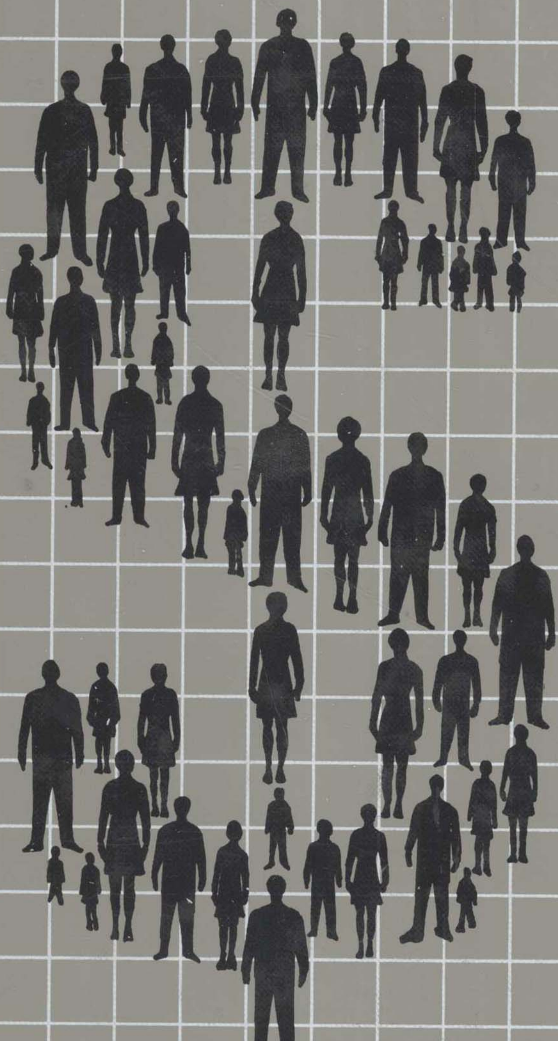
Second Edition

LABOR ECONOMICS

Choice in Labor Markets



Don Bellante and Mark Jackson

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Choice in Labor Markets

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Preface

This book is a textbook in labor economics. We intend it for use in undergraduate courses where students have had a good course in the principles of economics. We assume no additional background. Our approach is to build an analytic background in Part 1 and to use this background to analyze in Parts 2, 3, and 4 what we believe to be significant topics in labor economics. Part 1 is central to the book. In fact, each chapter beyond Part 1 is introduced as an extension or refinement of some aspect of Part 1. From a simple model presented there, the student is able to proceed—gradually—to a much fuller understanding of labor markets. We feel confident that our approach will afford the student a better understanding of the labor market than can be obtained from the more typical nonsystematic approaches that characterize most labor economics texts.

What distinguishes this text from the many others that are available? First of all, the book consistently uses a choice-theoretic or neoclassical approach throughout. Whether the topic is collective bargaining, discrimination, or the economics of education, the issues are developed within this framework. This procedure enables us to purge ad hoc reasoning from the text. While it is uncommon for labor textbooks to take this approach, it has two distinct advantages. First, the nature of current research in economics has changed, and this textbook reflects the change. Professors whose training in labor economics has been obtained in the past two decades should feel more comfortable with this text than with the type of text which extensively treats labor law, trade union history, and collective bargaining structure. While we do treat unions and collective bargaining as important topics, we emphasize the analysis of their economic impact rather than their form or structure. Further, our approach enables us to treat topics that are not normally encountered in a labor text—topics such as the economic analysis of fertility and its effect on labor supply, and the differences between public and private employee pay levels.

The use of standard economic analysis should not only make professors more comfortable with the book but should also make it easier for students to see the connection between labor economics and other postprinciples economics courses that they may take. For example, the discussion of inflation and unemployment in Chapter 17 can easily be related to what the student is exposed to in courses in macroeconomics and money and banking. Likewise, Chapter 18 contains a discussion of the interactions of monetary policy and collective bargaining. For another example, Chapter 14 contains a discussion of the optimal division of the labor resource between public and private production. Such a discussion can easily be tied to treatments of public goods provided in courses in public finance. A final example involves the treatment of regional wage differences. Labor texts will generally ignore the fact that trade in goods acts as a pressure toward equalizing wages across regions, although texts in regional economics or in international trade will not ignore it. We treat labor mobility, capital mobility, and trade as creating equalizing pressures. These examples illustrate that labor economics is applied microeconomics, that it is indeed part of the mainstream of economics, and that the labor market is part of the general economic system. Too often students of labor economics have gotten the impression that labor economics is a separate branch of economics and that the labor market operates in isolation from other markets.

In writing this book we have had to make choices. We have tried to produce a text which can be covered in its entirety in a one-semester or one-quarter course. Consequently, not every useful topic is covered. However, we believe that we have chosen the most central topics—in any event a broader range of analytical topics than is presented in most texts. We emphasize what *is* known about the operation of labor markets, not what is *not* known. In recent years students and the general public have been given the impression, fostered by journalists and even a few economists, that economists simply do not understand how the economy works. The alleged "inability" of economists to explain simultaneous inflation and unemployment is usually cited. This text will not further the belief that economists are a confused lot.

With regard to evidence, we have decided to use extensively what is available in the literature to support the theoretical analysis of the text, particularly in Parts 2, 3, and 4. However, we do not attempt to evaluate critically the empirical literature. Such a critique is very much beside the point in an undergraduate course. Further, such critical comparisons frequently hinge upon measurement and econometric problems, and students' backgrounds in statistics are seldom advanced enough to permit such comparisons.

At the end of each chapter we provide suggestions for further reading. These readings are limited to those which we believe can be read by a student whose analytic background is no more extensive than that obtained from our text. For instance, the student is sometimes referred to an intermediate price theory text. Additional readings of a more advanced nature are suggested in the instructor's manual that is available with this text. The questions at the end of each chapter are not intended to see if the student can repeat the contents of the chapter: most are intended to see if the student can push the analysis of the chapter a step or two further than the text does. However, the questions are not so challenging that students will wonder about what connection the questions have with the analysis of the chapter. The legends that appear with each graph contain much more information about the graphs than is customarily provided. This feature is intended to facilitate review by the student who has already thoroughly read the text material.

We are very pleased with the reception given the first edition of our book. In this edition we have preserved those features of the first edition which, to our minds, have accounted for its success. Nonetheless, we have introduced some improvements. The major addition to the book is a new chapter, Chapter 15, "Government Intervention in the Labor Market." As it follows our discussion of wages and employment in the public sector, this new chapter renders more complete our discussion of imperfections in competition, the subject matter of Part 3. There are other additions as well. The volume of research in labor economics in recent years has continued to expand dramatically, enabling us to document more extensively the various propositions we present and develop in the book. In many chapters these expansions have been quite substantial. To cite but two examples, in Chapter 4 we have expanded our discussion of labor supply in the short run to incorporate the results of various income-maintenance experiments conducted in the United States. In Chapter 6 we introduce some aspects of supply-side economics as well as treat more extensively the topic of immigration and its effects on labor markets. To offset these expansions somewhat, we have chosen in other chapters to streamline our exposition. Thus, we believe that this second edition can still be completed in a one-semester course.

We continue to be grateful to those individuals whose work contributed to the success of the first edition. The work of many people has also gone into the production of this new edition. Economics editor Bonnie Lieberman of McGraw-Hill has been helpful, as have all the McGraw-Hill staff members who contributed to the book in one fashion or another. We particularly appreciate the helpful suggestions of Larry C. Beall of Virginia Commonwealth University, Barry R. Chiswick of the University of Illinois at Chicago Circle, Joe C. Davis of Trinity University, Arthur Goldsmith of the University of Connecticut, Barry T. Hirsch of the University of North Carolina at

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Don Bellante
Mark Jackson

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PART 2 WAGE DIFFERENCES IN PURELY COMPETITIVE MARKETS

PART 3 WAGE AND EMPLOYMENT DIFFERENCES ATTRIBUTABLE TO IMPERFECTIONS IN COMPETITION

1

Introduction to Labor Economics

Economics is the social science which studies the causes and consequences of choices that humans make. Labor economics is all about how the choices people make affect wages and employment in labor markets. Thus, as the title of our book indicates, we will be studying human choices and their consequences in labor markets.

How do people choose whether or not to supply any labor services? If they choose to be in the labor force, how do they choose how many hours to work where the decision could involve taking a second job? How do firms choose how much labor to employ? How do firms choose whether to use more hours or more employees? How do union officials choose their bargaining strategy? How do government officials choose the level of government employment?

What are the consequences of choices that people make? If employers choose to discriminate against females as potential employees, what are the consequences for female wages? For male wages? If more married women choose to enter the labor force, what are the consequences for teenage unemployment rates? For the incomes of nursery school owners?

No one can sort out the answers to questions such as these without some help. The facts and relationships of the world do not arrange themselves in a spontaneous way so that they can be immediately understood: they do not simply fall into place. They can, however, be put into place.

It is our intention to present in this book a system of explanation known as neoclassical economics, and to use this framework for thinking in order to understand as best we can human choices and their consequences in labor markets.

1.1 THE NEOCLASSICAL ECONOMIC MODEL

Neoclassical economics begins from a model of purposive behavior by individuals. Individuals are assumed to have their own unique tastes, preferences, wants, and desires which they attempt to satisfy. Humans live in a world characterized by scarcity: they confront an environment which is external to themselves and which contains constraints that interfere with their want satisfaction. Because of these constraints, no individual is able to achieve all of his or her wants and desires: to achieve more of one objective means the sacrifice of others. Thus individuals are forced to choose. Economics explains how people make the best choices, given their tastes and preferences and the costs which they face. More important, economics outlines how humans will change their behavior as costs and/or tastes and preferences change.

1.1a The Individual

Only individuals can choose: only individuals have values and desires. In this sense the neoclassical model is individualistic. Even in the area of collective decision making—the area of public choice—the focus of analysis is on the individual. Although one often hears that "the administration has decided" or that "Congress has decided," economics views these collective decisions as the outcome of a process in which individuals choose.

Neoclassical economics, then, examines the choices that individuals make in their roles as consumers or as producers. We present in the balance of this chapter the characteristics of the neoclassical model with reference to the individual as consumer. Our choice could as easily have been the individual as producer. As we will see later, the nature of the choice problem that confronts both consumers and producers is identical.

1.1b Self-Improvement: Utility Maximization in a World without Scarcity

Neoclassical economics assumes that each individual with his or her own tastes, preferences, wants, and desires attempts to satisfy them by the consumption of goods. *Utility* is the want-satisfying power of goods. By "goods" economists do not mean simply material goods. Many—perhaps most—goods are not material goods at all. Security is a good; leisure is a good; love is a good. It is from the consumption of goods that utility is received. Further, utility is subjective.[1] You receive utility from riding horses; your roommate doesn't. Your roommate receives utility from skiing; you don't. Your mother receives utility from dancing; your father doesn't. The differences across individuals in their tastes and preferences are enormous. Economics does not attempt to explain how these tastes and preferences, these wants and desires, are formed or how they change over time; economics takes the pattern of tastes and preferences across individuals as given.

However, given the individual's tastes and preferences, economists do make two assumptions about the individual: (1) he or she prefers more goods to fewer goods; (2) he or she experiences *diminishing marginal utility* as more of any one good is consumed.[2] Let's look more closely at these two elements of the neoclassical model.

Suppose, as if by magic, someone offered to give you free as many goods as you would like to have. Again, by "goods" we mean anything from which you receive utility. Would you choose fewer goods than you are currently consuming, or more? Economics assumes that individuals would choose more goods, not fewer.

The assumption of diminishing marginal utility states that as the individual, given individual tastes and preferences, consumes more of any one good, total utility increases, but at a declining rate. That is to say, marginal utility—the *change* in total utility associated with the *change* in the consumption of the good—declines. This assumption is a recognition that individual preferences are ordered, and that consequently the first units of a good go to satisfy higher-valued wants than do subsequent units.

Try to imagine a world where it would be possible for all individuals to have as much income, time, power, commodities, love, knowledge, and all other goods as their tastes and preferences dictated. Individuals in such a world would consume the quantity of each good for which marginal utility was zero. This idea is illustrated in Figure 1.1. Let us suppose that, given the individual's tastes and preferences, he or she receives utility from listening to music. As the consumption of music increases, *total utility* increases, but at a declining rate; marginal utility declines. The individual consumes $0Q$ music, that quantity for which total utility is at a maximum and for which marginal utility is zero. Further, he or she consumes all goods until the marginal utility of each is zero.

That this is clearly not the type of world we live in or ever expect to live in may be lamentable; it is true nonetheless. Individuals do not consume as

[1] In the early development of economics it was customarily assumed that individuals maximized wealth—in particular, material wealth. Utility enters the analysis of human behavior as the cornerstone of the subjective theory of value in the last quarter of the nineteenth century. See Israel M. Kirzner, *The Economic Point of View*, Van Nostrand, Princeton, N.J., 1960.

[2] While we find it convenient for purposes of this limited exposition to maintain these two assumptions, economists have shown at a more advanced level of analysis that the assumption of diminishing marginal utility is, strictly speaking, unnecessary. See G. Becker, *Economic Theory*, Knopf, New York, 1971, chap. 3.

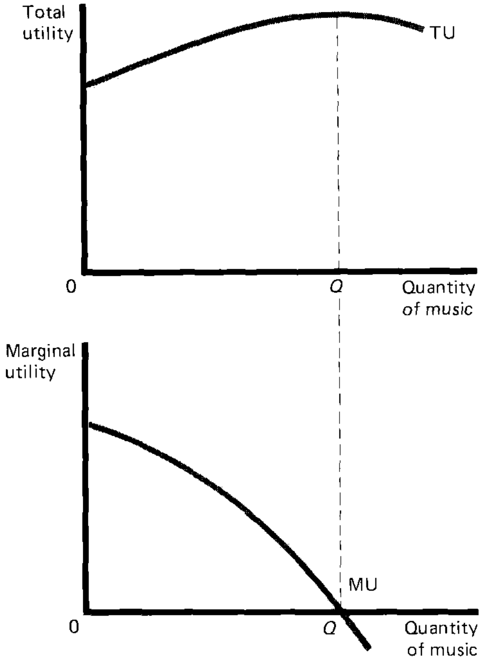

FIGURE 1.1 The relations between total utility, marginal utility, and the consumption of music. Increases in the quantities consumed of music increase total utility until the quantity $0Q$ is reached. Marginal utility is equal to zero when total utility is at a maximum.

much of all goods as they would like to. Individual wants do exceed the means to satisfy them, and this is the economist's concept of scarcity. Scarcity does not refer to a high-priced commodity or to a good for which there is a shortage. Scarcity is a universal condition, and the idea of being able to go "beyond scarcity" is meaningless to economists.

1.1c Scarcity, Thus Choice and Costs

Because of scarcity individuals must choose, and in choosing one alternative they must necessarily sacrifice others. That is, they must incur costs. The concept of costs, then, is the concept of lost alternatives. The highest-valued alternative which must be given up to have a good is the cost of the good. To continue our example of the individual and the consumption of music, for the individual to consume more music, he or she must necessarily give up other goods. Presumably, the least-valued alternatives will be given up first. However, as the individual continues to consume more music, he or she is forced to sacrifice higher-valued alternatives. Thus, the marginal cost curve—the curve that indicates how total costs *change* as the consumption of music *changes*—has a positive slope. We have illustrated in Figure 1.2 a marginal cost curve. It represents the marginal costs of listening to music. The individual may at first be required to sacrifice relatively low-valued alternatives to consume more music—perhaps watching TV and writing letters. As more time is devoted to the consumption of music, however, higher-valued alterna-