William Brian Arthur

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Professional Experience

1994-present Santa Fe Institute

Citibank Professor, Santa Fe Institute

1998-2000 PriceWaterhouseCoopers Fellow

1983-1996: <u>Stanford University</u>

Dean and Virginia Morrison Professor of Economics and Population Studies.

At age 37, youngest endowed-chair professor at Stanford. Co-founded and chaired Stanford's Morrison Institute of Population Studies. From 1979 to 1990, pioneered the modern approach

to increasing-returns (or positive-feedback) economics.

1988-present Santa Fe Institute

Member, Science Board, from 1987,

Member, Board of Trustees, from 1994; External Professor, 1998-1994.

Directed SFI's first Research Program (in Economics) 1988-1989, and in 1995.

1977-1982: Research Scholar, System and Decision Sciences Group.

International Institute for Applied Systems Analysis, Laxenburg, Austria.

At this US-Soviet research institute conducted research on optimization theory and on population economics. With two Soviet probability theorists in 1981 generalized the Borel

Strong Law of Large Numbers

1974-1977: Associate, The Population Council, New York

Research on population and economic development in South Asia and the Middle East

Education Ph.D. Operations Research, University of California, Berkeley, 1973

Doctoral Minor: Finance

M.A. Economics, University of California, Berkeley, 1973

M.A. Mathematics, University of Michigan, 1969

M.A. Operational Research, University of Lancaster, England, 1967

B. Sc. with 1st class Honours. Electrical Engineering, Queen's University, N. Ireland, 1966

Consulting Experience

Dept of Justice vs. Microsoft case (with Wilson, Sonsini, Goodrich & Rosatti) 1994-95

Citibank: Citicorp Investment Bank, Hong Kong 1990-1991

BASF, Deutsche Bank, and Volkswagen (with McKinsey & Co.) 1969-1970

Consultant to several other financial institutions and consulting firms

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Honors

Schumpeter Prize in Economics, for work on increasing-returns economics, 1990

Guggenheim Fellow, for work on increasing-returns economics, 1987

Fellow of the Econometric Society Fellow of the World Economic Forum

Doctor of Economic Sciences (honorary) National Univ. of Ireland, 2000

Other

Information Member, Research Council, The Canadian Institute for Advanced Research, Toronto, 1990-

1995, Canada. Associate Editor of: Complexity, Economic Dynamics and Structural Change,

Macroeconomic Dynamics (1996-2000)

Talks

Frequent keynote speaker. Talks and keynotes at: The White House, World Economic Forum, Coca-Cola, Intel, Monsanto, Credit Suisse First Boston, Vanguard, Citigroup, AMANA (Brazil), Reuben Rausing Fond (Sweden), PC Forum, McKinsey & Co., American Math Society, etc.

Publications

Increasing Returns and Path Dependence in the Economy, 1994, U. Michigan Press

The Economy as an Evolving Complex System II, edited with D. Lane and S. Durlauf, forthcoming 1997, Addison-Wesley

"Increasing Returns and the New World of Business," Harvard Business Review, July 1996

Numerous technical articles in: Scientific American, American Mathematical Monthly, American Economic Review, Journal of Optimization Theory and Applications, Economic Journal, Cybernetics, Review of Economic Studies, and other journals

Publication list available on website.

Research

Interests Currently writing book: *Technology and the Modern Economy* (How modern

technology has radically changed the economics of competition, the character of business, and

thus economics itself.)

Website

www.santafe.edu/arthur