

**WILLIAM C. HORRACE, M.B.A., PH.D.**  
**Business & Economic Statistics Consultant**  
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## **CAPABILITIES SUMMARY**

**Dr. Horrace** has over 20 years of experience in private industry and academia as an electrical engineer, economist, statistician, researcher, publisher and educator. His projects have included price analysis for the states of Delaware and Massachusetts, motor-carrier safety analysis for the U.S. Department of Transportation, engineering design for the Department of Defense, general statistical consulting for several management consulting firms, and academic research in economics and statistics. Dr. Horrace is a professor of econometrics at Syracuse University, a research associate at the National Bureau of Economic Research, and an associate editor for the *Southern Economic Journal*.

## **CONSULTING EXPERIENCE:**

- **Tobacco Marketing Research (2005).** Capstone Research, Fairfield, NJ. Assisted client in assessing various statistical techniques for understanding the nature of the relationship between cigarette sales and various product promotions.
- **Product Failure Analysis (2005), ASF-Keystone, Granite City, IL.** Helped client develop sampling plan for assessing probabilities of infant mortality of certain railroad car castings.
- **Demand Analysis (2004).** Lansing Community College, Lansing, MI. Estimated consumer demand for various academic programs based on course prices and several economic activity measures in and around Lansing, Michigan.
- **Healthcare Sample Design and Analysis.** Best Practice Associates (2003), Skaneateles, NY. Performed sample design for a proprietary healthcare dataset. Details are confidential.
- **Motor Carrier Safety Analysis for U.S. Department of Transportation (2001-Present).** Econometrica, Inc., Bethesda, MD. Performed statistical analysis of sixteen Department of Transportation safety measures across 23 different motor carrier industry segments. This project involves constructing and performing inference on orders statistics across industry segments using multiple comparison techniques.
- **General Statistical Consultation to Bain & Co. (2001-Present).** Stax, Research, Chicago, IL. Provide general statistical advice for a range of different projects. Examples include: statistical analysis of the effects of corporate credit card programs on corporate credit card usage; non-parametric estimation to study the effects of economic recessions on corporate growth in the USA; and analysis of the effects of after-school mentoring programs on student performance.
- **New Product Feasibility Studies (2000-2003).** INCAM, Los Angeles, CA. Performed feasibility, cost-benefit analysis and marketing studies for several new products. The studies included analysis of existing marketing data, production capabilities, economic conditions and competition.
- **Daycare Price Estimation for the States of Delaware (1996, 1998, 2000, 2003, 2005), Florida (2003) and Massachusetts (2000, 2005).** Workplace Solutions, Reading MA. The Family Support and Welfare Reform Acts allow states to reimburse child care costs to certain welfare recipients up to the 75th percentile of the local market price for child care. This project involved estimating the 75th percentile price for different counties in each state. The challenge was (1) to pick a sampling design that produced estimates that were inexpensive, efficient and equitable across counties; and (2) to assess the sampling variability of the estimates obtained. The analysis involved automatic bandwidth selection techniques for kernel density estimators. Results were used to set rate ceilings for publicly purchased child care services.
- **Neural Network Feasibility Study (1999).** Bates & White, L.L.C., Washington, D.C. Investigated the feasibility (cost benefit analysis) of using neural network technology to develop risk management strategies for a large credit card processing corporation.

## WILLIAM C. HORRACE, M.B.A., PH.D.

### ACADEMIC EXPERIENCE:

- *Associate Professor*, Syracuse University. 2002 to Present.
- *Senior Research Associate*, Center for Policy Research. 2002 to Present.
- *Assistant & Associate Professor*, University of Arizona. 1996 to 2002.
- *Research Economist*, National Bureau of Economic Research. 2000 to Present.
- *Associate Editor*, *Southern Economic Journal*. 2001 to Present
- *Research Associate*, Michigan State University. 1996.

### ENGINEERING EXPERIENCE:

- *Purchasing-Engineering Specialist*, SCM Chemicals, Baltimore, MD. 1989-91.
- *Lead Design Engineer*, Westinghouse, Hunt Valley, MD. 1986-88.
- *Transformer Engineer*, Power Magnetics, Trenton, NJ. 1985.

### EDUCATION:

- Ph.D. Econometrics & Statistics, Michigan State University, 1996
- M.A. Economics, Michigan State University, 1994
- M.B.A., University of Baltimore, 1991
- B.S. (cum laude), Temple University, 1985

### GRANTS:

- H.H. Franklin Bridge Fund, Syracuse University (2005) \$15,000.
- Research in Econometric Theory, The Maxwell School, Syracuse University (2002-2005) \$72,666.
- The Economic Impact of the New Deal, National Science Foundation, SES-0214395 (2002-2004), \$386,827, & SES-0080324 (2000-2002), \$283,187.
- Spatial Analysis of Economic Phenomena, University of Arizona Foundation (2000) \$12,000.
- Research on Cross Section Error Component Models, University of Arizona Foundation (1999) \$7,500.
- Efficiency Estimation and Stochastic Frontier Models, University of Arizona Foundation (1998) \$8,250.
- Research in Econometric Theory, University of Arizona Foundation (1997) \$12,222.
- Semiparametric Error Component Density Estimation Techniques for Stochastic Frontier Models, University of Arizona, International Affairs Foreign Travel Grant (1997), \$976.
- Research in Econometric Theory, National Science Foundation Grant Supplement, SES-9222728 (1995), \$11,968.

### AWARDS & HONORS:

- Syracuse University Vice Chancellor's Fellowship. 2002-2007.
- Outstanding University of Arizona Faculty Award, Mortar Board Society. 1999.
- Faculty Appreciation Award, University of Arizona, College of Business Student Council. 1998, 1999.
- Ford Foundation Dissertation Fellow. 1995 - 1996.
- King-Chavez-Parks Doctoral Fellow. 1993 - 1996.
- Consortium on Institutional Cooperation Doctoral (Big-10) Fellow. 1991-1996.
- Michigan State University Doctoral Fellowship. 1991.
- Eli Broad School of Business Doctoral Fellow. 1991.
- American Economics Association Student Fellow. 1991.
- Temple University Outstanding Engineering Student. 1985.

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### PUBLICATIONS:

- The Impact of New Deal Expenditures on Mobility During the Great Depression, *Explorations in Economic History*, (forthcoming).
- Results on the Bias and Inconsistency of Ordinary Least Squares for the Linear Probability Model, *Economics Letters*, (forthcoming).
- On Ranking and Selection from Independent Truncated Normal Distributions (2005). *Journal of Econometrics*, 126, 335-354.
- Some Results on the Multivariate Truncated Normal Distribution (2005). *Journal of Multivariate Analysis*, 94, 209-221.
- Habitat Destruction by Collectors Associated with Decreased Abundance of Rock-dwelling Lizards (2005). *Biological Conservation*, 125, 47-54.
- The Determinants of Life Expectancy: An Analysis of the OECD Health Data (2005). *Southern Economic Journal*, 71, 768-783.
- Did New Deal Grant Programs Stimulate Local Economies? A Study of Federal Grants and Retail Sales During the Great Depression. *Journal of Economic History*, 65, 36-71.
- On the Ranking Uncertainty of Labor Market Wage Gaps (2005). *Journal of Population Economics*, 18, 181-187.
- Generalized Moments Estimation for Spatial Panel Data: Indonesian Rice Farming (2004). *American Journal of Agricultural Economics*, 86, 185-198.
- Ranking and Selection of Motor Carrier Safety Performance by Commodity (2004). *Accident Analysis & Prevention*, 36, 953-960.
- Technical Efficiency of Australian Wool Production: Point and Confidence Interval Estimates (2003). *Journal of Productivity Analysis* 20, 169-190.
- Identification Problem (2004) *Encyclopedia of Social Science Research Methods* (M. Lewis-Beck, A. Bryman & F. Liao, eds.) Sage Publications, Thousand Oaks, CA, 474-475.
- The Characteristic Function from a Family of Truncated Normal Distributions (2001). *Econometric Theory*, 17, 1026.
- Inter-Industry Wage Differentials and the Gender Wage Gap: An Identification Problem (2001). *Industrial & Labor Relations Review*, 54, 611-618.
- Multiple Comparisons with the Best, with Economic Applications (2000). *Journal of Applied Econometrics*, 15, 1-26.
- Sampling Errors and Confidence Intervals for Order Statistics: Implementing the Family Support Act and Welfare Reform (1998). *Journal of Economic and Social Measurement*, 24, 181-207.
- Tables of Percentage Points of the k-Variate Normal Distribution for Large Values of k (1998). *Communications in Statistics: Simulation and Computation*, 27, 823-831.
- Submodel Estimation of a Structural Vector Error Correction Model under Cointegration (1998). *Economics Letters*, 59, 23-29.
- Confidence Statements for Efficiency Estimates from Stochastic Frontier Models (1996). *Journal of Productivity Analysis*, 7, 257-82.
- State Space vs. Econometric Techniques for Forecasting Monthly Urban Water Demand (Closure) (1999). *Journal of Water Resources Planning & Management*, 125, 241-242.

### PROGRAMMING CAPABILITY:

- Proficient in SAS, TSP, STATA, LIMDEP, GAUSS and Fortran.