

# William Kruskal: My Scholarly and Scientific Model

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When I arrived at the University of Chicago as an assistant professor in the summer of 1968, Bill Kruskal was department chair and he became a constant presence in my life, introducing me to new topics and people, gently advising me, encouraging me to look more deeply into almost everything we talked about. Many of the activities of my subsequent career, in statistics proper and at the interface with other fields, had their roots in my interactions with Bill during my time at Chicago.

My arrival occurred just before the Democratic convention to pick a candidate for that year's presidential elections. Over lunch one day I expressed to Bill an interest in the accuracy of public opinion polls and their scientific foundation. The next thing I knew Bill had recommended me to the producers of a university television interview program that was about to air on a local station. A group of faculty ended up doing three successive panel discussion programs on polling. Norman Bradburn and Ken Prewitt were part of this effort and I've continued to interact with both of them throughout my career. I also began to look carefully at the regular newspaper reports of the Chicago Sun-Times Poll, and Bill encouraged me to make a plan to assess its accuracy—this meant assembling a data set of predictions and of course election results. Before too long this became a working manuscript and Bill encouraged me to submit it to the *Journal of the American Statistical Association (JASA)* for publication. These activities grew into my later research on sample surveys.

During another lunch hour that first fall, Bill introduced me to Hans Zeisel at the Quadrangle Club and, within the week, Hans solicited my assistance analyzing data on the composition of the jury pool for the trial of Dr. Spock and others, which ended up first as a law

journal article Hans wrote and then as part of a chapter in *Statistics: A Guide to the Unknown*, an American Statistical Association–National Council of Teachers of Mathematics (ASA–NCTM) collaborative volume for which Bill was one of the editors. I later used this example for a related ASA–NCTM project organized by Fred Mosteller, *Statistics by Example*. I also became a regular at Hans' quantitative methods seminar at the law school. It was here that I met Michael Finkelstein (a guest speaker), Norval Morris, Frank Zimring and others and was introduced to the study of criminal justice statistics and the fascinating interface between statistics and the law.

The Vietnam War was a major topic of conversation around the department and at faculty gatherings. Bill was fascinated by the regular data being shared on reported deaths of American soldiers and thought that there must be an interesting set of statistical issues there. When the draft lottery drawing took place in 1969, and a number of others claimed to find flaws in the “randomness” of the outcome, it was Bill who encouraged me to do some careful data analysis and to begin to develop a scholarly article that included the history of lotteries and the role of randomization. At first blush this didn't look like a logical piece for *The Annals of Mathematical Statistics* or for *JASA*, but Bill suggested that this would make a good article for *Science*, to which he had introduced me shortly after my arrival at Chicago and which he clearly read from cover to cover. This piece went through repeated revisions, with constant edits from Bill, and references to things I should explore, both in the analysis and in the scholarly treatment of the history. Long after my draft lottery article (Fienberg, 1971) was published and I was at Minnesota, and even later at Carnegie Mellon, I would get newspaper clippings from Bill on related topics.

One of the earliest journal submissions from my Ph.D. thesis, on the geometry of the  $2 \times 2$  contingency table, was rejected by *JASA* after an excruciatingly long review. Bill empathized but told me that reviews from the *Annals* when he was editor took longer! He also advised on places to submit the article next, and after it had been rejected by several other top journals,

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