

## Statistical Literacy 2011 — Topic Contributed Papers

- 2:05 PM **Pop-Stats Books and Statistical Education** — **Kaiser Fung**, New York University. *Author of Numbers Rule Your World: The Hidden Influence of Probabilities and Statistics on Everything You Do* (2010). Kaiser is a fellow with the Royal Statistical Society
- 2:25 PM **Integrating Quantitative and Financial Literacy** — **Joseph Ganem, Loyola University Maryland**. Joe is author of *The Two Headed Quarter: How to See Through Deceptive Numbers and Save Money on Everything You Buy* (2010).
- 2:45 PM **Statistics and Causation: Past, Present, and Future** — **Herbert Weisberg**, Correlation Research, Inc. Author of *Bias and Causation: Models and Judgment for Valid Comparisons* (2010). Winner of the 2010 PROSE Award for Mathematics from The American Publishers Awards for Professional and Scholarly Excellence. “A one-of-a-kind resource on identifying and dealing with bias in statistical research on causal effects.” Topics you won’t find in any intro statistics text but should.
- 3:05 PM **Learning to Read the Numbers: Critical Literacy and Numeracy in K-8 Classrooms** — **David Whitin and Phyllis Whitin**, Dept. of Elementary Education at Wayne State University. Coauthors of *Learning to Read the Numbers: Integrating Critical Literacy and Critical Numeracy in K-8 Classrooms* A Co-Publication of The National Council of Teachers of English and Routledge.
- 3:25 PM **Assessing Quantitative Reasoning: What Do Freshmen Know?** — **Ermine Faith Orta, The University of Texas at San Antonio**. Nandini Kannan, The University of Texas at San Antonio ; Kimberly Massaro, The University of Texas at San Antonio. UTSA has adopted a 'Culture of Quantitative Scholarship' and has allocated \$4 million of new funds over the five-year period. The goal: To help students “understand and evaluate data, assess risks and benefits, and make informed decisions in all aspects of their lives. Nandini Kannan (one of our co-authors) is the project director and a fellow of the ASA.
- 3:45 PM **Floor Discussion** till 3:50.

**Late-Breaking Session: Supreme Court Finds Statistical Significance Is Not Necessary for Causation — Other Special Presentation**

ASA , ENAR , IMS , SSC , WNAR , International Chinese Statistical Association , International Indian Statistical Association

8:30 AM **Supreme Court Finds Statistical Significance Is Not Necessary for Causation** — Milo Schield, StatLit Project

8:45 AM **Matrixx v. Siracusano and Student v. Fisher: Statistical Significance on Trial** — Steve Ziliak, **Roosevelt University**. Coauthor of *The Cult of Statistical Significance: How the Standard Error Costs Us Jobs, Justice, and Lives* Co-authored with Deirdre McCloskey. Presented at JSM in 2009. Downloaded over 6,500 times since then.

Steve's first comment on this case: "So long significance, hello oomph! Gosset aka "Student" must be pouring a Guinness, somewhere in the sky."

9:05 AM **The tenuous relationship between tests of significance and causation: Matrixx and the Supreme Court** — **Joseph "Jay" Kadane, Carnegie Mellon University**. Jay has written over 250 peer-reviewed publications and is a fellow in four different organizations including the ASA and IMS. 1994 *Statistics and the Law*. 1996 *A Probabilistic Analysis of the Sacco and Vanzetti Evidence*. 1999 *Rethinking the Foundations of Statistics*. 2011 *Principles of Uncertainty: An intuitive and mathematical introduction to subjective probability and Bayesian statistics*.

9:25 AM **Comments on US Supreme Court Case: Matrixx, Statistical Significance and Causation** — **Donald Rubin, Harvard University**. With over 300 publications and one of the top 10 highly cited writers on mathematics in the world, Don Rubin needs little introduction. I asked Don for proof of progress on his talk for this conference. Don e-mailed me saying "I was just in Chicago for a full day of a causal short course, am in LA area for a keynote tomorrow, and then off to Shanghai for a Sunday keynote. I cannot possibly deliver anything by Friday."

9:45 AM **Comments on US Supreme Court Matrixx Case: Is Significance Significant?"** — **Daniel T. Kaplan, DeWitt Wallace Professor Mathematics & Computer Science at Macalester College. Ph.D., Harvard in Biomedical Physics**. He has been awarded grants from the NSF and the W. M. Keck Foundation. He has authored four textbooks and over 70 refereed papers. I included Danny because I enjoy the quality and creativity of his thinking. I look forward to his comments.

10:05 – 10:15 AM Discussion