

NATIONAL BUREAU  
report

NATIONAL BUREAU OF ECONOMIC RESEARCH, INC. NEW YORK, N. Y. 10016

ARTHUR BURNS  
AND  
GEOFFREY MOORE

In January 1969, President Nixon invited two of the National Bureau's most prominent Directors and senior staff members, Arthur F. Burns and Geoffrey H. Moore, to join his new administration. In so doing, the President was following in the footsteps of many of his predecessors. A succession of NBER staff members and collaborators has been "loaned" to government service since the Bureau's inception. The National Bureau takes pride in the fact that it has served as the training ground for talented, young economists whose subsequent careers have taken them to key positions in government, business, research, and academic circles.

The list of NBER alumni is impressive – both in length and in terms of the prominent names it includes. Solomon Fabricant, Milton Friedman, Simon Kuznets, W.B. Hickman, Wassily Leontief, Clarence Long, to cite just a few, were youthful scholars of promising potential when they first joined the Bureau. They worked in an atmosphere of keen intellectuality, stimulated not only by their own ambitious pursuits, but by the guidance and support of senior staff members, among whom were some of the outstanding economists of this century. Matured by the experience, some of these students left the Bureau to enter their chosen fields of specialization; others stayed on to continue the important task set for the Bureau by its founders.

Among those who remained after their early training period, many contributed their time and efforts to public service. During the years of World War II alone, a number of NBER staff members interrupted their own research endeavors to work on government projects of immediate importance to the nation. Simon Kuznets, Solomon Fabricant, Julius Shiskin, and Sam Schurr worked on the War Production Board; Moses Abramovitz, also at the Board,

served, too, as a consultant to the Office of Price Administration and later in the OSS; Geoffrey Moore conducted an extensive survey for the Board of the war's effect on physical output. A total of 34 NBER staff members and collaborators filled posts in government and the armed forces during the turbulent war years. In the postwar period, staff members have continued to respond to government requests for service in their particular areas of competence. Arthur Burns and Geoffrey Moore serve as the most recent examples.

Arthur F. Burns' affiliation with the National Bureau dates from 1930, when he was named one of the first three research associates appointed by the fledgling organization. In a sense, his own career parallels the history of the Bureau — starting from promising but unpretentious beginnings to achieve success and renown through dedication to original research, conducted impartially.

Born in Austria in 1904, Arthur Burns grew up in Bayonne, New Jersey where, as a youth, he spent his free time helping his father paint houses. In a recent interview, Dr. Burns recounted how he made the decision to enter Columbia University. Though his father wanted him to be a housepainter, the young Burns had a strong intellectual bent and an impeccable academic record. He had won a scholarship to a local college, but, on the final day of high school, decided to have a look at the large New York university he had only heard about. Presenting himself at the office of Columbia's president, Burns explained to the startled secretary that he had come to find out what the college had to offer him.

He never did get to see the president, but his visit to Columbia resulted in a full tuition scholarship. Living expenses were earned working as a part-time housepainter.

In 1925, Arthur Burns received his master's degree; in 1934, his doctorate. While still a student, Burns met and studied under the late Wesley C. Mitchell. Eager to find new talent for the Bureau and impressed by his student, Mitchell was instrumental in bringing the two together. In the open intellectual climate of the Bureau, Burns matured as an economist. He learned from Mitchell, benefitting from the older man's experience, and was, in turn, stimulated by him to explore issues and problems in the studied manner that has come to characterize his investigative technique. The two scholars enjoyed a mutually rewarding friendship — both professional and personal — that flourished until Mitchell's death in 1948. One of the tangible results of their collaborative efforts is the milestone volume, *Measuring Business Cycles*, published in 1946.

It was to his former student that Mitchell entrusted the guidance of NBER research when he stepped down as Director of Research in 1945. Burns continued in that post until 1953, when he went to Washington as Chairman of the Council of Economic Advisers under President Eisenhower. On returning to New York in 1956, Burns was elected President of the Bureau, and, in 1967, he was named Chairman of the Board. In the fall of 1968, he asked to be relieved of his duties as Chairman and was unanimously elected Honorary Chairman, a post specially created to demonstrate not only the high regard his colleagues bear him

but also their desire to retain the advice and counsel he had so generously given the Bureau in the nearly 40 years of his association.

On January 23, 1969, Richard Nixon announced the appointment of Arthur Burns as Counsellor to the President. In the publicity attendant on this appointment, a picture of the years Burns spent at the Bureau is obscured. Solomon Fabricant, an old friend and long-time colleague, fills the gap with some reminiscences.

While Director of Research, recalls Fabricant, Burns would escape the summer heat and the distractions of New York at his summer home in Vermont. A sort of "summer Bureau" grew up around the Burns house as other staff members – Fabricant, Friedman, Moore, and others – took up residence in the vicinity. This coterie of economists found the cool and quiet of the country a setting congenial to research and informal discussion of issues. Fabricant recalls that the uncluttered routine of country living encouraged intensive scholarly activity. In this regard, Burns demonstrated himself to be a remarkably practical man. Not to be lulled by the country quietude nor distracted by the sounds of children (his own and his colleagues') enjoying summer fun, Burns built himself a study – far enough away from the main house to afford privacy, but not so far as to be out of earshot of the telephone – or the dinner bell.

Working with Burns was a challenging experience. "He gave excellence," says Fabricant, "and expected the same from his co-workers. But he was not a task master; he never pounded the table. It was his example and the many helpful suggestions he made that did the trick. We wouldn't think of doing less than we could."

One of those who met Burns' challenge is Geoffrey Moore. First a student and then a colleague of Burns, Moore shared with him a dedication to objective research and a true sense of methodic analysis. In asking Geoffrey Moore to serve as Commissioner of Labor Statistics, President Nixon called upon one of the nation's foremost economic statisticians.

Originally an agricultural economist, Moore first joined the Bureau in 1939 as a Carnegie Associate. His initial year-long research assignment was a review of the fluctuations of agricultural output during short periods. It soon became apparent, however, that his capabilities as a statistician made him ideally suited to work on the business cycle studies then gaining momentum at the Bureau.

Born in rural New Jersey in 1914, Geoffrey Moore grew up with the dream of becoming a farmer. At Rutgers he majored in agricultural economics, earning his B.S. in 1933 and M.S. in 1937. For a while Moore taught agricultural economics at Rutgers and conducted experiments with chickens as part of a study of crop cycles. His boyhood farming ambitions, however, soon gave way to the stronger analytical bent of his mind. His career took a decided turn in 1942, when he was appointed to the NBER research staff. Though continuing his agricultural studies, he concentrated increasingly on perfecting the statistical tools used in cyclical forecasting. In 1947, he received his Ph.D. from Harvard.

At the Bureau, Moore earned the respect and admiration of his colleagues by his ability to get things done. His considerable talent as an administrator as well

as scholar resulted in his 1948 appointment to the post of Associate Director of Research. In 1965, he succeeded Solomon Fabricant as Director of Research, and in 1968 was named Vice President—Research. During his tenure as Research Director, Moore guided a score of Bureau projects to fruitful completion, providing staff members with personal encouragement, sound advice, and constructive criticism. Despite his assiduous attention to overseeing the research projects of Bureau staff members, Moore, nonetheless, found time for work in his own area of specialization. In tribute to his outstanding contributions to statistics, the American Statistical Association elected him President in 1968.

Geoffrey Moore epitomizes the Bureau ideal of cooperative research. The open door to his office was an invitation for all to consult with him on any research problem or technical difficulty, no matter how minute.

In 1947, when Wesley Claire Mitchell first took ill, former President Herbert Hoover wrote to him, "I hear that you are laid up. This is not in the national interest." The Bureau is proud of Wesley Mitchell, just as it is proud of the inheritors of his legacy. Today, in honoring Arthur Burns and Geoffrey Moore, the Bureau renews its dedication to the traditions that helped shape their lives.

#### **Six Papers On The Size Distribution Of Wealth And Income**

LEE SOLTOW, editor

*Price: \$10.00, 264 pp.*

*Publication date: April 11, 1969*

#### **NEW PUBLICATIONS**

These six research reports seek to measure and explain empirical differences in the wealth or income of individuals and groups. The subjects treated cover a broad spectrum, ranging from the theory of income size distribution to the measurement of low-income population.

Of the two papers that deal specifically with wealth, the first, by Robert E. Gallman, surveys the uneven distribution of wealth in the United States during the last century. In the second, John Lansing and John Sonquist trace the changes from 1953 to 1962 in wealth holdings of groups classified by age, education, and color.

The first of the four reports dealing largely with income analyzes annual income distributions from 1955 to 1965. T. Paul Schultz uses the regression analysis technique to examine the effect on income distribution of price changes, real output changes, unemployment, and trend. A paper by Dorothy S. Projector, Gertrude S. Weiss, and Erling T. Thoresen investigates the sources of income of families in different income classes and provides particular detail about the high-income groups.

Researchers are well aware of the complex problems of measuring the income of the poor. The continual change in family size and the prevalence of the "extended family" among the low-income groups present the investigator with measurement difficulties not generally found among other income groups. Lenore Epstein explores these and other difficulties.

The last report in the volume, a survey of distribution theory, contrasts with

the preceding empirical studies. Melvin Reder's paper is a qualitative presentation of the forces influencing the income and wealth of individuals, and it encompasses some of the results of the other papers.

Following each essay are the interesting and sometimes lengthy comments of the formal conference discussants. These notes provide a backdrop against which to view the papers and often serve to highlight the ongoing discussion of issues within the economic community.

### **Production And Productivity In The Service Industries**

VICTOR R. FUCHS, editor

*Price: \$12.50, 381 pp.*

*Publication date: May 5, 1969*

The rapid growth of the service industries in the United States and other industrialized nations prompted a 1967 conference to explore this relatively unresearched sector of the economy. Collectively, the seven papers presented at the conference and compiled in this volume may be viewed as an important step toward providing adequate coverage of the growing service area. Separately, they approach the study of service from a variety of avenues, present a wealth of statistical and empirical data, and lay the groundwork for future research.

The first paper, by Martin Marimont, describes how the U.S. Office of Business Economics measures the output of finance, insurance, real estate, and services. The paper also presents growth rates for the postwar period for industries and major industry groups in this sector.

In a theoretical report, Arthur Treadway treats a problem encountered in measuring real output in any industry – the bias introduced by the assumption of equilibrium. He suggests that the bias may be particularly great in the case of services because of their recent spectacular growth.

The next three papers deal with the measurement of production and productivity in specific industries. In a study of the output of the medical care industry – defined as anything that medical care insurance will pay for – Melvin Reder concentrates on two questions: how to measure productivity change in the industry so defined; and how the productivity of medical care is affected by the organization of the industry. John A. Gorman compares alternative approaches to measuring real output of commercial banks, and David Schwartzman analyzes the growth of constant dollar sales per man-hour in retail trade.

The last two papers provide a comparative approach to the study of services. In the first of these, David Worton describes sector trends in the Canadian economy and makes a start on the analysis of these trends, especially in comparison with those of the United States. In the last paper in the volume, Robert E. Gallman and Thomas J. Weiss trace the growth of services in the U.S. during the nineteenth century, examining differential trends in output, employment, and output per man.

In an introductory chapter summarizing the papers, Victor R. Fuchs outlines the current state of knowledge about the service industries and indicates promising areas for future research.

GRANTS  
RECEIVED

The Carnegie Commission on the Future of Higher Education has awarded the Bureau a two-year grant of \$200,000 to finance studies on the economics of higher education. A program of research in this area, directed by F. Thomas Juster, is now under way. Dr. Juster reports that Paul Taubman and Terence Wales, both of the University of Pennsylvania, are currently analyzing the rate of return to higher education with a view toward estimating the influence of innate ability (e.g., genetic endowment, intelligence quotient) on calculated returns to educational investment. A major innovative factor of the new program, reports Dr. Juster, is its emphasis on measuring the indirect economic and social benefits of higher education, that is, those which extend beyond the direct return to the individual in the form of earnings.

AVAILABLE  
PAPERS

The following papers by Bureau staff members have recently become available at the National Bureau in either reprint or mimeographed form. Kindly address requests for copies of the reprints to the Publications Department, and to the authors for the mimeographed papers.

*REPRINTS*

Fabricant, Solomon, "Wage Price and Productivity Data for Economic Policy:

Discussion," *1968 Proceedings of the Business and Economic Statistics Section*, American Statistical Association.

Fuchs, Victor R., "Improving the Delivery of Health Services," *The Journal of Bone and Joint Surgery*, March 1969.

\_\_\_\_\_, "What Kind of System for Health Care?" *The Bulletin*, New York Academy of Medicine, March 1969.

Gordon, Robert J., "A New View of Real Investment in Structures, 1919-1966," *The Review of Economics and Statistics*, November 1968.

Haitovsky, Yoel, "Estimation of Regression Equations When a Block of Observations is Missing," *1968 Proceedings*, American Statistical Association.

\_\_\_\_\_, "A Note on the Maximization of  $\bar{R}^2$ ," *The American Statistician*, February 1969.

Herregat, Guy, "Conjoncture monétaire du Marché commun européen," *Chroniques d'Actualité*, SEDEIS, Paris, January 1969.

Mincer, Jacob, "Economic Factors in Labor Force Participation," *International Encyclopedia of the Social Sciences*, 1968.

\_\_\_\_\_, "Short-Run Elasticity of Labor Supply," *Proceedings of 19th Annual Winter Meeting*, Labor and Industrial Relations Research Association, 1966.

Nadiri, Mohammed, "The Determinants of Real Cash Balances in the U.S. Total Manufacturing Sector," *Quarterly Journal of Economics*, 1969.

\_\_\_\_\_, "A Disaggregated Model of Real Cash Balances of the U.S.," *1968 Business and Economic Statistics Section Proceedings*, American Statistical Association.

#### *MIMEOGRAPHED PAPERS*

Haitovsky, Yoel, "On Multicollinearity in Regression Analysis: A Comment."

\_\_\_\_\_, "A Note on Regression on Principal Components and Constrained Least Squares."

\_\_\_\_\_, "On the Bias of Regression Coefficients Estimated from Midpoints of Grouped Observations."

\_\_\_\_\_, "On Errors of Measurements in Regression Analysis."

\_\_\_\_\_, and Jacobs, Sidney, "REGEN-Computer Program to Generate Multivariate Observations for Linear Regression Equations."

Mincer, Jacob, "Models of Adaptive Forecasting."

\_\_\_\_\_, "Models of Earnings Distributions."

\_\_\_\_\_, and Zarnowitz, Victor, "The Evaluation of Economic Forecasts."

Ro, K.K., "Hospital Characteristics, Patient Characteristics, and Hospital Use."

Silver, Morris, "An Economic Analysis of Variations in Medical Expenses and Work Loss Rates."

SAPFO CHACONA joined the Bureau in April to assume the responsibilities of the accounting department formerly handled by Dolores M. Merlino, who resigned in February.

STAFF CHANGES  
AND  
APPOINTMENTS

STEPHEN P. DRESCH, a Ph.D. candidate at Yale University, has been appointed a research associate and will join the urban studies staff in June. A graduate of Miami University (1963), Mr. Dresch conducted his graduate work under a National Science Foundation Fellowship (1964-68).

ROBERT EISNER, professor of economics at Northwestern University, has joined the Bureau as a research associate to work on the measurement of capital formation. Dr. Eisner received his Ph.D. from Johns Hopkins in 1951. He taught at the University of Illinois before joining the faculty at Northwestern.

In February, F. THOMAS JUSTER, a member of the senior research staff, was appointed Vice President—Research. After graduating from Rutgers in 1949, Dr. Juster became a research analyst for the Central Intelligence Agency (1951-53), and later a faculty member at Amherst College (1953-59). He received his Ph.D. in economics from Columbia University in 1956, spent a year at the Bureau as a Carnegie Associate, and joined the research staff in 1959. From 1963 to 1965 he served as a consultant to the U.S. Bureau of the Census, with responsibility for conducting experimental research on surveys of consumer anticipations. Dr. Juster is a Fellow of the American Statistical Association and currently serves as NBER representative on the Executive Committee of the Income and Wealth Conference.

MICHAEL B. McELROY has joined the staff as a research associate to work with Robert Eisner on estimates of capital gains and losses and capital formation. A 1964 graduate of Miami University, Mr. McElroy is currently a Ph.D. candidate at Northwestern University, where he has worked as a teaching assistant and a research associate.

WARREN C. SANDERSON, a Ph.D. candidate and research assistant at Stanford University, has become an NBER research associate. Mr. Sanderson's initial assignment deals with economic models of the American birth rate and population changes.

CARL S. SHOUP, professor of economics at Columbia University, joined the Bureau as a Special Consultant to head the staff committee reviewing research on taxation and public finance. During his distinguished career, Dr. Shoup directed the International Economic Integration Program and Capital Tax Project (1962-64), and conducted a fiscal survey of Venezuela (1958). He was associated with the Council of Economic Advisers during the Truman Administration and headed the Shoup Tax Mission to Japan in 1949.

In February, DONALD S. SHOUP, formerly Assistant to the President, assumed the new Bureau post of Director of Research Services and Planning.

IRVING SILVER of the Massachusetts Institute of Technology has been named a research associate to work on the Bureau's program of urban studies. Currently a research associate at the Laboratory for Environmental Studies at MIT, Dr. Silver worked on the Boston Regional Planning Project from 1963 to 1965. He received both his B.S. (1956) and Ph.D. (1969) from MIT and studied at the University of Cologne as a Fulbright Fellow.

Arthur Burns and Geoffrey Moore, on leave from the Bureau, are currently in government service. A full report on their appointments appears on page 1.

Several original short stories by Nadja Bohsack-Baklanova of the research staff were published in recent editions of *Novoye Russkoye Slovo*, the oldest Russian newspaper in North America.

STAFF  
ACTIVITIES

In July, Phillip Cagan will join the staff of the Council of Economic Advisers, beginning a year's leave of absence from the Bureau. Dr. Cagan's speaking engagements for the months just passed included an address to the December meeting of the American Economic Association. His paper, "The Lag in Monetary Policy as Implied by the Time Pattern of Monetary Effects on Interest Rates," was published by the AEA in May.

Solomon Fabricant gave a paper on "Inflation and the Lag in Accounting Practice" - which presents some results of his NBER study of price trends - at a conference on the relation between accounting and other disciplines, held at the University of Kansas in April.

In March, Victor R. Fuchs was appointed by HEW Secretary Finch to a select committee to review the recommendations of the Department's Task Force on Prescription Drugs. Also that month, Dr. Fuchs participated in two Government Executive Training Seminars held at Kings Point, N.Y., where he spoke on "The Service Economy," and "Labor Market Problems in a Post-Industrial Society." In April, he addressed the annual meeting of the American Society of Internal Medicine in Chicago. The title of his paper was, "Can the Traditional Practice of Medicine Survive?"

In April, Jimmy Hayes of the Typing Department appeared in the Playwrights' Series of New Plays at the Chelsea Theatre Center. He portrayed the Nasty Old Man in Ron Milner's *The Warning*, and was seen as Attorney Breck in LeRoi Jones' *Great Goodness of Life*.

In the Fall, Harper and Row will publish a sequel to Jesse Jackson's novel, *Tessie*, and Dell Publishing Co. will soon issue both titles in paperback form. In order to devote more time to his current writing assignments – a history of the NAACP and a biography of Mahalia Jackson – Mr. Jackson resigned in May from the Bureau's Editorial Department.

On December 29, at the Allied Social Science Association meetings, John W. Kendrick gave a paper on "Evaluation of Productivity Statistics." On February 17, he discussed the general economic outlook for 1969 at the Annual Agricultural Outlook Conference in Washington, and, on March 12, he addressed the Investment Banking Institute at the Wharton School of the University of Pennsylvania on "Financial Implications of Long-Run Economic Trends."

Early in March, John Meyer visited London to attend the Ditchley Conference, where he gave a paper on "Urban Transportation in the United States." Later that month, Dr. Meyer and Alfred Conrad attended a conference on technological diffusion, held in Stockholm, Sweden.

In November, Jacob Mincer spoke on "Costs and Returns to Investments in Human Capital" at a seminar held at the University of Minnesota. In February, he gave a lecture on "Long- and Short-Run Labor Supply Functions" at the Industrial Relations Section of Princeton University.

Mohammed I. Nadiri was a discussant at a November conference on "Iran: A Consideration of the Position and Prospects," held at Columbia University. He again served as a discussant in December when he attended the Annual Meeting of the Econometric Society in Evanston, Illinois.

K.K. Ro presented a paper on "Hospital Characteristics, Patient Characteristics, and Hospital Use," at the annual meeting of the American Public Health Association held in Detroit in November. His essay will be published in *Medical Care* in July.

At a Conference on the Economics of Health, Morris Silver gave a paper entitled, "An Economic Analysis of Variations in Medical Expenses and Work Loss Rates." Also at the meeting, held in Baltimore in December, Michael Grossman served as a discussant of a paper on "Family Income and Medical Care Consumption." The conference proceedings are now in press and will soon be published.

On February 18, Secretary of Defense Melvin R. Laird announced the appointment of former NBER staff member G. Warren Nutter to the post of Assistant Secretary of Defense for International Security Affairs. While at the Bureau, Dr. Nutter worked on an analysis of the economic growth of the Soviet Union and authored the NBER study, *Growth of Industrial Productivity in the Soviet Union* (1962).

As part of its publication program, the Bureau has begun experimenting with a new printing technique. Textual material is typed and coded on magnetic tape, using the Magnetic Tape Selectric Typewriter. The coded tapes are then fed into a composing unit which delivers printed copy, ready for camera. To the uninitiated, the process may appear nearly as arcane as the techniques of econometrics. In both cases, however, the end results are clear enough: witness, this issue of NBER Report, the first Bureau publication produced by the new method.

National Bureau Report and supplements thereto have been exempted from the rules governing submission of manuscripts to, and critical review by, the Board of Directors of the National Bureau. Each issue, however, is reviewed and accepted for publication by the Research Committee of the Bureau and a standing committee of the Board.

National Bureau of Economic Research is a private, nonprofit organization founded in 1920 as a center for independent and impartial economic research. In the belief that such research can contribute significantly to the sound treatment of economic problems, it has sought to conduct its activities under conditions that safeguard the scientific nature of the findings and that help make them authoritative and acceptable to persons of different interests and opinions. The National Bureau is supported in part by grants from philanthropic foundations and business associations for particular studies, in part by investment income on capital-sum grants, and in part by unrestricted contributions and subscriptions from companies, banks, labor organizations, foundations, and individuals.

Further information regarding contributions and subscriptions may be obtained from the office of the Vice President—Administration.

**OFFICERS:** Arthur F. Burns, *Honorary Chairman*; Theodore O. Yntema, *Chairman*; Walter W. Heller, *Vice Chairman*; John R. Meyer, *President*; Donald B. Woodward, *Treasurer*; Victor R. Fuchs, *Vice President—Research*; F. Thomas Juster, *Vice President—Research*; Douglas H. Eldridge, *Vice President—Administration*; Hal B. Lary, *Director of International Studies*; Donald S. Shoup, *Director of Research Services and Planning*.

National Bureau Report, with occasional supplements, is issued several times a year by the National Bureau of Economic Research, Inc., 261 Madison Avenue, New York, New York 10016; telephone (212) MU 2-3190. It is distributed without charge to Bureau contributors, subscribers, and others interested in the field of economic research. Inquiries may be addressed to Mrs. Linda G. Kyriakou, Information Editor.

