Curriculum Vitae

GARY H. JEFFERSON

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EDUCATION

Yale University, Ph.D, Economics (1986), Fields: macroeconomics and industrial organization,
London School of Economics, University of London; M.Sc. Economics (1980).
Fletcher School of Law and Diplomacy, Tufts University; Master of Arts in Law and Diplomacy (1970) Fields: political and economic development.
Dartmouth College, B.A. History (1966)
Phillips Exeter Academy, diploma (1962).

PROFESSIONAL EXPERIENCE

Professor, Brandeis University, 1997-present; Carl Marks Professor of International Trade and Finance. Fields: industrial organization, development economics, comparative institutional economics, technological change, and China's economy. Teaching: Undergraduate, master's, and Ph.D. courses in the above fields.

Chair, Economics Department, July 2003 to June 2006; responsible for administering the Department of Economics at Brandeis University.

Consultant, World Bank (occasional assignments): Provided technical assistance and background analyses for (i) industrial policies for China's economic transition, (ii) urban unemployment and wages, (iii) ownership reform in state enterprises, (iv) R&D in Asia economies, and other projects. Also, a variety of non-profit and commercial consulting projects.

Research Coordinator, World Bank Project on Industrial Reforms and Productivity in Chinese Enterprises, Transition and Macro-adjustment Division, 1989-1996. This project involved the participation of various Chinese research institutes and creation and use of several panels of enterprise data to investigate the impact of specific reforms, past and prospective, on the performance and behavior of Chinese industrial enterprises. Key output: *Enterprise Reform in China*.

Visiting Positions and Associations. Harvard Institute for International Development, Harvard University (1992-1993), William Davidson Institute, University of Michigan Business School (fall 1999 and fall 2000), Rockefeller Center, Dartmouth College (fall 1999), Chinese Institute for Economic Research, Taipei, Taiwan (spring 2000), research associate, Fairbank Center, Harvard University (continuing).

Associate Professor (1991-1996); Assistant Professor (1984-1991), Brandeis University

Fulbright Lecturer, School of Economics, Wuhan University (Wuhan, China), 1986-87; Courses: international economics, international development, econometrics (in Chinese).

Staff Director, International Development Subcommittee (HIRC), U.S. House of

Representatives, 1977-79.
Deputy Director, Office of State Planning, Commonwealth of Massachusetts, 1975-77.
Coordinator, Office of Policy and Program Development and Executive Director to the Commissioner, Department of Community Affairs, Commonwealth of Massachusetts, 1971-1974.
Dartmouth Teaching Fellow, Chinese University of Hong Kong, 1966-68; courses on western history and logic, coached the men's varsity basketball team.

LANGUAGES

Chinese (Mandarin): speak and read; French: read.

RESEARCH GRANTS AND SUPPORT

National Science Foundation, "Massachusets Growth Policy Communications Project," July 1, 1976-September 1, 1977.
Mazer Fund (Brandeis University), 1986-87, 1988-89 and 1993-94; Ford Foundation (for collaborative research with the Chinese Academy of Social Sciences), 1988.
National Science Foundation: "Reform and Productivity in China's Industrial Economy" (US-China Cooperative Science Program), co-investigator, 1988- 1991.;
Committee for Scholarly Communications with the People's Republic of China (National Academy of Sciences) 1988-89;
American Council of Learned Societies and the Social Sciences Research Council (funds provided by the Mellon and Ford Foundations) 1988-1989;
Henry Luce Foundation, "Productivity and Reform in China's Industrial Economy" (for collaborative research with the Chinese Academy of Social Sciences; principal investigator with T. Rawski) 1989-92;
World Bank, "Industrial Reforms and Productivity in Chinese Industry" (Research Director) 1988-1996;American Council of Learned Societies/Chiang Ching-guo Foundation,
William Davidson Institute, University of Michigan, for evaluating the impact of ownership reform on enterprise behavior and performance, 1995 to 1997;
Henry Luce Foundation, "China's Second Transition: Innovation in Chinese Industry," 1996-1997.
National Science Foundation, "Innovation and Technology Transfer, and Institutional Change in Chinese Industry"; 1999-2004
Department of Energy, "Technology Innovation and Diffusion in Transition Economies: the Case of China," 2000-2004
Department of Energy, "The Channels of Foreign Influence on the Innovation and Diffusion of Technology in China: Implications for Energy Use and Carbon Emissions " (through Dartmouth College), 2004-present
National Science Foundation, "China's Technology Transformation: Diffusion and Intensification of R&D Effort in China's Firms and Research Institutes," 2005-2008.

JOURNAL ARTICLES

"New Estimates of Fixed Investment and Capital Stock for Chinese State Industry," *China Quarterly* 114 (1988): 243-266; Chinese-language version "Zhongguo guoying gongye guding zichan de pinggu," *Zhongguo shehui kexue* [Chinese Social Science] 6 (1987): 67-74. Reprinted in Yuxin Zheng and Thomas G. Rawski eds., *Tizhi zhuanhuan zhong de Zhongguo gongye shengchanlü*, pp. 275-288.

"Productivity Change in Chinese Industry, 1953-1985," *Journal of Comparative Economics* 12 (1988): 570-591; Chinese-language version "Zhongguo guoying gongye shengchanlü biandong qushi yanjiu" in *Zhongguo shehui kexue* [Chinese Social Science] 4 (1988): 37-44. Reprinted in Yuxin Zheng and Thomas G. Rawski eds., *Tizhi zhuanhuan zhong de Zhongguo gongye shengchanlü*, pp. 57-79.

"China's Iron and Steel Industry: Sources of Enterprise Efficiency and the Impact of Reform," *Journal of Development Economics*, 33:329-355, October, 1990.

"The Impact of Reform on Socialist Enterprises in Transition: Structure, Conduct and Performance in Chinese Industry" (with Xu W.Y.), *Journal of Comparative Economics*, 15:45-64, 1991.

"Lessons From China's Economic Reform" (with K. Chen and I.J. Singh) *Journal of Comparative Economics*, June 1992 and reprinted in M. Bornstein, ed. *Comparative Economic Systems: Models and Cases* (seventh edition), pp. 570-590, 1994.

"Growth, Efficiency, and Convergence in Chinese Industry: A Comparative Evaluation of the State and Collective Sectors," (with T.G. Rawski and Y.X. Zheng), *Economic Development and Cultural Change* 40.2 (1992): 239-265; Chinese language version "Zhongguo guoying gongye yu jiti gongye shengchanlü biandong qushi bizhao," *Shuliang jingji jishu jingji yanjiu* [Studies in Quantitative and Technical Economics] 8 (1990): 22-31. Reprinted in Yuxin Zheng and Thomas G. Rawski eds., *Tizhi zhuanhuan zhong de Zhongguo gongye shengchanlü*, pp. 80-110.

"A Theory of Economic Reform," (with T.G. Rawski), Research Paper Series, No. 15, Socialist Economies Reform Unit, Country Economics Department, World Bank (February 1992).

"Underemployment, Employment, and Employment Policy in China's Cities," (with T.G. Rawski), *Modern China* 18.1 (1992): 42-71.

"Can Communist Economies Reform Incrementally" (with A. Gelb and I. Singh), *Economics of Transition*, 1(3), 401-435, 1993.

"Assessing Gains in Efficient Production Among China's Industrial Enterprises," (with W.Y. Xu), *EconomicDevelopment and Cultural Change*, 42,3: 597-616, April 1994.

"Productivity Change in Chinese Industry: A Comment." (with T.G. Rawski and Y.X. Zheng)*China Economic Review* 5.2 (1994): 235-241.

"Enterprise Reform in Chinese Industry." (with T.G. Rawski), *Journal of Economic Perspectives* 8.2 (Spring 1994): 47-70. Reprinted in *The Economies of Asia 1950-1998: Critical Perspectives on the World Economy*, ed. Robert Ash and Anne Booth (London and N.Y.: Routledge, 2000), I: 123-148. Partially reprinted in *Growth Without Miracles*, ed. Ross Garnaut and Yiping Huang (New York: Oxford University Press, 2001), pp. 244-262.

"Institutional Change and Industrial Innovation in Transitional Economies," with T. Rawski and Z.Y. Zheng, *Journal of Asian Economics*, 5,4:585-606, 1994.

"Chinese Industrial Productivity: Trends, Measurement Issues, and Recent Developments" (with T. Rawski and Y.X. Zheng), *Journal of Comparative Economics*, 23,146-180, 1996.

“Innovation in Chinese Manufacturing Enterprises: A Preliminary Analysis of Survey Data” (with T. Rawski and Y.X. Zheng), *Moct-Most* 7,:101-120, 1997. Reprinted in *Enterprise Reform in China: Ownership, Transition, and Performance*, ed. G.H. Jefferson and I.Singh (New York: Oxford University Press, 1999), pp. 89-106.

"China's State Enterprises: Public Goods, Externalities, and Coase," *American Economic Review*, May 1998.

“Ownership, Productivity Change, and Financial Performance in Chinese Industry,” (with T. Rawski, Wang L. and Zheng Y.X.), *Journal of Comparative Economics*: 28,4:786-813, December 2000.

“China’s Emerging Market for Property Rights: Theoretical and Empirical Perspectives,” (with T. Rawski), *Economics of Transition*, 10:3, 2002, 585-617.

“FDI Impact and Spillover: Evidence from China's Electronic and Textile Industries,” (with Albert Hu), *World Economy* 25, no. 8 (2002): 1063-1076.

“China’s Emerging (Implicit) Economic Constitution,” *China Economic Review*, 13,4: 2002, pp. 388-393.

“Ownership, Performance, and Innovation in China's Large and Medium-size Industrial Enterprise Sector” (with Bai, H.M, Guan X.J, and Yu, X.Y.), *China Economic Review*, 14,1:2003, pp. 89-113.

“R and D Performance in Chinese Industry,” with Bai Huamao, *Economics of Innovation and New Technology*. Vol. 13, no. 1/2, 2004, special issue “On Empirical Studies of Innovation in the Knowledge Driven Economy,” Guest editors: Bronwyn H. Hall and Jacques Mairesse.

“Returns to Research and Development in Chinese Industry. Evidence from State-Owned Enterprises in Beijing,” (with Albert Hu), *China Economic Review*, 15,1:2004, pp. 86-107.

“What is Driving China’s Decline in Energy Intensity?,” (with K.Fisher-Vanden, LIU Hongmei and TAO Quan), 2004. *Resource and Energy Economics*, 26,1:77-97.

“R&D and Technology Transfer: Firm-Level Evidence from Chinese Industry,” (with Albert G.Z. Hu, and Qian Jinchang), *Review of Economics and Statistics*, 2005: 87,4:780-786.

“Technology development and energy productivity in China,” (with Karen Fisher-Vanden, Ma Jingkui, and Xu Jianyi), *Energy Economics*, vol. 28, issues, 5-6:690-705.

“Privatization and Restructuring in China: Evidence from Shareholding Ownership, 1995-2001” (with Su Jian, *Journal of Comparative Economics*, 34 (2006) 146-166.

“Science and Technology Takeoff in China? Sources of Rising R&D Intensity,” (with Gao Jian) 2007, *Asia Pacific Business Review*, 13,3:357-371,

“The sources and sustainability of China’s economic growth,” (with Albert Hu and Su Jian) *Brookings Paper on Economic Activity*, 2,2006:.1-62.

“Productivity Growth and Convergence Across China’s Industrial Economy,” (with Thomas Rawski and Zhang Yifan), *Journal of Chinese Economics and Business Studies*, forthcoming.

“How has China’s economic emergence contributed to the field of economics?” *Comparative Economic Studies*, special issue, forthcoming.

PAPERS IN EDITED VOLUMES and BOOKS

"Of What Relevance is Western Economics for Understanding the Chinese Economy?," *Perspectives in American Studies: A Reader by American Scholars in China*, (a collection of essays by Fulbright lecturers) edited by Strauss, W.P., Stark, K., and Yaukey, D., Shanghai Foreign Language Education Press, Shanghai, China, 187-213, 1988.

"Financing Retirement in China: Theoretical and Empirical Perspectives," co-authored with Petri, P. in Schultz, J. and Davis-Friedman, D., eds., *Aging China: Family Economics, and Government Policies in Transition*, 213-242, 1987 (Proceedings of the International Forum on Aging, Beijing, China, May 20-23, 1986).

"Urban and Rural Chinese Industry: A Preliminary Investigation of the Dispersion of Inter- and Intra-Regional Factor Returns," Dutta, M.J. and Zhang, Z.L. (eds) *Research in Asian Economic Studies: China's Economic Reform, 1978-1988*, Volume 3, pp. 97-110, JAI Press, 1991.

"Growth and Productivity Change in Chinese Industry: Problems of Measurement," M. Dutta (ed) *Research in Asian Economic Studies, Asian Economic Regimes: An Adaptive Innovation Paradigm*, Volume 4B, pp. 149-164, JAI Press, 1992.

"Are There Lessons from China's Economic Policies?" (with K. Chen and I.J. Singh), Hillman, A.L. and Milanovic, B., *The Transition from Socialism in Eastern Europe: Domestic Restructuring and Foreign Trade*, World Bank Regional and Sectoral Studies, Washington, D.C., 1992; also reprinted in "The Chinese Economy: Moving Forward," *China Briefing, 1992*, ed. William A. Joseph, Westview Press, Boulder, CO, 1992.

"Theoretical Foundations of Economic Transition: Comparisons Between China and Poland" (with T. Rawski), *Transition to Advanced Market Economies*, (eds. J.W. Owsinski, j. Stefanski, and A. Straszak), Warsaw, 1992.

"Innovation and Reform in Chinese Industry: A Preliminary Analysis of Survey Data." (with T.G. Rawski and Y.X. Zheng) in Li Jingwen, Zheng Yuxin and Hsueh Tien-tung eds., *Zhongguo shengchanlü biandong qushi zhi yanjiu* [Studies on the trend of productivity change in China]. (Beijing: Shehui kexue wenxian chubanshe, 1993), pp. 307-325. English version in Research Paper Series, No. 30, Socialist Economies Reform Unit, Country Economics Department, World Bank (August 1992). Reprinted in Yuxin Zheng and Thomas G. Rawski eds., *Tizhi zhuanhuan zhong de Zhongguo gongye shengchanlü*, pp. 328-347.

"Can Communist Economies Transform Incrementally?: The Experience of China" (with Alan Gelb and Inderjit Singh) (1993) *NBER Macroeconomics Annual 1993*, volume 8, eds. O.J. Blanchard and S. Fischer, MIT Press, Cambridge, MA.

"How Industrial Reform Worked in China: The Role of Innovation, Competition and Property Rights." In *Proceedings of the World Bank Annual Conference on Development Economics 1994*, pp. 129-156. Reprinted in *The Economies of Asia 1950-1998: Critical Perspectives on the World Economy*, ed. Robert Ash and Anne Booth (London and N.Y.: Routledge, 2000), I: 168-198 and in *Zhongguo gongye gaige yu xiaolü* [Reform and Efficiency of Chinese Industry], ed. Lin Qingsong and Du Ying (Kunming: Yunnan renmin chubanshe, 1997), pp. 52-98. Partial translation in *Zhongguo gongye jingji yanjiu* [Studies in Chinese Industrial Economics, Beijing], no. 8 (1994), pp. 45-53

"Gaige yilai Zhongguo guoying gongye shengchanlü qushi huodele gaishan" [Has productivity in China's state-owned industrial enterprises really increased during the reform period?] (with T.G. Rawski and Y.X. Zheng) *Jingji yanjiu* [Economic Research, Beijing] no. 10 (1994), pp. 77-80.

"Institutional Change and Industrial Innovation in Transitional Economies," (with T.G. Rawski and Yuxin Zheng) *Journal of Asian Economics* 5.4 (1994): 585-604

"Labor Markets as a Constraint on Reform in China's Urban Economy." (with T.G. Rawski), In *China's Economic Reform and Growth*, edited by Ross Garnaut, Guonan Ma, and Geoff Raby. Cambridge: Cambridge University Press, forthcoming. Reprinted in Yuxin Zheng and Thomas G. Rawski eds., *Tizhi zhuanhuan zhong de Zhongguo gongye shengchanlü*, pp. 411-445.

"Reforming China's Industrial Sector: Mapping the Transition" (1995) *Productivity, Efficiency and Reform in China's Economy*, eds. K.Y. Tsui, T.T. Hsueh and T.G. Rawski, The Chinese University of Hong Kong, 1995.

"Gaige yilai Zhongguo gongye shengchanlü biandong qushi de guji ji qi kekaoxing fenxi" [Chinese Industrial Productivity: Trends, Measurement Issues, and Recent Developments] (with T.G. Rawski and Y.X. Zheng) *Jingji yanjiu* [Economic Research, Beijing] no.12 (1995), pp.10-22.

"Ownership Reform and the Process of Reduction in Chinese Industry," with I. Singh, *China's Economic Future: Challenges to U.S. Policy*, ed. Joint Economic Committee, U.S. Congress, 1996

"The Paradox of China's Industrial Reform," with T. Rawski, in A.E. Safarian and Wendy Dobson, eds., *East Asian Capitalism: Diversity and Dynamism*, University of Toronto Press, Toronto, 1996.

"Ownership Reform as a Process of Creative Reduction in Chinese Industry," in *China's Economic Future: Challenges to U.S. Policy*, Joint Economic Committee, U.S. Congress, U.S. Government Printing Office, Washington, 1996.

Enterprise Reform in China: Ownership, Transition, and Performance, contributing editor with I. Singh, Oxford University Press, 1998.

Chapters in this book that I contributed and are not published elsewhere include:

"Ownership, Transition. and Performance: The Key Issues" (with I.J. Singh),
"An Overview of Survey Results from China's Industry" (with Zhang Ping),
"Wage and Employment Behavior in Chinese Industry" (with A. Hu and I.J. Singh),
"Industrial Investment, Finance and Performance in China's Industrial Enterprises" (with I.J. Singh and A. Hu),
"Are China's Rural Enterprises Outperforming State-Owned Enterprises?"
"Reforming Property Rights in Chinese Industry" (with Lu Mai and John Zhao)

“An Investigation of Firm-Level R&D Capabilities in East Asia,” (with Zhong Kaifeng), 2004, in

Yusuf, S, M.A. Altaf, and K. Nabeshima, *Global Production Networking and Technological Change in East Asia*, ed. Shahid Yusuf, World Bank and Oxford University Press.

The Impact of Shareholding Reform on Chinese Enterprise Performance, 1995-2001,"(with Su Jian, Jiang Yuan, and Yu Xinhua, Nellis, John and Nancy Birdsall, Eds. 2004. *Reality Check: Assessing the Distributional Impact of Privatization.* Washington, DC: Center for Global Development (forthcoming).

"An Investigation of Firm-Level R&D Capabilities in East Asia," (with Zhong Kaifeng), *Global Production Networking and Technological Change in East Asia*, ed. Shahid Yusuf, World Bank and Oxford University Press, co-publication of the World Bank and Oxford University Press, 2004.

"The Impact of Foreign Investment on China's Industrial Innovation," Eva Paus, ed, *Global* Capitalism Unbound: Winners and Losers from Offshore Outsourcing,

"Science and Technology in China," (with Albert Hu), Loren Brandt, Dwight Perkins, Thomas Rawski, China's Great Economic Transformation, Cambridge University Press.

"Patenting in China," eds. David Greenaway, Chris Milner and Shujie Yao), China and the World Economy: Consequences and Challenges, Palgrave Macmillan.

"Restructuring China's Research Institutes," (with B.W. Cheng, Jian Su, Paul Deng, H.Y. Qin, and Z.H. Xuan) *Greater China's Quest for Innovation*, Eds. Henry Rowan, Marguerite Hancock, and William Miller. Shorenstein APARC and Brookings Institution Press, forthcoming

."Patenting in China," (with Albert Hu) *China and the World Economy: Consequences and Challenges*. Ed. David Greenaway, Chris Milner and Shujie Yao. Palgrave MacMillan, forthcoming

"China's convergence imperative: growing income equality as a precondition for sustained economic growth." *Crossing the River by Grasping the Stones: Thirty Years of Economic Reforms*. Ed. A. Sweetman and J. Zhang. McGill-Queens University Press, forthcoming

SHORTER ARTICLES and REVIEWS

review of *Reform in China: Challenges and Choices*, edited by Bruce L. Reynolds, *Journal of Comparative Economics*, 13,2:354-356, 1989.

"An Economist's Perspective on China" *Brandeis Review*, 9,2:24-29, February 1990.

"Symposium: Perspectives on Recent Economic Events in China," (edited with introduction) *Journal of Asian Economics*, 1,2:333-336, Fall 1990.

"From Marx to Markets: Economic Transition in Eastern Europe" *Business in the Contemporary World*, II:4, 47-58, edited with introduction (with Peter Petri) Summer 1990.

"From Marx to Markets" *Challenge*, edited with introduction (with Peter Petri) September/October 1990.

review of *Chinese State Enterprises: A Property Rights Perspective*, by David Granick, *Journal of Economic Literature*, 30,2: 938-940, June 1992.

review of *Chinese Firms and the State in Transition: Property Rights and Agency Problems in the Reform Era*, by Keun Lee, *Journal of Comparative Economics*, 18, 247-249, 1994.

"State Enterprises in China: Down from the Commanding Heights" (with I.J. Singh, October-November 1993) , *Transition*, 4.8, World Bank.

"Summary of Panel Discussion on Enterprise Reform: International Symposium on Economic Transition in China, Hainan Province," *China Economic Review*, 4,2:143-148, 1993.

"China's State Industry: Rising Productivity and Declining Profits" (with I.J. Singh), *Transition: The Newsletter About Reforming Economies*, World Bank, pp.7-8, February-March 1994.
"Productivity Change in Chinese Industry: Comment" (1994) with T. Rawski and Z.Y. Zheng, *China Economic Review*, 5,2:236-241.
"Symposium: Technical Progress and Technology Transfer in East Asia," *Journal of Asian Economics*, 5,4: 537-540, Winter 1994.
review, *Contrasting Styles of Industrial Reform: China and India in the 1980s, George Rosen, Asian Pacific Economic Literature*, 9,1: 80-82, May 1995.
review, *Changing Political Economies: Privatization in Post-Communist and Reforming Communist States*, V. Milor, ed., *The China Journal* (formerly the Australian Journal of Chinese Affairs), 34: 352-354, July 1995.
review, *Economic Reform and State-Owned Enterprises in China 1979-87* (by Hay, Morris, Liu and Yao), *The China Journal*, 35: 166-168, January 1996.
review, *Private Business and Economic Reform in China*, Susan Young, *Journal of Comparative Economics*, 22,2:216-217, April 1996.
essay, "'Latent Dynamism"' in China's Economy: A Review of *Understanding China's Economy*, by Gregory Chow, *Journal of Asian Economics*, 7,4:769-776, Winter 1966
"Don't Shortchange State-Owned Enterprise Reform," *Harvard China Review* (Spring 1999) 1,2.
"China's State-Owned Enterprises Did Their Job – Now They Can Go," *Transition*, 10,5: 31-32, the World Bank in collaboration with the William Davidson Institute.
review, *Behind the Open Door: Foreign Enterprises in China's Marketplace*, forthcoming *Journal of International Economics*.
"Like Lips and Teeth: Economic Scenarios of Cross-Strait Relations," in *Taiwan Strait Dilemmas*, ed. Gerrit W. Gong, Center for Strategic and International Studies, Washington. D.C. (2000).
"In Memory of D. Gale Johnson – a Symposium," *Journal of Asian Economics*, 15,3:June 2004:447-448.

MANUSCRIPTS AND WORK IN PROGRESS
(available at http://people.brandeis.edu/~jefferso/index.htm

"A Great Wall of Patents: What is Behind China's Recent Patent Explosion?" (with Albert Hu)
"Technology Diversity and Development: Evidence from China's Industrial Enterprises," (with Karen Fisher-Vanden)
"Missing Markets in Labor Quality: The Role of Quality Markets in Transition" working paper #260, William Davidson Institute, University of Michigan.
"The Commons Economy: A Property Rights Interpretation of Financial Crisis"
"The Technology Multiplier: A Critical Perspective on Growth Accounting"

OTHER PROFESSIONAL ACTIVITIES AND SERVICES

Member (present or past), Editorial Board: *Chinese Economic Review, Chinese Economic Studies, Journal of Comparative Economics, Journal of Asian Studies, Journal of Contemporary China, Privatization Opportunities Intelligence Report* (Euromoney Law Publishers, Inc.) and

China Trade Bulletin (Thompson Publishing Group, Inc.)
Member, Executive Board, American Committee of Asian Economic Studies (ACAES), 1990-present.
Executive Committee, Association of Comparative Economic Studies (ACES), 2003-2006

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