KRUSKAL, William, ed. *Mathematical Sciences and Social Sciences*. 83 pp. Prentice-Hall, 1970. $4.95.

Like poetry and *Pravda*, this slim volume can be read on more than one level. On one level, it is the clearly written report of the Mathematical Sciences Panel of the Behavioral and Social Sciences Survey, conducted, from 1967 to 1969, under the joint auspices of the Committee on Science and public Policy of the National Academy of Sciences and the Problems and Policy Committee of the Social Science Research Council.

On another level, it is a report one author of which is the vice-chairman and another a member of the Presidential Commission on Federal Statistics announced August 12, 1970. According to its Executive Director, the Commission's purpose is "to look into the content, quality, and scope of statistics produced by the federal government, to consider how the Federal Statistical System should be organized, and to propose guidelines for protection of the privacy of individuals."

Chapter 1 of the report, by Frederick Mosteller, illustrates the development, use, and limitations of mathematical models in the behavioral sciences with the example of irregularly reinforced learning. Chapter 2, not attributed to any individual, defines mathematics, statistics, and computation and relates them to the social sciences. Truths therein: "One of the prime strengths of the mathematical model approach, as opposed to an anecdotal approach, is that the model is so specific that it can be shown to be mistaken, mistaken in specific ways that lead to a better model" (p. 25). "Now that high-speed computation is widely available, many users embark on it with little understanding of possible problems. It is somewhat as if a person raised in a society of horsemanship a century ago were suddenly transported into our automotive society" (p. 30). Chapter 3, again by Mosteller, defines what a social statistician is, and, predicting that "the profession of social statistician stands on the threshold of a lively expansion" (p. 37), suggests ways to make more of them.

Chapter 4, by William Kruskal, laments the absence of error analysis and a rationally critical attitude toward data fallibility when statistics are used to guide public policy. Did you ever see a standard deviation attached to a Vietnamese kill ratio? Chapter 5, also by Kruskal, observes that the needs for social data are increasing at the same time as the difficulty of attracting competent people to collect, analyze, and interpret the data. In Chapter 6 Alex Orden points out that operations research exists and will not solve all problems. In Chapter 7 John Gilbert does the same for computers. Chapters 8 and 9, by I. Richard Savage, review the institutional settings which do or might facilitate a fusion of mathematical and social sciences on the levels of faculty research and undergraduate teaching.

Whom this report addresses is never stated. But recommendations scattered through it call for federal funds to support training in the very disciplines in which the authors find themselves. Is anyone listening?—*Joel E. Cohen, Society of Fellows, Harvard University*