THE POLICY SCIENCES CENTER, INC.

127 Wall Street, Room 322 P.O. Box 208215

New Haven, Connecticut 06520-8215 U.S.A.

MYRES S. McDOUGAL Chairman (1906-1998) W MICHAEL REISMAN Vice Chairman ANDREW R. WILLARD

President

Tel: (203) 432-1993 • Fax: (203) 432-7247

Please Reply to: DR. LLOYD ETHEREDGE 7106 Bells Mill Road Bethesda, MD 20817

Tel: (301) 365-5241 Fax: (301) 657-4214

Internet: lloyd.etheredge@yale.edu

[Science-Citizen Partnerships and National Progress]

July 15, 2006

Dr. Arden L. Bement Jr., Director Dr. Kathie L. Olsen, Deputy Director National Science Foundation 4201 Wilson Blvd. Arlington, VA 22230

Dear Dr. Bement and Dr. Olsen:

Concerning NSF's current system of consultations with user communities, discussed at the end of the (draft) strategic plan for 2006-2011:

It would be useful to organize a comprehensive Civic Feedback System. NSF would create, through competitive awards and five-year contracts, Science Partnership Centers to receive researchable questions, in designated areas, from anyone with a plan to use the answers. The questions would be ranked by advisory committees using NSF-specified criteria. The rankings would be posted on the Internet. The Centers would be funded by NSF to develop research programs and answer the questions.

This civic feedback system provides an important safety check. It canvasses the questions, within NSF's areas of responsibility, that individual citizens and organizations want NSF to answer. The questions can come from individual citizens, local school Boards or other local and state government agencies, from corporations or civic groups - any user or potential user.

NSF already has started in this direction with its Science education Centers. This next step lets the public, and state and local officials, and teachers (etc.) participate fully in asking questions. Their participation and enthusiasm also should help to build the momentum for research on science education.

I think that Congress would give solid and growing support to these Centers, as NSF could show how it was responding to a powerful national interest. Answers, as they became available, would be peer reviewed and posted on the Internet. As the Centers develop, they can organize additional dimensions to these science partnerships: They can identify local school Boards with research questions and - later - might enroll these school Boards in research projects for fast discovery science.

For example, here are five criteria that might be used to rank the questions:

- the commonality of the question;
- the potential benefits of knowing the answer;
- the existence of unexplained variations, new ideas and technologies, or theoretical disputes suggesting that research can be productive;
- the availability of existing research that can be drawn upon;
- the cost of answering the question that makes it prohibitive for local or state government to undertake the research themselves.

Driving the System Faster

[It may be that NSF already is answering the questions that it will receive. But I suspect that the public has a lot more questions than NSF is currently funding and will want to drive the system faster. And, if so, NSF's leadership should know this - and so should Congress.]

We are a nation with many well-educated citizens. But minds that have mastered calculus have few resources or science partners when it comes to educational/public policy. I think the advisory panels will find that many questions received by the Centers will be as good as questions submitted by academic researchers - i.e., that it will be a genuine partnership.

The ideal would be to develop this idea broadly, as Evidence-Based Policy Centers - open, in principle, to all areas of concern where civic feedback and added support for NSF can accelerate science and the well-being of the country.

A Working Model

There is a working model of feedback/responsiveness Centers for health care. The HHS Agency for Healthcare Research and Quality provides 5-year

contracts to institutions in the US and Canada to serve as Evidence-Based Practice Centers (EPC's). www.ahrq.gov. They provide a safety check on HHS responsiveness and have secured new funds from Congress, with bipartisan support.

Yours truly,

(Dr.) Lloyd S. Etheredge, Director

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