

Resume

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EDUCATION

Ph. D. in Statistics, Stanford University 1974
M. S. in Statistics, Stanford University 1969
A. B. (with High Distinction) in Mathematics, University of Rochester 1968

EMPLOYMENT HISTORY

1982 - present Associate Professor, Department of Applied and Engineering Statistics
George Mason University

1987 - present Research Associate, Center for Computational Statistics and Probability
George Mason University

1979 - 1982 Assistant Professor, Department of Mathematical Sciences
George Mason University

1972 - 1979 Assistant Professor, Department of Statistics
Rutgers University

1968 - 1970 Mathematician/Statistician, Bureau of Labor Statistics
U. S. Department of Labor, Washington, DC. (summers)

EXPERIENCE

University Professor

Since 1972, Dr. Miller has regularly designed and taught graduate and undergraduate courses including introductory statistics, probability, analysis of variance, regression analysis, multivariate statistics, biostatistics, categorical data analysis, theory of statistics, and linear algebra.

Dr. Miller's research interests include applied statistics, linear models, multivariate methods, and computational statistics, especially in the specialized areas of injection of current statistical methodology into established applications, estimation of ratios using crossover designs, and improving statistical methods used in litigation.

He has served as a referee for journals such as the *Journal of the American Statistical Association* and the *Annals of Statistics*.

Statistical Consultant

Since 1973, Dr. Miller provided statistical consulting, experimental design, data analysis, expert testimony or related services on such subjects as: the shelf life of food products, efficiency of pollution control devices, stock market modeling, clinical trials of pharmaceuticals, risk management in government contracts, computational algorithms for target tracking, calibration of medical laboratory equipment, surveys of ocean fishing, dust hazards in coal mines, highway traffic accident data, FCC licensing, and municipal annexation.

Employment Discrimination Analyst

Since 1980, Dr. Miller provided statistical consulting and/or expert testimony in employment discrimination litigation including: *Brown vs. Artery*; *Butler v. Home Depot*; *Cook v. Billington*; *Hendricks vs. Towers, Perrin, Forster, Crosby, Inc.*; *Jones v. Ford Motor Company*; *OFCCP v. Packaging Corporation of America*; *OFCCP v. St. Regis Paper Co*; *Taylor v. Rector and Visitors of the University of Virginia*; *U. S. vs. Fairfax County*; *U.S. v. Commonwealth of the Northern Mariana Islands*; *U. S. v. City of Torrance*; and *Vandell, et al. v. Chevron*. He has consulted on wage data and salary adjustments for employers including a publishing company and several universities, and conducted validation analyses on the OFCCP's experimental Equal Opportunity Survey for federal contractors.

Since 1998, Dr. Miller has been supported by the Ford Foundation and others to develop innovative methods of analyzing employers' "EEO-1" reports of the demographic characteristics of their employees, covering some 50 million workers annually.

PUBLICATIONS

Egan, Mary Lou, Marc Bendick, Jr., and John J. Miller, "US Employers' Evaluation of Employee Qualifications in International Business," *International Journal of Human Resource Management*, in press, 2001.

Blumrosen, Alfred W., Marc Bendick, Jr., John J. Miller, and Ruth Gerber Blumrosen, *Employment Discrimination Against Women and Minorities in Georgia*, Rutgers University School of Law, New Brunswick, 1999.

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Wegman, E. J., D. Carr, R. D. King, J. J. Miller, W. Poston, J. L. Solka, and J. Wallin, "Statistical software, sftware, and astronomy (with discussion)," *Statistical Challenges in Modern Astronomy* (Babu, G. J. and E. D. Feigelson, eds.), 1997, Springer-Verlag, New York, 185-206.

Xu, M., J. Miller, and E. Wegman, "Parallelizing multiple linear regression for speed and redundancy: an empirical study," *Journal of Statistical Computation and Simulation*, Vol. 39, pp. 205-214; also a short version in *Computing Science and Statistics: Proceedings of the 21st Symposium on the Interface*, American Statistical Association for the Interface Foundation of North America, Washington, D. C., pp. 138-144.

Miller, J. and E. Wegman, "Construction of line densities for parallel coordinate plots," *Computing and Graphics in Statistics*, (A. Buja and P. Tukey, eds.), Springer-Verlag, New York, 1991, pp. 219-230; also a short version in *Computing Science and Statistics, Proceedings of the 21st Symposium on the Interface*, American Statistical Association for the Interface Foundation of North America, Washington, D. C., pp. 191-199.

Wegman, E. J., D. T. Gantz, and J. J. Miller, Editors, *Computing Science and Statistics: Proceedings of the 20 Symposium on the Interface*, American Statistical Association for the Interface Foundation of North America, Washington, D. C.

Miller, J. and E. Wegman, "Vector function estimation using splines," *Journal of Statistical Planning and Inference*, Vol. 17, 1987, pp. 173-180.

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Szatrowski, T. and J. Miller, "Explicit MLE estimates in the mixed model analysis of variance," *Annals of Statistics*, Vol. 8, 1980, pp. 811-820.

Miller, J. "Maximum likelihood estimates of variance components--a Monte Carlo study," *Journal of Statistical Computation and Simulation*, Vol. 8, 1979, pp. 175-190.

Santa, J., J. Miller, and M. Shaw, "Using quasi-F to prevent alpha inflation due to stimulus variation," *Psychological Bulletin*, Vol. 86, Jan. 1979, pp. 37-46.

Miller, J. "The inverse of the double arcsine transformation," *The American Statistician*, Nov. 1978, p. 138.

Miller, J. "Asymptotic properties of maximum likelihood estimates in the mixed model analysis of variance," *Annals of Statistics*, Vol. 5, July 1977, pp. 746-762.

Cohen, A. and J. Miller, "Some remarks on Scheffe's two way mixed model," *The American Statistician*, Feb. 1976, pp. 36-37.

Ernst, C., K. Marion, W. Fox, and J. Miller, "Comparisons of shell morphology between turtles of the *Sternotherus minor* complex," *The American Midland Naturalist*, Vol. 120, pp. 282-288.