

January 2015
PAULA E. STEPHAN
CURRICULUM VITAE

Biographical Information

Address: Department of Economics
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Family: Married to William D. Amis
Son, David Amis

Education

B.A., economics, Grinnell College, 1967

M.A., economics, University of Michigan, 1968

Ph.D., economics, University of Michigan, 1971

Professional Experience

Professor of Economics and Senior Associate, Policy Research Center, Georgia State University, 1988-present

Associate Dean, Andrew Young School of Policy Studies, Georgia State University, 1996-2001

Professor of Economics, Georgia State University, 1981-1988

Associate Professor of Economics, Georgia State University, 1976-1981

Assistant Professor of Economics, Georgia State University, 1971-1976

Teaching Fellow, University of Michigan, Department of Economics, 1969-70

Research Assistant to Frank Stafford and George Johnson, University of Michigan, on study dealing with micro determinants of investment in human capital, Summer 1970

Research Assistant at Institute for Social Research, University of Michigan, Economic Behavior Program, Summer 1969

Assistant in Research to Robert Haveman, Resources for the Future, Washington, D.C., Summer 1967

Visiting Appointments

Visiting Scholar, Max Planck Institute for Innovation and Competition, November 2014.

Visiting faculty, Department of Economics S. Cagnetti de Martiis, University of Turin, Fall 2011, Spring 2012

Fellow, International Centre for Economic Research, Turin, Italy, Fall 2009, Spring and Fall 2011.

Visiting Fellow in Innovation Studies group, Politecnico di Torino, Spring 2008.

Wertheim Fellow, Harvard University, February, March 2007

Visiting Fellow, Katholieke Universiteit Leuven, Leuven, Belgium, March, April, May 2005

Visiting Scholar, Wissenschaftszentrum Berlin für Sozialforschung, Berlin, Germany, Spring 1992; Summer 1994.

Visiting Professor of Economics, Ecole Supérieure de Commerce, Paris, France, Fall 1984

Honors and Awards

Phi Beta Kappa, Grinnell College, 1967

Woodrow Wilson Fellowship, 1967-68

Rackham Prize Fellowship, Spring 1969; Summer, Fall 1970; Winter, 1971, University of Michigan

The William Rogers Hammond Award, 1978-79, presented by the Doctoral Fellows, Georgia State University

Alumni Distinguished Professor Award, College of Business Administration, Georgia State University, 1986.

Faculty Recognition Award, Research, College of Business Administration, Georgia State University, 1991

Faculty Recognition Award, Service, College of Business Administration, Georgia State University, 1992.

Who's Who in America, 2001-present and various other *Who's Who* editions.

Alumni Distinguished Professor Award, Georgia State University, 2003.

TIAA-CREF Fellow, 2005-2007

Research Associate, National Bureau of Economic Research, 2007-

Fellow American Association for the Advancement of Science, 2011

Selected *ScienceCareers'* first Person of the Year, December 2012.

Keynote speaker, National Postdoctoral Association annual meetings, Charleston, SC, March 16, 2013.

28th Annual Harry A. Feldman Lecture, American Epidemiological Society, Michigan State University, March 21, 2013.

President's Distinguished Lecture, Society for Gynecological Investigators, Orlando, Florida, March 22, 2013.

Nordlander Lecture, Cornell University, November 11, 2013.

State of the Art Lecture Award, American Society for Clinical Pharmacology and Therapeutics, Atlanta, GA, March 21, 2014.

EHR Distinguished Lecture, National Science Foundation, April 17, 2014.

Foreign Languages

French: Reading--good; Speaking--fair.

Editorial Assignments, Reviewing Assignments

Board of Reviewing Editors: *Science*, 2012-2014

Board of Editors, *Southern Economic Journal*, 1977-1981.

Referee for *American Economic Review*; *Economic Inquiry*; *Public Finance Quarterly*; *Journal of Political Economy*; *Journal of Human Resources*; *Science, Technology, and Human Values*; *Industrial and Labor Relations Review*; *Non-Profit and Voluntary Sector Quarterly*; *Small Business Economics*; *Journal of Econometrics*; *American Sociological Review*; *Sex Roles: A Journal of Research*; *Review of Economics and Statistics*; *Journal of Economic Literature*; *International Journal of Industrial Organization*; *Research in*

Labor Economics; Social Studies of Science; Research Policy; IEEE Technology and Society; Journal of Technology Transfer; Economics of Education Review; Managerial and Decision Economics; Journal of Labor Economics; Science; Economics Letters Economics of Innovation and New Technology; Annales of Economie et Statistique, Journal of Economic Behavior and Organization, Public Finance Review, Social Forces, Quarterly Journal of Economics, Management Science, Proceedings of the National Academies of Science; FASEB Journal; Reviewer for National Science Foundation, National Research Council, Alfred P. Sloan Foundation, TIAA-CREF Institute.

Panel and Committee Membership

Council Delegate, Section K, AAAS, 2015-2018

Member, European Research Council's Expert Group on Key Performance Indicators, 2014-2015

Member, Committee on High-Skilled Immigration and the Global Competition for Talent, National Academies, 2014-2015

Member, Committee to Review the State of the Postdoctoral Experience in Scientists and engineers, National Academies, 2011-2013

Member, Committee on the Future Workforce for Geospatial Intelligence, National Research Council, 2011-2012.

Member, Committee on Measuring Economic and Other Returns on Federal Investments in Research, National Research Council, November 1, 2010, November 1, 2011.

Member Board on Higher Education and Workforce, National Research Council, 2009-2014.

Member, National Research Council Committee on Examination of the U.S. Air Force's Science, Technology, Engineering and Mathematics (STEM) Workforce Needs in the Future and Its Strategy to Meet Those Needs. 2008-2009

Member, National Advisory General Medical Sciences Council, NIH, January 1, 2006-December 31, 2009 (appointed by U.S. Secretary of Health and Human Services Michael Levitt, November 2005).

Member, Social, Behavioral and Economics Advisory Committee, National Science Foundation, 2001-2008. (CEOSE representative 2001-2003).

Member, S&E Human Resources Expert Panel (HREP), National Science Foundation Directorate for Social, Behavioral and Economic Sciences Advisory Committee, 2007-.

Member, Advisory Committee, “Women in Science and Engineering: Network Access, Participation, and Career Outcomes,” University of Illinois, Chicago, NSF-funded project.

Member, High Level Expert Group on “Maximizing the Wider Benefits of Competitive Basic Research Funding at the European Level,” European Commission, 2004.

Member, Committee on Policy Implications of International Graduate Students and Postdoctoral Scholars in the United States, COSEPUP, National Academies of Science, 2004.

SBE Advisory Committee representative for the Committee of Visitors for three programs in the Social and Economic Sciences, March 2004.

IGERT site visit team, National Science Foundation, Purdue University, January 2004.

Member, Committee on Equal Opportunities in Science and Engineering (CEOSE), National Science Foundation, 1999-2002

Member, Scientific Workforce Project, National Bureau of Economic Research, 2002-

Member, Academic Advisory Board of the Center for Science, Policy, and Outcomes (CSPO).

Member, Joint Committee on Economic Assessment, University of California, 2000-2002.

Member, Study Panel for Science and Engineering Workforce Data 2000. National Science Foundation, 2000-2001.

Member, Societal Dimensions of Engineering, Science, and Technology - Ethics and Values Studies, Research on Science and Technology (SDETS) Panel, National Science Foundation, 1999-2001

Member, Special Advisory Panel for the Doctorate Data Project, National Science Foundation, 1999

Member, Committee to Assess the Portfolio of the Science Resources Studies Division of the National Science Foundation, National Research Council, 1998

Member, Committee on Methods of Forecasting Demand and Supply of Doctoral Scientists and Engineers, National Research Council, 1997-1998

Member, Committee on Dimensions, Causes, and Implications of Recent Trends in the Careers of Life Scientists, National Research Council, 1996-1997

Chair, Committee on National Research Council Research Associate's Career Outcomes, 1991-1992

Survey Content Group, National Science Foundation Advisory Panel, 1990-1991, directed by *Mathematica*

Appointed to Equal Employment Opportunity Panel, Employment Standards Administration, 1981

Social Science Research Council's Screening Committee for the Fellowship Programs in Employment and Training, U.S. Department of Labor, 1980-1983

Small Grants Panel, U.S. Department of Labor, Employment and Training Administration 1977-1980.

Professional Organizations

American Association for the Advancement of Science, Elected Member-at-Large of the Section on Social, Economic & Political Sciences, February 2014-February 2018

American Economic Association

Funded Research/Projects

Alfred P. Sloan Foundation, "Economics of Science," (\$49,964). 2009-2010.

Alfred P. Sloan Foundation, Career Patterns of Foreign Talent Trained and/or Working in the United States. (\$38,000). Co-PIs in organizing the workshop: Richard Freeman and Jack Trumbour.

Andrew W. Mellon Foundation, "The Effects of Access to Information Technology on Disparities in Academic Productivity Among Tiers of Institutions and Between Men and Women." (\$203,000). Co-PIs: Sharon Levin and Anne Winkler, 2006-2009.

National Science Foundation, "Using the SRS Human Resource Data to Study the Science and Engineering Workforce (\$78,974 NSF; \$10,000 cost-share NBER SEWP project) 2006-2008.

Kauffman Foundation and Georgia Research Alliance, "A Roadmap for an Entrepreneurial Economy," (approximately \$1 million); administered by Georgia Research Alliance; Co-Directors: Jerry Thursby and Marie Thursby, 2006-2009.

National Science Foundation, “Using the SRS Human Resource Data to Study the Science and Engineering Workforce,” (\$39,276 NSF, \$5000 cost-share NBER-SEWP project), 2005-2006

TIAA-CREF Institute, “Growing Postdoctoral Population at U.S. Research Universities,” (\$10,000), 2005

National Academies of Science, “SBIR Case Studies,” (\$9,450), 2005.

National Bureau of Economic Research, “Scientific Networks,” (\$14,941), 2004-2005

National Science Foundation, “Firm Placements of New PhDs,” (\$130,648), 2003-2005

National Bureau of Economic Research, “Scientific Networks,” (\$29,968), 2003-2004

TIAA-CREF Institute, “The Growing Postdoc Population at U.S. Research Universities,” (\$24,984) 2002-2003.

National Bureau of Economic Research, “Scientific Networks,” (\$29,968), 2002-2003.

Bioinformatics/Computational Biology (Paula Stephan and Grant Black). Alfred P. Sloan Foundation (\$39,798) 2002-2003.

Retention of Women and Minorities in the IT Workforce (Paula Stephan and Sharon Levin). National Science Foundation (\$297,771), 2000-2002.

Mapping and Evaluating Science: Tracing the Linkages Between Firms and Industries (Jim Adams and Paula Stephan). Andrew Mellon Foundation (\$500,000), 2000-2002.

Linkages between Industrial Innovation and HR. The National Academies (\$16,500), 1999.

Computational Biology/Bioinformatics Hiring Patterns. Alfred P. Sloan Foundation (\$9,015), 1999.

Investigating Differential Employment Patterns of Native and Foreign-Born Science and Engineering Doctorates: Implications for Displacement (S. Levin and Paula Stephan). Alfred P. Sloan Foundation (\$109,301), 1996-1997.

Essay on the Economics of Science. Andrew Mellon Foundation (\$12,000), 1995.

How Localized are Networks in Biotechnology? (David Audretsch and Paula Stephan), North Atlantic Treaty Organization (NATO), (\$9,000), 1994-1996.

The Birth Origin and Educational Background of Scientists and Engineers Making Exceptional Contributions to U.S. Science and Engineering. Alfred P. Sloan Foundation, 1993-1995, Paula Stephan and Sharon Levin (\$114,592).

Gender Differences in the Wage Determination Process in Academia, National Science Foundation, 1990-1991, Paula Stephan and Sharon Levin (\$38,700).

Demographic and Economic Determinants of Scientific Productivity. National Science Foundation, 1983-1985, Paula Stephan and Sharon Levin (\$101,300).

Age, Vintage and Time Effects on the Productivity of U.S. Scientists. Alfred P. Sloan Foundation, 1983-1985, Paula Stephan and Sharon Levin (\$20,000).

Age, Vintage and Time Effects on the Productivity of U.S. Scientists. Exxon Education Foundation, 1983-1985, Paula Stephan and Sharon Levin (\$30,000).

Labor Force Response of Career vs. Non-career Married Women to the Unemployment Rate. U.S. Department of Labor, Office of Assistant Secretary for Policy Evaluation, 1977 (\$5,000).

Incidence of and Adjustment to Temporary Involuntary Unemployment. Bureau of International Affairs, U.S. Department of Labor, 1975-1976, Paula Stephan, David L. Sjoquist and Larry D. Schroeder (\$40,000).

Income Distribution Effects of Manpower Programs. U.S. Department of Labor, Office of Evaluation, 1974, Paula Stephan, Larry D. Schroeder and David L. Sjoquist (\$40,000).

Working Papers/Papers and Papers in Process

“The Economics of Science: Funding of Research,” ICER working paper 12/10, 2010.

“Complicating Merton: The Motives, Incentives, and Commercial Activities of Academic Scientists and Engineers” (Henry Sauermann, Wes Cohen and Paula Stephan).

“Foreign Born Scientists: Mobility Patterns for 16 Countries” (Chiara Franzoni, Giuseppe Scellato and Paula Stephan) NBER working paper 18067, May 2012.

“The Mover’s Advantage: Scientific Performance of Mobile Academics,” (Chiara Franzoni, Giuseppe Scellato and Paula Stephan), NBER working paper 18577.

“Mobile Scientists and International Networks,” (Giuseppe Scellato, Chiara Franzoni and Paula Stephan), NBER working paper 18613.

“Choice of Country by the Foreign Born for PhD and Postdoctoral Study: A sixteen-country perspective.” (Paula Stephan, Chiara Franzoni and Giuseppe Scellato). NBER Working Paper 18809.

Publications

A. Books

How Economics Shapes Science, Harvard University Press 2012.

<http://www.hup.harvard.edu/catalog.php?recid=31302&content=reviews>.

The book has been reviewed or featured in *Science*, *Nature*, *Inside Higher Education*, *The Times Higher Education*, *The FASEB Journal*, *the Scholarly Kitchen*, *Rorotoko*, *Genome Biology*, *Science Careers*, *Science and Public Policy*, *the New Physician*, *Chemistry World*, *Issues in Science and Technology*. Translated and published in Korean by Geulhangari Press in 2013; a Chinese translation is scheduled to be released by Peking University Press, summer 2014.

Science and the University; edited (Paula Stephan and Ronald Ehrenberg). University of Wisconsin Press, 2007.

The Economics of Science and Innovation, edited (Paula Stephan and David Audretsch), Edward Elgar Publishing, 1999.

Striking the Mother Lode in Science: The Importance of Age, Place and Time, (Paula Stephan and Sharon Levin), Oxford University Press, April 1992.

Interpreting Linear Regression Analysis: An Introductory Guide, (Larry Schroeder, David Sjoquist and Paula Stephan), Sage Publications, 1986.

B. Chapters in books

“International Mobility of Research Scientists: Lessons from GlobSci,” (Chiara Franzoni, Giuseppe Scellato and Paula Stephan). In *Science on the Move: Economics and the Mobility of Research Scientists*, edited by Aldo Geuna. Elsevier, forthcoming.

“International Competition for PhDs and Postdoctoral Scholars: What Does (and Does Not) Matter; (Paula Stephan, Giuseppe Scellato and Chiara Franzoni) in *Innovation Policy and the Economy*, MIT Press, edited by William Kerr, Josh Lerner and Scott Stern, forthcoming.

“The Endless Frontier: Reaping what Bush Sowed?” in *The Changing Frontier: Rethinking Science and Innovation Policy*, edited by Adam Jaffe and Benjamin Jones, University of Chicago Press, Chicago, 2014. (Also NBER Working Paper 19687; US Universities, the Shopping Mall Model, Vox blog, March 20, 2014).

The Biomedical Workforce in the US: An Example of Positive Feedbacks, in *Handbook on the Economic Complexity of Technological Change*, ed. By Cristiano Antonelli, pp. 240-261, Edward Elgar, Cheltenham, 2011.

“The I’s Have It: Immigration and Innovation, the Perspective from Academe,” in *Innovation Policy and the Economy*, MIT Press, edited by Josh Lerner and Scott Stern, 2010, pp. 83-128.

“Economics of Science,” In B. H. Hall & N. Rosenberg, editors, *Handbook of Economics and Innovation*, Vol. 1, pp. 217-274, Elsevier, 2010.

“The Economics of University Lab Science and the Role of Foreign Graduate Students and Postdoctoral Scholars.” (Grant C. Black and Paula Stephan), in *American Universities in a Global Market*,” edited by Charles Clotfelter, University of Chicago Press, 2010, pp. 129-162.

“Tracking the Placement of Students as a Measure of Technology Transfer.” In *Measuring the Social Value of Innovation: A Link in the University Technology Transfer and Entrepreneurship Equation*, edited by Gary Libecap, Emerald Group, 2009.

“Capturing Knowledge: The Location Decision of New PhDs Working in Industry” (Albert Sumell, Paula Stephan and James Adams), *Science and Engineering Careers in the United States: An Analysis of Markets and Employment*, Richard B. Freeman and Daniel F. Goroff (eds) University of Chicago Press, Chicago, IL, 2009.

“Job Market Effects on Scientific Productivity,” in *Scientific Competition*, edited by Max Albert, Dieter Schmidtchen, and Stefan Voigt, Mohr Siebeck. 2008.

“Wrapping It Up in a Package: The Location Decision of New PhDs Going to Industry.” *Innovation Policy and the Economy*, MIT Press, edited by Adam Jaffe, Josh Lerner and Scott Stern, 2007.

“Foreign Scholars in U.S. Science: Contributions and Costs,” (Paula Stephan and Sharon Levin), in *Science and the University*, edited by Ronald Ehrenberg and Paula Stephan, University of Wisconsin Press, 2007.

“The Importance of Foreign PhD Students to US Science,” (Grant Black and Paula Stephan), in *Science and the University*, edited by Ronald Ehrenberg and Paula Stephan, University of Wisconsin Press, 2007.

“The Phenomenon of Increased Postdoctoral Appointments at US Research Universities,” (Jennifer Ma and Paula Stephan) in *Faculty Career Paths: Multiple Routes to Academic Success and Satisfaction*, edited by Gretchen M. Bataille and Betsy E. Brown, ACE/Praeger Series on Higher Education, 2006

"The Growing Postdoctorate Population at U.S. Universities," *Recruitment, Retention and Retirement in Higher Education*, edited by Robert Clark and Jennifer Ma, Edward Elgar, 2005.

"Firm Placements of New PhDs: Implications for Knowledge Transfer," (Paula Stephan, Albert Sumell, Grant Black and James Adams), pp. 125-146, *Role of Labour Mobility and Informal Networks for Knowledge Transfer*, edited by Dirk Fornahl, Christian Zellner, and David Audretsch, Springer, 2004.

"Commentary," *Science and Innovation: Rethinking the Rationales for Funding and Governance*, eds. Aldo Guena, Ammon J. Salter and W. Edward Steinmueller, Edward Elgar, Northampton, MA, 2003, pp. 233-235, 2003.

"Using Human Resource Data to Illuminate Innovation and Research Utilization," in *Using Human Resource Data to Track Innovation*, eds. Stephen A. Merrill and Michael McGeary, National Academy Press, 2002.

"A Discussion of Technology and Productivity in the Firm," in *Technology, Growth and the Labor Market*, edited by Donna Ginther and Madeline Zavodny, Kluwer Academic Publisher, Boston 2002.

"The Importance of Implicit Contracts in Collaborative Research," (Paula Stephan and Sharon Levin) in *The New Economics of Science*, pp. 412-430. Edited by Philip Mirowski and Esther-Mirjam Sent, University of Chicago Press, 2002.

"The Economic Interpretation of Scientific Success." *Max Plank Forum: Ethics of Research*, Gottfried Plehn, Referat Presse- und Öffentlichkeitsarbeit, 2000, pp 73-92.

"Bioinformatics: Emerging Opportunities and Emerging Gaps" (Paula Stephan and Grant Black). *Government-Industry Partnerships in Biotechnology and Computing*, Charles Wessner (ed.), National Academy Press, 2000.

"How and Why Does Knowledge Spillover in Biotechnology?" (David Audretsch and Paula Stephan). *Innovation, Industry Evolution, and Employment*, edited by David Audretsch and Roy Thurik, Cambridge University Press, 1999, pp. 216-229.

"Knowledge Sources in Biotechnology Through the Schumpeterian Lens," (David Audretsch and Paula Stephan), *The Microfoundations of Economic Growth*, edited by Chris Green, University of Michigan Press, 1998, Part 3, pp 169-187.

"The History of Women and Couples in Academe" (Paula Stephan and Mary Kassis), *Academic Couples: Problems and Promises*, edited by Marianne A. Ferber and Jane W. Loeb, Illinois University, Press, 1997, Chapter 2, pp. 44-79.

"Measures of Scientific Output and the Age-Productivity Relationship" (Paula Stephan and Sharon Levin). *Handbook of Quantitative Studies of Science and Technology*, edited by Anthony Van Raan and published by the Elsevier Science Publishers, 1988, Chapter 2, pp. 31-80.

"Women in the Labor Force," *Urban Atlanta: Redefining the Role of the City*, edited by Andrew Hamer, Georgia State University, February 1980, Chapter 17, pp. 249-256.

"Career Commitment and Labor Force Participation of Married Women," (Larry Schroeder and Paula Stephan) *Women in the Labor Force*, edited by Lloyd, Gilroy and Andrews, Columbia University Press, 1979, Chapter 8, pp. 119-136.

"White Elephants, Waterways, and the Transportation Act of 1966," (Robert Haveman and Paula Stephan) *The Political Economy of Federal Policy*, edited by Robert Haveman and Robert Hamrin, Harper and Row, 1973. pp. 220-225.

C. Articles in Refereed Journals

"Migrant Scientists and International Networks," (Giuseppe Scellato, Chiara Franzoni and Paula Stephan), *Research Policy*, 44(1): 108-120, 2015.

"The Diffusion of Information Technology and the Increased Propensity of Teams to Transcend Institutional and National Borders," (Anne E. Winkler, Wolfgang Glänzel, Sharon Levin, and Paula Stephan), *Revue Economique* special issue on Careers, Wages and Productivity in Higher Education and Research. (IZA discussion paper no. 5857, July 2011), 66(1), 115-142, 2015.

"Mobile Scientists: Superior Performance of Migrant Scientists" (Chiara Franzoni, Giuseppe Scellato and Paula Stephan), *Economics Letters* 122: 89–93, 2014.

"Publishing Trends in Economics across Colleges and Universities, 1991–2007 (Anne Winkler, Sharon Levin, Paula Stephan and Wolfgang Glänzel), *Eastern Economic Journal*, September, 2013.

"Foreign Born Scientists: Mobility Patterns for 16 Countries," *Nature Biotechnology*, 30:150-153, 2012. (NBER Working Paper 18067).

"A Multidimensional View of Industrial and Academic Science," (Henry Sauermann and Paula Stephan), *Organization Science*, September, 2012. (NBER Working Paper 16113, 2010).

"Changing Incentives to Publish," (Chiara Franzoni, Giuseppe Scellato and Paula Stephan), *Science*, 33:702-703, 2011.

"Innovation in Academe: The Diffusion of IT Technologies." (Sharon Levin, Paula

Stephan and Anne Winkler), *Applied Economics*, 44:1765-1782, 2011.

Conveying Quality and Value in Emerging Industries: Learning and Star Scientists in Biotechnology.” (Matthew Higgins, Paula Stephan and Jerry Thursby), *Research Policy*, 40:605-617, 2011.

“The Impact of Information Technology on Scientists’ Productivity, Quality and Collaboration Patterns (Waverly Ding, Sharon Levin, Paula Stephan and Anne Winkler). *Management Science*, Vol. 56, pp. 1439-1461, 2010.

“The Diffusion of IT in Higher Education: Publishing Productivity of Academic Life Scientists.” (Anne E. Winkler, Sharon G. Levin and Paula E. Stephan), *Economics of Innovation and New Technology*. Vol. 19, No.5, July 2010, 475-497

“The Knowledge Production Function for University Patenting.” (Shiferaw Gurmu, Grant Black and Paula E. Stephan), *Economic Inquiry*, 48, pp. 192-213, 2010.

“Science and the University: Challenges for Future Research,” *CESifo Economic Studies*, 54, pp. 313-324, 2008.

“Who’s Patenting in the University?” (Paula Stephan, Shif Gurmu, A.J. Sumell and Grant Black), *Economics of Innovation and New Technology*, 61(2), pp. 71-99, 2007.

“The Small Size of the Small Scale Market: The Early-Stage Labor Market for Highly Skilled Nanotechnology Workers.” (Paula Stephan, Grant Black and Tanwin Chaing), *Research Policy*, Vol. 36(6):887-892, 2007.

“The Entrepreneurial Puzzle: Explaining the Gender Gap,” (Paula Stephan and Asmaa El-Gainainy). *Journal of Technology Transfer*. 32:475-487, 2007

“Standing on Academic Shoulders: Measuring Scientific Influence in Universities (James D. Adams, Roger Clemmons and Paula E. Stephan), *Les Annales d’Economie et de Statistique*, 79/80, pp. 61-90, 2005.

“Women and Underrepresented Minorities in the IT Workforce,” (Sharon Levin and Paula Stephan), *Women and Minorities in Science and Engineering*, Vol. 11, 2005.

“Bioinformatics Training Programs are Hot but the Labor Market is Not,” (Grant Black and Paula Stephan *Biochemistry and Molecular Biology Education*, January 2005, 33:58-62.

“Scientific Teams and Institutional Collaborations: Evidence from U.S. Universities,” (James D. Adams, Roger Clemmons, Grant Black and Paula Stephan), *Research Policy*, 34:259-285, 2005.

“Leaving Careers in IT: Gender Differences in Retention,” (Paula Stephan and Sharon

Levin) *Journal of Technology Transfer*, 30: 383-396. 2005.

“Differential Employment Patterns for Citizens and Non-Citizens in Science and Engineering in the United States: Minting and Competitive Effects. (Sharon G. Levin, Grant C. Black, Anne E. Winkler and Paula E. Stephan), *Growth and Change*, vol. 335: 456-475, 2004.

“Robert K. Merton’s Perspective on Priority and the Provision of the Public Good Knowledge.” *Scientometrics*, 60:81-87, 2004.

“Doctoral Education and Economic Development: The Flow of New PhDs to Industry (Paula Stephan, Albert J. Sumell, Grant Black and James Adams.) *Economic Development Quarterly*, 18(2):151-167, 2004.

“The Economics of Science and Technology” (David Audretsch, Maryann Feldman, John E. Jankowski, Albert N. Link, Donald Siegel, Paula Stephan, Gregory Tasse, Charles Wessner), special issue of *The Journal of Technology Transfer*, 27(2):155-210, 2002.

“Career Stage, Benchmarking and Collaborative Research” (Paula Stephan and Sharon Levin). *International Journal of Technology Management*: Special Issue, “Individual Careers and Collective Research: Is it a Paradox?” Vol. 22, Nos. 7/8 (2001), pp. 676-687.

“Biotechnology in Europe: lessons from the USA” (David Audretsch and Paula Stephan). *International Journal of Biotechnology*, Vol 3, Nos. 1/2 (2001), pp. 168-183.

“Exceptional Contributions to U.S. Science by the Foreign-Born and Foreign-Educated” (Paula Stephan and Sharon Levin). *Population Research and Policy Review*, Vol. 20, Nos. 1-2 (April 2001), pp. 59-79.

“Careers of Young Scientists: Preferences, Prospects and Realities by Gender Field” (Mary Frank Fox and Paula Stephan). *Social Studies of Science*, Vol 31, No. 1, February 2001, pp. 109-122.

“Educational Implications of University-Industry Technology Transfer.” *The Journal of Technology Transfer*, Vol 26, No.3, June 2001, pp 199-205.

“The Knowledge Production Function: Lessons from Biotechnology” (Paula Stephan, Richard Hawkins and David Audretsch). *International Journal of Technology Management*, special issue, on “Intellectual Property Protection and Economic Development,” edited by Edwin Mansfield, Vol. 19, Nos 1/2, 2000, pp 165-178.

“Bioinformatics: Does the U.S. System Lead to Missed Opportunities in Emerging Fields? A Case Study” (Paula Stephan and Grant Black). *Science and Public Policy*, Vol 26, #6, December 1999, pp 382-392.

"Are the Foreign Born a Source of Strength for U.S. Science" (Sharon Levin and Paula Stephan), *Science*, 285, #5431, August 20, 1999, pp. 1213-1214.

"Knowledge Spillovers in Biotechnology: Sources and Incentives," (David Audretsch and Paula Stephan), *Journal of Evolutionary Economics*, Vol. 9, No. 1, 1999, pp. 97-107.

"Gender Differences in the Rewards to Publishing in Academe: Science in the 1970s" (Sharon Levin and Paula Stephan). *Sex Roles: A Journal of Research*, Vol. 38, No. 11/12, 1998, pp. 1049-1064.

"The Changing Rewards to Science: The Case of Biotechnology," (Paula Stephan and Steve Everhart), *Small Business Economics*, Vol. 10, No. 2, March 1998, pp. 141-151.

"The Critical Importance of Careers in Collaborative Scientific Research," (Paula Stephan and Sharon Levin), *Revue D'Economie Industrielle*, No. 79, First Trimester, 1997, pp. 45-61.

"Le Stress des Jeunes Chercheurs Americains," *Biofutur*, No. 167, May 1997, pp. 38-40.

"The Economics of Science," *Journal of Economic Literature*, Vol XXXIV, September 1996, pp. 1199-1235.

"Company-Scientist Locational Links: The Case of Biotechnology" (David Audretsch and Paula Stephan), *American Economic Review*, Vol. 86, No. 3, June 1996, pp. 64-652.

"Property Rights and Entrepreneurship in Science," (Paula Stephan and S. Levin) *Small Business Economics*, Vol. 8, No. 3, June 1996, pp. 177-188.

"The Role of Management Attorneys in Union Organizing Campaigns," (Bruce Kaufman and Paula Stephan), *Journal of Labor Research*, Vol. 16, 1995, pp. 439-454.

"Planck's Principle Revisited," (Sharon Levin, Paula Stephan and Mary Beth Walker), *Social Studies of Science*, Vol. 25, No. 2, May 1995, pp. 275-283.

"Age and the Nobel Prize Revisited," (Paula Stephan and Sharon Levin), *Scientometrics*, Vol. 28, No. 3, pp. 387-99, 1993.

"The Relationship between Market Work, Work Aspirations and Volunteering," *Nonprofit and Voluntary Sector Quarterly*, Vol. 20, Summer 1991, pp. 225-36.

"Inequality in Scientific Performance: Adjustments for Attribution and Journal Impact," (Paula Stephan and Sharon Levin), *Social Studies of Science*, Vol. 21, No. 2, pp. 351-68, May 1991.

"Research Productivity Over the Life Cycle: Evidence for Academic Scientists," (Sharon Levin and Paula Stephan), *American Economic Review*, Vol. 81, No. 1, pp. 114-132. March 1991.

"Publishing Productivity in the Earth Sciences," (Sharon Levin and Paula Stephan), *Eos*, October 23, 1990, Vol. 71, No. 43, pp. 1173-1182.

"Age and Research Productivity of Academic Scientists," (Paula Stephan and Sharon Levin), *Research in Higher Education*, Vol. 30, No. 5, 1989, pp. 531-549.

"The Determinants of Wage Growth Among Industries in the 1970s," (Bruce Kaufman and Paula Stephan), *Industrial Relations*, May, 1987, pp. 186-194.

"The Earning Prospects of Female MBAs," *Business*, January-March 1987, Vol. 37, No. 1, pp. 37-41.

"Sex Segregation in Education: The Case of Doctorate Recipients," (Sharon Levin and Paula Stephan), *Journal of Behavioral Economics*, Vol. XII, No. 2, Winter 1983, pp. 67-94.

"The Allocation of Employment and Training Funds Across States," (Larry D. Schroeder, David L. Sjoquist and Paula Stephan), *Policy Analysis*, Vol. 6, No. 4, Fall 1980, pp. 395-407.

"Human Capital Production: Life Cycle Production with Different Learning Technologies," *Economic Inquiry*, December 1976, pp. 539-557.

"Labor, Leisure and Training Over the Life Cycle," (Harl Ryder, Frank Stafford and Paula Stephan), *International Economic Review*, October 1976, pp. 651-674.

"The Impact of Income Taxes on Labor's Productivity: A Human Capital Approach," *Public Finance Quarterly*, October 1975, pp. 361-379.

"Midwestern Rural Poverty, Human Rights and the Need for Legal Services," (Robert Haveman, Ronald Kurtz, Ruth Edelen and Paula Stephan), *The Kansas Law Review*, May 1967, pp. 513-536.

Other Publications Including Proceedings

"How to Exploit Postdocs," *BioScience*, April 2013, pp. 245-246.

"Too many scientists?" *Chemistry World*, 23 January 2013.

"The Other 1 Percent." *Scientific American*, 307, pp. 50-51, 2012.

Perverse incentives.” *Nature*, 5 April 2012, vol. 484, pp. 29-31

Book Review: “Biomedical Computing: Digitizing Life in the United States” by Joseph November. *Nature*, 5 July 2012, p. 35.

“Comments on the *Gathering Storm* and Its Implications for National Security.” In *Perspectives on U.S. Competitiveness in S&T and National Security*, edited by Titus Galama and James Hosek, Rand, 2007, pp. 123-132.

“Human Resources for Nanotechnology,” pp. 331-336. *Nanotechnology: Societal Implications II: Individual Perspectives*, NSF Sponsored Report, Springer Science and Business Media, 2006.

“The Increased Frequency and Duration of the Postdoctoral Career Stage,” (Paula Stephan and Jennifer Ma), forthcoming, *American Economic Review Papers and Proceedings*, 95: 71-75, May 2005.

“What Data Do Labor Market Researchers Need? A Researcher’s Perspective,” in *The U.S. Scientific and Technical Workforce: Improving Data for Decisionmaking*, edited by Terrence K. Kelly, William P. Butz, Stephen Carroll, David M. Adamson, Gabrielle Bloom, Rand Corporation, 2004, pp. 45-49.

“Survey of Foreign Recipients of U.S. Ph.D.’s,” *Science* (published letter) Paula Stephan, Grant Black, James Adams and Sharon Levin, Vol. 295, 22 March 2002, pp. 2211-2212.

“Examining the Link Between Science and Economic Growth,” *The Scientist*, Vol. 11 (11), May 26, 1997, p. 8.

“Careers in Science: Preferences, Prospects, Realities,” *Science Careers, Gender Equity and the Changing Economy*, Conference Proceedings, Washington, DC, October 28, 1996, pp. 46-50.

Comment with Sharon Levin on “Economics of Science,” by Art Diamond, *Knowledge and Policy*, Volume 9, No. 2/3, Summer/Fall 1996, pp. 94-95.

“Ph.D. Supply,” Paula Stephan and Sharon G. Levin. Invited letter to *Issues in Science and Technology*, Volume VII, Number 4, Summer 1991, pp. 28-29.

“Volunteer Work and Financial Giving: A Test of Commitment Theory,” Paula Stephan and William Amis, *Proceedings of the 1990 Association of Volunteer Action*, Volume I, London, July 1990, pp. 1-12.

“Career Prospects of Female MBAs,” Paula Stephan and Robert Eisenstadt, *Careers and the MBAs*, Fall 1989, pp. 65-68.

"Research Consequences of An Aging U.S. Scientific Community," Paula Stephan and Sharon Levin, *Science and Technology to Advance National Goals: Science Policies in the United States and Japan*, 1989, pp. 13-23.

"Profiles in Publishing Productivity," Paula Stephan and Sharon Levin, *Physics Today*, October 1989, pp. 151-154.

"The Use of the SDR and DRF to Study Demographic and Economic Determinants of Scientific Productivity" in *The Confidentiality, Access, and Use of Surveys of the Nation's Scientific Community*, report on a workshop sponsored by the Committee on National Statistics of the National Research Council and the Social Science Research Council, 1989.

"Factors Leading to the Decline of Union Win Rates: 1973-1981," Bruce Kaufman and Paula Stephan, *Proceedings of the Thirty-Ninth Annual Meeting of the Industrial Relations Research Association* (April 1987), pp. 296-305.

"The Survey of Doctorate Recipients: The Research Perspective," with Sharon Levin, in *Scientific and Technical Personnel in the 1990's: An Examination of Issues and Information Needs*, Chapter VII, Washington, D.C., National Science Foundation, December 1985.

The U.S. Apparel Industry: International Challenge, Domestic Response with John Halliburton, Michel Bachetta and Roy Burgher, Georgia State University, 1982.

"The Working Woman and Patterns of Discrimination," *Response*, March 1978, pp. 12-15; 47.

Comment on "The Economics of Time and Labor Supply," by Gregg Lewis, *The American Economic Review*, Volume 65, No. 2, May 1975, pp. 35-36.

"The Domestic Program Congress Won't Cut," Robert Haveman and Paula Stephan, *The Reporter*, Reprinted in *Readings on Congress*, edited by Raymond Wolfinger, February 22, 1968, pp. 36-37.