WHO'S WHO IN ECONOMICS

A Biographical Dictionary of Major Economists
1700-1980

Edited by Mark Blaug and Paul Sturges

WHO'S WHO IN ECONOMICS

A Biographical Dictionary of Major Economists 1700–1981

edited by

MARK BLAUG

and

PAUL STURGES

First MIT Press edition, 1983

First published in Great Britain in 1982 by WHEATSHEAF BOOKS LTD

© Mark Blaug and Paul Sturges, 1982

All rights reserved. No part of this book may be reproduced in any form or by any means, electronic or mechanical, including photocopying, recording, or by any information storage and retrieval system, without permission in writing from the publisher.

Library of Congress catalog card number 82-61446

ISBN 0-262-02188-9

Printed and bound in Great Britain

WHO'S WHO IN ECONOMICS

A Biographical Dictionary of Major Economists 1700–1981

Preface

Our title begs two questions: What is an 'economist'? and, What is a 'major economist'? Neither is capable of being answered perfectly, but a stab at an answer is necessary if we are to justify our choice of whom we have included and excluded from this dictionary.

There are many economists in the world. There are few economists in the world. Both of these statements are perfectly true: it all depends on how we define an 'economist'. In America, the 1960 Census of Population classified 22,424 individuals as either prefessors, instructors, scientists, or practitioners in the area of 'economics'; however, the National Register of Scientific and Technical Personnel for 1964 included only 12,143 American scientists and technicians claiming professional competence in some branch of economics. Other definitions of an 'economist' are possible, such as having one's highest degree in economics, being a member of at least one professional association of economists, having work experience primarily in the field of economics, being currently employed in economics, and identifying oneself as an economist. Depending on which criterion is chosen, we can obtain 5000 or 17,000 economists in the United States in 1964 (Tolles and Melichar, 1968) and what is true of America is just as true of the rest of the world.

We have chosen to define an economist as one who publishes more or less regularly in one of the hundreds of learned journals of economics. This is unfair to the many dedicated teachers of economics who publish little if anything, to business and government economists whose writings are never published, and to economists working for international agencies whose writings frequently remain anonymous. Our choice of the publication criterion for the status of 'economist' was, however, dictated by our prior choice of a criterion of eminence in economics. The dictionary definition of 'eminence' is 'one who stands high as compared with others, especially in his own calling', for which near synonyms are 'distinguished', 'celebrated' and 'illustrious'. But who is to judge high standing as compared with others? Presumably, none other than the peer group, which is to say that eminent or major economists are those who receive prizes and honorary degrees, are nominated and elected to offices in professional associations of economists, and are frequently cited in the writings of other economists. In fact, we may virtually reduce the concept of eminence to frequency of citations, because the citation counts of particular economists (number of times they are footnoted in economic journals over a period of time) have been shown to be highly correlated with the award of Nobel prizes and with election to offices in such leading professional associations as the American Economic Association and the Canadian Economic Association (Quandt, 1976; Bordo and Landlau, 1979; Grubel, 1979).

It hardly matters which criterion we adopt for the top fifty or so economists because they would appear under almost all the headings we can devise. It is only when we extend the list of major economists to several hundreds that we encounter difficulties in choosing a purely objective criterion that truly reflects majority opinion in economics rather than the invidious judgements of one or two individuals who happen to be editing a biographical dictionary. We were greatly tempted to forego all subjective opinion and to lean entirely on frequency of citations as the only criterion of eminence or importance. Unfortunately, all the existing data sources for citation analysis contain biases and, moreover, citation frequencies are a good but by no means flawless measure of recognition of scientific achievement. There are, of course, good reasons why scholars are committed to citing the works of others: nothing is as fundamental to science as the notion that scientific knowledge is public and freely available to all, implying that there is no such thing as an inalienable property right in new ideas. The practice of citing authorities must therefore be viewed as an attempt to provide incentives to intellectual pioneers by giving public recognition to their priority claims. For that reason scientific communities all develop informal mechanisms for penalising individuals who, in effect, infringe the property right of others by failing to acknowledge their influences and sources of inspiration. Nevertheless, this informal mechanism operates imperfectly and citation practices are frequently abused: witness the typical doctoral dissertation with endless citations of the works of the candidate's supervisors, the common habit of advertising one's own works by selfcitations however irrelevant to the theme in question, the tendency of friends or members of a citation cartel to cite each other, and the general inclination to cite 'stars' in the profession to show that the author is knowledgeable (Grubel, 1979, p. 135). However, despite all the shortcomings of defining 'eminence' by the number of times a scholar is cited, it is difficult to conceive of any other single indicator that is equally revealing of peer recognition. We have therefore selected almost all the living economists in this dictionary on the grounds that they have had the greatest impact on their colleagues as revealed by the high frequency with which they are cited. Nevertheless, we have added a sprinkling of other names whose works may be rarely cited but whose achievements in advice to policy-makers in business and government are generally recognised by their peers. What we have then is a list of 674 living economists from all over the world selected on grounds that are largely, but not entirely, objective. In addition, we describe the careers of 397 dead economists selected by a critical comparison of the names appearing in the indices of leading histories of economic thought.2

¹ Even a statement about citation practices may require a citation.

² The ratio of living to dead economists is, if anything, too favourable to dead economists. In economics, as in other branches of human knowledge, over 90 per cent of all the economists that have ever lived are alive now.

Our data source for citation frequencies is the Social Sciences Citation Index (SSCI), published tri-annually since 1966 by the Institute of Scientific Information (ISI) in Philadelphia, Pennsylvania. SSCI indices citations from a large number of English, French, German, Italian, Portuguese and Spanish journals, including 138 economic journals as well as some non-journal material, such as books, proceedings, symposia, and monographic series, treating each chapter as though it were an article appearing in a journal (ISI, 1979). Economists as such are not identified in SSCI but the type of journal in which the citations appear allows one to pick out economists from other social scientists in the rank order of citation frequencies over the ten year period 1970-80.

SSCI has no rivals on its own grounds. Nevertheless, it does have severe limitations. If we compare the 138 economic journals in SSCI with the larger set of 201 economic journals listed in the eighteen volumes of the AEA Index of Economic Articles 1886-1976, or the even larger set of 232 journals listed in the current Journal of Economic Literature, which is supplemented by some 200 collective volumes, it appears that the overlap is large, but that SSCI is somewhat thin on European journals, and even thinner on Asian journals. We have therefore supplemented SSCI by an informal count of citation frequencies in missing European and Asian journals of economics. We cut off our SSCI list of living economists at 640 because the name of the senior editor appeared as the 641st most frequently cited living economist in the years 1970-80. Clearly, 641 is the natural break between major and minor economists!

It is worth noting that our total number of 674 seems to be something like 5 per cent of all living economists, at least if an 'economist' is defined as one who publishes more or less regularly in an academic journal: vol. 18 of the AEA *Index of Economic Articles* lists about 9000 economists as having published at least one article in the year 1976; some 4000 additional names appear in the previous ten volumes covering the years 1965-75, indicating a total stock of living, publishing economists of 13,000 of whom 674 is just over 5 per cent. In short, the editors of this biographical dictionary appear to have made twenty times as many enemies as friends!

Our entries typically comprise the following elements:

- 1 full name,
- 2 year and place of birth,
- 3 title of current post, with name and location of current employer,
- 4 most recent previous posts,
- 5 degrees received,
- 6 professional affiliations, offices held, prizes won and honours received,
- 7 major fields of interest,
- 8 statement of principal contributions to economics (in 100 words or less),
- 9 chief publications (limited to five books and five articles).

The authors of the entries for living economists are the economists themselves: each was asked to supply the relevant information, including

x PREFACE

a statement of their principal contributions to economics as they - and not we – judged them. We obtained a 87 per cent response rate to our mailing, but we may have failed to contact some of the ninety economists from whom no reply was received (they are nevertheless entered below with the rubric: n.e. = no entry); until editing this volume, we never appreciated how rapidly some economists move about the world.³ The entries for the 400 or so dead economists (marked with an asterisk) were written by ourselves on the basis of standard sources. We also include two country indices (by place of birth and by place of residence) and an index of major fields of interest.

We sincerely hope that this volume will fill an empty niche in the scanty reference shelf of fellow economists and students of economics. If successful in meeting a need, it will be followed by a second edition in the mid-1980s. bringing the information up to date and extending the coverage of names.

We are deeply indebted to Eugene Garfield and Calvin Mark Lee of ISI for assistance in extracting information on the most frequently cited economists in SSCI over the decade 1970-80. We also wish to express our thanks to Gustav Bombach, Roger Cardinal, Jean-Claude Eicher, Herbert Grubel, Fritz Machlup, Christian Morrisson, Dennis O'Brien, Pedro Schwartz and Sidney Weintraub for valuable advice on our selection procedures, and to Rita Tullberg, Rolf Henricksson, Bruce Larson, Ingrid Metzger-Buddenberg, Evert Schoorl, Claude Ménard, Mary Rowlatt and Mona McKay for providing vital information on some recently deceased economists. The efforts of Claire Sturges in struggling with the editors' handwriting and typing the manuscript are also gratefully noted.

3 Special problems were encountered in obtaining information about recently deceased economists: contact with friends and colleagues of the deceased were not always successful and this explains the absence of information about such well-known names as M.J. Farrell, C.E. Ferguson, S. Hymer, R.A. Kessel and J. Schmookler.

References

AEA (1979), Index of Economic Articles, Homewood, Ill., Richard D. Irwin, vols 1-18.

Bordo, M.D. and Landau, D. (1979), 'The pattern of citations in economic theory 1945-68: an exploration towards a quantitative history of thought', History of Political Economy, II, 2, Summer, pp. 241-53.

Grubel, H.G. (1979), 'Citation counts for leading economists', Economic Notes (Monte Dei Paschi de Siena Journal), 8, 2, pp. 134-45.

Institute of Scientific Information (1979), Social Sciences Citation Index 1979. Guide and List of Source Publications, Philadelphia, Penn., ISI.

Quandt, R.E. (1976), 'Some quantitative aspects of the economic journal literature',

Journal of Political Economy, 84, 4, August, pp. 741-55. Tolles, A.N. and Melichar, E. (1968), 'Who are the economists?', Studies of the Structure of Economists' Salaries and Income, American Economic Review, LVIII, 5, pt 2, December, pp. 123-53.

> Mark Blaug Paul Sturges London, January 1982

Abbreviations

General

Administration Admin America, American Amer.

Assistant Ass.

Association, Associate Assoc.

— Bulletin Bull. Business Bus. Coll. — College Committee Comm. Corporation Corp. Department Dept. Director Dir. Distinguished Disting.

Div. Division

Economic, economics Econ. Editor, editorial Ed.

Edn. Edition Executive Exec. Federal Fed.

Financial, Finance Fin.

Grad. Graduate

Hist. History, Historical Institute, Institution Inst. International

Internat. — Journal J. Jr Junior Maths Mathematics National Nat. Policy Pol. Political Polit. **Population** Pop. Professor Prof. Research Res. Society Soc. Senior SrStatistical Stat. Stats **Statistics**

Studies Stud. Supplement Suppl. Transl. Translation University Univ. Visiting Vis.

Associations, Institutions, Publishers

American Accounting Association AAA

AAAS American Academy of Arts and Sciences American Agricultural Economics Association **AAEA AAUP** American Association of University Professors

xii ABBREVIATIONS

AEA — American Economic Association
AFA — American Finance Association
AHA — American History Association
ANU — Australian National University
ASA — American Statistical Association
A & U — Allen & Unwin, London, UK

AUTE — Association of University Teachers of Economics, UK

BA — British Academy

BAAS — British Association for the Advancement of Science

BIT — Bureau International du Travail or ILO
CBE — Commander of the British Empire
CEA — Canadian Economic Association

CNRS — Centre National de la Recherche Scientifique, Paris,

France

CUP — Cambridge University Press, Cambridge, UK

EEA — Eastern Economic Association, USA
EEC — European Economic Community
EHA — Economic History Association, USA
EHS — Economic History Society, UK

Em Soc — Econometric Society

FAO — Food and Agricultural Organisation, UN HMSO — Her Majesty's Stationery Office, UK

IARIW — International Association for Research in Income and

Wealth

IBRD — International Bank for Reconstruction and Development

IEA — International Economic Association
ILO — International Labour Office, UN
IMF — International Monetary Fund

IRRA — Industrial Relations Research Association

LASA — Latin America Studies Association

LSE - London School of Economics and Political Science,

London, UK

MEA — Midwest Economics Association

MIT — Massachusetts Institute of Technology, Cambridge,

Mass., USA

NAS — National Academy of Sciences, USA

NBER — National Bureau of Economic Research, New York, NY,

USA

N-H — North-Holland Publishing Co., Amsterdam, The

Netherlands

NIESR — National Institute of Economic and Social Research,

London, UK

NSF — National Science Foundation
NTA — National Tax Association

NYU — New York University, NYC, New York, USA

OBE — Order of the British Empire

OECD — Organisation for Economic Co-operation and

Development

ORSA
OUP
Oxford University Press, Oxford, UK
PAA
POpulation Association of America
RES
Royal Economic Society

RSA — Regional Science Association, USA

RSS — Royal Statistical Society

SEA — Southern Economic Association SSRC — Social Science Research Council

TIAA — Teachers Insurance and Annuity Association

UCLA — University of California, Los Angeles, Calif., USA

UNCTAD — UN Conference on Trade and Development
UNECA — UN Economic Commission for Africa

UNECAFE — UN Economic Commission for Asia and the Far East

UNECLA
Univ. Camb.
WEA
WHO
UNECONOMIC Commission for Latin America
University of Cambridge, Cambridge, UK
Western Economic Association, USA
World Health Organisation, UN

WRSA — Western Regional Science Association, USA

Journals

AEP — Australian Economic Papers
AER — American Economic Review

AJAE — American Journal of Agricultural Economics

Bell JE — Bell Journal of Economics

BJIR — British Journal of Industrial Relations

BNLQR — Banca Nazionale del Lavoro Quarterly Review
BOIS — Bulletin of the Oxford Institute of Statistics

Camb JE — Cambridge Journal of Economics

CJE — Canadian Journal of Economics

CSSH — Comparative Studies in Society and History

DE — De Économist Ec — Economica

Econ App — Economie Appliquée Econ Int — Economia Internazionale

Econom — The Economist

EDCC — Economic Development and Cultural Change

EHR — Economic History Review

EI — Economic Inquiry
EJ — Economic Journal
Ekon Tids — Ekonomisk Tidskrift
Em — Econometrica

ER — Economic Record ESO — Economic Studies Quarterly

ESS — Encyclopaedia of the Social Sciences, E.R.A. Seligman

and A. Johnson (eds) (Macmillan, 1930-5, 15 vols)

Europ ER — European Economic Review For Aff — Foreign Affairs

HOPE — History of Political Economy

IESS — International Encyclopedia of the Social Sciences, D.L. Sills (ed.) (Macmillan and Free Press, 1968, 18 vols)

ILO Bull Lab Stat — ILO Bulletin of Labour Statistics
ILRR — Industrial Labor Relations Review
Int ER — International Economic Review
Int Lab Rev — International Labour Review

JASA — Journal of the American Statistical Association

J Bank Fin — Journal of Banking and Finance
J Bank Res — Journal of Bank Research

J Bus — Journal of Business

J Comp E — Journal of Comparative Economics

JDE — Journal of Development Economics

J Dev Stud — Journal of Development Studies

J Ec Behav — Journal of Economic Behavior and Organization
J Ec Dyn — Journal of Economic Dynamics and Control

JEH — Journal of Economic History
JEI — Journal of Economic Issues
JEL — Journal of Economic Literature

xiv ABBREVIATIONS

J Em — Journal of Econometrics
JET — Journal of Economic Theory

J Eur EH — Journal of European Economic History
JFE — Journal of Farm Economics

JFE — Journal of Farm Economics

J Fin — Journal of Finance

L Fin Econ — Journal of Financial Econom

J Fin Econ — Journal of Financial Economics
JHE — Journal of Health Economics
JHR — Journal of Human Resources

JI Bus Stud — Journal of International Business Studies

J Ind E — Journal of Industrial Economics

J Int E — Journal of International Economics

J Law E — Journal of Law and Economics

J Math E — Journal of Mathematical Economics

JMCB — Journal of Money, Credit and Banking

J Mon Ec — Journal of Monetary Economics

J Mon Ec — Journal of Monetary Economics
JMS — Journal of Management Studies

JNS — Jahrbücher für Nationalökonomie und Statistik

JPE — Journal of Political Economy

J Post Keyn E — Journal of Post-Keynesian Economics

J Pub E — Journal of Public Economics
J Reg S — Journal of Regional Science

JRSŠ — Journal of the Royal Statistical Society
JSW — Jahrbüch für Sozialwissenschaften

J Transp EP — Journal of Transport Economics and Policy
JUE — Journal of Urban Economics

JUE — Journal of Urban Econo
LBR — Lloyds Bank Review
MBR — Midland Bank Review
MLR — Monthly Labor Review

MS — Manchester School of Economic and Social Studies

OBES — Oxford Bulletin of Economics and Statistics

OEP — Oxford Economic Papers
PDR — Pakistan Development Review
PF — Public Finance

PF — Public Finance
Pol Meth — Political Methodology

QJE — Quarterly Journal of Economics

OREB — Quarterly Review of Economics and Business

RE — Revue Economique

REP — Revue d'Économie Politique

REStat — Review of Economics and Statistics

REStud — Review of Economic Studies

RISE — Revista Internazionale di Scienze Economiche e

Commerciali

Riv Intern — Rivista Internazionale

RIW — Review of Income and Wealth
SAJE — South African Journal of Economics
— Scandinavian Journal of Economics

SEJ — Southern Economic Journal

SJPE — Scottish Journal of Political Economy

Swed JE — Swedish Journal of Economics

Urb Stud — Urban Studies

WA — Weltwirtschaftliches Archiv

WD — World Development

WEJ — Western Economic Journal

YBESR — Yorkshire Bulletin of Economic and Social Research

YEE — Yale Economic Essays

ZGS – Zeitschrift für die gesamte Staatswissenschaft

ZN – Zeitschrift für Nationalökonomie

Contents

Preface	vii
Abbreviations	xi
General Associations, Institutions, Publishers Journals	
WHO'S WHO IN ECONOMICS	1
Appendices	
1 Index of Principal Fields of Interest General economics; Theory; History; Systems Economic growth; Development; Planning; Fluctuat Quantitative economic methods and data Domestic monetary and fiscal theory and institution International economics Administration; Business finance; Marketing; According and Industrial organisation; Technological change; Industrial organisation; Technological change; Industrial organisation; Population Welfare programmes; Consumer economics; Urban a	ns unting ustry studies nd regional economics
2 American Economic Association's Classification of	Fields in Economics 423
3 Index of Country of Residence if not USA	427
4 Index of Country of Birth if not USA	431

1

Born 1936, Washington, DC, USA. Current Post Prof. Econ., Univ. Maryland, USA.

Recent Posts Sr Fellow, Brookings Inst.; Assoc. prof., Univ. Maryland, 1967–74; Ass. secretary, Planning Evaluation, US Dept Health, Education,

Welfare, 1977–8.

AARON, Henry J.

Degrees BA (Polit. Science-Econ.) UCLA, 1958; MA (Russian Regional Stud.), PhD (Econ.) Harvard Univ., 1960, 1963.

Offices and Honours Phi Beta Kappa, 1958; Ass. R.A. Wallace, Ass. secretary, US Treasury, 1961; Sr staff economist, US President's Council Econ. Advisers, 1966–7; Member, Council Econ. Advisers, State of Maryland, 1969-75; Vis. prof., Harvard Univ., 1974; Member, Exec. Comm., AEA, 1978-; Member, Board Dirs, Abt Assoc., 1978-; Chairman, Advisory Council Social Security, 1978-9.

Principal Contributions Issues in the economics of taxation. Economic aspects of social security and health care. Questions of the provision of public

goods.

Publications Books: 1. The New View of Property Taxation (Brookings Inst., 1975); 2. Politics and the Professors: The Great Society in Transition (Brookings Inst., 1978); 3. On Social Welfare (Abt Assoc., 1980); 4. The Economics of Taxation, ed. (with M. Boskin), (Brookings Inst., 1980); 5. How Taxes Affect Economic Behavior, ed. (with J.A. Pechman), (Brookings Inst., 1981).

Articles: 1. 'Structuralism versus monetarism: a note on evidence', J Dev Stud, 3, Jan. 1967; 2. 'The foundations of the "war on poverty" re-examined, AER, 57(5), Dec. 1967; 3. 'Perspectives on poverty 4: income transfer programs', MLR, 92(2) Feb. 1969; 4. 'Local public expenditures and the migration effect', WEJ, 7(4), Dec. 1969; 5. 'Public goods and income distribution' (with M.C. McGuire), Em, 38(6), Nov. 1970.

ABRAMOVITZ, Moses

Born 1912, New York City, NY, USA.

Current Post Managing ed., JEL. Recent Posts Prof. Econ., Coe prof. Amer. Econ. Hist., Stanford Univ., 1948–77.

Degrees AB Harvard Univ., 1932; PhD Columbia Univ., 1939.

Offices and Honours Fellow, AAAS, ASA: Disting. Fellow, pres., 1980, AEA.

Principal Contributions Measurement of the importance of inventory fluctuations in business investment cycles: explanation of the different behaviour of inventories of raw materials, goods in process and finished goods; description and explanation of long swings (Kuznets cycles) in economic growth; measurement of total facproductivity growth and tor importance as a source of long-term growth in industrialised economies; and description and explanation of rapid post-World War II growth of industrialised economies.

Publications Books: 1. Price Theory for a Changing Economy (Columbia Univ. Press, 1939); 2. Inventories and Business Cycles (NBER, 1950); 3. The Trend of Public Employment in Great Britain (with V. Eliasberg) (NBER, 1954); 4. Evidences of Long Swings in Aggregate Construction Since the Civil War (NBER, 1964).

Articles: 1. 'Resource and output trends in the United States since 1870', AER/S, 46(2), May 1956; 2. 'The nature and significance of Kuznets cycles', EDCC, 9, April 1961, reprinted in Readings in Business Cycles, R.A. Gordon and L.R. Klein (eds) (Richard D. Irwin, 1965); 3. 'Rapid growth potential and its realization: the experience of capitalist economies in the post-war period', in Economic Growth and Resources, E. Malinvaud (ed.), (Macmillan, 1979).

ACKLEY, Gardner

Born 1915, Indianapolis, Ind., USA. Current Post Henry Carter Adams Univ. prof. Polit. Econ., Univ. Michigan, USA.

Recent Posts US Office Price Admin., 1941–6; Econ. adviser, Ass. dir., US Office Price Stabilization, 1951; Member, 1962–8, Chairman, 1964–8, US President's Council Econ. Advisers; US Ambassador Italy, 1968–9; Member, US Nat. Advisory Council Social Security, 1978–9.

Degrees BA, LLD Western Michigan Univ., 1936, 1964; MA, PhD, Univ. Michigan, 1937, 1940; LLD Kalamazoo Coll., 1967.

Offices and Honours Fulbright Res. Scholar, 1956–7; Board Eds., 1953–6, Comm. honours and awards, 1959–61, Chairman, Comm. Res. Publications, 1959–61, Vice-pres., 1962, Pres.-elect, 1981, AEA; Dir., US SSRC, 1959–61; Fellow, AAAS, 1968; Cavaliere del Gran Croce, Italy, 1969; Member, Amer. Philosophical Soc., 1972; Dir., NBER, 1971–80.

Principal Contributions Rigorous formulations of macro-economic principles. Contributions to the theory of inflation. Analysis of incomes policies and wage-price controls. Discussions of current macro-economic policy issues. Analysis of Italian economic problems and developments, 1947–65. Analyses of role of economists advising governments. Comparative analysis of stabilisation policies in Europe, N. America and Japan.

Publications Books: 1. Macro-economic Theory (Macmillan, 1961); 2. Un Modello Econometico dello Sviluppo Italiano nel Dopoguerra (Svimez, 1963); 3. Stemming World Inflation (Atlantic Inst., 1971); 4. Macro-economics: Theory and Policy (Macmillan, 1978); 5. Asia's New Giant: How the Japanese Economy Works (contributor), (Brookings Inst., 1978).

Articles: 1. 'Relative prices and aggregate consumer demand' (with D.B. Suits), AER, 40, Dec. 1950; 2. 'The wealth-saving relationship', JPE, 59, April 1951; 3. 'Administered prices and the inflationary process', AER/S, 49, May 1959; 4. 'An incomes policy for the 1970s', REStat, 54(3), Aug. 1972; 5. 'The costs of inflation', AER, 68(2), May 1978.

ADAMS, Francis Gerard

Born 1929, USA.

Current Post Prof. Econ., Fin.-Dir. Econ. Res. Unit, Univ. Pennsylvania, USA.

Recent Posts Consultant Forecasting, OECD, Paris, 1966–7; Sr staff economist, US President's Council Econ. Advisers, 1968–9.

Degrees BA, MA, PhD Univ. Michigan, 1949, 1951, 1956.

Principal Contributions Empirical research in income distribution, the utilisation of attitudinal data in macro-economic models, development of industrial models, models of primary commodity markets, models of regions, and models of world trade. An important focus has been the integration of commodity models into project LINK and, more generally, into models of developing economies.

Publications Books: 1. An Econometric Analysis of International Trade (with H. Eguchi and F.J.M. Meyer zu Schlochtern), (OECD, 1969); 2. Econometric Models of World Agricultural Commodity Markets (with J.R. Behrman), (Ballinger, 1976); 3. Stabilizing World Commodity Markets: Analysis, Practice and Policy (with S. Klein), (Heath-Lexington, 1978); 4. Econometric Modeling of World Commodity Policy (with J.R. Behrman), (Heath-Lexington, 1978); 5. Modeling the Multi-regional Economic System: Perspectives for the Eighties, ed. (with N.J. Glickman), (Heath-Lexington, 1980).

Articles: 1. 'The size of individual incomes: socio-economic variables and chance variation', REStat, 40, Nov. 1958; 2. 'Prediction with consumer attitudes: the time series-cross section paradox', REStat, 47, Nov. 1965; 3. 'An economic-linear programming model of the US petroleum refining industry' (with J.M. Griffin), JASA, 67, Sept. 1972; 4. 'Anticipations variables in an econometric model: performance of the anticipations versons of Wharton Mark III (with V.G. Duggal), Int ER, 15(2), June 1974, repr. in Econometric Performance, L.R. Klein and E. Burmeister (eds), (Univ. Penn. Press, 1976); 5. 'Integrating commodity models into LINK', in Modelling the International Transmission Mechanism, J. Sawyer (ed.), (N-H, 1979).

ADAMS, Walter

Born 1922, Vienna, Austria.

Current Post Disting. univ. prof. Econ., Past-pres., Michigan State Univ., East Lansing, USA.

Recent Posts Vis. prof., Salzburg Seminar, 1959, 1960, Falkenstein Seminar, 1972; Vis. prof., Univ. Grenoble, 1966.

Degrees BA Brooklyn Coll., 1942; MA, PhD, Yale Univ. 1946, 1947; Hon. LLD Central Michigan Univ., 1973; Hon. LLD Michigan State Univ., 1979.

Offices AEA, 1947-; Pres., AAUP, 1972-4; Exec. Comm., Assoc. Evolutionary Econ., 1976-9; Pres., MEA, 1979-80; Pres., Assoc. Social Econ., 1980-1.

Principal Contributions Empirical studies of the link between industry structure, conduct and performance, emphasising the role of government as a promoter of monopoly. Demonstrated the baneful effects of import restraints on the performance of the US steel and automobile industries. Contributed case-studies on the industry-labourgovernment complex.

Publications Books: 1. The Structure of American Industry (Macmillan, 1950, 1982); 2. Monopoly in America (Macmillan, 1955); 3. Is the World our Campus? (Mich. State Univ. Press, 1960); 4. The Brain Drain (ed.) (Macmillan, 1968); 5. The Test (Macmillan, 1971).

Articles: 1. 'Competition, monopoly, and countervailing power', QJE, 67, Nov. 1953, 68, Aug. 1954; 2. 'The role of competition in the regulated industries', AER/S, 48, May 1958; 3. 'Steel imports and vertical oligopoly power', (with J.B. Dirlam), AER, 54, Sept. 1964, 56, March 1966; 4. 'Big steel, invention, and innovation' (with J.B. Dirlam), QJE, 80, May 1966; 5. 'The military-industrial complex and the new industrial state', AER/S, 58, May 1968.

ADELMAN, Irma

Born 1930, Romania.

Current Post Prof. Agric. Resource Econ., Prof. Econ., Univ. Cal., Berkeley, 1979-.

Recent Posts Prof. Econ., Northwestern Univ., 1966–72; Fellow, Center Advanced Study Behavioral Sciences, Stanford Univ., 1970–1; Sr economist, Development Res. Center, Internat. Bank Reconstruction Development, 1971–2; Prof. Econ., Univ. Maryland, 1972–9; Cleveringa Chair, Leiden Univ., Fellow, Netherlands Inst. Advanced Study, 1977–8.

Degrees BA, MA, PhD Univ. Cal., Berkeley, 1949, 1950, 1955.

Principal Contributions Analysis of economic distribution and growth; interactions among economic, social, and political forces in economic development; the development of computable general equilibria for development planning.

Publications Books: 1. Theories of Economic Growth and Development (Stanford Univ. Press, 1961, 1974), (Spanish transl. Teorias del desarrollo economico, 1964, Japanese transl., 1971); 2. The Theory and Design of Economic Development, ed. (with E. Thorbecke) (Johns Hopkins Univ. Press, 1966); 3. Society, Politics, and Economic Development - A Quantitative Approach, (with C.T. Morris) (Johns Hopkins Univ. Press, 1967); 4. Economic Growth and Social Equity in Developing Countries, (with C.T. Morris) (Stanford Univ. Press, 1973); 5. Income Distribution Policy in Developing Countries: A Case-study of Korea, (with S. Robinson) (Stanford Univ. Press, 1977).

Articles: 1. 'The dynamic properties of the Klein-Goldberger model' (with F.L. Adelman), Em, 27, Oct. 1959, repr. in Readings in Business Cycles (eds. R.A. Gordon and L. Klein) (Irwin, 1964), and in Readings in Economic Statistics and Econometrics (ed. A. Zellner) (Little, Brown & Co., 1968); 2. 'An econometric analysis of population growth', AER, 53, June 1963; 3. 'Foreign aid and economic development: the case of Greece' (with H.B. Chenery),

REStat, 48, April 1966, repr. in Studies in Development Planning (ed. H.B. Chenery) (Harvard Univ. Press, 1971); 4. 'Strategies for equitable growth', Challenge, May/June 1974; 5. 'Development economics – a reassessment of goals', AER, 65(2), May 1975.

ADELMAN, Morris Albert

Born 1917, New York City, NY, USA.

Current Post Prof. Econ., MIT, USA.

Degrees BSS City Coll., New York, 1938; PhD Harvard Univ., 1948.

Offices and Honours AEA, RES, Internat. Assoc. Energy Economists (Pres. 1980–1), Mineral Economics award (Amer. Inst. Mining Metallurgical and Petroleum Engineers, 1979).

Principal Contributions Long-term trends in industrial concentration; international oil and gas markets; scarcity and monopoly.

Publications n.e.

AFTALION, Albert*

Dates and Birthplace 1874–1956, Bulgaria.

Posts Held Prof., Univ. Lille, 1904–20, Univ. Paris, 1920–40.

One of the professors appointed to chairs in economics in the law faculties of the universities of France after 1878 who questioned the free-trade *laissez faire* orthodoxy of the 'Paris group' and gradually introduced more scientific content into French economics. He is best known for his 'real' theory of business cycles, including the statement in 1909 of the 'acceleration principle' of derived demand (restated and named by J.M. Clark in 1917). Much of his later work dealt with the nature of the French inflation 1919-24 and the causes of international gold movements between the two world wars.

Publications Books: 1. L'oeuvre économique de Simonde de Sismondi (1899); 2. Essai d'une théorie des crises générales et périodiques (1909); 3. Les crises périodiques de surproduction, 2 vols (1913); 4. Les fondements du

socialisme: étude critique (1923); 5. La valeur de la monnaie dans l'économie contemporaine, 2 vols (1927); 6. L'or et la monnaie, leur valeur: les mouvements de l'or (1938).

Secondary Literature F. Perroux et al., L'oeuvre scientifique d'Albert Aftalion (Domat-Montchrestien, 1945); D. Villey, 'Aftalion, Albert', IESS, vol. 1.

AIGNER, Dennis J.

Born 1937, Los Angeles, Cal., USA. Current Post Prof. Econ., Co-dir., Modelling Res. Group, 1976-, Chairman, Dept. Econ., Univ. Southern Cal., Los Angeles, USA, 1979-.

Recent Posts Prof. Econ., 1970–7, Chairman, Social Systems Res. Inst., Univ. Wisconsin, Madison, 1971–6; Res. consultant, Rand Corp., 1976.

Degrees BS (Agric. Econ.) MA (Stats.) PhD (Agric. Econ.), Univ. Cal., Berkeley, 1959, 1962, 1963.

Offices and Honours Fellow, Em Soc; Fulbright Res. Scholar, Vis. prof., Center Operations Res. and Econometrics (CORE), Univ. Catholique Louvain, Belgium, 1970–1; ASA Vis. lecturer, Program Stats., 1980–3.

Principal Contributions Econometric modelling with latent variables; frontier production functions, original contribution in 1968 and continued to the present; and experimental design, a recent interest, promoted by work in designing peak-load pricing experiments in electricity.

Publications Books: 1. Principles of Statistical Decision-making (Macmillan, 1968); 2. Basic Econometrics (Prentice-Hall, 1971); 3. Latent Variables in Socioeconomic Models, ed. (with A.S. Goldberger), (N-H, 1977); 4. Experimental Design in Econometrics, ed. (with C. Morris), (N-H, 1979); 5. Specification and Estimation of Frontier Production, Profit and Cost Functions, ed. (with P. Schmidt), (N-H, 1980).

Articles: 1. 'On estimating the industry production function' (with S. Chu), AER, 58, Sept. 1968; 2. 'Estimation of Pareto's law from grouped observations' (with A.S. Goldberger), JASA, 65, June 1970; 3. 'A compendium on estimation