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**HUMAN CAPITAL**  
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with Special Reference to Education

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# Human Capital

*A THEORETICAL AND EMPIRICAL ANALYSIS,  
WITH SPECIAL REFERENCE TO EDUCATION*

SECOND EDITION

BY

GARY S. BECKER

*University of Chicago*



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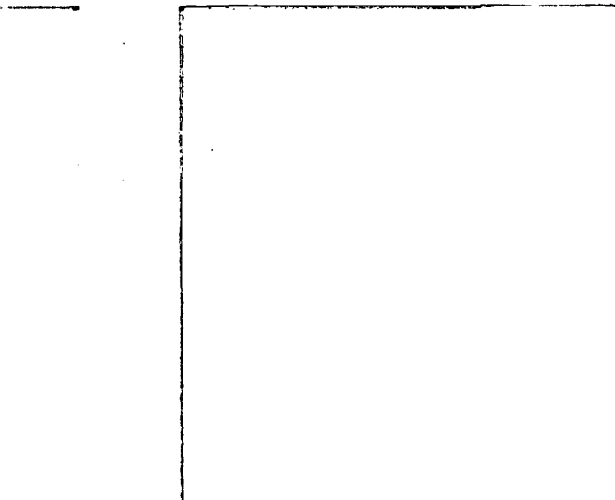
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## *Preface to the First Edition*

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

<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.

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.

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.

T. W. Schultz, the major figure in the economics of education, has been liberal with encouragement and most helpful with criticism. I feel greatly indebted to him, and would like to record my appreciation here. Jacob Mincer has been exceedingly helpful in countless discussions and on numerous drafts with suggestions, criticisms, and that intangible asset—enthusiasm.

The National Bureau reading committee played an important role in improving the content. I am indebted to George J. Stigler, Richard Easterlin, Albert Fishlow, Milton Friedman, and Zvi Griliches. Many others commented on all or parts of various drafts. I would like to acknowledge the helpful contributions of M. Blaug, Arthur F. Burns, Edward F. Denison, Evsey Domar, Solomon Fabricant, Victor R. Fuchs, Leo Goodman, W. Lee Hansen, Hendrick Houthakker, C. Harry Kahn, James N. Morgan, Selma Mushkin, Alice Rivlin, and of various participants in the Labor Workshop at Columbia University. Members of the National Bureau Board of Directors who provided useful comments were V. W. Bladen, Marion B. Folsom, W. Allen Wallis, and Joseph H. Willits.

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.

*To my wife Doria*  
*For encouragement and support during*  
*a long period of production*

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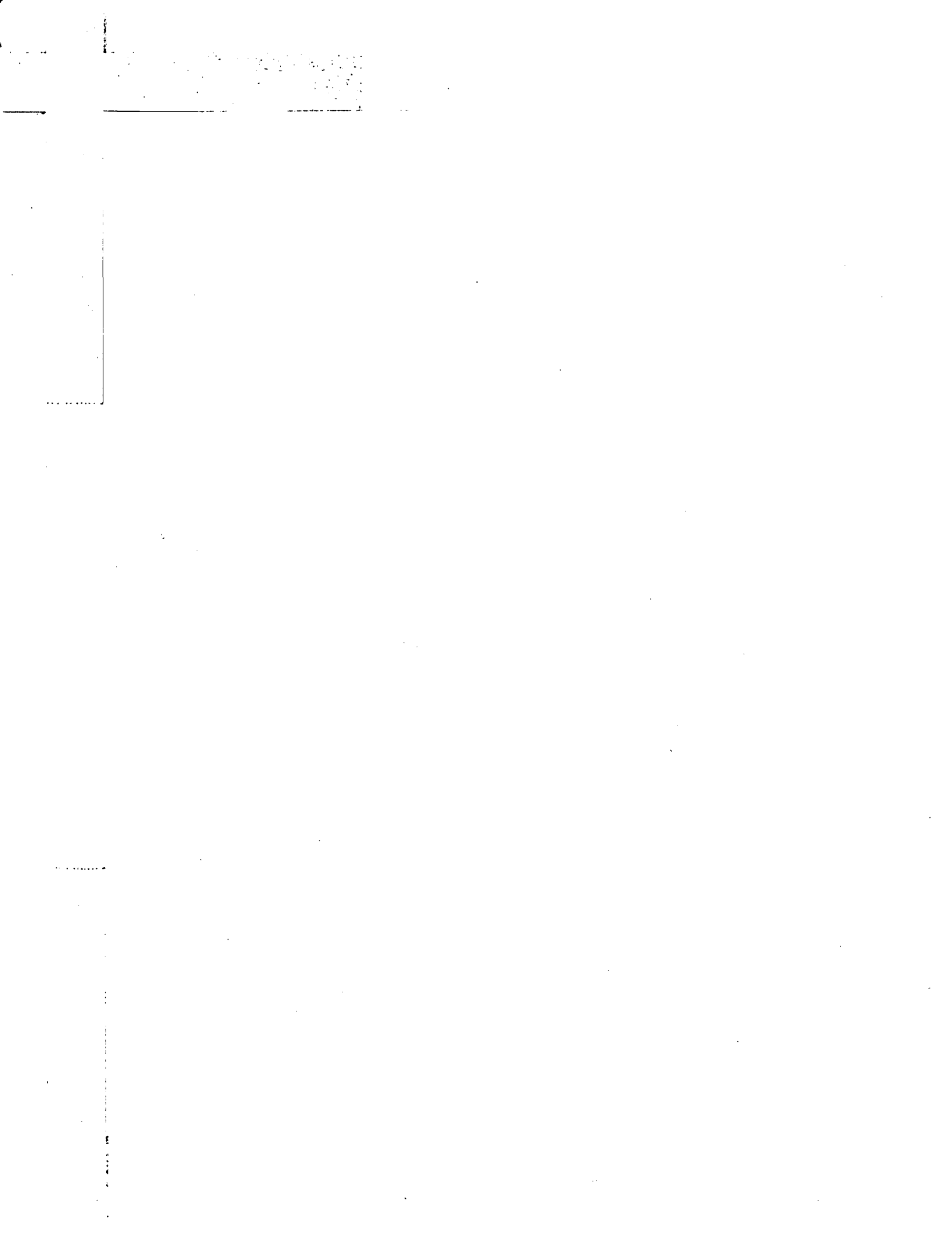
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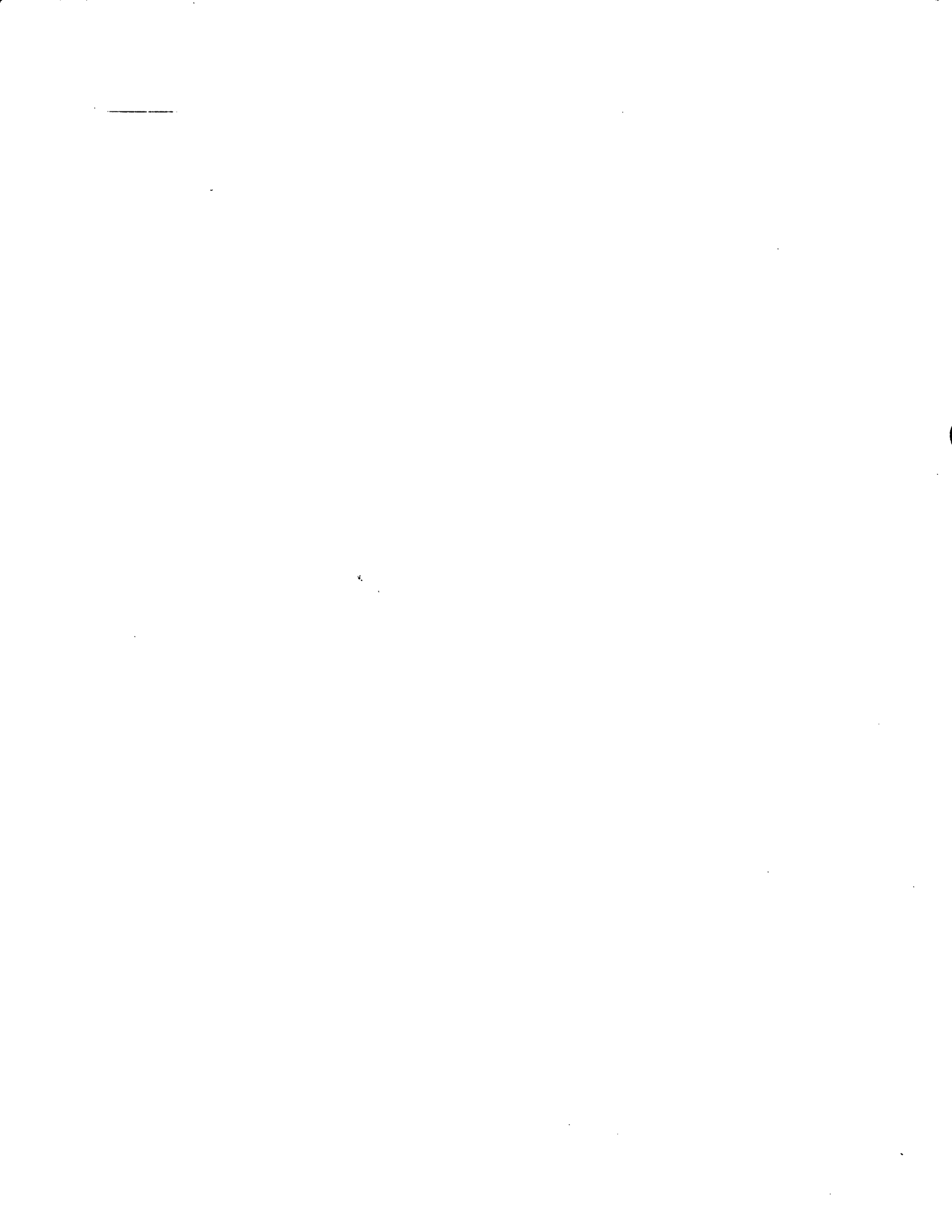
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