

February 2007

## THOMAS M. STOKER

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### Education

Harvard University, Ph.D., Economics, 1979  
Harvard University, M.S., Economics, 1978  
University of Arizona, B.S., Mathematics, 1974

### Thesis Title

“Aggregation Over Individuals and Demand Analysis: A Theoretical and Applied Study”

### Faculty Appointments

Gordon Y Billard Professor of Applied Economics, Massachusetts Institute of Technology, Sloan School of Management	1998 – Present
Area Head, Economics, Finance and Accounting, Sloan School of Management	1997 - 2002
Professor, Massachusetts Institute of Technology, Sloan School of Management - 1998	1989
Visiting Professor, CORE, Université Catholique de Louvain	1991
Visiting Research Fellow, Nuffield College, Oxford University	1987
Visiting Professor, Universität Bonn	1986 - 1987
Associate Professor, Massachusetts Institute of Technology, Sloan School of Management	1984 - 1989
Assistant Professor, Massachusetts Institute of Technology, Sloan School of Management	1979 - 1984

### Teaching Experience

Econometrics, Microeconomics, Industrial Organization, Statistics

### Other Professional Activities

Consultant, Applied Marketing Science, Waltham, MA	2004 - 2005
Consultant, Edison Schools, New York, New York	2004 - 2005
Consultant, American International Group, Inc., New York, New York	2003 - 2004
Consultant, Delphi Group, Sherborn, Massachusetts	2003 - 2004
Consultant, J.W. Childs and Associates, Boston, Massachusetts	2003
Consultant, AdPilot Inc., New York, New York (Member, Advisory Board, AdPilot Inc.)	2001 - 2003
Consultant, Alphatech Inc., Burlington, Massachusetts	1995 - 2002
Associate Editor, <u>Journal of Econometrics</u>	1994 - 1997
Associate Editor, <u>Econometrica</u>	1987 - 1996
Associate Editor, <u>Journal of the American Statistical Association</u>	1985 - 1994
Associate Editor, <u>Journal of Business &amp; Economic Statistics</u>	1987 - 1992
Editorial Board, <u>Journal of Applied Econometrics</u>	1989 - 1991
Secretary /Treasurer, Business & Economic Section, American Statistical Association	1991
Economist, Dale Jorgenson Associates, Cambridge, Massachusetts	1978 - 1979
Economist, Data Resources. Inc., Lexington, Massachusetts	1975

## Professional and Honorary Organizations

American Economic Association  
American Statistical Association  
Econometric Society  
Institute of Mathematical Statistics  
Phi Beta Kappa and Phi Kappa Phi Honorary Societies

## Grant Awards

MIT Center for Energy & Environmental Policy Research Grant	1999 – 2000
MIT Center for Energy & Environmental Policy Research Grant	1998 – 1999
MIT Center for Energy & Environmental Policy Research Grant	1997 - 1998
MIT Center for Energy & Environmental Policy Research Grant	1996 - 1997
MIT Center for Energy & Environmental Policy Research Grant	1995 - 1996
National Science Foundation Grant # SBR-9320557	1994 - 1997
MIT Center for Energy & Environmental Policy Research Grant	1994 - 1995
MIT Center for Energy & Environmental Policy Research Grant	1993 - 1994
National Science Foundation Grant # SES-9122886	1992 – 1994
MIT Center for Energy & Environmental Policy Research Grant	1992 - 1993
MIT Center for Energy Policy Research Grant	1991 – 1992
MIT Center for Energy Policy Research Grant	1990 - 1991
National Science Foundation Grant # SES-8721889	1988 - 1990
National Science Foundation Grant # SES-8410030	1984 - 1987
MIT Center for Energy Policy Research Grant	1984 - 1985
National Science Foundation Grant # SES-8308768	1983 - 1984

## Awards

Fellow of the Econometric Society  
International Research Fellow, Institute for Fiscal Studies and CEMMAP, University College London.  
Invited Scholar Program, Federal Reserve Board of Governors, 1995  
NAKE Lectures, University of Leiden, Netherlands, 1995  
Neyman Seminar, University of California at Berkeley, 1995  
CORE Invited Lecture Series; CORE, Université Catholique de Louvain, Belgium, 1991

## Publications

### *Journal Articles*

“Welfare Comparison Under Exact Aggregation,” (with D.W. Jorgenson and L.J. Lau), American Economic Review, 69, May 1980, 268-272.

“The Use of Cross Section Data to Characterize Macro Functions,” Journal of the American Statistical Association, 77, June 1982, 369-380.

“Completeness, Distribution Restrictions and the Form of Aggregate Functions,” Econometrica, 52, July 1984, 887-907.

“Exact Aggregation and Generalized Slutsky Conditions,” Journal of Economic Theory, 33, August 1984, 368-377.

“Aggregation, Structural Change and Cross Section Estimation,” Journal of the American Statistical Association, 80, September 1985, 720-729.

*Journal Articles* (continued)

- “Estimation of Complete Aggregation Structures,” (with J.L. Powell), Journal of Econometrics, 30, December 1985, 317-344.
- “Aggregation, Efficiency and Cross Section Regression,” Econometrica, 54, January 1986, 177-188.
- “The Distributional Welfare Impacts of Rising Prices in the United States - The 1970’s Experience,” American Economic Review, 76, June 1986, 335 -349.
- “Simple Tests of Distribution Effects on Macroeconomic Equations,” Journal of Political Economy, 94, August 1986, 763-795.
- “Consistent Estimation of Scaled Coefficients,” Econometrica 54, November 1986, 1461-1482.
- “Two-Stage Budgeting and Exact Budgeting and Exact Aggregation” (with D.W. Jorgenson and D.T. Slesnick,) Journal of Business and Economic Statistics, 6, July 1988, 313-325.
- “Tests of Additive Derivative Constraints,” Review of Economic Studies, 56, October 1989, 535-552.
- “Semiparametric Estimation of Index Coefficients,” (with J.L. Powell and J.H Stock), Econometrica, 57, November 1989, 1403-1430.
- “Investigating Smooth Multiple Regression by the Method of Average Derivatives,” (with W. Härdle), Journal of the American Statistical Association, 84, December 1989, 986-995.
- “Smoothing Bias in Density Derivative Estimation,” Journal of the American Statistical Association, 88, September 1993, 423, 855-863.
- “Efficiency of Weighted Average Derivative Estimators,” (with W.K. Newey), Econometrica, 61, 5, September 1993, 1199-1224.
- “Empirical Approaches to the Problem of Aggregation Over Individuals”, Journal of Economic Literature, 31, December 1993, 1827-1874.
- “Smoothing Bias in the Measurement of Marginal Effects ,” Journal of Econometrics, 72, May/June 1996, 49-84.
- “Bandwidth Choice for Destiny Weighted Averages,” (with J.L. Powell), Journal of Econometrics, 75, December 1996, 291-316.
- “World Carbon Dioxide Emissions: 1950-2050,” (with R. Schmalensee and R. Judson), Review of Economics and Statistics, 80, February 1998, 15-27.
- “Economic Development and the Structure of the Demand for Commercial Energy,” (with R. Schmalensee and R. Judson), Energy Journal, 20, February 1999, 29-57.
- “Consumption and the Timing of Income Risk,” (with R. Blundell), European Economic Review, 43, March 1999, 475-507.
- “Household Demand for Gasoline in the United States,” (with R. Schmalensee), Econometrica, 67, May 1999, 645-662.
- “Goodness-of-Fit Tests for Regression Using Kernel Methods,” (with Y. Ait-Sahalia and P. Bickel), Journal of Econometrics, 105, December 2001, 363-412.

*Journal Articles* (continued)

“Interpreting Aggregate Wage Growth: The Role of Labor Market Participation,” (with R. Blundell and H. Reed), American Economic Review, 93, September 2003, 1114 - 1131.

“Heterogeneity and Aggregation,” (with R. Blundell), Journal of Economic Literature, 43, June 2005, 347-391.

“Panel Data Analysis of U.S. Coal Productivity,” (with E. Berndt, D. Ellerman and S. Schennach), Journal of Econometrics, 127, August 2005, 131-164.

“Tailor-Made Tests for Goodness-of-Fit to Semiparametric Hypotheses,” (with P. Bickel and Y. Ritov), Annals of Statistics, April 2006, 34, 721-741.

“Estimation with Censored Regressors: Basic Issues,” (with R. Rigobon), revised January 2007, forthcoming in International Economic Review.

*Books*

Lectures on Semiparametric Economics, CORE Foundation, Université Catholique de Louvain, Louvain-la-Neuve, Belgium, 1992.

*Chapters in Edited Volumes*

“Aggregate Consumer Behavior and Individual Welfare,” (with D.W. Jorgenson and L.J. Lau), in D. Currie, R. Nobray and D. Peel (eds.), Macroeconomic Analysis: Essays in Macroeconomics and Economics, Croom-Helm, London, 1981, 35-61.

“The Transcendental Logarithmic Model of Aggregate Consumer Behavior,” (with D.W. Jorgenson and L.J. Lau), in R.L. Basmann and G. Rhodes (eds.), Advances in Econometrics Vol. 1, JAI Press, Greenwich, 1982, 92-238.

“Aggregate Consumer Expenditures on Energy” (with D.W. Jorgenson), Ch. 1 in J.R. Moroney (ed.), Advances in the Economics of Energy and Resources, Vol.5, JAI Press, Greenwich, 1984, 1-32.

“Individual Energy Expenditures,” (with D.W. Jorgenson), Ch. 2 in J.R. Moroney (ed.), Advances in the Economics of Energy and Resources, Vol.5, JAI Press, Greenwich, 1984, 33-66.

“Aggregate Energy Expendures,” (with D.W. Jorgensen), Ch.3 in J.R. Moroney (ed.), Advances in the Economics of Energy and Resources, Vol. 5, JAL Press, Greenwich, 1984,67-84.

“Bounds on Welfare Measures,” in R. Basmann and G. Rhodes (eds.), Advances in Econometrics, Vol. 4, JAI Press, Greenwich, 1985, 111-134.

“Nonlinear Three Stage Least Squares Pooling Cross Section and Average Time Series Data,” (with D.W. Jorgenson), in R. Mariano (ed.), Advances in Statistical Analysis and Statistical Computing, Vol. 1, JAI Press, Greenwich, 1986, 87-116.

“Two-Stage Budgeting and Consumer Demand for Energy,” (with D.W. Jorgenson and D.T. Slesnick), Ch. 5 in J.R. Maroney (ed.), Advances in the Economics of Energy and Resources, Vol. 6, JAI Press, Greenwich, 1987, 125-162.

*Chapters in Edited Volumes* (continued)

“Nonparametric Tests of Additive Derivative Constraints,” in G. Myles, (ed.), Measuring and Modeling in Economics, Elsevier, Amsterdam, 1990.

“Equivalence of Direct, Indirect and Slope Estimators of Average Derivatives,” in W. Barnett, G. Tauchen and J. Powell (eds.), Nonparametric and Semiparametric Methods in Econometrics and Statistics, Cambridge, University Press, 1991.

“The Cost of Capital and Consumer Behavior,” in L.J. Lau, ed., Econometrics, Volume 2: Econometrics and the Cost of Capital: Essays in Honor of Dale Jorgenson, MIT Press, 2000.

“Sources of Productivity Growth in the American Coal Industry,” (with A.D. Ellerman and E. Berndt), in C.R. Hulten, E.R. Dean and M. J. Harper, eds, New Developments in Productivity Analysis, .NBER/CRIW, University of Chicago Press 2001

“Nonparametric Testing of an Exclusion Restriction,” (with P. Bickel and Y. Ritov), in D.W. K. Andrews and J.H. Stock, eds., Identification and Inference for Econometric Models: Essays in Honor of Thomas J. Rothenberg, Cambridge, UK: Cambridge University Press, 2005.

“Models of Aggregate Economic Relationships that Account for Heterogeneity,” (with R. Blundell), revised November 2006, forthcoming in J.J. Heckman and E. Leamer, eds., Handbook of Econometrics, Volume 6, Elsevier, Amsterdam.

“Aggregation: Econometrics,” revised November 2006, entry for L. Blume and S. Durlauf, eds., The New Palgrave Dictionary of Economics, 2nd Edition, Macmillan, forthcoming.

*Working Papers*

“Distribution Restrictions and the Form of Aggregate Functions,” MIT Sloan School of Management Working Paper No. WP-1170-80, revised October 1981.

“The Use of Average and Distribution Data to Characterize Macro Functions,” MIT Sloan School of Management Working Paper No. WP-1207-81, August 1981.

“Exact Aggregation Over Individuals and Commodities,” (with D.W. Jorgenson and D. Slesnick). Draft, August 1982, revised August 1983.

“The Analysis of U.S. Sectoral Production Activity: Preliminary Results,” (with R. Pindyck and J. Rotemberg), MIT Energy Laboratory Working Paper No. MIT-EL 83-012WP, March 1983.

“Omitted Variable Bias and Cross Section Regression,” MIT Sloan School of Management Working Paper No. WP-1460-83, July 1983.

“Tests of Derivative Constraints,” MIT Sloan School of Management Working Paper No. WP-1649-85, April 1985.

“Implications of the ‘Equation of Measurement’,” (with W.M. Gorman). Draft, 1989.

“Efficiency Properties of Average Derivative Estimators,” (with W.K. Newey). Draft, June 1988. Revised October 1989.

*Working Papers:* (continued)

“Smoothing Bias in Derivative Estimation,” MIT Sloan School of Management Working Paper No. WP-8185-90-EFA, June 1990. Revised July 1990.

“Regression Tests of Semiparametric Index Model Specification,” (with D. Rodriguez). Center for Energy and Environmental Policy Working Paper No. 92-006, March 1992. Revised June 1993.

“Semiparametric Measurement of Environmental Effects,” (with D. Rodriguez). Center for Energy and Environmental Policy Working Paper No. 92-008, March 1992. Revised June 1993.

“Bias from Censored Regressors,” (with R. Rigobon), revised September 2006.

“Testing for Bias from Censored Regressors,” (with R. Rigobon), revised February 2006.