

CURRICULUM VITAE

Manuel Trajtenberg

July 2006

Born: September 21, 1950, Cordoba, Argentina.

Citizenship: Israeli

Family Status: Married, three children.

Eitan Berglas School of Economics
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EDUCATION

Harvard University:

Ph.D. in Economics (with Distinction), 1984.

Hebrew University of Jerusalem, Israel:

M.A. in Economics, 1976

B.A. in Economics and Sociology (with Honors), 1973.

ACADEMIC EMPLOYMENT

Tel Aviv University, Eitan Berglas School of Economics

Chairman, January 2002 – January 2004

Acting Chairman, August 2001 – December 2001

Full Professor, since 2004

Associate Professor, 1997 - 2004

Senior Lecturer, 1991 - 1997

Lecturer, 1984-1991

Stanford University,

Landau Visiting Senior Fellow at SIEPR / CREEG, Fall 2004 (half sabbatical)

National Bureau of Economic Research, and Harvard University, Department of Economics,

Visiting Fellow (half sabbatical), Fall 2000.

Stanford University

Visiting Professor, Department of Economics, and Visiting Senior Research Associate, Center for Economic Policy Research, 1993-94 (sabbatical)

Harvard University, Graduate School of Business Administration
Senior Research Fellow, academic year 1989/90 (sabbatical).

Stanford University, Center for Economic Policy Research
Visiting Fellow, summer of 1988.

Harvard University, Department of Economics
Visiting Scholar, Summer of 1985.
Teaching Fellow, 1980-83

Hebrew University of Jerusalem, Department of Economics
Instructor, 1975-78

OTHER PROFESSIONAL AFFILIATIONS AND ACTIVITIES

DIW – German Institute for Economic Research, Berlin
Member of the Scientific Advisory Board – since 2006

The Sapir Forum
Director, 2005-2006; Research Program on the Economics of Higher Education (joint with the Neaman Institute)

The Samuel Neaman Institute for Advanced Studies in Science and Technology, Technion – Israel Institute of Technology
Head, Program on “Science, Technology and the Economy”, 1999 - 2006

The Academic College of Tel Aviv-Yaffo
Member of the Appointments Committee, since 2004

Tel Aviv University
Member of the Budget Committee, since 2003

National Bureau of Economic Research, Cambridge, Mass.
Research Associate, since 1991
Faculty Research Fellow, 1986, 1987.

CEPR (London, UK)
Research Fellow, since 1999

CIAR – Canadian Institute of Advanced Research, Economic Growth Program
Fellow, 1998 – 2002

The Conference on Research in Income and Wealth (CRIW),
Member, since 2005

The World Bank
Consultant on Innovation and R&D Policy for Development, since 2005

Lucca Institute for Advanced Studies - IMT, Italy – Graduate Program on Economics, Markets and Institutions
Member of the Scientific Board, 2005 -

The Rand Journal of Economics
Associate Editor, 1995 - 2003

The Journal of Industrial Economics
Associate Editor, since 2001

The Journal of Technology Transfer
Board of Editors, since 2002

The Journal of Innovation and New Technology
Associate Editor, since 1989

The Review of Economics and Statistics
Associate Editor, 1999 – 2003

The International Journal of Industrial Organization
Associate Editor, 1994 - 2000

Ministry of Industry and Trade, Office of the Chief Scientist, “Magnet” Program for the Support of Generic, Pre-Competitive Technologies
Member of the Directorate, 1997- 2000

The National Council for Research and Development, and The National Council for the Development of Scientific and Technological Infrastructure in Israel
Member (a Government appointment), 1996/97

Committee for Drafting Merger Guidelines for Israel
Member, by appointment of the Minister of Trade and Industry, 1995

Foerder Institute for Economic Research, and Sackler Institute of Economic Studies, Faculty of Social Sciences, Tel Aviv University
Director, 1991 - 93

Eden Springs (the largest mineral water company in Israel)
Board of Directors, 1998 - 2004

BATM – Advanced Communications (a High-Tech Company)
Board of Directors, 1998-2001

Referee for: The American Economic Review, Econometrica, The Rand Journal of Economics, The Review of Economics and Statistics, the National Science Foundation, the Binational Science Foundation, The Journal of International Economics, Research Policy, the Quarterly Journal of Economics, The Journal of Innovation and New Technology, Harvard University Press.

HONORS AND AWARDS

National Science Foundation Grant, 2005-08, SES-0527657 "Harnessing Patent Data for Social Science Research" (with Iain Cockburn, Bronwyn Hall and Woody Powell).

The Israel Science Foundation Grant 1289/05, 2005-08, "The Names Game: Tracing the Mobility of Inventors with Patent Data."

US-Israel Binational Science Foundation, Grant 2004097, 2005-08, "Innovation in the Early Automobile Industry, and the Interaction with Infrastructure Development" (with Ariel Pakes and Liran Einav).

Grant from *The Israel Science Foundation*, 1996-98, "The Impact of Spillovers on the Economy: An Empirical Assessment Using Patent Data."

Grant from the *US-Israel Binational Science Foundation*, 1995-98 (with Nathan Rosenberg) "The Steam Engine and Lasers: a Study of General Purpose Technologies."

National Science Foundation Grant, 1994-97 (with Adam Jaffe) "The Sources and Effects of Knowledge Spillovers."

National Science Foundation Grant, 1994-97 (with Adam Jaffe), "Using Patent Citation Data to Trace Knowledge Flows."

National Science Foundation Grant SES91-10516, 1991-92 (with A. Jaffe and Michael S. Fogarty) "Getting Down to Basics: Using University and Corporate Patents to Identify Basic Innovations and Trace Their Diffusion."

Invited plenary lecture to the biennial meetings of the *Israeli Economic Association*, Tel-Aviv 1991: "Technology and Economics: The Opening of the 'Black Box'."

Awarded the Robert Troupe Paine Prize for 1986-1989 by the Board of Syndics of *Harvard University Press*, Sept. 1990 (see Publications below).

Co-winner of the 1990 *International Joseph A. Schumpeter Society* Biennial Prize Competition, June 1990 (see Publications below).

Named one of the top seven teachers at *Tel-Aviv University*, for the academic year 1987/88.

American Research Fellowship (\$7,000), *US Information Agency*, June 1985.

The Joseph Schumpeter Fellowship (\$6,000), *Harvard University*, June 1981.

PUBLICATIONS

I. Books

Patents, Citations and Innovations: A Window on the Knowledge Economy (with Adam Jaffe). Cambridge, Mass.: MIT Press, 2002. ISBN 0-262-10095-9. Includes data CD.

Economic Analysis of Product Innovation - The Case of CT Scanners. Cambridge, Mass: Harvard University Press, 1990. Co-winner of the 1990 International Joseph A. Schumpeter Society Biennial Prize Competition, and winner of the Robert Troup Paine Prize for 1986-1989 awarded by Harvard University Press.

II. Articles

“Defense R&D in the Anti-Terrorist Era”. Defence and Peace Economics, 17 (3), June 2006, pp. 177-200.

“Patent Citations and the Geography of Knowledge Spillovers: A Reassessment – Comment” (with Rebecca Henderson and Adam Jaffe). American Economic Review, 95 (1), March 2005, pp. 461- 464.

“Market Value and Patent Citations” (with Adam Jaffe and Bronwyn H. Hall). Rand Journal of Economics, Vol. 36 (1), Spring 2005, pp. 16 – 38.

“A General Purpose Technology at Work: The Corliss Steam Engine in the late 19th Century US” (with Nathan Rosenberg). The Journal of Economic History, Vol. 64, No. 1, March 2004, pp. 61-99.

“In Memoriam: Zvi Griliches (1930-1999).” (joint with Ernst R. Berndt). Journal of Economic and Social Measurement, 27 (2001), pp. 93-97.

"Innovation in Israel 1968-97: A Comparative Analysis Using Patent Data." Research Policy, 30 (3), pp. 363-390, March 2001. (Published also in Hebrew, in the Economic Quarterly 46, November 1999, pp. 285-322).

"Knowledge Spillovers and Patent Citations: Evidence from A Survey of Inventors" (with Adam Jaffe and Michael S. Fogarty). American Economic Review, Vol. 90, Papers and Proceedings, May 2000, pp. 215-218.

"International Knowledge Flows: Evidence from Patent Citations" (with Adam Jaffe)., Economics of Innovation and New Technology, 1999, 8, pp. 105-136.

"Universities as a Source of Commercial Technology: A Detailed Analysis of University Patenting 1965-1988" (with R. Henderson and A. Jaffe). Review of Economics and Statistics, February 1998, Vol LXXX (1), pp. 119-127. (Reprinted in: Navaretti, G.B., Dasgupta, P., Maler K.G. and D. Siniscalco (eds.), Creation and Transfer of Knowledge. Berlin, Springer, 1998, pp. 87-114).

"University versus Corporate Patents: A Window on the Basicness of Invention." (with R. Henderson and A. Jaffe). Economics of Innovation and New Technology, 1997, 5 (1), pp. 19-50.

"Market Segmentation and the Sources of Rents from Innovation: Personal Computers in the late 1980's" (with Timothy Bresnahan and Scott Stern). Rand Journal of Economics, Special Issue in Honor of Richard Quandt, 1997, 28 (0), pp. S17-S44.

"Flows of Knowledge from Universities and Federal Laboratories: Modeling the Flow of Patent Citations over Time and across Institutional and Geographic Boundaries." (with Adam Jaffe). Proceedings of the US National Academy of Sciences, November 1996, Vol. 93, 99. 12671-12677.

"General Purpose Technologies - Engines of Growth?" (with Timothy Bresnahan). Journal of Econometrics, January 1995, 65(1), pp. 83-108.

"Geographic Localization of Knowledge Spillovers as Evidenced by Patent Citations" (with A. Jaffe and R. Henderson). Quarterly Journal of Economics, Vol. 108, August 1993, pp. 577-598.

"A Penny for Your Quotes: Patent Citations and the Value of Innovations". The Rand Journal of Economics, Spring 1990, 21(1), 172-187.

"The Welfare Analysis of Product Innovations, with an Application to Computed Tomography Scanners". Journal of Political Economy, April 1989, 97(2), 444-479.

"The Diffusion of Innovations: A Methodological Reappraisal" (with S. Yitzhaki). Journal of Business and Economic Statistics, January 1989, 7(1), 35-47.

The Use of Multivariate Regression Analysis in Contrast-Detail Studies of CT Scanners". Medical Physics 11 (4), July/August 1984, 456-64.

"Performance in Innovation in the Israeli Electronics Industry: A Case Study in Biomedical Electronics Instrumentation". Research Policy 5, 1976, 354-379 (with M. Teubal and N. Arnon).

III. Chapters in Books

"Uncovering General Purpose Technologies using Patent Data" (with Bronwyn Hall). In Antonelli, C., D. Foray, B. H. Hall, and W. E. Steinmueller (eds.), New Frontiers in the Economics of Innovation and New Technology, Essays in Honor of Paul David. Edward Elgar, 2006.

"Crafting Defense R&D Policy in the Anti-Terrorist Era". in A. Jaffe, J. Lerner and S. Stern (eds.), Innovation Policy and the Economy, Vol. 4, pp. 1 – 34, National Bureau of Economic Research, MIT Press, 2004.

"Is Canada Missing the 'Technology Boat'? Evidence from Patent Data". In Someshwar Rao and Andrew Sharpe (eds.), Productivity Issues in Canada, University of Calgary Press, 2002, pp. 245-280. Forthcoming also in Pierre Fortin and Craig Riddell (eds.), Growth, Employment and Technology: New Perspectives on Canadian Policies. McGill-Queen's University Press.

"R&D Policy in Israel: An Overview and Reassessment". In Maryann P. Feldman and Albert N. Link (eds.), Innovation Policy in the Knowledge-Based Economy. Boston: Kluwer Academic Publishers, 2001, pp. 409-454. A slightly different version was published also as "Government Support for Commercial R&D: Lessons from the Israeli Experience." In A. Jaffe, J. Lerner and S. Stern (eds.), Innovation Policy and the Economy, Vol. 2, National Bureau of Economic Research, MIT Press, 2002.

"Patient Welfare and Patient Compliance: An Empirical Framework for Measuring the Benefits from Pharmaceutical Innovation" (with Paul Ellickson and Scott Stern). In Ernst R. Berndt and David M. Cutler. (eds.), Medical Care Output and Productivity. Chicago, University of Chicago Press, 2001, pp. 539-563.

"Diffusion of General Purpose Technologies" (with Elhanan Helpman). In Helpman, E. (ed.), General Purpose Technologies and Economic Growth. Cambridge: MIT Press, 1998.

"A Time to Sow and a Time to Reap: Growth Based on General Purpose Technologies" (with Elhanan Helpman). In Helpman, E. (ed.), General Purpose Technologies and Economic Growth. Cambridge: MIT Press, 1998.

"Quality-Adjusted Prices for the American Automobile Industry: 1906-1940" (with Daniel Raff). In Bresnahan, T. and R. Gordon (eds.), New Goods. Chicago, University of Chicago Press, 1997, pp. 71-101.

"Quality-adjusted Price Indices and the Measurement of Economic Growth", in Technology and Productivity, The Challenge for Economic Policy, O.E.C.D., Paris 1991, pp. 219-228.

IV. Submitted for Publication

"Empirical Implications of Physician Authority in Pharmaceutical Decisionmaking" (with Scott Stern). To the Journal of Health Economics (revise and resubmit).

V. Publications in Hebrew

"R&D, High Tech and Economic Growth." The Economic Quarterly, 49, December 2002, pp. 628-237.

"Towards an Industrial and Technological Policy for Israel: Analytical Foundations and some Specific Proposals" (with M. Justman and M. Teubal, in Hebrew), The Economic Quarterly, 37, February 1987, 978-989.

VI. Working Papers

"Innovation Policy for Development: An Overview". **Foerder Institute for Economic Research**, WP 6-06, June 2006.

"The NBER Patent Citations Data File: Lessons, Insights and Methodological Tools" (with Bronwyn Hall and Adam Jaffe). **NBER WP** No. 8498, October 2001.

"The Meaning of Patent Citations: Report on the NBER/Case-Western Reserve Survey of Patentees" (with Adam B. Jaffe and Michael S. Fogarty). **NBER WP** 7631, April 2000.