

This PDF is a selection from an out-of-print volume from the National Bureau of Economic Research

Volume Title: The Effect of Pension Plans on Aggregate Saving: Evidence from a Sample Survey

Volume Author/Editor: Philip Cagan

Volume Publisher: UMI

Volume ISBN: 0-87014-409-X

Volume URL: <http://www.nber.org/books/caga65-2>

Publication Date: 1965

Chapter Title: Front matter, THE EFFECT OF PENSION PLANS ON AGGREGATE SAVING: Evidence from a Sample Survey

Chapter Author: Philip Cagan

Chapter URL: <http://www.nber.org/chapters/c1669>

Chapter pages in book: (p. -16 - 0)

PHILLIP CAGAN

THE EFFECT
OF PENSION PLANS ON
AGGREGATE SAVING:

Evidence from a Sample Survey

OCCASIONAL PAPER 95



NATIONAL BUREAU OF ECONOMIC RESEARCH
NEW YORK 1965

Distributed by COLUMBIA UNIVERSITY PRESS
NEW YORK AND LONDON

Copyright © 1965 by

National Bureau of Economic Research, Inc.

261 Madison Avenue, New York, N.Y. 10016

All Rights Reserved

Library of Congress Catalog Card Number: 65-27424

Price: \$3.00

Printed in the United States of America

2,006,207

National Bureau of Economic Research, Inc.
Cagan, Phillip.

The effect of pension plans on aggregate saving; evidence from a sample survey. New York, National Bureau of Economic Research; distributed by Columbia University Press, 1965.

xii, 97 p. illus. 23 cm. (National Bureau of Economic Research. Occasional paper 95)

1. Saving and thrift. 2. Old age pensions—U. S. I. Title. (Series)

HI11.N2432 no. 95 339.430973 65-27424

MATERIAL SUBMITTED BY PUBLISHER.



2,006,207

National Bureau of Economic Research, Inc.

Cagan, Phillip.

The effect of pension plans on aggregate saving; evidence from a sample survey. New York, National Bureau of Economic Research; distributed by Columbia University Press, 1965.

xii, 97 p. illus. 23 cm. (National Bureau of Economic Research. Occasional paper 95)

1. Saving and thrift. 2. Old age pensions—U. S. I. Title.
(Series)

H11.N2432 no. 95

339.430973

65-27424

MATERIAL SUBMITTED BY PUBLISHER.



NATIONAL BUREAU OF ECONOMIC RESEARCH
1965

OFFICERS

Frank W. Fetter, *Chairman*
Arthur F. Burns, *President*
Theodore O. Yntema, *Vice-President*
Donald B. Woodward, *Treasurer*
William J. Carson, *Secretary*

Geoffrey H. Moore, *Director of Research*
Douglas H. Eldridge, *Executive Director*
Hal B. Lary, *Associate Director of Research*
Victor R. Fuchs, *Associate Director of Research*

DIRECTORS AT LARGE

Robert B. Anderson, *New York City*
Wallace J. Campbell, *Foundation for Cooperative Housing*
Erwin D. Canham, *Christian Science Monitor*
Solomon Fabricant, *New York University*
Marion B. Folsom, *Eastman Kodak Company*
Crawford H. Greenewalt, *E. I. du Pont de Nemours & Company*
Gabriel Hauge, *Manufacturers Hanover Trust Company*
A. J. Hayes, *International Association of Machinists*
Walter W. Heller, *University of Minnesota*
Albert J. Hettinger, Jr., *Lazard Frères and Company*
Nicholas Kelley, *Kelley Drye Newhall Maginnes & Warren*

H. W. Laidler, *League for Industrial Democracy*
Geoffrey H. Moore, *National Bureau of Economic Research*
Charles G. Mortimer, *General Foods Corporation*
J. Wilson Newman, *Dun & Bradstreet, Inc.*
George B. Roberts, *Larchmont, New York*
Harry Scherman, *Book-of-the-Month Club*
Boris Shishkin, *American Federation of Labor and Congress of Industrial Organizations*
George Soule, *South Kent, Connecticut*
Gus Tyler, *International Ladies' Garment Workers' Union*
Joseph H. Willits, *Langhorne, Pennsylvania*
Donald B. Woodward, *A. W. Jones and Company*

DIRECTORS BY UNIVERSITY APPOINTMENT

V. W. Bladen, *Toronto*
Francis M. Boddy, *Minnesota*
Arthur F. Burns, *Columbia*
Lester V. Chandler, *Princeton*
Melvin G. de Chazau, *Cornell*
Frank W. Fetter, *Northwestern*
R. A. Gordon, *California*

Harold M. Groves, *Wisconsin*
Gottfried Haberler, *Harvard*
Maurice W. Lee, *North Carolina*
Lloyd G. Reynolds, *Yale*
Paul A. Samuelson, *Massachusetts Institute of Technology*
Theodore W. Schultz, *Chicago*

Willis J. Winn, *Pennsylvania*

DIRECTORS BY APPOINTMENT OF OTHER ORGANIZATIONS

Percival F. Brundage, *American Institute of Certified Public Accountants*
Nathaniel Goldfinger, *American Federation of Labor and Congress of Industrial Organizations*
Harold G. Halcrow, *American Farm Economic Association*
Murray Shields, *American Management Association*

Willard L. Thorp, *American Economic Association*
W. Allen Wallis, *American Statistical Association*
Harold F. Williamson, *Economic History Association*
Theodore O. Yntema, *Committee for Economic Development*

DIRECTORS EMERITI

Shepard Morgan, *Norfolk, Connecticut*

N. I. Stone, *New York City*

Jacob Viner, *Princeton, New Jersey*

RESEARCH STAFF

Moses Abramovitz
Gary S. Becker
William H. Brown, Jr.
Gerhard Bry
Arthur F. Burns
Phillip Cagan
Frank G. Dickinson
James S. Earley
Richard A. Easterlin
Solomon Fabricant
Albert Fishlow
Milton Friedman
Victor R. Fuchs

H. G. Georgiadis
Raymond W. Goldsmith
Jack M. Guttentag
Challis A. Hall, Jr.
Daniel M. Holland
Thor Hultgren
F. Thomas Juster
C. Harry Kahn
John W. Kendrick
Irving B. Kravis
Hal B. Lary
Robert E. Lipsey
Ruth P. Mack

Jacob Mincer
Ilse Mintz
Geoffrey H. Moore
Roger F. Murray
Ralph L. Nelson
G. Warren Nutter
Richard T. Selden
Lawrence H. Seltzer
Robert P. Shay
George J. Stigler
Norman B. Ture
Herbert B. Woolley
Victor Zarnowitz

RELATION OF THE DIRECTORS
TO THE WORK AND PUBLICATIONS OF THE
NATIONAL BUREAU OF ECONOMIC RESEARCH

1. The object of the National Bureau of Economic Research is to ascertain and to present to the public important economic facts and their interpretation in a scientific and impartial manner. The Board of Directors is charged with the responsibility of ensuring that the work of the National Bureau is carried on in strict conformity with this object.

2. To this end the Board of Directors shall appoint one or more Directors of Research.

3. The Director or Directors of Research shall submit to the members of the Board, or to its Executive Committee, for their formal adoption, all specific proposals concerning researches to be instituted.

4. No report shall be published until the Director or Directors of Research shall have submitted to the Board a summary drawing attention to the character of the data and their utilization in the report, the nature and treatment of the problems involved, the main conclusions, and such other information as in their opinion would serve to determine the suitability of the report for publication in accordance with the principles of the National Bureau.

5. A copy of any manuscript proposed for publication shall also be submitted to each member of the Board. For each manuscript to be so submitted a special committee shall be appointed by the President, or at his designation by the Executive Director, consisting of three Directors selected as nearly as may be one from each general division of the Board. The names of the special manuscript committee shall be stated to each Director when the summary and report described in paragraph (4) are sent to him. It shall be the duty of each member of the committee to read the manuscript. If each member of the special committee signifies his approval within thirty days, the manuscript may be published. If each member of the special committee has not signified his approval within thirty days of the transmittal of the report and manuscript, the Director of Research shall then notify each member of the Board, requesting approval or disapproval of publication, and thirty additional days shall be granted for this purpose. The manuscript shall then not be published unless at least a majority of the entire Board and a two-thirds majority of those members of the Board who shall have voted on the proposal within the time fixed for the receipt of votes on the publication proposed shall have approved.

6. No manuscript may be published, though approved by each member of the special committee, until forty-five days have elapsed from the transmittal of the summary and report. The interval is allowed for the receipt of any memorandum of dissent or reservation, together with a brief statement of his reasons, that any member may wish to express; and such memorandum of dissent or reservation shall be published with the manuscript if he so desires. Publication does not, however, imply that each member of the Board has read the manuscript, or that either members of the Board in general, or of the special committee, have passed upon its validity in every detail.

7. A copy of this resolution shall, unless otherwise determined by the Board, be printed in each copy of every National Bureau book.

*(Resolution adopted October 25, 1926,
as revised February 6, 1933, and February 24, 1941)*

This report is one of a series emerging from an investigation of pension plans made possible by grants to the National Bureau from the Maurice and Laura Falk Foundation and the Life Insurance Association of America. These organizations are not, however, responsible for any of the statements made or views expressed.



CONTENTS

ACKNOWLEDGMENTS	xi
1. POSSIBLE EFFECTS OF PENSION PLANS ON AGGREGATE PERSONAL SAVING	1
2. DESCRIPTION OF THE DATA AND SOURCES OF POSSIBLE ERROR	8
1. Characteristics of the Survey Sample	9
2. Definition of the Saving-Income Ratio	13
3. Households Excluded	16
3. SAVING RATIOS OF COVERED AND NOT-COVERED HOUSEHOLDS COMPARED	20
1. Pension and Other Contractual Saving	20
2. Adjustment for Age and Income	25
3. Adjustment for Education and Occupation	32
4. Ratio of Wealth to Income	35
5. Purchases of Consumer Durables	47
6. Summary	51
4. THE RECOGNITION AND SUBSTITUTION EFFECTS OF PENSION COVERAGE	55
1. Employees' Vested Rights and Contributions	55
2. Inclusion of Employers' Contributions	65
3. Length of Time Covered	69
5. EMPLOYEES' KNOWLEDGE OF THEIR PENSION PLANS	71
6. POSSIBLE EFFECTS OF PENSION PLANS ON AGGREGATE NATIONAL SAVING	76
1. Business Saving	76
2. Government Saving	78
3. Summary	80
7. SUMMARY	81
APPENDIX	91

TABLES

1. Comparison of Education: Consumers Union Sample and All U.S. Households, 1957-58	11
2. Comparison of Income Levels: Consumers Union Sample and All U.S. Households, 1958-59	11
3. Distribution by Income of Households with Extreme Saving Ratios	18
4. Average Ratios of Components of Saving to Income and Estimated Rates of Substitution Between Them for Covered and Not-Covered Households	21
5. Average Ratios of Components of Saving to Income and Estimated Rates of Substitution Between Them for Households with Pension Plans by Social Security Coverage	24
6. Corrections for Ratio of Total Other Saving to Income to Standardize for Age, Income, and Pension Coverage	28
7. Average Ratios of Total Other Saving to Income of Covered and Not-Covered Households by Educational and Occupational Group	34
8. Average Ratios of Total Other Wealth to Income by Age Group and Period Under a Pension Plan	39
9. Regression Estimates of Saving Ratios for Covered and Not-Covered Years from Wealth-Income Ratios of Covered and Not-Covered Households at Time of Survey	42
10. Average Ratios of Total Other Saving to Income of Covered and Not-Covered Households by Total Other Wealth	45
11. Average Saving Ratios, Including and Excluding Purchases of Consumer Durables, for Covered and Not-Covered Households	48
12. Average Ratios of Total Other Saving to Income of Covered Households by Reported Vested Rights	56
13. Average Ratios of Total Other Saving to Income of Covered Households by Amount of Employee's Pay Contributed to Pension Plans	59
14. Average Ratio of Total Other Saving to Income of Covered Households by Vesting and Amount of Employee's Contribution	61
15. Average Ratios of Total Other Saving to Income of Covered Households by Vesting and Total Amount of Contribution	68
16. Average Ratios of Total Other Saving to Income of Covered Households by Length of Time Under a Plan	70

17. Estimated Total Contribution to Pension Plans Compared with Reported Amounts	72
18. Covered Households' Knowledge of Their Pension Plans by Length of Time Covered	74
19. Saving Ratios That in Forty Years Give Various Retirement Incomes	87
A. Number of Households (Questionnaires) by Inclusion or Exclusion Status	91
B. Average Level of Annual Income and Other Saving of Covered and Not-Covered Households Within Income Classes	92
C. Average Ratios of Total Other Saving to Income of Covered and Not-Covered Households by Number of Income Earners	93
D. Average Ratios of Total Other Saving to Income of Covered and Not-Covered Households Without Temporary Changes in Income	93
E. Number of Households Included in Survey Sample, by Occupation of Main Earner	94
F. Average Level of Annual Income and Other Saving of Covered and Not-Covered Households by Educational and Occupational Groups	95
G. Average Ratios of Total Other Saving to Income of Covered and Not-Covered Households by Cyclical Sensitivity of Employment	96
H. Average Ratios of Total Other Saving to Income of Covered and Not-Covered Households, Ages 45 and Over by Ratio of Other Wealth to Income	97
I. Corrections for Ratio of Total Other Saving and Purchases of Consumer Durables to Income to Standardize for Age, Income, and Pension Coverage	98
J. Homeownership and Average Number of Dependent Children of Covered and Not-Covered Households	98
Parts of Three Consumers Union Surveys Used in This Study	99

CHARTS

1. Frequency Distribution of the Ratio of Total Other Saving to Income for Sample Households and Normal Curve with Same Mean and Variance	17
2. Estimated Relation Between Saving Ratio and Employee's Contribution by Degree of Vesting	63

ACKNOWLEDGMENTS

The impact of pension plans on national saving forms one part of a broader National Bureau study of the economics of these plans, financed by grants from the Maurice and Laura Falk Foundation and the Life Insurance Association of America. The study is under the over-all direction of Roger F. Murray. I have benefited greatly from his comments and advice at all stages of the work. Daniel M. Holland, a third member of our pension-study group, also made many helpful suggestions. The difficult job of checking and tabulating the survey data was supervised by Elizabeth T. Simpson. Her help in detecting and correcting errors in the data and then in interpreting the results was indispensable. She and I are grateful for the professional assistance of Martha S. Jones in tabulating the data and computing the tables.

Comments and suggestions by members of the advisory committee for the National Bureau pension project, with their wide-ranging knowledge of the development and technicalities of group pension plans, have been invaluable. The members are Solomon Fabricant (chairman), National Bureau of Economic Research; Robert M. Ball, Social Security Administration; Dorrance C. Bronson, The Wyatt Company; J. Douglas Brown, Princeton University; George B. Buck, Jr., Actuarial Consultant; Arthur L. Coburn, Jr., Old Colony Trust Company; John J. Corson, Princeton University; Frank G. Dickinson, Northern Illinois University; F. F. Fauri, University of Michigan; Milton Friedman, University of Chicago; George Garvy, Federal Reserve Bank of New York; William C. Greenough, Teachers Insurance and Annuity Association; Challis A. Hall, Jr., Yale University; Ralph W. Hemminger, Bankers Trust Company; Albert J. Hettinger, Jr., Lazard Frères & Company; Reinhard A. Hohaus, formerly of Metropolitan Life Insurance Company; Charles L. Jacobson, Jr., State of Wisconsin Investment Board; E. Gordon Keith, University of Pennsylvania; Benjamin B. Kendrick, formerly of Life Insurance Association of America; Lane Kirkland, AFL-CIO; Murray W. Latimer, Actuarial Consultant; J. D. Lockton, General Electric Company; Dan

M. McGill, University of Pennsylvania; Ida C. Merriam, Social Security Administration; Robert J. Myers, Social Security Administration; Vito Natrella, Internal Revenue Service; James J. O'Leary, Life Insurance Association of America; Joseph A. Pechman, Brookings Institution; Ray M. Peterson, Equitable Life Assurance Society; Rene L. Rothschild, Burnham and Company; and Lawrence H. Seltzer, Wayne State University. The committee generously assisted in planning and reviewing the work of the staff of the pension project, though their concurrence with the views expressed in this report is not to be assumed.

I wish to thank Messrs. Lester V. Chandler, Charles G. Mortimer, and J. Wilson Newman of the National Bureau Board of Directors' reading committee.

Many others have also offered helpful suggestions or provided requested information. I am particularly grateful to Roland A. Erickson, F. Thomas Juster, Robert J. Landry, Jacob Mincer, Charles Moeller, Jr., and Raymond D. Nargi.

The survey on which this study is based was made possible by the generous cooperation of Consumers Union of the United States and the members who several times answered long questionnaires. My thanks to all of them.

I am indebted also to H. Irving Forman for drawing the charts and to James F. McRee, Jr., for a careful job of editing.

PHILLIP CAGAN