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**GARY S. BECKER**

*Winner of the Nobel Prize in Economics*

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**HUMAN  
CAPITAL**

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*A Theoretical  
and Empirical  
Analysis with  
Special Reference  
to Education*

**T H I R D   E D I T I O N**



# Human Capital

MBER

*Gary S. Becker*

# Human Capital

*A Theoretical and Empirical Analysis,  
with Special Reference to Education*

Third Edition

The University of Chicago Press  
Chicago and London



**Gary S. Becker** is University Professor of Economics and Sociology at the University of Chicago and winner of the 1992 Nobel Memorial Prize in Economic Science

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*(Resolution adopted October 25, 1926, as revised through September 30, 1974)*

*To students and colleagues at the University of Chicago  
and at Columbia University who contributed so  
much to my human capital.*



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## Preface to the Third Edition

In the recent presidential campaign, both President Clinton and former President Bush emphasized the importance of improving the education and skills of American workers. They did not even shy away from using the term “investing in human capital” to describe the process of improving the quality of the labor force. A dozen years ago, this terminology would have been inconceivable in a presidential campaign. The President has proposed to implement his campaign pledge by spending more on investments in college education and on-the-job training.

The interest shown in human capital, not only in the academic literature but also in discussions of public policy, and the continuing attention paid to the second edition of this book, encouraged me to prepare a third one. As in the transition from the first to the second edition, I have not changed anything in the previous editions. I have added four essays written since the second edition was published in 1975.

One is the Ryerson Lecture at the University of Chicago in 1989 that revisits human capital and surveys the field in a nontechnical way. I recommend it especially for the noneconomists who want a brief statement of the contribution of human capital analysis to the understanding of economic and social behavior.

The other three essays included in this edition are more technical, and cover applications of human capital analysis to the understanding of income inequality and economic growth. They form a new Part 3 at the end of the book.

Obviously, I had no expectation when the first edition was published in 1964 that a third edition would be prepared thirty years later. I continue to be amazed by the way the human capital field has grown from being highly controversial to one that has gained acceptance not only in economics, but also in other disciplines and among the general public. This is a tribute to the foresight and influence of the pioneers in this field—especially T. W. Schultz, Milton Friedman, and Jacob Mincer—and to the fact that from the very beginning, the analysis of human capi-

tal combined theory with attention to major real-world problems and issues.

I am indebted to Geoffrey Huck of the University of Chicago Press for encouragement that there would be a market for another edition, to Shirley Kessel for preparing the index for this edition, to Myrna Hieke, my secretary of many years, for help in putting the new materials together, and to Becky Kilburn for her usual excellent research assistance. I am especially indebted to colleagues and students at the University of Chicago for a friendly but critical atmosphere that does not allow anyone to live off of past laurels and accomplishments. I have never encountered a better environment for conducting research and for the development of new ideas to help explain the world we live in.

## Preface to the First Edition

The origin of this study can be traced both to the finding that a substantial growth in income in the United States remains after the growth in physical capital and labor has been accounted for and to the emphasis of some economists on the importance of education in promoting economic development. My original intention was to shed some exploratory light on these issues by bringing together readily available information from Census reports on the incomes of persons with different amounts of education and from the Office of Education on the costs of education. For if education were economically important, I reasoned, money rates of return on education ought to be significant.

A long time has elapsed between the start, back in 1957, and the appearance of this monograph presenting the full analysis. During that time interest in the economics of education has mushroomed throughout the world and stimulated a profusion of research and policy proposals. Estimates have been made of the amounts invested in and the rates of return on education in both rich and poor countries. Perhaps some of the expanding interest can be traced to preliminary reports on the National Bureau study.<sup>1</sup>

This interest and further reflection, in turn, encouraged me to transform the original aim into a more ambitious undertaking. I became interested in the general theory of investment in human capital with its ramifications for a variety of economic phenomena. The theoretical analysis in turn led to an empirical examination of several other effects of education, such as those centering around the shapes of age-earnings and age-wealth profiles. Finally, the discussion of rates of return covers a wider variety of evidence, groups, time periods, and implications than in other studies.

<sup>1</sup> The previously published reports consist of "Underinvestment in College Education?" in *American Economic Review*, May 1960, and "Investment in Human Capital: A Theoretical Analysis," *Investment in Human Beings*, NBER Special Conference 15, supplement to *Journal of Political Economy*, October 1962.



Support, assistance, and criticism were generously provided by many institutions and persons during the course of this study. Let me first thank the Carnegie Corporation of New York for their two grants to the National Bureau to explore work on the economic effects of education. Leave from teaching duties was provided by the Ford Professorship at Columbia University during the academic year 1960–1961, and a Ford Faculty Fellowship during 1963–1964.

The study would have been impossible without the aid of a series of unusually able and conscientious research assistants. Major contributions were made by Rosanne Cole, Linda Kee, and Eugenia Scandrett, with additional assistance from Mary Holman Faden, Shirley Johnson, and June Cohn.

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I am grateful to the editorial staff of the National Bureau, especially to Marie-Christine Culbert for her detailed and incisive comments. H. Irving Forman skillfully drew the charts.

# Human Capital

