Statement in support of the Center for Scientific and Technical Assessment Act

Introduction

My name is David H. Guston and I am currently an associate professor of public policy and director of the Public Policy Program at Rutgers, The State University of New Jersey, where I also direct the recently established Center for Responsible Innovation. In January, I will move to Arizona State University, where I will be professor of political science and associate director of the Consortium for Science, Policy, & Outcomes.

I am writing in strong support of HR 4870, the Center for Scientific and Technical Assessment Act of 2005, introduced by Representative Rush Holt and co-sponsored by a bipartisan group of members of Congress.

Without such a Center for Scientific and Technical Assessment (CSTA), Congress – and the American people generally – lacks a politically balanced and sound capacity to analyze public policy issues with significant technical components and synthesize across the wide array of partial accounts of such issues that regularly bombard decision makers.

With CSTA, Congress can assure itself and the public that its decisions on such issues are based on a sound interpretation of relevant scientific and technical information. Such decisions are more likely to be: sustainable, because CSTA will help Congress anchor them in reliable scientific judgment; cost-effective, because CSTA will help Congress weed out infeasible options; and popular, because CSTA will help Congress bring the benefits of science and technology to the American people. With a bipartisan and bicameral governing structure and strong linkages to the scientific community, CSTA will provide Congress with services that no interest group, think tank, or other congressional support agency can.

What would CSTA do?

As a part of the Government Accountability Office (GAO, formerly the General Accounting Office), CSTA would first and foremost serve the needs of Congress, whatever they happen to be, by responding to the requests of any member of Congress for a technical assessment. CSTA will manage requests by giving highest priority to those with bipartisan and bicameral support and secondary priority to those with bipartisan support (§1(d)(3)).

CSTA could provide expertise for questions about:

- choices about the focus, funding, and outputs of federal programs to conduct or support scientific research or development (R&D);
- judgments about how scientific and technical resources can best be brought to bear on important public problems;
- assessments of the potential societal implications of current scientific and technical developments and the kinds of social, economic, and governmental responses they might require (Morgan and Peha 2003, 6-7).

Such questions are critical because:

- Congress appropriates more than $130 billion in federally funded R&D, conducted in universities, government laboratories, and private firms and other organizations. These R&D performers are located in every state and – for universities – nearly every congressional district, and they contribute substantially to local economic and cultural development.
- Congress faces an agenda replete with items drawing on the nation's scientific and technical resources, including: defense and homeland security; the production and safety of food and drugs; the exploration of new frontiers in space, in the oceans, and within the atom; and the creation of new knowledge, knowledge-workers, and knowledge-based innovations for the knowledge economy.
- Congress needs to prepare itself and the nation for the ethical, legal, and societal implications of the nation's vast innovation system. For example, although Congress called on the National Science Foundation to fund a Center for Nanotechnology and Society in a recent authorization bill, the existence of even such a highly regarded and scholarly center does not guarantee relevant and timely information or analysis to Congress.

Why does Congress need CSTA?

There are several reasons why CSTA is a good idea for Congress. None of them is that Congress lacks information; on the contrary, Congress is awash in information. But principal among them is to assist Congress in making sense of this deluge of information, which mostly comes from a variety of special interests. This is not to say that the information from special interests is bad or biased as such. But is usually only part of the story, and CSTA could help Congress piece together a more complete picture of the technical perspectives behind such information. CSTA could also help Congress compare and contrast these various perspectives, analyzing the reasons why, for example, independent experts often disagree on what seem to be technical questions.

A second reason that Congress needs CSTA is that, apart from the special interests, a primary source of information for Congress is the executive branch. Again, this is not to say that the information coming from the executive branch is bad or biased, but executive agencies have different interests and different constituencies than does Congress and its committees and individual members. Congress deserves a resource that will help construct and question information from these perspectives.

A third reason is the increasing complexity of not just the policy areas that deal with scientific and technical issues directly, but the increasing interconnectedness of all areas of policy to issues of science, technology, and innovation. With a breadth of intellectual and practical backgrounds and the authority of a congressional support agency, CSTA can help connect and contextualize scientific and technical issues in ways that special interests cannot. It can help Congress analyze a variety of options that might have complex interactions with other policies – interactions that special interests have neither the expertise nor the inclination to analyze.

What is important about the structure of CSTA?

The most pertinent scholarship (e.g., Cash, et al. 2003) suggests that both political legitimacy and technical authority are central elements to designing an institution that is likely to be helpful in making political decisions. H.R. 4870 carefully elaborates an appropriate structure for CSTA that links political legitimacy and technical authority: Its bipartisan and bicameral governance by Congress – lodged in a Technical Assessment Board (§1(b)) – will assure that it is not captured by particular political interests; and its ability to rely on advisory committees (§1(e)) and peer review of its work by the scientific community (§1(f)) will assure that CSTA speaks with not just the legitimacy of Congress but also with the authority of expertise. The literature also indicates that the salience or relevance of information produced by an organization like CSTA is a critical element. Lodged in GAO and responsive to congressional requests, CSTA would easily be relied on for relevance.

The peer review requirement of H.R. 4870 is consonant with guidelines for peer review of government-disseminated information ("regulatory peer review") that the Office of Management and Budget (OMB) is currently preparing. Because OMB's second draft of the guidelines allows significant variety in the practice of regulatory peer review by government agencies, there will likely be no uniformity of practice across the executive branch. Congress would therefore be well-served by a CSTA that a) had its own, flexible peer review requirement that b) did not rely on peer review procedures designed for executive agencies. Indeed, it would be crucial for CSTA to build and draw on a group or community of experts who are also familiar with the congressional context and the challenges of producing, assessing, and using scientific and technical information in a legislative, as opposed to executive, environment.

Conclusion

By creating a Center for Scientific and Technical Assessment within GAO, H.R. 4870 would take an important step in providing Congress with balanced and expert information for making choices about R&D, judgments about the application of technical resources, and assessments of the variety of societal impacts and implications of technical advance. Rather than being an argument against its creation, that Congress is currently awash in information is the reason why such a balanced, expert center is necessary, because CSTA would help compare and contrast the various competing claims and provide a perspective unique for and responsive to congressional – rather than executive or special – interests. CSTA's structure – with a bipartisan and bicameral governing body, clear links to the scientific community through advisory panels and peer review, and direct requests from members – assures that its work will be legitimate, authoritative, and relevant.

References

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About the author

David H. Guston is currently an associate professor of public policy and director of the Public Policy Program at Rutgers, The State University of New Jersey, where he also directs the recently established Center for Responsible Innovation. In January, he will move to Arizona State University, where he will be professor of political science and associate director of the Consortium for Science, Policy, & Outcomes. His book, *Between Politics and Science: Assuring the Integrity and Productivity of Research* (Cambridge U. Press, 2000), received the 2002 Don K. Price Prize by the American Political Science Association for best book in science and technology policy. He is co-editor of the forthcoming *Science, Technology, and Public Policy: The Next Generation of Research* (with D. Sarewitz, University of Wisconsin Press), co-author of *Informed Legislatures* (with M. Jones and L. M. Branscomb, University Press of America, 1996), and co-editor of *The Fragile Contract* (with Ken Keniston, MIT Press, 1994). Professor Guston is North American editor of the peer-reviewed journal *Science and Public Policy*. He holds a B.A. from Yale and a PhD from MIT, and he performed post-doctoral training at Harvard's Kennedy School of Government.