EDUCATION Ph.D. Economics, Yale University, 1970

B.A. Economics, University of California, Berkeley, 1966

B.A. Mathematics, University of California, Berkeley, 1966

Certificate of French, Sorbonne, 1965

DISSERTATION A Dynamic Theory of Comparative Advantage,

Yale University, 1970

WORK EXPERIENCE Rutgers University, 1995-Present: Professor of Economics

Bellcore, 1984 - 1995: Member of Technical Staff, Econometrics

and Statistics Research Group

Bell Laboratories, 1974 - 1984: Member of Technical Staff,

Economics Research Group

Princeton University, 1975 - 1976: taught graduate Econometrics

(on leave)

Carnegie Mellon University, 1973 - 1974: taught undergraduate

Statistics

Purdue University, 1970 - 1973: taught Micro Theory, International

Trade (undergraduate and graduate), Econometrics (undergraduate

and graduate)

Yale University, 1967 - 1970: Graduate Teaching Fellow

ASSOCIAE EDIOR Econometric Theory

AWARDS Rutgers University Research Council Grants

Benjamin Meaker Visiting Professor in Economics, U. Bristol, May-

June, 1995.

Purdue University Grants, 1970 - 1973

National Science Foundation Fellowship,

1969 - 1970, Yale University

National Defense Educational Act Fellowship 1966 - 1969, Yale University

Honors Economics Program, University of California, Berkeley

SELECTED PUBLICATIONS

"Estimation of Marginal Effects in Semiparametric Selection Models with Binary Outcomes," with C. Shen and F. Vella, *Journal* of *Econometrics*," March, 2015, (full proofs of Lemmas and Theorems available upon request).

"Does Increasing Parent's Schooling Raise the Schooling of the Next Generation? Evidence Based on Conditional Second Moments, with Lydia Fare and Frank Vella, *Oxford Bulletin of Economics and Statistics*, October 2012, vol. 74, Issue 5, 676-689.

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"A Parametric Control Function Approach to Estimating the Returns to Schooling in the Absence of Exclusion Restrictions: An Application to the NLSY," with L. Farre and F. Vella, *Empirical Economics*, 2010.

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"A Semiparametric Model for Binary Response and Continuous Outcomes Under Index Heteroscedasticity,", with F. Vella, *Journal of Applied Econometrics*, August 2009, Volume 24 Issue 5, 735 – 762, 2009

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"Shift Restrictions and Semiparametric Estimation in Ordered Models, with R. Sherman, *Econometrica*, March, 2002

"Estimating New Product Demand from Biased Survey Data," with R. Sherman, *Journal of Econometrics*, **76**, **1997**, **53-76**.

"Specification Tests for Discrete Choice Models Based on Index Quantiles," *Journal of Econometrics*, 59, 1993.

"An Efficient Semiparametric Estimator for the Binary Response Model," with R. Spady, *Econometrica*, 61, 1993.

"Factors Affecting the Output and Quit Propensities of Production Workers," with R. Spady and A. Weiss, *The Review of Economic Studies*, 58(5), October, 1991, 929-953.

"A Flexible Class of Discrete Choice Models," with S. Dalal, *Marketing Science*, 7 (3), 1988, 232-251.

"Some Results on an Approximation of Joint Distributions of Utility Functions," with S. Dalal, *Economics* Letters, 22, 1986, 123-5.

"Model Selection in the Federal Courts: An Application of the Posterior Odds Ratio Criterion," with S.J. Brown, *Bayesian* Inference and Decision Techniques with Applications: Essays in Honor of Bruno de Finetti, edited by Prem Goel and Arnold Zellner, North Holland, Amsterdam, 1986.

"Model Selection When There is Minimal Prior Information," with S.J. Brown, *Econometrica*, September, 1984.

"Comment on Non-Nested Specification Tests," *Econometric Reviews*, 2, 1983.

"Comment on Model Validation by Discriminating Priors: An Application to the Concentration-Profits Debate," *Econometric Reviews*, 1, 1982, 137-40.

Estimation Risk and Optimal Portfolio Choice, with V.S. Bawa and S.J. Brown, North Holland: Amsterdam, September, 1979.

"The Information Criterion in Model Selection," *Economics Letters*, 1979, 3, 243-48.

"Optimal Instruments When the Disturbances are Small," *Journal of Econometrics*, 9, 1979, 367-77.

"Network Externalities and Optimal Telecommunications Pricing: A Preliminary Sketch," with R.D. Willig, Proceedings of the Fifth Annual Telecommunications Policy Research Conference, 1978.

"Decisions with Estimation Uncertainty," with L.C. Rafsky, D.S. Sibley, and R.D. Willig, *Econometrica*, 46, November, 1978, 1363-1387.

"The Effect of Limited Information and Estimation Risk on Optimal Portfolio Diversification," with V.S. Bawa, *Journal of Financial Economics*, 5, August, 1977, 88-111.

"The Effect of Estimation Risk on Optimal Portfolio Choice," with V.S. Bawa, *Journal of Financial Economics*, 3, June, 1976, 215-31.

"K-Class Estimators: The Optimum Normalization for Finite Samples," *Journal of the American Statistical Association*, 68, June, 1973, 445-51.

"A Dynamic Theory of Comparative Advantage," *American Economic Review*, 43, March, 1973, 173-84.

PAPERS UNDER REVIEW

"Semiparametric Instrumental Variable Estimation in an Endogenous Treatment Model," with Chan Shen.

RESEARCH IN PROGRESS

"A Differencing in Differencing Approach to Bias Reduction for Nonparametric Expectations, with Chan Shen, in progress.

PRESENTATIONS

"Semiparametric Instrumental Variable Estimation in an Endogenous Treatment Model," Unoversity of Rochester, Nov. 5, 2015

"Semiparametric Instrumental Variable Estimation in an Endogenous Treatment Model, AEA Meetings, January, 2014 (Joint with Chan Shen,m Chan Shen presenter).

"Estimating Semiparametric Binary Sample Selection and Treatment Models," jointly presented with Chan Shen, U. Penn, October 1, 2012

"Semiparametric Index Models with Binary Outcomes and Sample Selection," jointly presented with Chan Shen, USC, March 30, 2012.

"Semiparametric Index Models with Binary Outcomes and Sample Selection," jointly presented with Chan Shen "Caltech, March 29, 2012.

"Semiparametric Selection Models with Binary Outcomes," jointly presented with Chan Shen, October 29, 2011, NYU

"Triangular Semiparametric Models Featuring Two Dependent Endogenous Binary Variables," World Congress of the Econometric Society, Shanghai, China, August, 2010, Chan Shen presenter

"Triangular Semiparametric Models Featuring Two Dependent Endogenous Binary Variables," Georgetown, November 2008, Brown, November, 2009, and ASSA Meetings, January 3, 2010, Roger Klein presenter

"Bias Corrections in Testing and Estimating Semiparametric, Single Index Models," with Chan Shen., Econometric Society Summer Meetings, 2008, Chan Shen presenter.

"Estimation and Identification in Simultaneous Equations Models without Exclusion Restrictions, "joint with Frank Vella, presented at the World Congress of the Econometric Society, August, 2005. "Estimating a Class of Triangular Semiparametric Models Without Exclusion Restrictions, NYU Econometrics Conference, Nov. 19-20, 2004.

"Estimating and Identifying a Class of Semiparametric Models Without Exclusion Restrictions," versions presented at: Princeton University (November, 2003), U. Penn (Nov. 2002). U. Illinois (Sept. 2002),

"Shift Restrictions and Semiparametric Estimation in Ordered Models," Harvard and MIT, 1999.

"Shift Restrictions and Semiparametric Estimation in Ordered and Transformation Models," Univ. of Pennsylvania, 1998.

"Semiparametric Estimators for Transformation Models Using Shift Restrictions," University of Wisconsin, May, 1998.

"Semiparametric Estimators for Transformation Models Using Shift Restrictions," NYU, November, 1997.

"Semiparametric Estimators for Censored Transformation and Ordered Models," University of Florida, April, 1997.

"Semiparametric Estimators for Censored Transformation and Ordered Models," Econometric Society Winter Meetings, January, 1997.

"Semiparametric Estimation of Transformation and Ordered Models, California Institute of Technology and the University of Southern California, March, 1996.

"A Semiparametric Method for Estimating Transformation Models, Statistics Dept., Rutgers University, February, 1996.

"Estimating Censored Models with Distribution-Free Methods, Economics Department, U. Bristol, June, 1995.

"A Distribution-Free Method for Estimating Transformation Models, Statistics Department, U. Bristol, June, 1995.

"A Distribution-Free Method for Estimating Ordered and Transformation Models", Joint Econometrics Seminar, Harvard University and MIT, February, 1995.

"A Semiparametric Method for Estimating Transformation Models", Oxford University and U. Bristol, June, 1994.
, Department of Economics, University of Pennsylvania, October, 1993 (joint with R. Sherman).
"A Tutorial on Semiparametric Methods for Estimating and Testing Choice Models," The World Bank, June, 1993.
"The Role of Uncertainty in the Choice of Extended Area Service: A Semiparametric Analysis," National Telecommunications Conference, June, 1993 (joint with Don Kridel).
"Estimating New Product Demand from Biased Survey Data," Econometric Society Meetings, June, 1993 (joint with R. Sherman).
June, 1993. Department of Economics, Rutgers University, Department of Economics, New York University, April, 1993.
"Specification Tests for Binary Response Models Based on Index Quantiles," Department of Economics, Columbia University, December, 1991.
, Department of Economics, University of Pennsylvania, November, 1991.
, Department of Economics, Princeton University, October, 1991.
, Department of Economics, Rutgers University, October, 1991.
"Parameter Stability and Specification Tests for Discrete Choice Models," Department of Economics, University of Southern California, February, 1991.
, Department of Economics, University of California at Irvine, February, 1991.

PRESENTATIONS continued

"Correcting for Sample Selection Bias," Telecommunications Business Research Conference, September, 1990.

"Index Quantiles and Specification Tests for Discrete Choice Models," The World Congress of the Econometric Society, Barcelona, Spain, August, 1990.

"An Efficient Semiparametric Estimator for the Binary Response Model," Columbia University, November, 1989 (joint with R. Spady).

"Distribution-Free Estimation of Discrete Choice Models," Telecommunications Business Research Conference, October, 1989 (joint with R. Spady).

"An Efficient Semiparametric Estimation for the Binary Response Model," Department of Economics, Rutgers University, 1989 (joint with R. Spady).

"An Efficient Semiparametric Estimator for Discrete Choice Models," Department of Economics, University of California at San Diego, April, 1988 (joint with R. Spady).

, Department of Economics, New York University,
March, 1988.
, Department of Economics, Yale University, March, 1988.
, Department of Economics, University of Southern California, March, 1988.
, Department of Economics, Stanford University, March, 1988.
"Efficient Semiparametric Estimation of Discrete Choice Models," Department of Economics, University of Michigan, December, 198 (joint with R. Spady).
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______, Department of Economics, University of Wisconsin, December, 1987.

_____, Department of Economics, University of Illinois, December, 1987.

_____, Department of Economics, Princeton University,

October, 1987.

REFEREE

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Annals of Statistics

Econometrica

Econometric Theory

Journal of the American Statistical Association

Journal of Econometrics

National Science Foundation: Grant Proposals