies choice—people make priorities and (ideally) use scarce resources to satisfy their most important wants first, understanding that at some point they must “do without.”

**Resources:** In economics labor (human time), capital (commodities that produce other commodities), land (and other natural resources), and risk taking are combined to achieve desired goals (or products).

**Tradition:** The oldest form of economic organization where one’s standard of living depends on family and conformity to social norms.

**Command:** The form of economic organization whereby success depends on conformity to authority.

**Market:** The form of economic organization based on exchange and mutual advantage; bakers make bread and butchers slaughter animals so that together they can have baloney sandwiches.

**Monopoly:** A market with only one seller.

**Monopsony:** A market with only one buyer.

**Discrimination:** A word that has three, potentially contradictory meanings: (1) unfair treatment of people or groups based on prejudice, (2) the appreciation of quality, or (3) the ability to recognize small differences.