WHITNEY K. NEWEY

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PERSONAL DATA

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EDUCATION

1978 B.A. (Economics), Brigham Young University.
1983 Ph.D. (Economics), Massachusetts Institute of Technology.

EMPLOYMENT

1983-1988 Assistant Professor, Department of Economics, Princeton University.
1988-1990 Associate Professor, Department of Economics, Princeton University.
1988-1990 Member of Technical Staff, Bell Communications Research.
1990-2004 Professor, MIT Economics.
2004-2016 Jane Berkowitz Carlton and Dennis William Carlton Professor of Microeconomics, MIT.
2011-2016 Chair, MIT Economics.
2016- Ford Professor of Economics, MIT.

VISITING APPOINTMENTS

2019 Visiting Professor, University of California Riverside.
2018-2019 Gregory Chow Visiting Professor, Xiamen University.
2017 Data Science Visiting Fellow, Booth School of Business, University of Chicago.
2017 Distinguished Visitor, Boston University.
2017 Distinguished Visitor, Georgetown University.
2017 Visiting Professor, USC Department of Economics.
2017-2020 Visiting Researcher, UCLA.
2016-2017 Econometrics Program Visitor, Cowles Foundation for Research in Economics.
2016 Visiting Scholar, Becker Friedman Institute.
2000 Benjamin Meeker Visiting Professor, University of Bristol.
1989 Visiting Scholar, University of Wisconsin.

1986 Visiting Scholar, UC Berkeley.
1986 Visiting Assistant Professor, Carnegie-Mellon University.
1991, 2000 Benjamin Meeker Visiting Professor, University of Bristol
1989 Honorary Fellow, University of Wisconsin.
1985 Visiting Assistant Professor, GSIA, Carnegie-Mellon University.

FELLOWSHIPS

2019 Fellow of International Association of Applied Econometrics.
2017 Fellow of Center for Econometrics and Microdata Practice, IESR, Jinan University.
2007 Fellow of the American Academy of Arts and Sciences.
2004 International Fellow of CEMMAP, University College London.
2000 Fellow of Center for Advanced Study in the Behavioral Sciences.
1989 Fellow of Econometric Society.
1987 Alfred P. Sloan Research Fellowship.
1986 Jonathan Dickinson Bicentennial Preceptorship, Princeton University.
1979 National Science Foundation Graduate Fellowship.

LECTURES

2015 Nanqiang Seminar, Xiamen University.
2010 Shanghai Lecture, World Congress of the Econometric Society.
2008 Ching-Hua Lecture, Academia Sinica.

RESEARCH GRANTS

National Science Foundation: 1984-1985, 1986-1987, 1988-1991, 1991-1994, 1994-1997, 1998-2001, 2001-2005, 2006-2010, 2011-2015, 2018-2021.

PROFESSIONAL SERVICE

Executive Committee of the Econometric Society, 2016-2019.
Council of the Econometric Society, 2014-2019.
Co-Editor: Econometrica, 2004-2009.
Associate Editor: Econometrica, 1988-1991, 1993-2004.
Program Co-Chair: 2005 Econometric Society World Congress.
Program Co-Chair: 2005 Berkeley Conference in Honor of Daniel McFadden.
Program Co-Chair: 2005 Young Econometrician's CEME Conference.
Program Co-Chair: 2004 NBER-NSF-UCLA CEME Conference on Nonlinear Panel Data.
Program Chair and Organizer: 2003 NBER-NSF-MIT CEME Conference on Weak Instruments.
Associate Editor: Journal of Statistical Planning and Inference, 2001-2003.
Associate Editor: Econometric Theory, 1988-1993.

Co-Editor: Economics Letters, 1992-1995.

Program Committee: 1988 North American Winter Meeting of the Econometric Society,

1990 Econometric Society World Congress.

PUBLICATIONS

Articles

2020 "Semiparametric Estimation of Structural Functions in Nonseparable Triangular Models," with V. Chernozhukov, I. Fernández-Val, S. Stouli, and F. Vella, *Quantitative Economics*, forthcoming.

"Control Variables, Discrete Instruments, and Identification of Structural Functions," with S. Stouli, *Journal of Econometrics,* forthcoming.

"A Recentering Approach for Interpreting Interaction Effects from Logit, Probit, and Other Nonlinear Models," with Y. Jeong, J.I. Siegel, S. Chen, *Strategic Management Journal,* forthcoming.

2019 "Nonseparable Multinomial Choice Models in Cross-section and Panel Data," with V. Chernozhukov, I. Fernández-Val, *Journal of Econometrics* 211, 104-116.

2018 "Double Machine Learning for Treatment and Structural Parameters," with V. Chernozhukov, D. Chetverikov, M. Demirer, E. Duflo, C. Hansen, and J. Robins, *Econometrics Journal* 21, C1-C68.

"Inference in Linear Regression Models with Many Covariates and Heteroskedasticity," with M. Cattaneo and M. Jansson, *Journal of the American Statistical Association* 113, 1350-1361.

"Alternative Asymptotics and the Partially Linear Model with Many Regressors," with M. Cattaneo and M. Jansson, *Econometric Theory* 34, 277-301.

2017 "Double/Debiased/Neyman Machine Learning of Treatment Effects," with V. Chernozhukov, D. Chetverikov, M. Demirer, E. Duflo, C. Hansen, *American Economic Review Papers and Proceedings* 107, 261-65.

"Nonparametric Welfare Analysis," with J.A. Hausman, *Annual Review of Economics* 9, 521-546.

2016 "Individual Heterogeneity and Average Welfare," with J.A. Hausman, *Econometrica* 84, 1225-1248.

2015 "Nonparametric Identification in Panels Using Quantiles," with V. Chernozhukov, I. Fernandez-Val, S. Hoderlein, and H. Holzman, *Journal of Econometrics* 188, 378—392.

2014 "Local Identification of Nonparametric and Semiparametric Models," with X. Chen, V. Chernozhukov, and S. Lee, *Econometrica* 82, 785-809.

"Testing Overidentifying Restrictions with Many Instruments and Heteroskedasticity," with J. Chao, J. Hausman, N. Swanson, and T. Woutersen, *Journal of Econometrics* 178, 15-21.

"Neglected Heterogeneity in Moment Condition Models," with J. Hahn, and R. Smith, *Journal of Econometrics* 178, 86-100.

2013 "Average and Quantile Effects in Nonseparable Panel Models," with V. Chernozhukov, I. Fernandez-Val, and J. Hahn, *Econometrica* 81, 535-580.

"Nonparametric Instrumental Variable Estimation," *American Economic Review Papers and Proceedings* 103, 550-556.

2012 "Asymptotic Distribution of JIVE in a Heteroskedastic IV Regression with Many Instruments," with J. Chao, N. Swanson, J. Hausman, and T. Woutersen, *Econometric Theory* 28, 42-86.

"Instrumental Variable Estimation with Heteroskedasticity and Many Instruments," with J. Hausman, T. Woutersen, J. Chao, and N. Swanson, *Quantitative Economics* 3, 211-255.

"Combining Two Consistent Estimators," with J. Chao, J. Hausman, N. Swanson, T. Woutersen, in B. Baltagi, R.C. Hill, W.K. Newey, H. White, eds., *Essays in Honor of Jerry Hausman*, pp. 33 - 53, Emerald.

"An Expository Note on the Existence of Moments of Fuller and HFUL Estimators," with J. Chao, J. Hausman, N. Swanson, T. Woutersen, in B. Baltagi, R.C. Hill, W.K. Newey, H. White, eds., *Essays in Honor of Jerry Hausman*, pp. 87-106, Emerald.

2011 "Properties of the CUE Estimator and a Modification with Moments," with J. Hausman, R. Lewis, K. Menzel, *Journal of Econometrics* 165, 45-57.

2010 "IV Estimation with Flexible Distributions," with C. Hansen and J.B. McDonald, *Journal of Business and Economic Statistics* 28, 13-25.

2009 "Identification and Estimation of Triangular Simultaneous Equations Models Without Additivity," with G. Imbens, *Econometrica* 77, 1481-1512.

"GMM Estimation with Many Weak Moment Conditions," with F. Windmeijer, *Econometrica* 77, 687-719.

"Two-step Series Estimation of Sample Selection Models," *Econometrics Journal* 12, S217-S229.

"Choosing Instrumental Variables in Conditional Moment Restriction Models," with S.G. Donald and G. Imbens, *Journal of Econometrics* 152, 28-36.

2008 "Estimation with Many Instrumental Variables," with C. Hansen and J. Hausman, *Journal of Business and Economic Statistics* 26, 398-422.

2007 "Instrumental Variable Identification and Estimation of Nonseparable Models," with V. Chernozhukov and G. Imbens, *Journal of Econometrics* 139, 4-14.

"Nonparametric Continuous/Discrete Choice Models," *International Economic Review* 48, 1429—1439.

2005 "Asymptotic Bias for GMM and GEL Estimators with Estimated Nuisance Parameters," with J.J.S. Ramalho and R.J. Smith, in D.W.K Andrews and J.H. Stock eds., *Identification and Inference in Econometric Models: Essays in Honor of Thomas J. Rothenberg,* Cambridge, Cambridge University Press: Cambridge.

"Density Weighted Linear Least Squares," with P.A. Ruud, in D.W.K Andrews and J.H. Stock eds., *Identification and Inference in Econometric Models: Essays in Honor of Thomas Rothenberg,* Cambridge University Press: Cambridge, 554-573.

2004 "Higher-Order Properties of GMM and Generalized Empirical Likelihood Estimators," with R.J. Smith, *Econometrica 72,* 219-255.

"Twicing Kernels and a Small Bias Property of Semiparametric Estimators," with F.Hsieh and J. Robins, *Econometrica* 72, 947 - 962.

"Jacknife and Analytical Bias Reduction for Nonlinear Panel Data Models," with J. Hahn, *Econometrica* 72, 1295-1319.

"Efficient Semiparametric Estimation Via Moment Restrictions," *Econometrica* 72, 1877-1897.

2003 "Instrumental Variable Estimation of Nonparametric Models," with J.L. Powell, *Econometrica* 71, 1565-1578.

"Nonparametric Estimation of Sample Selection Models," with M. Das and F. Vella, *Review of Economic Studies* 70, 33-58.

"Empirical Likelihood Estimation and Consistent Tests with Conditional Moment Restrictions," with S. Donald and G. Imbens, *Journal of Econometrics* 117, 55-93.

"A Comparison of Partially Adaptive and Reweighted Least Squares Estimators," with B. Boyer and J.B. McDonald, *Econometric Reviews* 22, 115 - 134.

2002 "Nonparametric Estimation with Nonlinear Budget Sets," with S. Blomquist, *Econometrica* 70, 2455-2480.

"Generalized Method of Moments, Efficient Bootstrapping, and Improved Inference," with B.W. Brown, *Journal of Business and Economic Statistics* 20, 507 – 517.

2001 "Choosing the Number of Instruments," *Econometrica 69,* 1161-1191.

"Conditional Moment Restrictions in Censored and Truncated Regression Models," *Econometric Theory* 17, 863-888.

"Tax Reform Evaluation Using Nonparametric Methods: Sweden 1980-1991," with Soren Blomquist and Matias Eklof, *Journal of Public Economics* 79, 543-568.

"Flexible Simulated Moment Estimation of Nonlinear Errors-in-Variables Models," *Review of Economics and Statistics 83, 616-627.*

2000 "A Jackknife Interpretation of the Continuous Updating Estimator," with Stephen Donald, *Economics Letters 67,* 239-243.

1999 "Nonparametric Estimation of Triangular Simultaneous Equations Models," with J.L. Powell and F. Vella, *Econometrica* 67, 565-603.

"Consistency of Two-Step Sample Selection Estimators Despite Misspecification of Distribution," *Economics Letters* 63, 129-132.

1998 "Efficient Semiparametric Estimation of Expectations," with Bryan W. Brown, *Econometrica* 66 453-464.

1997 "Asymptotic Bias for Quasi-Maximum-Likelihood Estimators in Conditional Heteroskedasticity Models," with D. Steigerwald, *Econometrica* 65, 587-599.

"Convergence Rates and Asymptotic Normality for Series Estimators," *Journal of Econometrics* 79, 147-168.

1995 "Convergence Rates for Series Estimators," in *Advances in Econometrics and Qualitative Economics: Essays in Honor of C.R.Rao*, G.S.Maddal, P.C.B. Phillips, and T.N. Srinivasan, eds., Cambridge USA: Basil-Blackwell.

"Nonparametric Estimation of Exact Consumer Surplus and Deadweight Loss," with J.A. Hausman, *Econometrica* 63, 1445-1476.

"Semiparametric Efficient Estimation of a Conditional Density with Missing or Mismeasured Covariates," *Journal of Royal Statistical Society, Series B* 57, 409-424.

1994 "The Asymptotic Variance of Semiparametric Estimators," *Econometrica* 62, 1349-1382.

"Nonlinear Errors-in-Variables: Estimation of Some Engel Curves," with J.A. Hausman and J.L. Powell, *Journal of Econometrics* 65, 205-233.

"Automatic Lag Selection for Covariance Matrix Estimation," with K.D. West, *Review of Economic Studies* 61, 631-653.

"Series Estimation of Regression Functionals," *Econometric Theory*, 10, 1-28.

"Kernel Estimation of Partial Means and a General Variance Estimator," *Econometric Theory* 10, 233-253.

"Series Estimation of Semi-linear Models," with S.G. Donald, *Journal of Multivariate Analysis* 50 1994, 30-40.

"Large Sample Estimation and Hypothesis Testing," with D. McFadden, R. Engle and D. McFadden (eds.), *Handbook of Econometrics, Vol. 4*, Amsterdam, North-Holland, 2113-2245.

1993 "Efficiency of Weighted Average Derivative Estimators and Index Models," with T. Stoker, *Econometrica* 61, 1199-1223.

"Efficiency Bounds for Semiparametric Selection Models," with J.L. Powell, J*ournal of Econometrics* 58, 169-184.

"Efficient Estimation of Models with Conditional Moment Restrictions," in G.S. Maddala, C.R. Rao, and H.D. Vinod, eds., *Handbook of Statistics, Volume 11: Econometrics.* Amsterdam: North-Holland.

1992 "Estimating Exposure Effects by Modelling the Expectation of Exposure Conditional on Confounders," with J.M. Robins and S. Mark, *Biometrics* 48, 479-495.

1991 "Uniform Convergence in Probability and Stochastic Equicontinuity," *Econometrica* 59, 1161-1167.

"Efficient Estimation of Tobit Models Under Conditional Symmetry," in W. Barnett, J. Powell, and G. Tauchen, eds., *Semiparametric and Nonparametric Methods in Statistics and Econometrics*, Cambridge: Cambridge University Press.

"Over-Identification Tests in Earnings Functions with Fixed Effects," with J.A. Angrist, J*ournal of Economic and Business Statistics* 9, 317-323.

"Estimation of Polynomial Errors in Variables Models," with J. A. Hausman, H.Ichimura, and J. L. Powell, *Journal of Econometrics* 50, 273-295.

1990 "Semiparametric Estimation of Selection Models: Some Empirical Results," with J.L. Powell and J.R. Walker, *American Economic Review, Papers and Proceedings* 80, 324-328.

"Semiparametric Efficiency Bounds," *Journal of Applied Econometrics* 5, 99-135.

"Efficient Instrumental Variables Estimation of Nonlinear Models," *Econometrica* 58, 809-837.

"Efficient Estimation of Linear and Type I Censored Regression Models Under Conditional Quantile Restrictions," with J.L. Powell, *Econometric Theory* 6, 295-317.

1989 "The Revenues-Expenditures Nexus: Evidence From Local Government Data," with D. Holtz-Eakin and H. Rosen, *International Economic Review* 30, 415-429.

"An Introduction to Semiparametric Efficiency Bounds," *Annals D'Economie et de Statistique* 13, 1-47.

1988 "Adaptive Estimation of Regression Models Via Moment Restrictions," *Journal of Econometrics* 38, 301-339.

"Estimating Vector Autoregressions With Panel Data," with D. Holtz-Eakin and H. Rosen, *Econometrica* 56, 1371-1396.

"Partially Adaptive Estimation of Regression Models Via the Generalized T Distribution," with J. B. McDonald, *Econometric Theory* 4, 428-457.

"Asymptotic Equivalence of Closest Moments and GMM Estimators," *Econometric Theory* 4, 336-340.

1987 "A Simple, Positive Semi-definite, Heteroskedasticity and Autocorrelation Consistent Covariance Matrix," with K. D. West, *Econometrica* 55, 703-708.

"Asymmetric Least Squares Estimation and Testing," with J. L. Powell, *Econometrica* 55, 819-847.

"Efficient Estimation and Identification of Simultaneous Equations Models with Covariance Restrictions," with J. A. Hausman and W. E. Taylor, *Econometrica* 55, 849-874.

"Hypothesis Testing with Efficient Method of Moments Estimation," with K. D. West, *International Economic Review* 28, 777-787.

"Efficient Estimation of Limited Dependent Variable Models with Endogenous Explanatory Variables," *Journal of Econometrics* 36, 231-250.

"Specification Tests for Distributional Assumptions in the Tobit Model," *Journal of Econometrics* 34, 125-145.

1986 "Linear Instrumental Variables Estimation of Limited Dependent Variable Models with Endogenous Explanatory Variables," *Journal of Econometrics* 32, 127-142.

1985 "Maximum Likelihood Specification Testing and Conditional Moment Tests," *Econometrica* 53, 1047-1070.

"A Large Sample Chow Test for the Linear Simultaneous Equations Model," with A. Lo, *Economics Letters* 18, 351-353.

"Generalized Method of Moments Specification Testing," *Journal of Econometrics* 29, 229-256.

"Semiparametric Estimation of Limited Dependent Variable Models with Endogenous Explanatory Variables," *Annals de l'INSEE* 59/60, 219-237.

1984 "A Method of Moments Interpretation of Sequential Estimators," *Economics Letters* 14, 201-206.

"The Impact of Measurement Error on the Distribution of Income," with L. D. Israelsen and J. B. McDonald, in R. L. Basmann and G. F. Rhodes, eds., *Advances in Econometrics, Vol. 3*, Greenwich, Connecticut: JAI Press, 1984, 169-189.

1981 "Sequential R & D Strategy for Synfuels," with M. L. Weitzman and M. Rabin, *Bell Journal of Economics* 12, 574-590.

Miscellanea

"A Test for Serial Correlation in Poisson Models," with J. A. Hausman, Appendix B of Hausman J., B. H. Hall, and Z. Griliches, "Econometric Models for Count Data with an Application to the Patents-R & D Relationship," *Econometrica* 52, 936-937.

"A Review of Advanced Econometrics by Takeshi Amemiya, Harvard University Press, 1986," *Econometric Theory* 3, 1987, 153-158.

"Exercise on Efficient Estimation with Serial Correlation and Lagged Dependent Variables," *Econometric Theory*, 1987.

"Exercise on Asymptotic Properties of One Step Estimators Obtained From an Optimal Step Size," *Econometric Theory*, 1987.

WORKING PAPERS

"Minimax Semiparametric Learning With Approximate Sparsity," with J. Bradic, V. Chernozhukov, Y. Zhu, 2019, arXiv:1908.09173.

"Demand Analysis with Many Prices," with V. Chernozhukov and J.A. Hausman, NBER Working Paper w26424.

"On Bunching and Identification of The Taxable Income Elasticity," with S. Blomquist, A. Kumar, C-Y. Liang, NBER Working Paper w24136.

"Double/De-Biased Machine Learning of Global and Local Parameters Using Regularized Riesz Representers," V. Chernozhukov, J. Robins, R. Singh, 2019, arXiv:1801.09138.

"Inference on Weighted Average Value Function in High-dimensional State Space," with V. Chernozhukov, V. Semenova, 2019, arXiv:1908.05824

"Testing the Drift-Diffusion Model," with D. Fudenberg, P. Strack, T. Strzalecki, 2019, arXiv:1811.09837.

"Simultaneous Confidence Intervals for High-dimensional Linear Models with Many Endogenous Variables," with A. Belloni, C. Hansen, 2019, arXiv:1711.02184.

"Locally Robust Semiparametric Estimation," with V. Chernozhukov, J.-C. Escanciano, H. Ichimura, J.M. Robins, 2018 arXiv:1509.06311.

"Heterogenous Coefficients, Discrete Instruments, and Identification of Treatment Effects," with S. Stouli, 2018, arXiv:1809.05706.

"Learning L2 Continuous Regression Functionals via Regularized Riesz Representers," with V. Chernozhukov, R. Singh, 2018, arXiv:1802.08667.

"Cross-Fitting and Fast Remainder Rates for Semiparametric Estimation," with J. Robins, 2018, 1712.08102.

"Semiparametric Efficient Empirical Higher Order Influence Function Estimators," with L. Liu, R. Mukherjee, J.M. Robins, 2017, arXiv:1701.08687.

"The Influence Function of Semiparametric Estimators," with H. Ichimura, arXiv:1508.01378.

"Constrained Conditional Moment Restriction Models," with V. Chernozhukov, 2015, A. Santos, arXiv:1508.01378.

"Individual Heterogeneity, Nonlinear Budget Sets, and Taxable Income," with S. Blomquist, A Kumar, Che-Yuan Liang, May 2015.

"Mean-Square Error Calculations for Average Treatment Effects," with G. Imbens, and G. Ridder, August 2005.

"Higher Order Properties of Bootstrap and Jackknife Bias Corrected Maximum Likelihood Estimators," with J. Hahn and G. Kuersteiner.

"Bound Analysis in Panel Models with Correlated Random Effects," with V. Chernozhukov and J. Hahn, April 2004.

"Bootstrapping with Moment Restrictions," with B.W. Brown, Working Paper, January, 2001.

"Efficient Bootstrapping in Semiparametric Models," with B.W. Brown.

"Two-step Estimation, Optimal Moment Conditions, and Sample Selection Models."

"Locally Efficient, Residual-Based Estimation of Nonlinear Simultaneous Equations Models," mimeo, Department of Economics, Princeton University, October 1989.

"A Rate for Root-n-bracketing," mimeo, Department of Economics, Princeton University, July 1988.

"Generic Uniqueness of the Population Quasi-Maximum Likelihood Parameter Value," mimeo, Department of Economics, Princeton University, 1986.