

## **When Scientists Get Involved in Public Policy**

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Daniel Sarewitz has written that “the notion that science can be used to reconcile political disputes is fundamentally flawed.” He writes this in an *American Scientist* article in which he posits that scientific testimony on public policy issues often does not clarify the issues, and in many cases makes them more poorly understood (Sarewitz, 2006).

He goes on to say that disagreements among scientists over methods, data, and conclusions are commonly caused by differences in values held by scientists. Whether a policy should be enacted depends also on the point of view. Views on whether or not to allow genetically altered crops in agriculture would depend on whether the scientist is a nutritionist, an ecologist, an economist, or an agronomist, for example.

Scientists who testify at hearings before a public policy is enacted will almost always bring their values to the table and support them with legitimate facts. It is almost unheard of that all scientists will agree totally on any issue, so the appearance that is presented to the public is “dueling scientists” who are not a lot of help.

It is to the credit of politicians that they are able to establish meaningful public policies when all the facts are not known. Scientists, says Sarewitz, may be able to alert the public to an impending problem of which they have no prior notice, but otherwise should probably be involved in support of public goals after consensus is reached through public discussion. Scientists can then help chart the way toward achieving these goals.

One major difference between science and engineering is that engineers must reach conclusions about product or process design despite incomplete knowledge. The scientific literature is replete with conclusions that, at best, represent tentative outcomes based on the measured data. It is only after many such papers, with sufficient replication of essential data, that scientific conclusions are respected as reflections of truth. Even at that, scientific conclusions can still be influenced by the point of view of the writer.

There is no question that AIMBE must advocate positions of interest to its members when public policy is being formulated. However, forming completely independent positions on the issues can replace “dueling scientists” with “dueling advocacy groups.” To be effective, we have already found coalition and cooperation to be invaluable. Forming alliances with other groups with interests similar to our own must continue to be our best strategy. Likewise, we must mobilize our member organizations to speak out on the issues with coordinated voices. This is the strength of AIMBE: it is not the organization itself; rather it is the amalgam of many independent voices chanting the same chorus.

Sarewitz, D. 2006, Liberating Science from Politics, *Amer. Sci.* 94:104-106.