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Taking Science out of Social Science

The new Administration's goals of stabilizing the economy and revitalizing U.S. productivity are worthy of support. William D. Carey* has pointed out that when national budgets are heavily cut, science and technology must expect to share in the reduction. Presumably the reasons arise more from equity than logic, since other developed countries that now surpass us in gains in productivity and compete with us for markets seem to be increasing their portion of the budget spent for R & D. At the same time, the Administration clearly does appreciate the value of research and has retained the overall National Science Foundation (NSF) budget at a substantial level.

Given that cuts are to be made at the NSF, great care should be given to the allocation of research funds. Philip Handler's description† of the cuts raises doubts about this care. Let me take up in detail one small but important division of NSF, Social and Economic Sciences (SES). Under the Administration's plan, SES funds in millions will drop from \$31 to \$24 to \$10 from fiscal year 1980 to 1981 to 1982. Without even allowing for inflation, this gives a reduction of 68 percent in 2 years. Similar deep cuts have been planned for the smaller Behavioral Sciences program. Large cuts in social science research funds announced elsewhere, as at the National Institutes of Health and the Department of Defense, would add to the damage.

Much of social science research supported by NSF produces the methods of measurement and analysis and the concepts that make measurements possible in social, economic, and health problems. When society's leaders plan to change the economy, they need also to know the effects of their changes. We know that innovations, social, medical, and technological, often fail and that they therefore need evaluation. Social science research provides both the tools and the data for such evaluations. More constructively, it often also provides the research to improve the success rates of future innovations. This research frequently finds that the conventional wisdom has been mistaken, indeed that is a common characteristic of social science research which may not endear it to us. For example, Project Sappho‡ found that variables often mentioned in business lore such as size of firm, being first to market, and structure of research did not explain why some companies succeeded and others failed in introducing the same technological innovation. For innovation to flourish, we need more research on innovation, in both science and technology.

Among the better known contributions of social science have been the research leading to the national accounts and gross national product estimates, the systematic development of scientific sampling for objects, people, institutions, and records, and methods of measuring unemployment, agricultural production, and the effectiveness of medical therapies.

Probably not many of us appreciate how extensively the work of social scientists finds uses in business and industry. Of the 285,000 science and engineering doctorates employed in 1977 in the United States, social scientists comprise 27 percent. About one-third of these social scientists have employment outside academia. Of all the scientists in business and industry, social scientists comprise 11 percent.

If we fail to invest in social science research, we can anticipate a drying up of that research among our younger scholars. Worse yet, the best will leave the field altogether or not take it up. With the opening of China to the world, we have seen what an interruption of research can do to a society. It produces a long and sorry period of playing catch-up. The research that we fail to do now will penalize our own generation with a lack of ideas in a decade or so. The NSF has responsibility for enhancing the scientific resources and capabilities of the nation. By withdrawing NSF and other support, we will gradually delete the *science* from research endeavors in social science.—FREDERICK MOSTELLER

*W. D. Carey, *Science* 211, 879 (1981). †P. Handler, *ibid.*, p. 1261. ‡Science Policy Research Unit, University of Sussex, *Success and Failure in Industrial Innovation* (Centre for the Study of Industrial Innovation, London, 1972).