Chapter 1
Introduction

Because the textbook stresses economic analysis as it applies to the labor market, students must understand the ways economic analyses are used. The basic purpose of Chapter 1 is to introduce students to the two major modes of economic analysis: positive and normative. Because both modes of analysis rest on some very fundamental assumptions, Chapter 1 discusses the bases of each mode in some detail.

In our treatment of positive economics, the concept of rationality is defined and discussed, as is the underlying concept of scarcity. There is, in addition, a lengthy discussion of what an economic model is and an example of the behavioral predictions flowing from such a model is presented. The discussion
of normative economics emphasizes its philosophical underpinnings and includes a discussion of the conditions under which a market would fail to produce results consistent with the normative criteria.
Labor market examples of governmental remedies are provided.

The appendix to Chapter 1 introduces the student to ordinary least squares regression analysis. It begins with univariate analysis, introduced in a graphical context, explaining the concepts of dependent and independent variables, the “intercept” and “slope” parameters, the “error term,” and the *t* statistic. The analysis then moves to multivariate analysis and the problem of omitted variables.

◼ List of Major Concepts

 1. The essential features of a market include the facilitation of contact between buyers and sellers, the exchange of information, and the execution of contracts.

 2. The uniqueness of labor services affects the characteristics of the labor market.

 3. Positive economics is the study of economic behavior, and underlying this theory of behavior are the basic assumptions of scarcity and rationality.

 4. Normative economics is the study of what “should be,” and theories of social optimality are based in part on the underlying philosophical principle of “mutual benefit.”

 5. A market “fails” when it does not permit all mutually beneficial trades to take place, and there are three common reasons for such failure.

 6. A governmental policy is “Pareto-improving” if it encourages additional mutually beneficial transactions. At times, though, the goal of improving Pareto efficiency conflicts with the goal of generating more equity.

 7. The concept that governmental intervention in a market may be justified on grounds other than the principle of mutual benefit is discussed. (For example, government intervention may be justified on the grounds that income redistribution is a desirable social objective.)

 8. (Appendix) The relationship between two economic variables (e.g., wages and quit rates) can be plotted graphically; this visual relationship can also be summarized algebraically.

 9. (Appendix) A way to summarize a linear relationship between two variables is through ordinary least squares regression analysis—a procedure that plots the “best” line (the one that minimizes the sum of squared deviations) through the various data points. The parameters describing this line are *estimated*, and the uncertainty surrounding these estimates is summarized by the *standard error* of the estimate.

 10. (Appendix) The multivariate procedure for summarizing the relationship between a dependent variable and two or more independent variables is a generalization of the univariate procedure, and each coefficient can be interpreted as the effect on the dependent variable of a one-unit change in the relevant independent variable, *holding the other variables constant*.

11.(Appendix) If an independent variable that should be in an estimating equation is left out, estimates of the other coefficients may be biased away from their true values.

◼ Answers to Even-Numbered Review Questions

2. Are the following statements “positive” or “normative”? Why?

a. Employers should not be required to offer pensions to their employees.

b. Employers offering pension benefits will pay lower wages than they would if they did not
offer a pension program.

c. If further immigration of unskilled foreigners is prevented, the wages of unskilled immigrants already here will rise.

d. The military draft *compels* people to engage in a transaction they would not voluntarily enter into; it should therefore be avoided as a way of recruiting military personnel.

e. If the military draft were reinstituted, military salaries would probably fall.

**Answer:** a. normative

b. positive

c. positive

d. normative

e. positive

4. What are the functions and limitations of an economic model?

**Answer:** The major function of an economic model is to strip away real-world complexities and focus on a particular cause/effect relationship. In this sense an economic model is analogous to an architect’s model of a building. An architect may be interested in designing a building that fits in harmoniously with its surroundings, and in designing such a building the architect may employ a model that captures the essentials of his or her concerns (namely, appearance) without getting into the complexities of plumbing, electrical circuits, and the design of interior office space. Similarly, an economic model will often focus on a particular kind of behavior and ignore complexities that are either not germane to that behavior or of only indirect importance.

 Models used to generate insights about responses to a given economic stimulus are often not intended to forecast actual outcomes. For example, if we are interested in how behavior is affected by Stimulus B, with Factors C, D, and E held constant, our model may not correctly forecast the observed behavior if Stimuli C through Ealso change.

6. A law in one town of a Canadian province limits large supermarkets to just four employees on Sundays. Analyze this law using the concepts of normative economics.

**Answer:** This law clearly suppresses a transaction into which both employers and employees may wish to engage. That is, there may be employees who wish to work on Sundays (perhaps at increased pay), and the law prevents this mutually beneficial transaction from occurring.

8. In discussing ways to reduce lung diseases caused by workplace hazards, one commentator stated the following:

 Gas masks are very uncomfortable to wear, but economists would argue that they are the socially preferred method for reducing the inhalation of toxic substances whenever they can be produced for less than it takes to alter a ventilation system.

**Answer:** Workers and consumers are utility maximizers, so the loss of utility is a social cost that must be counted when deciding whether a particular governmental mandate generates social benefits in excess of social costs. Thus, gas masks cannot be said to be less costly just because they are cheaper to produce; worker discomfort is also a cost that must be taken in to account.

◼ Answers to Even-Numbered Problems

2. (Appendix) Suppose that a least squares regression yields the following estimate:

 *Wi*  –1  0.3*Ai*, where *W* is the hourly wage rate (in dollars) and *A* is the age in years.

 A second regression from another group of workers yields this estimate:



a. How much is a 20-year-old predicted to earn based on the first estimate?

b. How much is a 20-year-old predicted to earn based on the second estimate?

**Answer:** a. *W*  –1  0.3 × 20  5 dollars per hour.

b. *W*  3 + 0.3 × 20 – 0.01 × 20 × 20  3  6 – 4  5 dollars per hour.

4. (Appendix) Suppose you have information on which of the 13 randomly selected teenage workers in the fast-food industry worked part-time and which worked full-time. Variable *Fi* is equal to 1 if the worker is employed full time, and it is equal to zero otherwise. With this information, you estimate the following relationship between wages, age, and full-time employment:



 (the standard errors are in parentheses).

a. How much is a 20-year-old who works full time predicted to earn based on this estimate?

b. How much is a 20-year-old who works part time predicted to earn based on this estimate?

**Answer:** a. *W*  –0.5  0.25(20)  0.75(1)  5.25 dollars per hour

b. *W*  –0.5  0.25(20)  0.75(0)  4.50 dollars per hour

6. (Appendix) Compare the first regression estimate in Problem 2 with the regression estimate
in Problem 4.

a. Is there an omitted variable bias when the full-time variable is not included? Explain.

b. What can be said about the correlation between age and full-time employment? Explain.

**Answer:** a. In Problem 2, the estimated coefficient for the age variable is 0.3. In Problem 4, when the full-time variable is included in the regression, the estimated coefficient for the age variable is 0.25. When the full-time variable is omitted from the regression, the estimated response overstates the sensitivity of the wage to age because the estimated equation ignored the effect that full-time employment has on wages. That is, wages are higher among full-time workers both because they are older and because older workers are more likely to be employed full time.

b. Since the estimated coefficient on age rises when the full-time variable (which positively affects wages) is excluded from the regression, the full-time variable is positively correlated with age.

◼ Suggested Essay Questions

1. The United States has a law that forbids employers from hiring “undocumented” immigrants (immigrants who have not qualified for a government-issued work permit, which is only available to those in certain occupations, who are political refugees, or who are in the United States for purposes of family reunification). Use economic theory in its normative mode to analyze the social usefulness of this law.

**Answer:** The law clearly forbids a transaction that both employer and employee would find mutually beneficial. Thus, if we take a worldwide perspective, laws such as this prevent transactions that are Pareto-improving.

2. The city council of Brown Acres decides to build a baseball-only stadium and rent it at lower-than-market rates to the Dust Snakes, a minor league baseball team. The council justifies its decision by saying that the city will attract fans that provide jobs for city residents in bars, motels, and at the
ball park. Use economic theory in its normative mode to analyze whether this decision will make society better or worse off.

**Answer:** The city is providing entertainment for baseball fans at below cost. The resources required to provide this entertainment cost $X, say, and fans are being charged less than $X. The difference is being made up for by the taxpayers of Brown Acres. Some fans who attend at the subsidized price would not have attended if the true cost were being reflected in price; they are ones who receive less than $X of value by attending. The resources cost to put
on the games is $X because others are willing to bid that much for them—meaning that the resources can provide at least $X in value if used in an *alternative* way. Using resources that can produce $X in value in a way that—for some—produces less than $X in value is
a misallocationof resources.