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Science Advice—A Problem

At the February meeting of the AAAS, a recurring theme was the need to improve the mechanisms by which science advice is made available to state and local governments. These governments face an increasing number of problems with heavy scientific and technological content in the areas of land management, pollution, nuclear plant siting, river basin management, waste management, and social issues in an urban setting. Federal grant-in-aid programs, revenue sharing, and the "new federalism" have pushed greater technical and scientific responsibilities on local and state governments. With these developments has come the realization that scientific advice to state and local governments may be as important in the decades ahead as scientific and technical advice has been to the federal government in the decades just concluded. In the 1950's we had the science adviser to the White House and to the Pentagon. In the 1970's, we see increasingly the science adviser to the state house, the courthouse, city hall, and the department of sanitation.

At San Francisco, several serious scholars of American science identified in varying ways the urgent need for assuring the capacity of local and state governments to deal with present or soon-to-be-immediate problems. A common theme was that the mechanisms for obtaining and using science advice were weak but that the wells of advice were overflowing. How, pleaded the eloquent and talented at San Francisco, can we get good advice to the decision-makers so that knowledge can be translated into decisions and actions?

While few argued that the problem was this simple, the simplistic equation of a bag of resources on the one hand and a desperate need on the other to seek a broker, a middleman, or an organizational device or gimmick recurred constantly. One speaker even stated that "the purpose of a science advisory mechanism for local and state government is to relieve decision-makers of the responsibility of evaluating technical competence." Here is, of course, the argument in its simplest form. Assemble the best minds, ask the most careful and thoughtful questions, reach solid conclusions, resolve the conflicts between conflicting technical views, and the public decision-maker can confidently adopt as policy the wisdom thus served to him.

It won't work that way and it never has. Governors, mayors, councilmen, and legislators are responsible for excruciating decisions in the face of conflicting technical advice just as Truman, Kennedy, and Nixon and their congresses had to make difficult decisions on the hydrogen bomb, nuclear testing, and the ABM. In making these decisions they had to consider tough technical issues and needed to know whom to believe. Similarly, state and local officials, their staffs, the continuing civil service bureaucracies which serve them, and citizens will simply have to be brought up to a level of understanding at which decisions involving technical issues can be made through the political process. While the search for useful devices is not wholly futile and may well produce assistance on the critical problems, the governments themselves at local and state levels, just as in the past decades at the federal level, will have to meet the test. Local and state government structures and staffs largely designed to meet 19th-century problems will have to be brought up to speed to meet this century's challenges and those of the century almost upon us. Scientists, engineers, and thoughtful citizens must turn their attention to the very quality of local and state government itself, as well as to advice and advisory mechanisms.—BREWSTER C. DENNY, *Dean, Graduate School of Public Affairs, University of Washington, Seattle 98195*