

WHO'S WHO IN ECONOMICS

**A Biographical Dictionary of
Major Economists
1700-1980**

**Edited by Mark Blaug
and Paul Sturges**

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A Biographical Dictionary
of Major Economists
1700–1981

edited by

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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 professors, 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 self-citations 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).¹ 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

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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 Eichler, 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.

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Mark Blaug
Paul Sturges
London, January 1982

Abbreviations

General

Admin	—	Administration
Amer.	—	America, American
Ass.	—	Assistant
Assoc.	—	Association, Associate
Bull.	—	Bulletin
Bus.	—	Business
Coll.	—	College
Comm.	—	Committee
Corp.	—	Corporation
Dept.	—	Department
Dir.	—	Director
Disting.	—	Distinguished
Div.	—	Division
Econ.	—	Economic, economics
Ed.	—	Editor, editorial
Edn.	—	Edition
Exec.	—	Executive
Fed.	—	Federal
Fin.	—	Financial, Finance
Grad.	—	Graduate
Hist.	—	History, Historical
Inst.	—	Institute, Institution
Internat.	—	International
J.	—	Journal
Jr	—	Junior
Maths	—	Mathematics
Nat.	—	National
Pol.	—	Policy
Polit.	—	Political
Pop.	—	Population
Prof.	—	Professor
Res.	—	Research
Soc.	—	Society
Sr	—	Senior
Stat.	—	Statistical
Stats	—	Statistics
Stud.	—	Studies
Suppl.	—	Supplement
Transl.	—	Translation
Univ.	—	University
Vis.	—	Visiting

Associations, Institutions, Publishers

AAA	—	American Accounting Association
AAAS	—	American Academy of Arts and Sciences
AAEA	—	American Agricultural Economics Association
AAUP	—	American Association of University Professors

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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	— Operations Research Society of America
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	— UN Economic Commission for Latin America
Univ. Camb.	— University of Cambridge, Cambridge, UK
WEA	— Western Economic Association, USA
WHO	— World Health Organisation, UN
WRSA	— Western Regional Science Association, USA
<i>Journals</i>	
AEP	— <i>Australian Economic Papers</i>
AER	— <i>American Economic Review</i>
AJAE	— <i>American Journal of Agricultural Economics</i>
Bell JE	— <i>Bell Journal of Economics</i>
BJIR	— <i>British Journal of Industrial Relations</i>
BNLQR	— <i>Banca Nazionale del Lavoro Quarterly Review</i>
BOIS	— <i>Bulletin of the Oxford Institute of Statistics</i>
Camb JE	— <i>Cambridge Journal of Economics</i>
CJE	— <i>Canadian Journal of Economics</i>
CSSH	— <i>Comparative Studies in Society and History</i>
DE	— <i>De Economist</i>
Ec	— <i>Economica</i>
Econ App	— <i>Economie Appliquée</i>
Econ Int	— <i>Economia Internazionale</i>
Econom	— <i>The Economist</i>
EDCC	— <i>Economic Development and Cultural Change</i>
EHR	— <i>Economic History Review</i>
EI	— <i>Economic Inquiry</i>
EJ	— <i>Economic Journal</i>
Ekon Tids	— <i>Ekonomisk Tidskrift</i>
Em	— <i>Econometrica</i>
ER	— <i>Economic Record</i>
ESQ	— <i>Economic Studies Quarterly</i>
ESS	— <i>Encyclopaedia of the Social Sciences</i> , E.R.A. Seligman and A. Johnson (eds) (Macmillan, 1930-5, 15 vols)
Europ ER	— <i>European Economic Review</i>
For Aff	— <i>Foreign Affairs</i>
HOPE	— <i>History of Political Economy</i>
IESS	— <i>International Encyclopedia of the Social Sciences</i> , D.L. Sills (ed.) (Macmillan and Free Press, 1968, 18 vols)
ILO Bull Lab Stat	— <i>ILO Bulletin of Labour Statistics</i>
ILRR	— <i>Industrial Labor Relations Review</i>
Int ER	— <i>International Economic Review</i>
Int Lab Rev	— <i>International Labour Review</i>
JASA	— <i>Journal of the American Statistical Association</i>
J Bank Fin	— <i>Journal of Banking and Finance</i>
J Bank Res	— <i>Journal of Bank Research</i>
J Bus	— <i>Journal of Business</i>
J Comp E	— <i>Journal of Comparative Economics</i>
JDE	— <i>Journal of Development Economics</i>
J Dev Stud	— <i>Journal of Development Studies</i>
J Ec Behav	— <i>Journal of Economic Behavior and Organization</i>
J Ec Dyn	— <i>Journal of Economic Dynamics and Control</i>
JEH	— <i>Journal of Economic History</i>
JEI	— <i>Journal of Economic Issues</i>
JEL	— <i>Journal of Economic Literature</i>

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J Em	— <i>Journal of Econometrics</i>
JET	— <i>Journal of Economic Theory</i>
J Eur EH	— <i>Journal of European Economic History</i>
JFE	— <i>Journal of Farm Economics</i>
J Fin	— <i>Journal of Finance</i>
J Fin Econ	— <i>Journal of Financial Economics</i>
JHE	— <i>Journal of Health Economics</i>
JHR	— <i>Journal of Human Resources</i>
JI Bus Stud	— <i>Journal of International Business Studies</i>
J Ind E	— <i>Journal of Industrial Economics</i>
J Int E	— <i>Journal of International Economics</i>
J Law E	— <i>Journal of Law and Economics</i>
J Math E	— <i>Journal of Mathematical Economics</i>
JMCB	— <i>Journal of Money, Credit and Banking</i>
J Mon Ec	— <i>Journal of Monetary Economics</i>
JMS	— <i>Journal of Management Studies</i>
JNS	— <i>Jahrbücher für Nationalökonomie und Statistik</i>
JPE	— <i>Journal of Political Economy</i>
J Post Keyn E	— <i>Journal of Post-Keynesian Economics</i>
J Pub E	— <i>Journal of Public Economics</i>
J Reg S	— <i>Journal of Regional Science</i>
JRSS	— <i>Journal of the Royal Statistical Society</i>
JSW	— <i>Jahrbuch für Sozialwissenschaften</i>
J Transp EP	— <i>Journal of Transport Economics and Policy</i>
JUE	— <i>Journal of Urban Economics</i>
LBR	— <i>Lloyds Bank Review</i>
MBR	— <i>Midland Bank Review</i>
MLR	— <i>Monthly Labor Review</i>
MS	— <i>Manchester School of Economic and Social Studies</i>
OBES	— <i>Oxford Bulletin of Economics and Statistics</i>
OEP	— <i>Oxford Economic Papers</i>
PDR	— <i>Pakistan Development Review</i>
PF	— <i>Public Finance</i>
Pol Meth	— <i>Political Methodology</i>
QJE	— <i>Quarterly Journal of Economics</i>
QREB	— <i>Quarterly Review of Economics and Business</i>
RE	— <i>Revue Economique</i>
REP	— <i>Revue d'Economie Politique</i>
REStat	— <i>Review of Economics and Statistics</i>
REStud	— <i>Review of Economic Studies</i>
RISE	— <i>Revista Internazionale di Scienze Economiche e Commerciali</i>
Riv Intern	— <i>Rivista Internazionale</i>
RIW	— <i>Review of Income and Wealth</i>
SAJE	— <i>South African Journal of Economics</i>
Scand JE	— <i>Scandinavian Journal of Economics</i>
SEJ	— <i>Southern Economic Journal</i>
SJPE	— <i>Scottish Journal of Political Economy</i>
Swed JE	— <i>Swedish Journal of Economics</i>
Urb Stud	— <i>Urban Studies</i>
WA	— <i>Weltwirtschaftliches Archiv</i>
WD	— <i>World Development</i>
WEJ	— <i>Western Economic Journal</i>
YBESR	— <i>Yorkshire Bulletin of Economic and Social Research</i>
YEE	— <i>Yale Economic Essays</i>
ZGS	— <i>Zeitschrift für die gesamte Staatswissenschaft</i>
ZN	— <i>Zeitschrift für Nationalökonomie</i>

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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.

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 Professions: 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.

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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 investment fluctuations in business 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 factor productivity growth and its 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.

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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 Econometrico 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 versions 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-labour-government 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.

Career 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

of the autoregressive-moving average model from time series data', *Int ER*, 12(3), Oct. 1971; 4. 'An appropriate econometric framework for estimating a labor supply function from the SEO file', *Int ER*, 15(1), Feb. 1974; 5. 'Formulation and estimation of stochastic frontier production functions' (with C.A.K. Lovell and P. Schmidt), *J Em*, 6 July 1977.

AKERLOF, George A.

Born 1940, New Haven, Conn., U.S.A.

Current Post Prof. Econ., Univ. Cal., Berkeley, USA.

Recent Posts Cassel prof., LSE, 1978–80.

Degrees BA Yale Univ., 1962; PhD MIT, 1966.

Offices and Honours n.e.

Principal Contributions n.e.

Publications *Articles*: 1. 'The market for "lemons"', *QJE*, 84(3), August 1970; 2. 'Irving Fisher on his head: the consequences of target-threshold monitoring for the demand for money', *QJE*, 93(2), May 1979; 3. 'Irving Fisher on his head II: the consequences of the timing of payments for the demand for money' (with R. Milbourne), *QJE*, 95, Aug. 1980; 4. 'Jobs as dam sites', *REStud*, 48, Jan. 1981; 5. 'The labor contract as partial gift exchange', *QJE*, forthcoming, 1982.

AKERMAN, Gustaf*

Dates and Birthplace 1888–1959 Vienna, Austro-Hungary.

Posts Held Civil servant, Swedish Foreign Affairs Dept, 1915–18; Ass. prof., Univ. Lund, 1923; Prof., Univ. Goteborg, 1931–53.

Degrees Jur. kand. Univ. Uppsala, 1913; Dr Univ. Lund, 1923.

Career Elder brother of Johann Henrik, an economist and historian in his own right, and a pupil of Wicksell, whose 1923–4 book on capital theory led Wicksell to reformulate his own theory of fixed capital formation. Like Böhm-Bawerk, Akerman was inspired by his reading of John Rae. He partially reformulated his ideas in a 1931 book, and also worked on industrial rationalisation, price regulations, economic fluctuations and employment questions.

Publications *Books*: 1. *Real Kapital und Kapitalzins*, 2 vols (1923–4); 2. *Om den Industriella Rationaliseringen* (1931); 3. *Mjölleregleringen* (1937); 4. *Engelsk Arbetslöshet och Arbetslöshetspolitik* (1947).

Secondary Literature K. Wicksell, *Lectures on Political Economy*, vol. 1, App. 2 (Macmillan, 1934).

ALBACH, Horst

Born 1931, Essen, Rheinland, Germany.

Current Post Prof. Management Sciences, Univ. Bonn, 1961–.

Recent Posts Pres., 1969–72, Chairman Board, 1972–, Universitätsseminar der Wirtschaft; Council Experts Vocational Education, 1972–4; Nat. Science Council, 1974–7; Member, Council Econ. Experts, Fed. Republic Germany, 1978–.

Degrees Diplom-Kaufmann, Diplom-Volkswirt, Dr rer. pol. (Econ.), Univ. Cologne 1956, 1957, 1958; Hon. PhD (Econ.) Stockholm School Econ., 1976, Helsinki School Econ., 1976.

Offices and Honours Member, AEA, Em Soc, Management Sciences Inst.; Pres., German Operations Res. Soc.; Academy Science N. Rhine Westfalia, 1972–; Vice-pres., Gesellschaft Wirtschafts- und Sozialwissenschaften, 1975–8.

Principal Contributions Capital budgeting under certainty and uncertainty; tax incentives for business investment; theory of the growth of the firm; and transfer pricing.

Publications *Books*: 1. *Wirtschaftlichkeitsrechnung bei Unsicheren Erwartungen* (Cologne and Opladen, 1959); 2. *Optimale Wohngebietsplanung* (with O.M. Ungers), (Wiesbaden, 1969); 3. *Beiträge zur Unternehmensplanung* (Wiesbaden, 1969); 4. *Steuer-system und Unternehmerische Investitionspolitik* (Wiesbaden, 1970); 5. *Hochschulplanung* (with W. Schüler and G. Fandel), (Munich, 1977).

Articles: 1. 'Capital budgeting and