

THE POLICY SCIENCES CENTER, INC.

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November 6, 2014

Chairman Phillip Sharp, President Gerald Fink,
and Board of Director Members

AAAS

1200 New York Ave., NW

Washington, D.C. 20005

Dear Chairman Sharp, President Fink, and Board Members:

I write, as an AAAS member, because the new NSF Director, France Cordova, has removed the earlier rhetorical dust cloud. Now, the Website description of NSF's policies is candid: Rejecting the letters and resolutions adopted by AAAS, NSF has killed the American "gold standard" system of competitive awards determined by Scientific Merit and judged by a peer-review of research scientists who are independent of government.^{1 2} NSF has self-promoted itself to be a national research procurement agency, a bureaucracy whose funding decisions are made by its "senior management teams" [i.e., at two levels above the "information" input of scientific researchers] who set national research strategy and make the contract awards by applying a universe of added criteria and inside a bureaucratic culture in Washington.

Background

NSF's original role (guided by a National Science Board of eminent scientists) was to provide staff support for a peer-reviewed Scientific Merit award system, independent of government and Washington politics, that the public could trust. Washington political processes gradually evolved new constituencies: a cornucopia of new (Non-Scientific-Merit) review criteria, Profit Center systems (for universities to enrich themselves from the national science budget and raise administrative salaries) that attract different members to the National Science Board, new "societal benefit" program goals, and political accommodations. Washington lobbyists and academic institutions with representatives on Congressional Committees have supported NSF's new role: Growing control by the NSF bureaucracy and new decision criteria create new beneficiaries of the \$7 billion/year NSF budget, hiding behind the credibility of the nation's scientists and the (outdated) public trust that NSF is committed to the "gold standard" of Scientific Merit, independent of Washington politics, bureaucratic cultures, and special interests.

Recommendation

AAAS and our nation's research universities must fight. (This is a battle about money, status, and control. A strategy of writing letters guarantees that AAAS will lose). The AAAS Board of Directors should immediately adopt a public resolution of No Confidence. The Board should seek allies among the Boards of our nation's research universities and professional societies, consult with the Council to mobilize our members, declare war, and win.

The Policy Sciences Center Inc. is a public foundation.

The Center was founded in 1948 by Myres S. McDougal, Harold D. Lasswell, and George Dession. It may be contacted c/o Prof. Michael Reisman, Chair, 127 Wall St., Room 322, P. O. Box 208215, New Haven, CT 06520-8215. (203)-432-1993.

URL: <http://www.policyscience.net>

There are three grounds for a vote of No Confidence.

1.) Put simply: Without using the proven “gold standard” system of independent peer reviews of Scientific Merit, scientists and the public have no basis for confidence in the Scientific Merit of NSF’s decisions. The new system is vulnerable to confusion, limited bureaucratic competence, political duress and control, and allowing the credibility of science to be misused to secure public funds for other purposes.

2.) NSF’s new *hubris* and move to establish hegemonic control over individual awards, the strategic plans for disciplines that it funds, and the funded priorities of American research universities threaten to create alienation, anger, cynicism, and mistrust and erode our national system for the self-governance of science. It is a reckless operating style that places at risk the committed ownership and partnership of the NSF reviewing process and the hundreds of thousands of hours of donated time by scientific experts (to review about 49,000 proposals/year) upon which NSF depends.

3.) The older American system of decision making by peer reviews (i.e., independent of government) protected everybody, defended the independent civic role of American universities, and was trusted by the American people. It has been recognized, in the Western political tradition, as a wiser system for free societies since the victory at Runnymede in 1215. NSF’s new role puts both applicants and NSF’s own employees under duress to accede to political pressures and convenience and it creates a chilling effect on research. It will, especially in this highly politicized and angry Washington environment, inhibit new research awards that are controversial or that bureaucrats - with their careers vulnerable to political attack - could imagine to promote or challenge political agendas. [Recall that Congress recently terminated NSF’s American Politics research program at a time when current US democratic elections have deteriorated to \$4 billion devoted primarily to mutual hostility and attack ads.]

Realism and Good Judgment: The Actual Behavior of the NSF System

Whatever Dr. Cordova, her supporters, and the NSF Website claim that they are doing, a more realistic predictive model - of NSF’s politicization and eroding scientific performance - is illustrated in the enclosed letter (October 9, 2014) to Dr. John Holdren and the President’s Council of Advisers on Science and Technology (PCAST). The letter discusses how a history of NSF political inhibitions and bureaucratic program decisions that over-ruled Scientific Merit have blocked rapid learning at our nation’s research universities to improve economic science even after a catastrophic scientific failure of NSF-supported investments and its Economics program. Unreliable models, unreliable data systems, and the failure to capture new diagnostic data on an emergency basis, have wasted trillions of dollars and unfairly damaged the lives of billions of people, worldwide. We already can observe the banality, incompetence, evasion, and brutal national (and international) cost of the system that Dr. Cordova helped to craft as a member of the National Science Board and, now, is imposing across the NSF system and nationally.³ Scientists should be scared and outraged by the performance of the people in Washington who actually run this system.

A Strategy

I suggest that the AAAS Board of Directors develop, in consultation with the Council, a strategy

to push back along several fronts after the public resolution of No Confidence. Our position might include: 1.) Pending a robust economic recovery, NSF should prioritize, defer, and cut back steeply, all desirable but secondary goals and programs; 2.) Ninety-five percent of research awards should be determined by the independent peer-review Scientific Merit system; 3.) Adjustments to Scientific Merit awards, if recommended by a Program Officer or higher official, must be approved by independent Division Advisory Committees of eminent scientists. NSF applications and strategic ideas that are blocked from peer review for program, political controversy, or other reasons can be appealed directly to Division Advisory Committees; 4.) A limit of five percent of the NSF budget should be allocated by a Director's Fund for competitive funding (with public accountability) of desirable but secondary goals, or for political purposes; 5.) To assure the public trust of NSF decisions, and the trust and commitment of reviewers, the AAAS Council (at its meeting in early 2015) should recommend that scientists voluntarily suspend their participation in the NSF reviewing system. The voluntary suspension will continue until Dr. Cordova and the National Science Board reverse her policies and there is an enforceable guarantee that the standing and commitment to a Scientific Merit decision system (with peer ratings independent of NSF and of government priorities, preferences, and apprehensions about political controversy) has been restored.

I think it also would be helpful for AAAS and our members to inform the press about these issues. It is time for investigative reporters to examine how the NSF system actually has performed, these days, in the economic crisis and to explore implications.

Yours truly,



Dr. Lloyd S. Etheredge

Project Director - Government Learning

Enclosures:

LSE, Letter to PCAST of October 9, 2014.

Notes

1. "The peer review system, as the basis for the majority of science funding decisions, has been the cornerstone of remarkable scientific advances that have fueled American economic growth since World War II." AAAS Resolution: Reaffirmation of Commitment to Scientific Peer Review, 20 October 2009. The Board Resolution reaffirmed a 1985 resolution. Online at http://www.aaas.org/sites/default/files/migrate/uploads/1029peer_review_board_statement.pdf

2. The relevant summary of the new NSF Diagram (Box 5: Peer Review) is: "External reviewers' analysis and evaluation of the proposal provide information [sic] to the NSF Program Officer in making a recommendation regarding the proposal." Online at http://www.nsf.gov/bfa/dias/policy/merit_review/merit_animation.jsp. See also: "Reviewers do not make funding decisions. The analysis and evaluation of proposals by external reviewers provide information to NSF Program Officers in making their recommendations to award or decline a proposal. . . ." http://www.nsf.gov/bfa/dias/policy/merit_review/facts.jsp, entry 3.

NSF documents retain the measured and high-minded tone inherited from the days of the

peer-review Scientific Merit “gold standard” system. However, at issue is the actual performance of the new system and its legitimacy as perceived by scientists and the American people.

3. Another good way to test NSF arguments to justify its new hegemony is to compare NSF with NIH. NIH demonstrates how brilliant leadership can build on the strength of a peer-review Scientific Merit system and strategic plans shaped by eminent scientists. NIH creates brilliant strategic plans, produces transformative discoveries and rapid learning in biomedical research, evolves new technologies, responds quickly to new infectious diseases, creates effective partnerships, and fosters innovation and international competitiveness in key industries. NSF assuredly has many problems of lagging performance (e.g., the rate of innovation), but they are caused by people like Dr. Cordova who do not think clearly about what they are doing.

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October 9, 2014

Drs. John Holdren, Eric Lander (Co-Chairs) and Maxine Savitz, and William Press (Vice-Chairs)
and Members
President's Council of Advisers on Science and Technology
Eisenhower EOB - 1650 PA Ave., NW
Washington, D.C. 20504

Re: PCAST's Agenda: Testing the "Missing Variables" Hypothesis re Economic Science

Dear PCAST Co-Chairs, Vice Chairs, and Members:

Concerning my earlier communication: I am confident that, if Dr. John Holdren recommends to President Obama testing the "missing variables" hypothesis to explain the limited reliability of economic science, the President will direct Dr. Holdren to organize a rapid learning system swiftly. I predict social scientists can quickly make discoveries that improve economic recovery and our future.

I write to ask PCAST's collective scientific support for Dr. Holdren to make this urgent recommendation to President Obama.

Members of PCAST might imagine that I am seeking to involve you in a scientific battle with the economics profession's recommendations and NSF's plans. However the pathways at the National Science Foundation have not been blocked by *hubris* and fierce Kuhnian battles of *seigneurs* to retain the hegemony of their discipline's early strategy to imitate Newtonian physics. Instead, NSF has distanced itself from responsibility: NSF's own 2010 Committee of Visitors for its Economics program gave a forthright (and chilling) evaluation: 1.) A business-as-usual program in the face of 2.) Dramatic changes in the world, calling for a major upgrade and offering the possibility of important discoveries and benefits; and 3,) the absence any NSF strategic thinking and plan, in writing or in the heads of NSF officials meeting with the Committee, that could be evaluated.¹

Economists have not been invited back since the 2010 broadside; NSF has excluded economists from the advisory committee of the Social, Behavioral, and Economics Directorate; the Assistant Directors (SBE) have been an historian and (now, acting) a specialist in molecular biology and genetics. Neither has had the intellectual self-assurance, background, or budget to organize a strategic plan for economics or new databases to test the missing variables hypothesis.

Truly: Dr. Holdren's strategic recommendation to President Obama will not be second-guessing NSF's work.²

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Yours truly,



Dr. Lloyd S. Etheredge, Project Director

1. <http://www.nsf.gov/od/iaa/activities/cov/covs.jsp>

2. NSF's strategic plan for 2014-2018 similarly stonewalls the problem of the growing gap between current economic theory and data systems and the reality of a changing world. The catastrophic failure of NSF-supported models and data systems to forecast the current economic crisis is not mentioned. Serious injury to the American people and to the lives of several billion people worldwide, and the possibility of a rapid learning system for basic research in economics, are not discussed. NSF's legal obligations to support economic health and competitiveness, and for research to benefit national security, are boilerplate language that is disconnected from plans and budget for the SBE Directorate. The strategic plan is online at http://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf14043. The National Science Board has not held requested public hearings to inform itself about issues of strategic planning shortfalls and opportunities for macroeconomics. President Obama has not nominated any economist to the National Science Board (which has no economists as members).