BALANCING SCIENCE AND SECURITY IN THE POST 9/11 ERA

Finding the proper balance between the desired openness of scientific inquiry conducted by scholars at universities and the security needs of the United States in the post-9/11 age is at best “a tricky business,” noted John Marburger in his opening comments to the Committee on a New Government-University Partnership on Science and Security. The panel assembled by the National Research Council of the National Academies held its first meeting on January 12-13.

Marburger, President Bush’s Science Adviser and head of the White House Office of Science and Technology, was the lead-off witness in two days of testimony from federal agency officials, congressional staff, former government officials now working for Washington law firms and think tanks, and representatives of the research community, including COSSA Executive Director Howard Silver.

The Committee is chaired by Jacques Gansler, Vice President for Research at the University of Maryland and Alice Gast, Vice President for Research and Associate Provost at MIT. Other members of the panel include Karen Cook, director of the Institute for Social Science Research at Stanford, Elizabeth R. Parker, Dean of the McGeorge School of Law at the University of Pacific, and former Senator Gary Hart.

The panel spent considerable time discussing biosecurity, including publication of sensitive information like the genome of the 1918 flu virus, and the new National Science Advisory Board on Biosecurity. It also heard a lot about export-control policy,

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INNOVATION AND COMPETITIVENESS

In a recent New York Times column Nicholas Kristoff asked whether China or India would be the world’s dominant economic power in the year 2100. In order to stave off this unpalatable future, the U.S. science and engineering community in concert with key policymakers on Capitol Hill have put forth a new innovation and competitiveness agenda. For some long-time policy observers it is “déjà vu all over again.” In the 1980s this same agenda successfully drove proposals to increase science and engineering funding, although at that time the dangerous foe was Japan.

A National Academies report released last fall, Rising Above the Gathering Storm: Energizing and Employing America for a Brighter Economic Future, has become the

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including an announcement from Commerce Department official Peter Lichtenbaum revising an earlier decision that would have made it more difficult for foreign students to participate in certain university research projects. Despite the focus on these major problems, the committee also heard about other issues as well.

There are “multiple challenges” related to how the changes in security are affecting the nation’s science enterprise, Marburger testified. He noted that in making the nation safer we must focus on both physical security and economic security. The latter may be more difficult in an era of the globalization of technical work with transnational flows of people and ideas. The Administration seeks strategic ideas from the committee, Marburger stated, including a method to weigh the costs and benefits of any proposals. He mentioned a role for the social sciences in conducting threat assessments. Finally, he asked the panel to reach out to the corporate sector for advice on the export-control issue.

Bringing a congressional perspective, David Goldston, Chief of Staff for the Majority on the House Science Committee, called for more “engaged conversation” on the balancing issue. He did not think the topic was ripe for legislation, but rather enhanced oversight of existing controversies. He suggested the panel conduct case studies, consider hypothetical situations, review previous reports, and collect real-time data. He gave the Administration credit for improving the situation with visas for foreign students and scholars; an assessment with which Marburger agreed.

Michelle van Cleave from the Office of the National Counterintelligence Executive provided the committee the perspective of security taking precedence over open science. She expressed significant concerns with the acquisition of critical technologies by America’s enemies and stressed the importance of “creative approaches” to maintaining U.S. intelligence and counterintelligence superiority. “A risk management” approach is not enough, she said. Academics need to be proactive in recognizing possible intelligence threats.

Genevieve Knezo from the Congressional Research Service reviewed the legislative and regulatory history of a new difficult element affecting the free flow of information. Agencies are now allowed to categorize certain information as “sensitive but unclassified” (SBU). The difficulty is that agencies have evidenced no consistency in the interpretation of the SBU category leaving those who seek information, including researchers, in a quandary. Another witness Randall Murch, a former FBI agent now teaching at Virginia Tech, called SBU’s “mystical.” At the same time, the tightening of the release of information under the Freedom of Information Act (FOIA) during John Ashcroft’s reign as Attorney General has also made obtaining government information harder. This whole discussion disturbed Hart, who referenced his former colleague Daniel Patrick Moynihan’s book on secrecy, which argued strongly against over-classification of government information.

Wendy Keefer, an aide to former Associate Attorney General Viet Dinh, who went with him to the Bancroft Associates law firm, discussed the USA Patriot Act. The reauthorization of its provisions slated to sunset are still under discussion in the Congress. Keefer focused mainly on the Business Records section of the Act, which she admitted is usually known as the “library provision,” because of its notoriety for allowing government officials access to people’s reading habits. She suggested that research records could fall under the rubric of “business records.” She also alluded to the disclosure of education records from the National Center of Education Statistics under a section she described “as a limited exception to the Family Privacy Act.”

John Hamre, a former Department of Defense and Senate Armed Services Committee official now President of the Center for Strategic and International Studies, bemoaned the “climate of distrust” that permeates the science/security debate. He noted that the Soviets didn’t trust their own people, which undermined the citizens’ loyalty to the government. He asserted that is what is now happening in the U.S.

Concerns of Research Community Presented

Representatives of the research community in addition to Silver, included Tobin Smith of the Association of American Universities (AAU), Joanne Carney from the American Association for the Advancement of Science (AAAS), Janet Shoemaker of the American Society for Microbiology (ASM), and Mark Smith of the American Association of University Professors (AAUP). Tobin Smith focused on AAU’s concern about “troublesome research clauses” in government contracts to universities that place restrictions on publication or participation by foreign nationals. Carney brought up the “right-to-travel” issue, particularly the ban on U.S. participation in scholarly conferences in Cuba. Shoemaker stressed how ASM has worked to refine publication policies regarding biotechnology and biosecurity. Mark Smith discussed AAUP’s longstanding defense of academic
freedom and openness.

Noting COSSA’s congressional seminars on “Detecting Deception,” “Risk and Crisis Communication,” and “Protecting Privacy,” Silver’s testimony stressed the role social and behavioral scientists play on the security question. He quoted the Hart-Rudman Commission’s conclusion that: “The new military-security environment of the next 25 years will be shaped by a unique and substantially unfamiliar set of political, economic, technological, social, and cultural forces...As in the past, conflict will be driven by perturbations in the political order, social dislocation, passionately held beliefs, economic competition, and cultural division.” All of these, Silver noted, are topics that social and behavioral scientists study.

In addition, he referenced the recent hearings in the House Science Committee on the social science response to disasters, citing Dan O’Hair’s testimony about risk perception and communications and Susan Cutter’s research on evacuation (see UPDATE, November 21, 2005).

In discussing the impact of the current security climate on conducting social science research, Silver mentioned the difficulties faced by survey researchers as well as those who conduct government surveys with regard to confidentiality and people’s perception, that as Daniel Solove declared at the privacy seminar, “my data is confidential...assuming no crisis.” He also cited Ken Prewitt’s discussion at the same seminar of the impact on information collection, which is vital to our democracy, if people do not trust that their responses will remain confidential.

Other issues, Silver discussed, included the Patriot Act provision on education data, although up until now, there does not appear to be any evidence of its use. The difficulty of testing deception detection results in real life situations, the limiting of access to information under FOIA, and the impact of the SBU category on the new Homeland Security center at the University of Maryland, a concern echoed by Chairman Gansler.

Finally, reiterating Marburger’s call for a “new science of science policy” (see UPDATE, May 2, 2005), Silver told the committee that social scientists “who study incentives for research and how knowledge accumulates, is disseminated, and transformed into technologies that may be diffused throughout society can contribute to a better understanding of the costs of restrictions on research.”
catalyst for numerous pieces of introduced or soon-to-be-introduced legislation. The message of the Academies panel, chaired by former Lockheed-Martin CEO Norman Augustine, is that U.S. economic dominance is under threat and that the proven way, citing studies by economists Robert Solow and Moses Abramovitz, to repel that threat is to increase federal support for enhancing America’s “scientific and technological prowess.”

Working from the recommendations in the report, Senators Lamar Alexander (R-TN) and Jeff Bingaman (D-NM), who requested the Academies’ study, have joined with their colleagues, Pete Domenici (R-NM) and Barbara Mikulski (D-MD) to introduce three bills under the rubric “Protecting America’s Competitive Edge Acts” (PACE). Many of their proposals mirror earlier bills introduced in the House by Representative Bart Gordon (D-TN), Ranking Democrat on the House Science Committee. In addition, Senators Joe Lieberman (D-CT) and John Ensign (R-NV) have introduced “The National Innovation Act,” which is based on the Council on Competitiveness’ National Innovation Initiative Report.

All of this legislation proceeds from the premise that incentives are necessary to induce American students to study science, mathematics, and engineering, to improve American teachers of these subjects, and to encourage U.S. companies to invest in research and development. One idea is to pay students who take Advanced Placement tests. Many of the provisions include scholarships, fellowships, and internships funded by the National Science Foundation (NSF) and the Department of Energy for students and teachers and for students who become teachers. Another attempt at improving American schools is also part of the package. One provision would have the Department of Education providing financial support so that every state would create specialty schools for math and science, like the Bronx High School of Science in New York or the Thomas Jefferson High School for Science and Technology in Virginia.

The bills also propose significant funding increases for the NSF, (Lieberman-Ensign brings back doubling, this time by 2011), the Department of Energy’s Office of Science, NASA basic research, and the Department of Defense basic research. There are also immigration-related provisions to improve the visa process for foreign researchers and students, particularly those pursuing Ph.D.s in science and engineering.

Finally, the Senate bills continue the elusive 25 year pursuit of making the Research and Development Tax Credit, first passed in the 1981 Reagan tax cut, permanent, and in the PACE bill double it.

The sponsors of these bills are looking to President Bush to assume the leadership of this effort starting with a significant statement of support in the State-of-the-Union address on January 31 and further recognition in the Administration’s FY 2007 proposed budget scheduled for release on February 6.

In the Senate, with bipartisan support and the placement of the sponsors on the key authorizing panels responsible for PACE – Energy and Natural Resources, Health, Education, Labor and Pensions, and Finance – supporters of the legislation expect the bills to move quickly through the committee stage. The Gordon bills in the House suffer from his Democratic status, with so far no interest from the Republicans in pushing his bills.

The other major consideration is funding. As noted by Alexander at a pep rally for the PACE legislation held on January 25, these bills authorize programs, they don’t fund them. As Mikulski’s key aide Paul Carliner told the science community at the rally, that is done in the appropriations process. The PACE bill would require an additional $9 billion in FY 2007. With the constraints on domestic discretionary spending and many competing programs, finding extra dollars could be difficult.

FORMER COSSA PRESIDENT TO LEAD NAS PANEL ON INTERNATIONAL EDUCATION PROGAMS

Janet Norwood, former Commissioner of Labor Statistics and former President of COSSA, will head a 13 member National Academy of Sciences’ (NAS) committee to examine the Department of Education’s (ED) international education and foreign languages programs.

The NAS study will review the adequacy and effectiveness of the Title VI and Fulbright-Hays programs in addressing their statutory missions and in building the nation's international and foreign language expertise — particularly as needed for economic, foreign affairs, and national security purposes.

During the Higher Education Act reauthorization the past two years, these programs have come under
attacking for promoting anti-Americanism (see UPDATE October 6, 2003, August 8, 2005, and September 12, 2005). A particular target of the critics has been the Middle East Centers, which are accused of promoting the Palestinian cause at the expense of Israel.

Joining Norwood on the panel is former Census Bureau director Ken Prewitt. A former two-time President of the Social Science Research Council and a COSSA seminar speaker in 2005, Prewitt is now Professor at the School of International and Public Affairs at Columbia University. Christopher Cross, former Assistant Secretary of the Office of Educational Research and Improvement at ED, is also on the committee. For a list of the full committee roster go to:


Mandated by Congress in the FY 2005 Labor, Health and Human Services and Education Appropriations Act, the study will focus on eight areas:

- Supporting research, education and training in foreign languages and international studies, including opportunities for such research, education, and training overseas;
- Reducing shortages of foreign language and area experts;
- Infusing a foreign language and area studies dimension throughout the educational system and across relevant disciplines including professional education;
- Producing relevant instructional materials that meet accepted scholarly standards;
- Advancing uses of new technology in foreign language and international studies;
- Addressing business needs for international knowledge and foreign language skills;
- Increasing the numbers of underrepresented minorities in international service; and
- Conducting public outreach/dissemination to K-12 and higher education, media, government, business, and the general public.

A number of these issues have been addressed by the President’s new National Security Foreign Language Initiative (see UPDATE, January 16, 2006).

The Committee will hold its first meeting on February 14 and 15, 2006, with time set aside to hear from public witnesses.

SCHNEIDER BRINGS NEW LEADERSHIP TO NCES

On January 12, the members of the Intersociety Group for Education Research (IGER), including COSSA, met with Mark Schneider, the newly appointed Commissioner of the National Center for Education Statistics (NCES). Schneider confirmed by the Senate as the head of NCES on October 24, 2005, is on leave from the State University of New York at Stony Brook where he is a distinguished professor of political science. He will serve the remainder of the Commissioner’s term, which expires on June 20, 2009. NCES is one of four centers of the Institute of Education Sciences (IES), the research and statistics agency of the U.S. Department of Education.

The crucial issue for any federal statistical agency is to avoid the appearance of politicizing its data collections and analyses. Schneider’s immediate predecessor, Robert Lerner, served under a presidential recess appointment for a year. The Senate would not confirm him because he was perceived as someone whose past political writings might get reflected in the agency’s activities.

IGER members questioned Schneider about the political pressure to spin analysis to favor the policies of the administration and how NCES can maintain objectivity and independence. He responded by speaking highly of his boss: “We should all be thankful that Russ Whitehurst is as hard nosed as he is in preserving the independence of IES. I am insulated mostly because of him…we should appreciate Russ Whitehurst’s efforts to resist the tug.” He added, unfortunately you can be “independent and irrelevant” or you can be “linked to the department and have your independence challenged.” He indicated that it would be a tough balancing act for the agency.

Responding to how he regards the role of NCES in the occasional conflict between the presentation of education data and analysis and the interpretation of those data, Schneider was quick to reply that “this is something
that transcends NCES.” The Office of Management and Budget’s (OMB) goal for statistical agencies is “to reduce analysis and interpretation and make it about the facts,” he explained. “Education in this administration is one of the most highly charged domestic issues; NCES can only survive by being neutral,” he admitted.

When asked what changes he would like achieve in NCES’ operations and programs during his tenure, Schneider replied that he is not a “big picture guy,” but there are significant things missing in the portfolio. The agency needs more about information about teachers, he said. “For example, the data sets on teacher compensation data are terrible…We have no idea what teacher total compensation packages look like at a lower level than the state.”

Schneider also mentioned that he intends to continue paring down the number of publications NCES produces, following up on Whitehurst’s special interest in reducing them. “I am trying to figure out what publications should be highlighted,” he said, since “there are only a handful that are big time and worth more attention.” He’d rather the assistant commissioners tell him about one product they plan to release that is newsworthy and “we’ll put the money behind it.”

Another problem that he would like to solve is how NCES can improve the post-secondary data collection system (IPEDS). He said that data collection for K-12 was “wonderful,” but linking that information with post-secondary was “impossible” right now. Two-thirds of the kids enrolled in the K-12 surveys “disappear” between the two levels and much of the problem relates to infighting about the cost of unit records and privacy issues. Schneider would also like to see additional small-unit analyses. These improvements will remain difficult given the Administration’s focus, both subject-wise and budget-wise, on assessment.

Reflecting on his first few months on the job, Schneider expressed surprise to discover that NCES has such demanding standards. He found that “the standards the NCES holds for its work are higher than academic standards. They are unbelievably high in terms or response rate, publications, tables – every method, correlation, is documented meticulously.”

For many years, researchers and practitioners have complained about the time-consuming nature of the present NCES review process before it releases data. Schneider said that he “understands the complaint.” He cited the Schools and Staffing Survey (SASS) administered by NCES as one example of where there is mounting frustrations. “SASS is done and ready to be released,” he said. However, it is “annoying as a researcher and embarrassing as a commissioner” that the most recent data tables available to educators are for 1999-2000, he related. He explained that SASS is now under review at IES, but there is a debate going on about whether it should undergo an external review process.

Another concern Schneider commented on was the relatively small number of NCES staff responsible for the core databases. Remarkling how responsibilities have shifted, he suggested that: “Every government statistical agency has that problem. They’re all contract jobs.” Of the $180 million budgeted for NCES (this includes the assessment work for which NCES has responsibility) “almost every penny goes to contractors,” he lamented. Schneider said he finds it frustrating and for him, the “challenges are to try and keep staff skills high enough” and ensure the work is “done right” by the contractors. Schneider also sees more staffing problems for the agency with many in senior management close to retirement with no middle management “to come up and take their place.”

As to NCES’ plans for new collections of comparative international education data, Schneider stated that there unfortunately are not any. Noting the particular difficulty in trying to coordinate agencies, he said: “We are responsible for the Trends in International Mathematics and Science Study (TIMMS) and the Programme for International Student Assessment (PISA) and are trying to get greater cross fertilization of these with the National Assessment of Educational Progress (NAEP).”

Asked about the impact of the USA Patriot Act provision that allows court-ordered breaching of the privacy act to obtain student and teacher records, Schneider unequivocally stated that there have been no court orders, no requests for information, so far. However, the wording on the NCES web site has had to change because the agency can no longer ensure confidentiality.

Commenting on possible increases in NCES’s FY 2007 budget, Schneider concluded that “budgets are all project driven – such as Congress deciding we need a civics assessment and then perhaps more money comes about.”

Other IES and ED Appointments

Institute of Education Sciences (IES) director Russ Whitehurst has also announced two new appointments. Lynn Okagaki has been appointed to a six-year term as
Commissioner for Education Research, replacing Barbara Foorman. Okagaki has been serving as the IES Deputy Director for Science. Before joining the Department of Education in 2002, she served as associate dean of the School of Consumer and Family Science and professor of Child Development and Family Studies at Purdue. Okagaki’s research focuses on parenting and children’s school achievement in minority families and on parental socialization of beliefs and values. She has a Ph.D. from Cornell University. Andrew White, former director of the National Academy of Sciences’ Committee on National Statistics, replaces Okagaki as Deputy Director for Science. White recently joined NCES.

Finally, President Bush has appointed David Dunn as Acting Undersecretary of Education. Dunn has served, for the past year, as chief of staff to Secretary of Education Margaret Spellings. Before joining the Department he worked as Special Assistant to the President for Domestic Policy at the White House Domestic Policy Council. Prior, he served as the Executive Director of the Texas Association of School Boards. He has a Master’s Degree in government from the University of Texas at Austin.

SUMMER INSTITUTE ON THE EMPIRICAL IMPLICATIONS OF THEORETICAL MODELS

Washington University in St. Louis’ Weidenbaum Center and Department of Political Science will sponsor a summer institute on the problems of testing theoretical models of politics. The institutes are designed for advanced graduate students and junior faculty whose research and teaching would benefit from training seminars on the link between methods of empirical analysis and theoretical models. The Summer Institute is comprised of five seminars over a three-week period (June 12-30) a basic seminar and four advanced seminars.

Participants selected for this program will receive a $1,000 stipend. This will be used to cover their travel, room, and board. Up to 25 subsidies are available for full-time participants. Participants shall be responsible for any and all costs of living expenses in St. Louis for the month-long institute. Funding is provided by the National Science Foundation. Applications are due on February 15, 2006. For more information go to: eitm@artsci.wustl.edu

NIH SEEKS PRE-APPLICATIONS FOR INTERDISCIPLINARY RESEARCH CONSORTIUM

According to the National Institutes of Health (NIH), it is becoming apparent that, in some cases, multidisciplinary research is not sufficient to address, in a comprehensive and effective way, challenging and complex problems in biomedical and behavioral research. In an effort “to support interdisciplinary approaches to solving significant and complex biomedical problems, particularly those that have been resistant to traditional approaches,” the agency is seeking grant proposals that “hold the promise of leading to new research approaches to improving human health.”

As part of the Roadmap initiative, NIH is beginning a program that will support large interdisciplinary research consortia. The program has two phases: the pre-application phase and a series of notices of limited competition describe the application process for a full consortium. Pre-applications are necessary to be invited to submit a full consortium application. The pre-application is expected to identify an important biomedically-relevant problem, evaluate why previous disciplinary approaches have not solved the problem, justify why the proposed interdisciplinary approach will work, and identify the methods to maintain the focus and coordination of the interdisciplinary team. The consortium awards will be for five years for roughly $3 million in direct costs each year. The proposed consortia should have leaders from more than one discipline. A technical assistance workshop will be held February 9 and 10. The letters of intent are due March 21, 2008. Applications are due April 18, 2006. Awards will be announced in September 2007. For more information: http://grants.nih.gov/grants/guide/pa-files/PAR-06-122.html.