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COVER: Samples and data from the Apollo 16 mission show that the moon has a crust far thicker than earth's and much different in composition. See p. 12. (Photo taken from lunar module over farside highlands, courtesy NASA)

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COMMENT

Science advisory committees

From time to time in these pages we have reported and expressed criticisms of the scientific advisory process. Advisory committees are an institution in Washington, and for at least partially valid reasons they long ago attained the status of an unkind joke: "If you can't think of anything else to do, appoint a committee." In Washington, it is estimated that there now exist 2,400 committees. Perhaps more surprising is that an estimated 1,500 of them were set up to provide advice to government agencies specifically in areas of science and technology. Despite their many deficiencies, the science committees are for the most part composed of able, well-meaning individuals who in serving on them hope to make some useful and important contribution to society. No one would argue that the science committees are the heart of the science-policy decision-making process, but they do provide essential inputs into policy decisions of great variety and far-reaching consequence.

In this context, then, we note with pleasure the publication of a long-needed and refreshingly candid appraisal of science committees. The report, "The Science Committee," is itself the product of a committee study. It is appropriate that the group was brought together by the National Academy of Sciences. The Academy's component, the National Research Council, administers more than half of all the science advisory committees in Washington. Former NAS President Detlev W. Bronk was chairman of the study.

The list of complaints and accusations about science committees is long and well known: Their missions are frequently limited by certain assumptions and restrictions by the requesting agency. They sometimes are formed merely to ratify or support an already made decision or policy. They draw their membership from well-known and well-established scientists from major institutions to the exclusion of many other capable persons. Some committee members have hidden biases. The process suppresses divergent views. Committees don't give enough attention to social and economic aspects of problems. By striving for consensus, committees often produce reports that are bland, wishy-washy, platitudinous and useless.

To its credit the Bronk study acknowledges all these deficiencies, and more (although it phrases them in typically polite language). Rather than reacting defensively, it makes constructive suggestions designed to upgrade and vitalize the science advisory process. All bear serious consideration.

The Bronk group suggests that committees include more young members (35 and under), more women and more members of ethnic minorities. (It found that the median age of NRC committee members is 50.0, compared with a median age of all doctorate-holding scientists in the nation of close to 40; only 1 percent of NRC committee members are women, compared with 7 percent among all doctorate-holding scientists.)

Other problems of composition and selection of members are less obvious and documentable but probably more important. Critics of the committee system point with some justification to the fact that persons with outspoken views on a public issue are frequently excluded from serving on committees dealing with that subject. The NAS report acknowledges this to a degree. It suggests that on highly charged issues it will probably be necessary to give up searching for members not having strong opinions and instead concentrate on ensuring that there is a good balance of divergent views. Of course, one person's "balance" is another person's "bias," and what may appear to scientists to be a balanced group may appear to outsiders to be lopsided in one way or another. A valuable suggestion related to this matter is that studies on which a consensus is difficult to reach allow provision in the final report for minority-report statements.

The study group acknowledges that committee members are typically chosen by the "buddy system" and notes the obvious pitfalls of that process. It suggests experimentation with partial self-selection processes, allowing for greater use of capable volunteers from less visible realms of the scientific community. At least a dozen other recommendations have merit, and the report's sections on "captive committees" and the "weakness of the expert" make fascinating reading.

The report will not satisfy all critics of the advisory process. But they should find room for optimism that an improved degree of responsiveness and action in the public interest by science committees is envisioned.

The problem now is one common to all committees that have produced worthwhile recommendations: Will anyone listen?

Kendrick Frazier