CURRICULUM VITAE

Donald M. Waldman March, 2017

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EDUCATION:

Bachelor of Arts (Economics), Cornell University, Ithaca, New York, 1969.
M.A. and Ph.D. (Economics), University of Wisconsin – Madison, 1979.
Thesis Title: *The Time Allocation of Young Men*.
Thesis Advisor: Arthur S. Goldberger

EMPLOYMENT:

ACADEMIC:

1986 – present: Associate Professor and Professor of Economics, Department of Economics, University of Colorado, Boulder, CO.

2006 - 2012: Associate Chair, Director of Graduate Studies, Department of Economics, University of Colorado, Boulder, CO.

Spring, 2003: Visiting Professor, Department of Econometrics, University of Sydney, Sydney, NSW, Australia.

Winter, 1998-9: Visiting Professor, Victoria University Wellington, New Zealand

Spring, 1991: Visiting Associate Professor, Department of Econometrics, University of Sydney, Sydney, NSW, Australia.

1986 - 1987: Economist/Statistician, The RAND Corporation, Santa Monica, California.

1979 - 1984: Assistant Professor of Economics, University of North Carolina-Chapel Hill, NC.

GOVERNMENT:

1976 - 1977: Economist, U. S. Department of Health, Education, and Welfare, Washington, D.C.

PROFESSIONAL ACTIVITIES:

Member: Econometric Society

Referee: American Economic Review, Journal of Econometrics, International Economic Review, Journal of the American Statistical Association, Journal of Human Resources, Journal of Environmental and Economic Management, Journal of Economic Education, Review of Economics and Statistics, National Science Foundation, Econometric Reviews, others.

Editorial Advisory Board Member The Open Statistics and Probability Journal Consultant: Center for Health Economics and Research, University of Technology, Sydney The RAND Corporation, Santa Monica, CA. Stratus Consulting, Inc., Boulder, CO. Summit Blue, Boulder, CO. The Round Table Group

CONTRACT RESEARCH & EXPERT TESTIMONY

Expert witness for McKool Smith, 2016, "Estimating the Value of Patented Product Characteristics in 'Low-End' Android Smartphones: A Structural Model of Bertrand Competition," Pan-Optis v ZTE INC., Defendant.

Expert witness for McKool Smith, 2015, "Estimating the Value of Patented Product Characteristics and Applications in iPhones: A Structural Model of Monopolistic Competition," Eriksson v Apple INC., Defendant.

Assistant to Expert witness for McKool Smith, 2014, "Estimating the Value of Patented Product Characteristics in iPhones: A Structural Model of Monopolistic Competition," Wi-Lan USA INC. and Wi-Lan INC., Plaintiffs v Apple Inc., Defendant.

Engine Research Foundation, a 501(c)(3) non-profit, 2013, "The Value of Online Privacy," (co-Principal Investigator: S. Savage).

Media Bureau, Federal Communications Commission, Quadrennial Review, 2011, "Consumer Valuation of Media as a Function of Local Market Structure," (co-Principal Investigator: S. Savage).

Broadband.gov Task Force, Federal Communications Commission, 2010, "Household Demand for Broadband Internet Service," (co-Principal Investigators: G. Rosston and S. Savage).

Expert witness (deposition given) for the State of Montana vs. Atlantic Richfield Petroleum, Natural Resource Damage Assessment, 1998 (see refereed publications 15, 19, and 23).

Expert witness (deposition given) for Boston Gas Company, Demand Side Management Cost Recovery, Public Utility Commission, Boston, 1996.

AWARDS and GRANTS:

- 2014 "Comparing Online and Traditional Lecture Approaches to Teaching Statistics," Principal Investigator, University of Colorado, \$14,000.
- 2013 "The Value of Online Privacy," Co-Principal Investigator, Engine Research Foundation, \$303,000.
- 2013 "The Influence of Reference Groups on Assessments of Subjective Well-Being," Co-Principal Investigator, Innovative Seed Grant, University of Colorado, \$46,000.
- 2012 "Market Structure and Media Diversity," Co-Principal Investigator, Time Warner Cable, \$20,000
- 2011 "Warning Decisions: Extreme Weather Events Econometric Modeling: an Integrated Multi-Method Approach," Consultant, National Oceanic and Atmospheric Administration, \$18,000.
- 2010 "Consumer Valuation of Media as a Function of Local Market Structure," Co-Principal Investigator, U.S. Federal Communications Commission (Quadrennial Review), \$198,000.

2009 - "Valuing High Speed Internet Access," Co-Principal Investigator, , U.S. Federal Communications Commission (Broadband Taskforce), \$245,000.

2004 - "Demand for Broadband Internet Access," Co-Principal Investigator, Cisco Systems, \$60,000.

2002 - "Care Planning Integrity and Nursing Home Resident Outcomes," consultant, National Institutes of Health

2001 - "A Decision-Making Framework for Stream Restoration from Acid Mine Drainage," Consultant, National Science Foundation, \$110,000.

1999 - "CAPM User Benefit Study," Co-Principal Investigator, John Hopkins University and the Carnegie Mellon Foundation, \$67,000.

1993 – 1998 - "Child Support, Child Care and Child Well-Being," Co-Principal Investigator, National Institute for Child, Health, and Development. \$921,069.

1992 - Social Science Writing Award, University of Colorado.

1988 - 1994: U. S. Environmental Protection Agency, Cooperative Agreement

1985 - "The Value of Information in Models with Ranked Data," Principal Investigator, National Science Foundation (Economics Program).

1983 - Young Faculty Development Grant, University of North Carolina.

1977 – Distinguished Service Award, U. S. Dept. of Health, Education, and Welfare, Assistant Secretary for Policy and Evaluation.

1975 - Distinguished Teaching Assistant Award, Department of Economics, University of Wisconsin, Madison.

RESEARCH INTERESTS:

Microeconometric models of:

- experimental choice data
- environmental economics
- health economics
- industrial organization

PUBLICATIONS:

REFEREED PAPERS

- "Estimating Willingness to Pay for Online Health Services with Discrete-Choice Experiments," <u>Applied Health Economics and Health Policy</u>, (2017). doi:10.1007/s40258-017-0316-z. (with S. Savage and J. Chang).
- 2. "Privacy Tradeoffs in Smartphone Applications," <u>Economics Letters</u>, Volume 137, December 2015, pps 171-175, (with Scott Savage).
- "Market Structure and Media Diversity," <u>Economic Inquiry</u>, Volume 53, Issue 2, pps 872–888, April 2015 (with R. Hiller and Scott Savage).

- "Who Values the Media," in <u>Demand for Communication Services Insights and Perspectives, Essays in</u> <u>Honor of Lester D. Taylor</u>, James Alleman, Aine Ni-Shuilleabhaim, Paul Rappoport. eds., Springer, 2014, pps. 255 - 272 (with Scott Savage).
- 5. "Household Demand for Broadband Internet Service," Communications of the ACM, 54(2), February, 2011, 29-31 (with G. Rosston and S. Savage).
- 6. "Valuing Improved Hurricane Forecasts," (with J. Lazo), Economics Letters, Volume 111, Issue 1, April 2011, Pages 43-46, 2011.
- 7. "Household Demand for Broadband Internet in 2010," (with G. Rosston and S. Savage), The B.E. Journal of Economic Analysis & Policy, Vol. 10: Issue 1 (Advances), Article 79, 2010
- 8. "Ability, Location, and Household Demand for Internet Bandwidth," (with S. Savage), *International Journal of Industrial Organization*," vol. 27, No. 2, p. 121-332 (March 2009).
- 9. "Learning and Fatigue During Choice Experiments: A Comparison of Online and Mail Survey Modes," (with S. Savage), *Journal of Applied Econometrics*, vol. 23, p. 351-371, 2008.
- "Combining Stated-Choice and Stated-Frequency Data with Observed Behavior to Value NRDA Compensable Damages" (with W. Breffle, E. Morey, and R. Rowe), in *Handbook on Contingent Valuation*, Anna Alberini and James Kahn, eds., Edward Elgar, Cheltenham, U.K. 2006.
- 11. "Recent Progress on Endogeneity in Choice Modeling," (co-authored), *Marketing Letters*, vol. 16, No. 3-4, pp. 255-265, December 2005.
- "Broadband Internet access, awareness, and use: Analysis of United States household data" (with S. Savage), *Telecommunications Policy*, Volume 29, Issue 8, Pages 573-684. September 2005.
- 13. "Gaussian Quadrature versus Simulation for the Estimation of Random Parameters" (with W. Breffle and E. Morey), in *Applications of Simulation Methods in Environmental and Resource Economics*, Anna Alberini and R. Scarpa, eds., Springer, Dordrecht, The Netherlands, 2005, XXXVI.
- 14. "United States Demand for Internet Access," (with Scott Savage), *Review of Network Economics*, Vol. 3, Issue 3 September 2004, pp 228-247.
- 15. "Estimating Recreational Trout Fishing Damages in Montana's Clark Fork River Basin: Summary of a Natural Resource Damage Assessment," (with E. Morey, W. Breffle, and R. Rowe), *Journal of Environmental Management*, v. 66, October, 2002, pp. 159-170.
- "The Impact of Trail Characteristics and Access Fees on a Mountain Biker's Trail Selection and Consumer's Surplus," (with Edward R.Morey and Terry Buchanan), *Journal of Environmental Management*, v. 64(4), 411-422, April, 2002.
- 17. "Will the Family Support Act Put Life Back Into Dead-Beat Dads?" (with E. Peters and L. Argys), *Journal of Human Resources*, v. 36, n2, Spring 2001, pp. 224-252.
- 18. "What's an Oscar Worth" (with Randy Nelson), Economic Inquiry, v. 39, No. 1, Jan. 2001.
- 19. "Joint Estimation of Catch and Other Travel-Cost Parameters--Some Further Thoughts: Reply" (with E. Morey), *Journal of Environmental Economics and Management*, v. 40, n1, July 2000, pp. 82-85.

- 20. "Estimation in Choice-Based Samples," American Statistician, v. 54, pp. 303-306, 2000.
- "A Discrete/Continuous Choice Approach to Residential Water Demand under Block Rate Pricing: Comment." Land Economics, v. 76 No. 2, May 2000, pp. 322-323.
- "The Influence of Social Programs in Source Countries on Various Classes of US Immigration" (with M. Greenwood, J. McDowell, and S. Zahniser), *Journal of the American Statistical Association*, v. 94, Number 445, March 1999, pp. 64-74.
- "Measurement Error in Recreation Demand Models: The Joint Estimation of Participation, Site Choice, and Site Characteristics" (with E. Morey), *Journal of Environmental and Economic Management*, May, 1998.
- 24. "Tax Credits, Labor Supply, and Child Care" (with S. Averett and H. Peters), *The Review of Economics and Statistics*, 79(1), February ,1997, pp. 125-35.
- "The Skill Composition of US Migration" (with M. Greenwood and J. McDowell), *Applied Economics*, 28(3), March 1996, pp. 299-308.
- 26. "Voluntary and Incentive-Induced Conservation in Energy Management Programs" (with M. Ozog), *Southern Economic Journal*, 62(4), April 1996, pp. 1054-71.
- 27. "Searching for a Solution to Recreational Demand Models That Admit Corner and Boundary Solutions" (with E. Morey, D. Shaw, D. Assane), *American Journal of Agricultural Economics*, February, 1995.
- "Model Specification and Treatment of Outliers in the Evaluation of a Commercial Lighting Program" (with M. Ozog, R. Davis, and D. Conant), *Energy Services Journal*, 1(1), pp. 55–65, 1995.
- 29. "Functional Form and the Statistical Properties of Welfare Measures–A Comment" (with E. Morey), *American Journal of Agricultural Economics*, 76(4) November 1994, pp. 954-57.
- 30. "Weighting Nonrandom Samples in Voluntary Energy Conservation Programs," *The Energy Journal*, 15(1), pp. 129-141, 1994.
- 31. "Quality Adjusted Cost Functions-An Application to the Nursing Home Industry," (with P. Gertler), *Journal of Political Economy*, 100(6), pp. 1232-1256, 1992.
- 32. "Multimarket Amenity Compensation and the Behavior of the Elderly," (with P. Graves), *American Economic Review*, 81(5), pp. 1374-1381, 1991.
- "A Graphical Interpretation of Probit Coefficients" (with W. Becker), *Journal of Economic Education*, v20 n4 p371-78, 1990.
- "The Robustness of Hedonic Price Estimation: Urban Air Quality" (co-authored), *Land Economics*, 63(3) pp. 220-233, 1988.
- "The Diffusion of Innovations in Hospitals: Some Econometric Considerations" (with R. Lee), Journal of Health Economics, 4, pp. 373–380, 1985.
- "Maximum Likelihood Regression of Rank–Censored Data" (with R. Keener), Journal of the American Statistical Association, 80, pp. 385–392, 1985.
- 37. "Computation in Duration Models with Heterogeneity," *Journal of Econometrics*, 28, pp. 127–134, 1985.

- 38. "Properties of Technical Efficiency Estimators in the Stochastic Frontier Model," *Journal of Econometrics*, 25(3), pp. 353–364, 1984.
- 39. "Estimation of the Term Structure of Interest Rates Using a Simple Polynomial" (with W. Carleton and D. Chambers), *Journal of Financial and Quantitative Analysis*, 19(3), 1984.
- 40. "The Mean of the Truncated, Conditional Multinormal Distribution," *Communications in Statistics*, 13(21), 1984.
- 41. "A Model of Heterogeneous Expectations as a Determinant of Short Selling," (with D. Peterson), *Journal of Financial Research*, VII(1), pp. 1–16, 1984.
- 42. "A Note on the Algebraic Equivalence of White's Test and a Variation of the Godfrey/Breusch-Pagan Test for Heteroskedasticity," *Economics Letters*, 13, pp. 197–200, 1983.
- 43. "A Generalized Economic–Uneconomic Boundary for Short Run Product and Cost Curves" (with W. Kelley), *Atlantic Economic Review*, 10(4), 1982.
- 44. "A Stationary Point for the Stochastic Frontier Likelihood," *Journal of Econometrics*, 18, pp. 275-279, 1982.
- 45. "One Economic Interpretation of the Parameter Constraints in a Simultaneous Equations Model with Limited Dependent Variables," *International Economic Review*, 22(3), pp. 731–739, 1981.
- 46. "A Monte Carlo Study of Estimators of Frontier Production Functions" (with J. Olson and P. Schmidt), Journal of Econometrics (13), pp. 67–82, 1980.

BOOKS, BOOK REVIEWS, CONTRIBUTED PAPERS, REPORTS, ETC.

- 47. "Household Demand for Broadband Internet Service in 2010," in <u>The Economics Of Digitization</u>, Shane Greenstein, Avi Goldfarb, and Catherine Tucker, eds., Edward Elgar, 2013 (with G. Rosston and S. Savage). Reprint from The B.E. Journal of Economic and Policy Analysis (Advances), 10(1), 2010, Article 79.
- 48. "Who Values the Media," (coauthored), in <u>Demand for Communication Services Insights and</u> <u>Perspectives</u>, Essays in Honor of Lester D. Taylor, Springer Science and Business, 2014 (forthcoming).
- "Gaussian Quadrature versus Simulation for the Estimation of Random Parameters: Some Evidence from Stated-Preference Choice Data" (with E. Morey and W. Breffle), <u>Applications of Simulation</u> <u>Methods in Environmental and Resource Economics</u>, A. Alberini and R. Scarpa, eds., Kluwer Academic, forthecoming, 2005.
- 50. "Combining Stated-Choice and Stated-Frequency Data with Observed Behavior to Value NRDA Compensable Damages: Green Bay, PCBs and Fish Consumption Advisories," (co-authored),
- "Sources of Error in Contingent Valuation of Environmental Commodities" (with W. Schulze, G. McClellan and J. Lazo), <u>Contingent Valuation of Environmental Commodities</u>, Bjornstad, D., and J. Kahn, eds., Edward Elgar Publishing, Ltd. UK, 1996.
- 52. "Estimating the Cost of Compliance with Drinking Water Standards: A User's Guide" (co-authored), pp.. 1-378, American Water Works Association Research Foundation, 1995.
- 53. "Why are Not-for-Profit Nursing Homes More Costly?" (with P. Gertler), NBER Working Paper, 1994.

- 54. "Tax Credits, Labor Supply, and Child Care" (with S. Averett and H. Peters), 92-9 (PRC) Discussion Paper Series, NORC/University of Chicago, 1992.
- 55. "Promotion Tempo and Enlisted Retention," (with R. Buddin, D. S. Levy, J. Hanley), R-4135-FMP, RAND Corporation, 1992.
- 56. "Methods for Measuring Non-Use Values: A Contingent Valuation Study of Groundwater Cleanup" (co-authored), Center for Economic Analysis, University of Colorado, U. S. Environmental Protection Agency, Cooperative Agreement #CR-815183, 1991.
- 57. "Valuing Eastern Visibility: A Field Test of the Contingent Valuation Method" (with G. McClelland, W. Schulze, J. Irwin, and D. Shenk), Center for Economic Analysis, University of Colorado, USEPA Cooperative Agreement # CR-815183, 1991.
- 58. "Quality Adjusted Cost Functions" (with P. Gertler), NBER working paper, 1990.
- "Applications of Probit and Logit Procedures in Economic Education Research" (with W. Becker), in <u>Econometric Modeling in Economic Education Research</u>, W. Becker and W. Walstad, eds., Kluwer– Nijhoff, Amsterdam, 1987.
- "The Use of Limited Dependent Variable Models in Economic Education Research" (with C. Melfi), in <u>Econometric Modeling in Economic Education Research</u>, W. Becker and W. Walstad, eds., Kluwer– Nijhoff, Amsterdam, 1987.
- 61. Review of <u>Applied Linear Statistical Methods</u>, by Donald F. Morrison, Prentice Hall, 1983; *Journal of the American Statistical Association*, 79(386), pp. 472–473, 1984.

SUBMITTED PAPERS/WORKING PAPERS

- 1. "Market Structure and Media Diversity," with R. Hiller and S. Savage, submitted for publication.
- 2. "The Value of Online Privacy," with Scott Savage, manuscript.
- 3. "Contemporary Issues in Modeling Discrete Choice Experimental Data in Health Economics" with Jordan Louviere and Denzil Fiebig, revision requested, *Health Economics*.
- 4. "Choice Complexity, Entropy, and Random Utility Modeling," working paper.

TECHNICAL REPORTS:

"Comprehensive Access to Print Materials User Benefit Study," (with N. Flores), the Andrew Mellon Foundation (2001).

"Promotion Timing, Wages, and Job Mobility" (with R. Buddin), RAND Corporation (1986).

PRESENTATIONS:

"Valuing Nonmarket Goods and Services with Choice Experiments: Improved Hurricane Forecasts and "Telemedicine," The RAND Corporation, Santa Monica, CA, April 2013, and the University of Colorado, Economics Department, April 2013. "Sensitivity of the U. S. Economy to Weather Variability," American Economic Association Annual Meetings, Chicago, January, 2007.

"Learning and Fatigue in Repeated Choice Experiments: Internet vs. Mail Surveys," Institute for Operations Research and Management Sciences, Annual Meetings, Denver, CO, November 2004.

"Endogenous Scale in Choice Models," Sixth Invited Choice Symposium, Estes Park, CO, July 2004.

"Econometric Models of Choice Data with an Application to the Demand for Broadband Internet Access," Department of Econometrics, Sydney University, June 2003; Department of Economics, Monash University, May, 2003; Department of Economics, University of South Australia, April, 2003; Department of Economics, University of Tasmania, April, 2003; University of New South Wales, May, 2003.

"A Conjoint Analysis of Fish Consumption Advisories in the Waters of Green Bay," Victoria University Wellington, New Zealand, December, 1998.

"Can the Family Support Act Put Some Life into Deadbeat Dads? An Analysis of Award Rates, Levels and Variation," (with L. Argys and E. Peters), Southern Economic Association Annual Meetings, Baltimore, MD, November, 1998.

"Natural and Incentive-Induced Conservation in Voluntary Energy Management Programs" (with M. Ozog), Advanced Workshop in Regulation and Public Utility Economics, 14th Annual Conference, Center for Research in Regulated Industries, Rutgers University, Newport, Rhode Island, May, 1995.

"Can the Family Support Act Put Some Life Back into Deadbeat Dads?" (with L. Argys and E. Peters), American Economic Association Annual Meetings, Washington, D.C., January, 1995.

"Ownership and the Cost-Quality Tradeoff - the Case of Nursing Homes" (with P. Gertler), American Economic Association Annual Meetings, Boston, January, 1994.

"Endogenous Characteristics in Recreation Demand Models: Simultaneous Estimation of Participation, Site Choice, and Catch Rates for Anglers" (with E. Morey), Third Canadian Conference on Environmental and Natural Resource Economics, Ottawa, October, 1993.

"Selectivity Bias in Voluntary Program Evaluation" (with M. Chi), TIMS/ORSA Annual Meetings, Chicago, IL, May 1993.

"International Trade and Factor Mobility," discussant, ASSA Annual meetings, Anaheim, CA, January, 1993.

"Promotion Timing, Wages, and Job Mobility" (with R. Buddin), University of Colorado, Boulder, October, 1992; the RAND Corporation, November, 1992.

"Free Riders in Voluntary Energy Conservation Programs" (with M. Ozog), ACEEE Annual Meetings, Monterey, California, September, 1992.

"Tax Credits, Labor Supply, and Child Care" (with S. Averett and H. Peters), Econometric Society Winter Meetings, New Orleans, January, 1992.

"An Econometric Analysis of Promotion and Job Separation," Department of Econometrics, University of Sydney, Sydney, Australia, November 1991; Victoria University Wellington, Wellington, New Zealand, February, 1992.

"Econometric Models of Energy Conservation," Departments of Econometrics, Universities of Sydney, Sydney; Australian National University, Canberra; and Monash University, Melbourne, September– October 1991.

"The Skill Composition of U. S. Migrants," Western Regional Sciences Association, Monterey, California, February 1991.

"Quality Adjusted Cost Functions," World Congress of the Econometric Society, Barcelona, Spain, August 1990; Econometric Society Winter Meetings, Washington, D.C., December 1990, University of Colorado, 1991; California Econometric Society, Summer Meeting, 1991.

"The Multimarket Amenity Capitalization Hypothesis and the Behavior of the Elderly," Department of Economics, University of Colorado–Boulder, University of California–Davis; Labor and Population Workshop, University of Chicago; Universities of Geneva, Geneva, Switzerland; University of Kentucky; RAND Corporation, 1988–1989.

"Ordered Probit and Logit," workshop for Research Training in Economic Education, Princeton University Visiting Research Fellows Program, Princeton, N. J., August 1988.