SCIENCE PANEL HEARS SOCIAL SCIENTISTS ON DISASTER RESPONSE

Representative Bob Inglis (R-SC), chair of the House Science Committee’s Basic Research Subcommittee noted that his panel had previously “heard from natural and physical scientists who study hurricanes, earthquakes, and cyberstructure vulnerabilities.” Inglis suggested that in addition, “to effectively plan for, mitigate against, and respond to natural hazards and disasters, we may also benefit from a better understanding of human behavior.”

Thus, on November 10, after much urging from COSSA, the Subcommittee held a hearing on “The Role of Social Science Research in Disaster Preparedness and Response.” Working with the committee staff, COSSA helped to secure four witnesses for the panel: Susan Cutter, Professor of Geography at the University of South Carolina and Director of the Hazard Research Laboratory; Shirley Laska, Professor of Environmental Sociology and Director of the Center for Hazards Assessment, Response and Technology at the University of New Orleans; H. Dan O’Hair, Professor and Chair of the Department of Communications at the University of Oklahoma; and Roxane Cohen Silver, Professor in the Department of Psychology and Social Behavior in the Department of Medicine at the University of California, Irvine.

Ranking Democrat Darlene Hooley (D-OR) welcomed the hearing indicating that “[s]ocial science research has a long history of contributing to our understanding of the factors that influence the way individuals, communities, and organizations respond to

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HOUSE REJECTS LABOR, HHS CONFERENCE REPORT; NEW C.R. PASSED

On November 17, the House rejected the conference report on the FY 2006 Labor, Health and Human Services (HHS), and Education appropriations bill by a vote of 209-224. Twenty-two House Republicans joined Democrats in opposing the consolidated bill. The legislation would have provided $142.5 billion for discretionary programs, the same as the House-passed version.

The conference committee was severely restrained by House conservatives’ call for limiting spending by not exceeding the House total. Thus, the conferees, led by Senator Arlen Specter (R-PA) and Rep. Ralph Regula (R-OH), chairs of the Senate and House

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SCIENCE PANEL (Continued from Page 1)

disasters.” She also expressed concern as to whether “the research is translated into practice” and whether there are “impediments to applying the findings from the social and behavioral sciences to the disaster planning, recovery, and response activities of the responsible public and private sector organizations.”

Almost the entire Subcommittee attended the hearing, with Frank Lucas (R-OK), Gil Gutknecht (R-MN), Mike Sodrel (R-IN), Eddie Bernice Johnson (D-TX), and Charles Melancon (D-LA) as well as Inglis and Hooley participating in the question and answer session.

Cutter: Social Science and Vulnerability Science

Cutter began by noting that starting with Gilbert White’s floodplain studies in the 1940s, “geographers have provided the scientific basis for disaster and hazard reduction policies and contributed to the nation’s understanding of the regional variability in hazardousness.” She explained that what she called “vulnerability science” is an “emergent, multidisciplinary field that requires a place-based understanding of the interactions between natural systems, the built environment, and human systems.”

She contended that although “the Hurricane Katrina crisis was precipitated by a physical event…it was the failure of social and political systems that turned the natural disaster into a human catastrophe.” Understanding human decisions and organizational failures are keys to ensuring that a similar catastrophe does not happen again, she argued.

She discussed three examples of social science contributions to vulnerability science. The first involves improvement in the metrics, models, and methods for making social vulnerability assessments. At the University of South Carolina, social scientists have developed a quantitative method for assessing social vulnerability that permits geographic comparisons over time at the county level. This can be used as either a comparative measure to determine where the most socially vulnerable populations reside or as a predictive measure to help state and local officials determine where additional response and recovery resources may be needed, before, during, and after a natural disaster occurs.

The second example involves integrated hazards assessment methodology. Cutter’s Hazards Research Laboratory, working in conjunction with the South Carolina Emergency Management Division, has developed a GIS-based hazard assessment method that enables policymakers to not only look at the geographic variations in the hazards themselves, but also at the social vulnerability of the residents. This model was recently applied in coastal Mississippi after Hurricane Katrina.

The third example Cutter discussed comes from social science contributions to warnings and evacuation behavior. According to Cutter, the research indicates that: people evacuate as family units; most evacuees seek shelter with other family members, friends, or in hotels; public shelters are the least preferred option; many people will not evacuate because they can’t bring their pets with them; and many residents use distance to mediate the threat. Sometimes the last item creates logistical difficulties for localities as more people than necessary evacuate, creating “evacuation shadows,” which is what happened during Hurricane Rita in Texas, she explained.

Despite these new methods and improvements in assessments, Cutter suggested there is a lot we still do not know. We still don’t have systematic baseline data on hazardous events or the losses they produce, which makes it difficult to monitor the progress of disaster reduction and mitigation, she observed. She noted, however, that progress has been made with support from the National Science Foundation’s (NSF) Spatial Hazards Events and Losses Dataset for the U.S. (SHELDUS) which includes natural hazard events and losses from 18 different natural disasters throughout the country from 1960-2005. Losses are variable from year-to-year but show an overall increasing trend, Cutter indicated, with most of the losses incurred during weather-related events.

Laska: Social Science in the Community to Prevent and Respond to Disasters

Shirley Laska directs the Center for Hazards Assessment, Response and Technology (CHART) at the University of New Orleans. Her center’s offices were damaged by Hurricane Katrina and most of her faculty associates and graduate students remain scattered across the U.S. CHART was specifically developed to apply social science research to natural hazard threats in partnership with local communities.

She described three projects on which CHART is working in Louisiana to understand risk, increase safety, and facilitate recovery from this fall’s catastrophic events. The first is working with FEMA’s program of Repetitive Flood Loss to provide
data and assist local parishes in reducing flood risk to their homes and areas. Social science research, Laska stated, demonstrates that agency assistance in disasters should be locally situated, take place over a significant period of time, and develop ongoing working relationships with community officials. The project has also discovered that repeatedly-flooded structures are found in clusters and thus, the response must be spread across local areas, not by individual home. This research is part of the response to support the long-term recovery of the New Orleans area.

The second project, entitled Participatory Action Research and supported by the NSF, tests a method of enhancing the marginalized communities’ capacity to handle natural hazards. It involves collaboration among academics, practitioners, and residents to support improving the capacity and resiliency of at-risk communities. Working with the Native American community of Grand Bayou, Louisiana, CHART has applied sociological research to allow the marginalized community to negotiate with FEMA and other government agencies in order to take responsibility for its response to Katrina. This participatory approach has been proven to build community resiliency, Laska explained.

The third project involves the use of a traditional social science methodology – the survey and the data it generates – to plan for an evacuation. Partnering with parish emergency managers, Laska related how Susan Howell, director of the University New Orleans Survey Research Center, conducted surveys that allowed emergency managers to understand how residents evaluated risk, what plans residents make or did not make, and what aspects of the residents’ thinking ran contrary to what the scientists knew about safety and evacuation experiences. For example, most of the population believes they will remain safe by staying in their homes during a category three hurricane.

O’Hair: Risk Communication and the Paradox of Media Coverage

Dan O’Hair, incoming president of the National Communication Association and a speaker at the COSSA Seminar on Risk and Crisis Communication in 2004, discussed the “embarrassment of riches” produced by researchers on this topic.

O’Hair cited the substantial research on risk perception indicating the importance of certain factors in individuals’ responses to disaster, including: an individual’s perception of dread, their sense of control, whether the threat is man-made or natural, the perceived probability that it could affect them, whether it affects children, and whether the threat is new or novel. The research has also found that white males perceive risks, on average, as much less significant and more acceptable than other people. In addition, sociopolitical factors such as power, status, ethnicity, culture, education, and trust are known to influence people’s perception and acceptance of risk. O’Hair also mentioned the existence of “intuitive epidemiologists,” who formulate an estimate of how serious and likely the threat is for them, and who might minimize their acceptance of risk communication messages.

Perceptual distance, to what extent risk message recipients find a message salient or important, is another factor for risk communicators to consider. Many times, risk and crisis communicators overestimate what the public is going to perceive as important simply because the communicators themselves believe that an issue is salient. According to O’Hair, time also diminishes public perception of the significance of certain events that risk communicators may still believe are salient.

Turning to the role of the media, O’Hair explained that people use multiple sources to get information about disasters. He noted that changing technologies – for example, the use of instant messaging during the tsunami disaster – have come to play roles in disaster and risk communication. He also focused on what he called the “Paradox of Media Coverage.” On one hand, he explained, media serve a number of valuable, if not essential, functions for consumers, government officials and other organizations. This includes providing emotional support and companionship to victims who feel isolated and alone.

Alternatively, media often frame their messages in ways that omit critical information, overemphasize certain circumstantial features, sensationalize the situation, galvanize distrust among those whose role it is to mitigate the threat, and politicize the context of the disaster event. In addition, media organizations and their members do not seem to be any better prepared for disaster and emergencies than other members of the risk community. One survey found that most do not have disaster plans of their own, O’Hair explained.

Effective risk communication, he proclaimed, involves consistent, accurate, timely, and clear messages provided repeatedly through multiple methods. The messages should be specific about the threat, including its nature, when and where it will...
occur, and directions for preventive measures or protective responses. O’Hair stipulated that the message sources must be trusted and relevant to the disaster – localized situations call for local spokespersons, for example.

O’Hair concluded that the key future consideration is building a community-based communication infrastructure. Programs of risk management need to determine and verify community-specific requirements and expectations, taking into account the differences in family systems, social capital, and kinship relationships that affect communication transmission, he said. However, he pointed out that further research on the impact of new communication technologies in disaster situations, particularly interactive ones, is necessary.

Silver: No Universal Responses to Stressful Events

Roxy Silver has studied the impact of community disasters – both natural and man-made – on individuals’ and communities’ psychological responses over time. She has researched the impact of Southern California firestorms, the Columbine High School shootings, and the September 11th terrorist attacks.

Silver described the difficulty of conducting methodologically-rigorous studies of responses to traumatic experiences. However, she pointed out, this has not stopped media from espousing “Coping Dos and Don’ts.” Many of these suggestions and our expectations about the coping process are often wrong, she explained. They are wrong, Silver concluded, because “there is no one, universal response” to how people respond to traumatic life events. “Some people will express less distress than outsiders might expect; others will respond with pronounced distress for far longer than might have been judged ‘normal’ under the circumstances,” and few individuals respond with an orderly sequence of emotional response “stages,” she said.

Positive emotions are often ignored as part of the response to highly stressful events, she added. Psychological responses are not limited to those directly exposed to the trauma and the degree of response is not always proportional to the degree of exposure, amount of loss, or proximity to the trauma. The data provide little support for the notion that there are “right” or “wrong” ways to respond, although there are clearly different ways (Silver emphasis).

For example, her research on September 11th indicates that the attacks had widespread impacts across the country, and that the effects of these attacks were not limited to communities that were directly affected. The degree of individual response to the attacks was not explained simply by the degree of exposure; some who watched the terror on television exhibited similar symptoms to those who were in New York and in Washington, D.C.

A person’s mental health, strategies used to cope with the attacks and their aftermath, prior life experiences, and traumas they experienced in the intervening year after 9/11 are other factors that explain the variability in response, she argued.

Finally, in response to Rep. Hooley’s query about the use of all this research, Laska said it best: “I was not participating in some abstract intellectual exercise during the last few years, as I was drawing from my own and others’ existing research to warn professional group after professional group of an impending Katrina. The result of those warnings not being heeded was the end of my community [Laska emphasis]...This is the outcome of scientists not being heard. And it doesn’t get any more personal for a scientist than Katrina has been for me.”

APPROPRIATIONS (Continued from Page 1)

Appropriations Subcommittees on Labor, HHS, and Education, faced many difficult choices. In a statement released to the press the day after the conference committee reconciled the bills, Specter characterized the subcommittee’s allocation as “scandalous.” He exclaimed further: “Every item on our tentative conference budget is under last year[‘s level]...This is just not right as we approach the problems of America.”

The conference committee also fell in line with the House’s demand to eliminate more than one billion dollars in earmarks proposed in both House and Senate versions of the bill, freeing up funds for other programs. According to Specter, retaining the earmarks would have required “intolerable cuts in programs such as LIHEAP”(which provides heating assistance for the poor and the elderly), the Centers for Disease Control and Prevention (CDC), community health centers, the community services block grant, Head Start, and health professionals education, including nursing. Regardless of the programs that were saved, the funding news for most programs in the legislation was not good.
Options for completing action on the bill include: sending the measure back to conference and having conferees put together a bill that would satisfy a majority in both Houses; passing a continuing resolution (CR) that that would fund the bill’s programs for the full year; or attaching it to another yet-unfinished spending bill such as the Department of Defense’s appropriation.

If the year-long CR option were chosen, however, each program’s funding level would remain at the FY 2005 funding levels or the level in either version of the House or Senate FY 2006 bills, whichever is lower. For most agencies, this is the least palatable option.

In the meantime, Congress has enacted another temporary CR extending funding for these programs as well as those in the five other uncompleted FY 2006 spending bills through December 17th.

The State, Science, Justice, Commerce appropriations conference report has cleared both Houses and awaits the president’s signature (see UPDATE, November 7, 2005).

**NIH Gets Minimal Spending Hike**

One of the problems with the conference agreement for many members of the House, as well as Chairman Specter, was the minimal FY 2006 increase for the National Institutes of Health (NIH). After years of healthy increases that doubled NIH’s budget from 1998 to 2003, the boost for FY 2006 totaled less than one percent (0.7) of the current budget, or $253 million, for a total funding level of $28.6 billion. This approximates the President’s request, and is the smallest increase for the agency since the 1970s.

The CDC would have been funded at $5.885 billion under the conference report (not including funding from the one percent evaluation set-aside). This is a $1.375 billion increase over the FY 2005 level. However, Congress provided almost $1.6 billion for terrorism preparedness and response that was not in last year’s budget. Thus, most of the other programs at CDC would incur reductions. The National Center for Health Statistics would receive $109 million from the evaluation fund. The Agency for Healthcare Research and Quality (AHRQ) would receive $265.7 million from the evaluation funding reserve, the same as last year.

**Earmark Elimination Shrinks FIPSE**

One of the consequences of eliminating earmarks in the legislation was the diminution of the FY 2006 budget for the Fund for the Improvement of Postsecondary Education (FIPSE). Funded at $157.2 million in FY 2005, FIPSE would receive $22.2 million for its core programs in FY 2006 without the earmarks. This is the same as the president’s request.

Javits Fellowships for graduate students in the Social Sciences, Humanities, and Arts were allocated $9.8 million, the same as last year. The Thurgood Marshall legal education opportunity program survived again, as conferees agreed with the Senate’s provision for funding rather than the House’s elimination of the program. It would receive almost $3 million, down more than $500,000 from FY 2005. International Education and foreign language programs would receive $108.8 million, up $1,000 from last year.

The conferees provided rather explicit directions to the Institute for Education Sciences (IES) on how to spend its research and assessment funds. Although the funding for “research, development, and dissemination” did not change from the $164.2 million allocated in FY 2005, the report tells IES that current funding directed to the Research and Development (R&D) Centers is “inadequate to create long-term comprehensive interdisciplinary programs,” and therefore, Congress expects IES to provide $25.3 million to “not less than eight” R&D centers. In addition, the report goes on: “The conferees believe that current funding levels provide for inflexible, narrowly focused research rather than work that is of sufficient size and scope to be effective. The conferees also believe it is essential that centers not be restricted to particular research methodologies but instead use rigorous methods to address areas of highest priority.”

Finally, the report asks that “the National Assessment Governing Board in consultation with the Commissioner of the National Center for Education Statistics (NCES), prepare a report on the feasibility of the National Assessment of Educational Progress conducting State level assessments in the subjects of U.S. history and civics at grades 8 and 12…” For FY 2006, neither the NCES ($90.9 million) nor the Assessment account ($94.1 million) received an increase.

**Women’s Salaries Question to Remain in BLS Survey**

The conference agreement includes the provision maintaining the women worker series from the Current...
Employment Survey (CES) as proposed by the Senate (see UPDATE, November 7, 2005). The Bureau of Labor Statistics (BLS) and the Office of Management and Budget (OMB) had decided to eliminate the question about women’s salaries from the CES. Many groups, including COSSA, joined in calling for the question’s restoration. BLS would receive an increase of $13.5 million from its FY 2005 level, up to $542.5 million.

What happens now and how these figures and directives are affected remains to be seen.

CBO DIRECTOR TO LEAVE; BERNANKE NOMINATION MOVES FORWARD

Douglas Holtz-Eakin, director of the Congressional Budget Office (CBO) since February 2003, will vacate his position on December 30, 2005. He is moving to the Council on Foreign Relations to become the Paul A. Volcker Fellow in International Economics and director of the Maurice R. Greenberg Center for Geoeconomic Studies.

The CBO plays a key role in providing Congress with the critical fiscal information needed to set policy. It produces deficit as well as surplus forecasts, and all bills that Congress considers must be scored by CBO for their fiscal impact. Holtz-Eakin came to the office after serving as the chief economist for the President’s Council of Economic Advisers (CEA). Prior to his tenure at CEA, he taught at Syracuse University, serving as Chairman of the Department of Economics and Associate Director of the Maxwell Center for Policy Research.

Since the head of CBO has a four year term, deputy director Donald Marron will take over as acting director. He could serve until the expiration of Holtz-Eakin’s term in early 2007, or Congress could name a new director. Marron became CBO's Deputy Director in October 2005. Like Holtz-Eakin, Marron also previously served as chief economist for the President's CEA. He was also the executive director and chief economist for Congress's Joint Economic Committee. In addition, Marron taught economics at the University of Chicago's Graduate School of Business from 1994 to 1998.

The CBO director is appointed by the Speaker of the House and the president pro tempore of the Senate, but the recommendations of the House and Senate Budget Committee chairmen, Rep. Jim Nussle (R-IA) and Sen. Judd Gregg (R-NH), will figure prominently in the appointment, should it come before 2007.

In the meantime, the current head of the CEA, Ben Bernanke, saw his nomination for Chairman of the Federal Reserve Board successfully reported from the Senate Banking, Housing, and Urban Affairs Committee on November 16. Bernanke made the usual pledges to the committee, chaired by Sen. Richard Shelby (R-AL), to maintain the Board’s independence. Senate Majority Leader Bill Frist (R-TN) announced that since current Fed Chairman Alan Greenspan is not leaving until January 31, 2006, Bernanke’s nomination will become one of the first actions that the full Senate will complete when Senators reconvene for the second session of the 109th Congress in January.

SOURCES OF RESEARCH SUPPORT

COSSA provides this information as a service and encourages readers to contact the sponsoring agency for further information. Additional application guidelines and restrictions apply.

International Clinical, Operational and Health Services Research Training Award (ICOHRTA)

The World Health Organization projects that by the year 2020, non-communicable diseases will contribute up to 60 percent of the world’s burden of disease (www.fic.nih.gov/depp/). Increases in chronic, non-communicable conditions (i.e., drug abuse/addiction, dementia, obesity, tobacco-related diseases including cancer, hypertension, diabetes and asthma, exacerbated by environmental factors and nutrition, along with pre- and post-natal health issues, and neuropsychiatric and neurological disorders will add to the already unacceptable burden of illness caused by communicable infections diseases such as HIV/AIDS, TB, and malaria.

The National Institutes of Health (Fogarty International Center, Aging, Dental and Craniofacial Research, Drug Abuse, Mental Health, Neurological Disorders and Stroke, and the Office of Dietary Supplements) are seeking to support advanced training in collaborative, multidisciplinary, international clinical, operational, health services and prevention science research on non-communicable disorders and diseases for health researchers from low- and middle-income countries.

The goal of the request-for-applications (RFA-TW-06-002.html) is to address problems contributing to health disparities in the global burden of disease and
disability not addressed through the FIC infectious disease-related research training programs. Eligible organizations include non-profit public or private research institutions in the U.S. in collaboration with institutions in eligible low- and middle-income countries. Eligible Principal Investigators include U.S. scientists with the skills, knowledge, and resources to carry out the proposed research training.

The objective is to develop a cadre of researchers in clinical, operational, health services and prevention science at institutions in low- to middle-income countries that can respond to global health threats related to non-communicable disorders and diseases, particularly those that are priority health issues in their countries and regions. This cadre of scientists will be needed to plan, design and conduct clinical, operational, health services and prevention science investigations, including epidemiological, behavioral, demographic and economic studies, prevention research and investigations of complementary and alternative therapies.


### Dissemination and Implementation Research in Health (R21)

While billions of U.S. tax dollars are spent on research and hundreds of billions are spent on service delivery programs each year, relatively little is spent on, or known about, how to best ensure that the lessons learned from research inform and improve the quality of health and human services and the availability and utilization of evidence-based approaches. The National Institutes of Health (NIH) has recognized that closing the gap between research discovery and program delivery is both a complex challenge and an absolute necessity if we are to ensure that all populations benefit from the investments in new scientific discoveries.

NIH (Mental Health, Cancer, Drug Abuse, Deafness and Other Communication Disorders, the Office of Behavioral and Social Sciences Research, Nursing, Alcohol Abuse and Alcoholism, Dental and Craniofacial, and the Office of Dietary Supplements) invites grant applications for research that will identify, develop, and refine effective and efficient methods, structures, and strategies that test models to disseminate and implement research-tested health behavior change interventions and evidence-based prevention, early detection, diagnostic, treatment, and quality of life improvement services into public health and clinical practice settings.

The purpose of this dissemination and implementation research program announcement (PAR-06-072) is to support innovative approaches to identifying, understanding, and overcoming barriers to the adoption of evidence-based interventions that previous efficacy or effectiveness research has shown to be effective, but where adoption to date has been limited or significantly delayed. Invited research on dissemination will address how information about health promotion and care interventions are created, packaged, transmitted, and interpreted among a variety of important stakeholder groups. Research on implementation will address the level to which health interventions can fit within real-world public health and clinical service systems.

The goals of the PAR is to encourage trans-disciplinary teams of scientists and practice stakeholders to work together to develop and/or test conceptual models of dissemination and implementation that may be applicable across diverse practice settings, as well as design studies that will accurately assess the outcomes of dissemination and implementation efforts.