

In This Issue

This issue of *Statistical Science* is special in many ways. We are pleased to present a coherent collection of articles based on papers presented at the Ninth Symposium on Statistics and the Environment, which was held in Washington, D.C., in October 1986. The history of these symposia on statistics and the environment dates back to the late 1960s, when Nancy R. Mann, who was then President of the Southern California chapter of the American Statistical Association, conceived the idea of holding a meeting on that general topic. The first symposium was subsequently held in Los Angeles in 1971, with Mann serving as program chairman and Max Astrachan chairing the actual meeting. (We note here that Nancy Mann also served as the program chairman for the first two Symposia on the Interface of Computer Science and Statistics. The *twentieth* of those symposia was held in April 1988. It is clear that our present conception of the field of statistics owes much to her interdisciplinary vision and her talent.)

The Second Symposium on Statistics and the Environment was also held in Los Angeles in 1972, with Edna M. Riedinger serving as chairman. Beatrice S. Orleans, Joan R. Rosenblatt and Nancy Mann then took the lead in obtaining support for the Third Symposium and having it held in Washington in 1974. All the subsequent symposia in this series have been held in Washington.

The proceedings of the symposia have been published in the following locations: the Third as a special issue of the *Journal of the Washington Academy of Sciences* (Vol. 64, No. 2, June 1974); the Fourth as a special publication of the American Statistical Association (1977); the Fifth in *Environmental Health Perspectives* (Vol. 32, October 1979); the Sixth, Seventh, and Eighth in *The American Statistician* (Vol. 36, No. 3, Part 2, August 1982; Vol. 37, No. 4, Part 2, November 1983; and Vol. 39, No. 4, Part 2, November 1985).

And so we come to the Ninth Symposium on Statistics and the Environment, the proceedings of which are published in this issue. The general theme of the Ninth Symposium was *Risk Assessment and Public Policy: A Forum for Interdisciplinary Interaction*, and all the papers in this issue address various aspects of that theme. Among the topics treated in these articles are research methods and policy roles in environmen-

tal epidemiology, statistical experts in the courts, animal and human studies of health hazards, the risk of low frequency electromagnetic fields, sources of uncertainty and incompatibility in risk assessment, insurability of activities involving hazardous materials, the use of biological markers, radon as a pollutant and science and values in the regulatory process.

The articles vary widely in their statistical content and their statistical sophistication. Together, here, they provide a fascinating, rounded picture of the current state of research on the interaction of risk assessment and public policy. Many of these articles are not written by statisticians: the authors are calling for our help and challenging us. It is clear that there is a great opportunity for statisticians to contribute to this area. Of particular value are the long reference lists at the end of several of the articles. Many of the articles cited in these lists report the results of actual experiments which should provide a treasure trove of data for statistical analysis.

The Ninth Symposium was sponsored by the American Statistical Association; the American Economic Association; the American Public Health Association; the National Academy of Sciences/National Research Council through the Committee on National Statistics, the Committee on Applied and Theoretical Statistics, and the Board on Environmental Studies and Toxicology; the Society for Epidemiologic Research; the Society for Risk Analysis; and the Society for Toxicology; with support from the U.S. Environmental Protection Agency and the National Center for Health Statistics.

The steering committee comprised John C. Bailar (Chairman and Editor), Samuel C. Marcus (Co-editor), Elise A. Brown, Devra Lee Davis, Michael E. Ginevan, Emanuel Landau, Walter S. Liggett, Jr., Paul R. Portney, Clifford S. Russell, Sherry Selevan, Seymour M. Selig, Miron L. Straf, Myron F. Uman, Ronald Wilson and Mary M. Yurachek. The symposium management was organized by Fred C. Leone, Ede Denenberg and Mary E. Barnes of the American Statistical Association.

We are deeply indebted to John Bailar and Sam Marcus for putting together and editing the articles in this issue, and to Miron Straf and Nancy Mann for information about the history of the Symposia.