

**In Memoriam David Freedman (March 5, 1938–Oct 17, 2008)**

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Our first issue of IER is dedicated to the memory of David Freedman. “Limits of Econometrics” may be his last professional article – he had written it at my request for this first issue. Unfortunately, he did not get a chance to revise it in response to the many comments received. As a first draft, it may fall short of the standards of excellence set by David in his numerous works – see his Berkeley website <http://www.stat.berkeley.edu/~freedman/> for references – but, under the circumstances, it seems best to print it as is, in tribute to his memory. We are also publishing comments on this article by Arnold Zellner and Richard Berk.

In 2003, David Freedman was awarded the prestigious John J. Carty Award for the Advancement of Science by the National Academy of Sciences, "for his profound contributions to the theory and practice of statistics, including rigorous foundations for Bayesian inference and trenchant analysis of census adjustment." More details about these contributions are available from the Wikipedia entry

[http://en.wikipedia.org/wiki/David\\_A.\\_Freedman\\_\(statistician\)](http://en.wikipedia.org/wiki/David_A._Freedman_(statistician))

The obituaries cited below provide a broader perspective on his career and personality:

[http://berkeley.edu/news/media/releases/2008/10/20\\_freedman.shtml](http://berkeley.edu/news/media/releases/2008/10/20_freedman.shtml)

[http://www.dailycal.org/article/103251/colleagues\\_friends\\_remember\\_important\\_statistics\\_pro](http://www.dailycal.org/article/103251/colleagues_friends_remember_important_statistics_pro)

It is impossible to summarize his contributions, but I will focus on two issues which are relevant both to the attached article, and to our underlying philosophy for this journal.

Close attention to real world applications, generated by demands of undergraduate teaching and by consulting and litigation, changed the focus of David Freedman’s research from the theoretical and abstract, to how these theories work in practice. His landmark text *Statistics* (co-authored with Robert Pisani and Roger Purves) is based on serious examples from economics, epidemiology, medicine, and social science. In his applied work, Freedman emphasized exposing and checking the assumptions that underlie standard methods, as well as understanding how those methods behave when the assumptions are false. Zellner’s comment provides an econometricians perspective on the fundamental methodological issues which govern the use of models in real life situations.

A central concern of Freedman was the disconnect between the requirements of real world data analysis and the conditions under which models can produce reasonable answers. The widespread use of models which make entirely inappropriate assumptions, together with obliviousness to consequences of these errors was anathema to Freedman. His book on *Statistical Models* discusses many professional highly cited articles which draw conclusions not justified by the data, due to erroneous background assumptions. Because of these critiques, many commentators remarked that if we take Freedman seriously, we will all be out

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of work. Richard Berk's comment on Freedman's article addresses this issue: how to proceed if we take Freedman seriously.

It seems appropriate to close with the following quote from his colleague, Phillip Stark: "He was just an extraordinary person and an extraordinary scientist. He was a truly exceptional scholar-brilliant, meticulous and committed to truth." His loss will be deeply felt in the community of statisticians and econometricians.