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MIKULSKI DEFENDS POLITICAL SCIENCE; CJS BILL STALLS: COBURN AND VITTER AMENDMENTS UNFINISHED



On October 13, the FY 2010 Commerce, Justice, Science (CJS) Appropriations bill came to the Senate floor. During debate on the bill Sen. Tom Coburn (R-OK) offered his amendment to eliminate funding for the National Science Foundation's (NSF) political science program (see Update, October 12, 2009).

As Chair of the Senate CJS Appropriations Subcommittee, Sen. Barbara Mikulski (D-MD) rose to oppose Coburn's amendment and offer a strong defense of research in political science. Because Majority Leader Sen. Harry Reid (D-NV) could not invoke cloture with the intention of limiting amendments, the CJS bill has been pulled from the floor. The Senate may return

to the bill the week of October 25 and Reid may seek another cloture vote.

This leaves the bill as well as Coburn's amendment in limbo for the moment. The Senate also did not consider the Vitter-Bennett amendment that would force the Census Bureau to add a question about citizenship to the 2010 questionnaire (see Update, October 12, 2009).

In her defense of political science, Mikulski declared to the Senate "I don't like trivializing academic research by somehow suggesting that some science is worthwhile while other science should be minimized." She also opposed "targeting an individual science area for termination." "Today it might be political science. Tomorrow, another Senator might target biology," she argued.

She indicated that the CJS bill includes funding for the Directorate for Social, Behavioral, and Economic Sciences, which oversees the political science program. This directorate's mission, she indicated, "is to use basic research to understand human and institutional behavior vital to rebuilding our national infrastructure and understanding how we operate as a society."

She cited the recent award of the Nobel Prize in Economics to political scientist Elinor Ostrom. Mikulski emphasized that although Ostrom's "training is in political science, she won the Nobel Prize for economics. She is the first woman ever to win the prize for economics — an American woman. She has received several political science grants from NSF because political science also looks at institutions that have an impact on our economy."

Most relevant to the current discussion, Mikulski declared, was that: "Since 1974, Dr. Ostrom has received more than 20 grants at NSF, and these grants helped her do her fieldwork all over the world in relation to the economic activity of people and communities. The Royal Swedish Academy of Sciences thought enough of her work to award her the Nobel Prize, but long before they heard of her in Stockholm, the National Science Foundation had heard of her and helped her with her award-winning research."

The Senator's second argument revolved around the support for NSF political science research from the Department of Defense (DOD). Mikulski pointed out that "This program began in 1962, and over the years, it has also included an open, transparent relationship with the Department of Defense. This is not black-box research. This is out-of-the-box research, so that we can understand our world better, and deal with conflict resolution. Or when we are in a conflict, how we can work with other people around the world and build democratic societies and democratic institutions."

She also cited the recent announcement of grants awarded under NSF's "Social and Behavioral Dimensions of National Security, Conflict and Cooperation," as part of Secretary Robert Gates' Minerva Initiative (see Update, October 12, 2009). This competition, she remarked, "is focused on basic social and behavioral science of strategic importance to U.S. national security policy." The competition is in the social science directorate, she said, and "of these 17 projects, 13 were awarded for political science research."

She reviewed some of the approved grants for the Senate. One, she cited, is an experimental analysis of alternative models of conflict bargaining. "Now, you might say: Ho-hum. But you know what, maybe some idea out of that research will help us crack the code on how we can bring peace to the Middle East." Another grant, she mentioned, maps terrorist organizations. "Well, that is a pretty good idea. Maybe some of that research will help us get out of Afghanistan." "Another project," she noted, "touches upon an issue I am very concerned about because of my worry about the planet, avoiding water wars. Environmental security issues like these may be new threats to the United States."

Finally, she said, "I could read every one of these, but what I want to say is that DOD has partnered with NSF to reach the broadest range of academic social and behavioral science, and this collaboration combines the insights of DOD with the peer review expertise of NSF in support of the agency's desire to promote basic social and behavioral research in areas that will benefit the United States." She concluded: "To take out \$9 million [the cost of NSF's political science program] is really penny-wise and pound-foolish."

The essence of Coburn's attack on political science is that it is not real science. As he told his colleagues: "We are going to increase NSF's budget in this bill eight percent...It is the one we ought to be increasing 12 or 15 percent, but it ought to be on real science, on pure science, on science that has an outcome we can measure that is not related to the observation of common fact but is new research that will derive great benefits for the people of this country."

Senator Mikulski's full statement can be found on the COSSA Web Site at: www.cossa.org under What's New.

CONGRESSMEN BARTON AND WALDEN CONTINUE TO QUESTION NIH'S PEER REVIEW

On October 16, Reps. Joe Barton (R-TX), Ranking Member of the House Energy and Commerce Committee and Greg Walden (R-OR), Ranking Member of the Energy and Commerce Subcommittee on Oversight and Investigations, transmitted a <u>second letter</u> to National Institutes of Health (NIH) director Francis Collins regarding their concern "that some NIH-sponsored grants may not be appropriate for the NIH medical research mission." Requesting that Collins supplement his September 24th letter to the agency, the members write that "While there may be value in conducting most of the studies at issue, there are many biomedical research projects competing for NIH financial support" (see Update, <u>September 28, 2009</u>). According to the letter, Barton and Walden "are examining whether the NIH decisions to fund grants reflect the best scientific judgment on U.S. public health priorities." The grants in question include:

- 1. A study to investigate whether adolescents who consume alcohol and/or carry firearms, and/or daily activities occur in an environment rich in alcohol and or firearms, face a differential risk of being shot with a firearm or injured in a non-gun assault. The study is also designed to help identify how adolescents are restricted in time and space by their daily activities, thereby identifying particular locations and times of enhanced, and reduced, risk of injury from assault (Alcohol, Firearms, And Adolescent Gunshot Injury Risk).
- 2. A proposal designed to better understand the role of alcohol availability in intimate partner homicide (IPH) with the specific aims of 1) determining if there is a significant association between alcohol availability and IPH at the city level; 2) assessing the relationship between state excise taxes on beer and IPH; 3) assessing the direct effect of laws prohibiting perpetrators of domestic violence from possessing firearms on IPH; and 4) assessing the effects of criminal justice policies and practices regarding intimate partner violence and restraining order enforcement on IPH. The study results will provide valuable evidence for reassessing policies related to alcohol availability for the purpose of decreasing intimate partner homicide (Alcohol Availability and Intimate Partner Homicide).
- 3. A population-based case-controlled study designed to better delineate the causal relationship between alcohol outlets and firearm violence and determine whether geographic proximity to alcohol outlets increases the risk of being injured with a firearm. The study also examined whether geographic proximity to other types of outlets, such as firearms dealers, fast food restaurants, or mini-markets, poses a differential risk of being injured with a firearm when compared to alcohol outlets (Case Control Study of Alcohol Outlets and Firearm Violence).
- 4. A supplemental fellowship grant attempting to understand the family context in which decisions about firearms and their storage are made to enhance the efficacy of future educational interventions targeting firearm safety (Minority Pre-doctoral Fellowship Program).
- 5. A project examining depressed elderly individuals who have attempted suicide or are at risk of doing so to determine whether their suicidality is associated with particular cognitive patterns. The researcher's approach aims to bridge existing cognitive research on suicidal diathesis with basic and clinical neuroscience. Insight into brain mechanisms will help identify elderly at risk for suicide and develop neuroscience-based interventions (Cognitive and Affective Neuroscience of Decision-Making in Late-Life Suicide).

In addition to the information requested in the prior letter, Barton and Walden requesting that NIH provide the responses for five additional grants to the following questions:

- 1. How the grant relates to the funding priorities of the relevant NIH Institute or Center.
- 2. The overall impact score.
- 3. The number of peer reviewers at the initial peer review meeting and the second level of review who reviewed the grant, the score each reviewer gave the grant, and the designated "payline" or fundable score.
- 4. The number of grants reviewed at the initial peer review meeting and the number of grants that received a second level of review.
- 5. To what extent are non-fatal accidents involving guns a public health problem, and why? To what extent are fatal accidents involving guns a public health problem, and why? To what extent are non-fatal criminally-inflicted injuries involving guns a public health problem, and why? To what extent are suicides involving guns a public health problem, and why?
- 6. How much NIH financial support should be devoted to research involving gun violence?
- 7. Are fatal and non-fatal injuries involving firearms problems best solved by public health approaches, versus other approaches, and why?

CONGRESS SENDS FY 2010 HOMELAND SECURITY SPENDING BILL TO PRESIDENT

The House and Senate conferees agreed on the FY 2010 Department of Homeland Security (DHS) appropriations bill on October 20. This is the fourth of the twelve spending bills that Congress has sent to the President. On October 21, the President signed into law the Agriculture and Rural Development FY 2010 funding bill.

Regarding the DHS bill, the conferees agreed to provide the Human Factors division \$16.1 million. This is \$4.5 million above the FY 2009 funding level. The Congress told the division to spend \$3.8 million for the biometrics program to help with identification of potential terrorists.

The House and Senate split the difference on DHS' University Programs account allocating \$49.4 million. Within this funding, \$39.4 million goes to the Centers of Excellence and \$3.9 million is to support minority serving institutions. The conferees directed DHS' Science and Technology Directorate to brief the appropriations committees on how these funds will be allocated to the Centers of Excellence by January 15, 2010.

With the first Continuing Resolution (CR) running out on October 31, Congress has begun discussions about an extension. In addition, with health care reform expected on the Senate floor soon, the strategy of considering the remaining appropriations bills individually may not succeed. Senate Appropriations Chairman Sen. Daniel Inouye (D-HI) has raised the possibility of once again using an Omnibus spending bill, in which the remaining appropriations bills would be folded into one giant bill, to finish the process this year.

MASTER ADDRESS FILES FOCUS OF HOUSE SUBCOMMITTEE CENSUS HEARING

On October 21, the House Subcommittee on Information Policy, Census and National Archives held a hearing entitled: "The 2010 Census Master Address Files: Issues and Concerns." Appearing before the panel were: U.S. Census Director Robert Groves; Todd Zinser, Inspector General from the Department of Commerce; Robert Goldenkoff, Director of Strategic Issues from the Government Accountability Office; and Ilene Jacobs, Director, Litigation, Advocacy & Training for the California Rural Legal Assistance, Inc.

"The Master Address File (MAF) is an essential component of the 2010 decennial census," said Subcommittee Chairman Lacy Clay (D-MO). "The success of the Census is dependent on the quality of the address list...thus; an assessment of the compilation of addresses is of fundamental interest and concern to the subcommittee."

The MAF is an inventory of all addresses and physical/location descriptions assembled by the Census Bureau. The MAF serves as the source of addresses for mailing and delivering decennial census forms and for physically locating the addresses when necessary (such as during Non-response Follow-Up). One of the Bureau's long-standing challenges has been reducing the differential impact of errors in the census. Minorities, renters, and children for example are more likely to be missed by the census as well as those residing in unconventional housing units such as converted attics, cars, boats, trailers etc.

Improving MAF is a Continuous Effort

"Throughout this decade, the Census Bureau has taken various steps to enhance the MAF and our ability to accurately represent the universe of living quarters and the location of those living quarters," testified Groves. He stated that the MAF has been continuously updated during the years between the 2000 and 2010 Censuses which provide a current base from which to build the initial universe of addresses for the 2010 count. "Collectively, the update of the MAF from various partnership and field operations and the verification of these addresses through the 2010 Census Address Canvassing are the first steps to ensuring the quality and coverage of addresses in the 2010 Census... but our efforts do not end there" said Groves.

According to Groves, the Bureau: adopted an integrated approach to the maintenance of our housing unit inventory and our group quarters' inventory; undertook a multiyear effort to redesign our MAF and Topographically Integrated Geographic Encoding and Reference System, better known as TIGER, databases resulting in a more robust and efficient approach to maintaining and updating the data; completed a nationwide program, the MAF/TIGER Accuracy Improvement Program (MTAIP) where all features (streets, roads, etc.) across the county were spatially aligned; implemented the MAF Geocoding and Office Resolution (MAFGOR) program, which resulted in updates to the MAF and TIGER that facilitated our ability to determine in which block an address is located; and developed a code, referred to as the Address Characteristic Type (ACT), which characterized each geographic block by type of address (city-style, non city-style) and coverage of the USPS's Delivery Sequence File (DSF).

Furthermore, Groves told the Subcommittee, the recently completed Local Update of Census Addresses (LUCA) program plays a critical role in ensuring the accuracy and success of the 2010 Census. By working with tribal, state, and local governments, the Bureau incorporated updates and new information into the MAF and digital mapping system, TIGER that are based on their timely and intimate local knowledge of these local governments.

Zinser recommended various approaches to assess and improve the quality of the MAF with the goal of affording some level of assurance of the accuracy and completeness of the MAF, in addition to providing a roadmap for improvement. He also suggested that housing unit estimates and administrative records represent existing tools that could help assess MAF quality.

The Bureau is making progress building an accurate address list, but face software and other challenges said GAO's Goldenkoff. "The Bureau has taken, and continues to take measures to build an accurate MAF and to update its maps. From an operational perspective, the Local Update of Census Addresses (LUCA) and address canvassing generally proceeded as planned, and GAO did not observe any significant flaws or operational setbacks."

Jacobs commented that the Census Bureau has made a great deal of progress in preparing the MAF and developing methods to address differential undercount, but argued much more remains to be done in our collective efforts to assure that the census is an accurate reflection of America. "Census Bureau-community partnerships will need to go beyond the useful, but basic, cooperation typical of local Complete Count Committees and the basic cheerleading function of encouraging census participation by unmotivated and distrustful persons within the hard-to-count populations."

In closing, Chairman Clay expressed concern regarding the rising costs of conducting the 2010 count, calling the budget overruns intolerable. Groves explained that poor planning had resulted in added costs in the address canvassing operation that were \$88 million higher than the original estimate of \$356 million, an overrun of 25 percent. Groves expressed disappointment about cost overruns in preparations for next year's high-stakes count, had assured the committee he was taking steps to help prevent the expenses from ballooning further. Groves said the agency had made some faulty assumptions in how quickly it could get work done. The agency is now re-evaluating budget estimates for the entire census operation, which is projected to cost roughly \$15 billion.

PCAST HEARS FROM SECRETARY DUNCAN AND OTHERS ON IMPROVING STEM EDUCATION



The President's Council of Advisers on Science and Technology (PCAST), co-chaired by Harold Varmus, Eric Lander, and Presidential Science Adviser John Holdren, met on October 22 and 23 to focus on Science, Technology, Engineering and Math (STEM) Education.

They heard from Secretary of Education Arne Duncan who told the panel "We continually see evidence that our children aren't getting that great education." He commented on how international tests such as the Progress in International Reading Literacy Study (PIRLS), the Program for International Student Assessment (PISA), and the Trends in International Mathematics and Science Study (TIMSS) all show American students are stagnating compared with students in other countries. In science, eighth grade students are behind eight other countries, and in math 15 year olds' test scores lag behind students

in 31 countries. Duncan said these test results show we need to become more focused on science education and in using science to better educate students and make learning more engaging.

Duncan said we must work to transform education so that every student can reach high standards of learning in math and science, "Increasing our national performance means raising the bar and closing the gap for all."

He called for the creation of a national STEM innovation agenda and network to develop and share best practices. Duncan spoke of the need to encourage more states to build STEM capacity in schools and school districts by linking universities, private industry, and scientists.

And he also commented on the need to improve the pipeline for developing STEM professionals. Duncan cited data that show only 23 percent of college freshman declare a STEM major, and only 40 percent of those actually receive a STEM degree within six years.

Duncan told the panel that there is a need for STEM teachers who not only have deep content knowledge, but also a passion for teaching. The Department is calling on states to enhance teacher preparation and training, and to attract new and qualified math and science teachers to better engage students and reinvigorate STEM subjects.

He acknowledged that currently there are pockets of innovation, but said what is needed is the ability to scale up programs that work. The Department of Education is encouraging projects and proposals that find innovative STEM solutions. Using Race to the Top funds, the Department has proposed giving competitive preference to applications that place added emphasis on STEM.

The Secretary told the PCAST panel that with their assistance, "We can start to find answers and explore ideas about how to engage the entire population around STEM subjects."

Many of Duncan's points were reiterated by a host of speakers from federal agencies with programs that support STEM education. Cora Marrett of the National Science Foundation, Robert McGahern of the National Defense Education Program, Bruce Fuchs of National Institutes of Health, William Valdez of the Department of Energy, and Joyce Winterton of NASA, all explained their agencies efforts.

Kathryn Stack, Deputy Education of the Office of Management and Budget reviewed the myriad of government agencies and programs that provide support for STEM education. PCAST members kept asking about metrics to know if any of these programs are working. Marrett, in particular, called for more research and evaluation efforts to understand the difficulties the American education system has in convincing students at the undergraduate level to enter STEM fields (see article below). In her discussion, Marrett informed PCAST that her slide on STEM enrollments did not include the Social and Behavioral Sciences as part of STEM, because she was comparing data on studies that did not include these sciences.

Bruce Alberts, former President of the National Academy of Sciences, expressed his frustration that his efforts developing National Science Standards in the mid-1990s have not helped to improve the situation. He suggested the ensuring 15 years have been "a disaster," because of four things. First, with little expertise and much politics, the states went on to produce their own standards for science education, often paying little attention to the National Science Education Standards. Second, tremendous time is now wasted by curriculum developers attempting to make their textbooks and other materials match the needs of multiple states. Third, the diversity of standards prevents any national effort to make high quality assessments. Finally: "The nail in the coffin has been No Child Left Behind rules and high stakes testing, using inexpensive tests that drive poor teaching. To improve, science education, Alberts concluded, schools must promote "active inquiry."

The presentations can be found at: http://www.ostp.gov/cs/pcast/meetings_agendas.

NIH FUNDS RESEARCH EXAMINING THE FACTORS THAT INFLUENCE WOMEN'S CAREERS IN SCIENCE

As a part of its response to the 2007 National Academies (NAS) "Beyond Bias and Barriers" report, the National Institutes of Health (NIH) recently announced that it will fund 14 grant proposals focusing on factors that influence the careers of women in biomedical and behavioral science and engineering. The grants are estimated to total \$16.8 million over four years. The "Beyond Bias and Barriers" report made an urgent called for a broad, national effort to maximize the potential of women scientists and engineers. It also led to the creation of an NIH working group charged with examining the issues and addressing the challenges in supporting the advancement of women scientists and engineers (see Update, June 25, 2007).

NIH Director Francis Collins reaffirmed the NIH'S commitment "to building a diverse biomedical workforce and emphasized that the NIH's "ability to train and retain women scientists is vital to [the Nation] remaining competitive in meeting today's health challenges." "Understanding the issues that impact the recruitment, retention, reentry and advancement of women in biomedical and behavioral science careers will help us develop strategies to assist women at critical points," noted Vivian Pinn, director of the NIH Office of Research on Women's Health and co-chair of the NIH Working Group on Women in Biomedical Careers.

The newly funded grants will examine the range of influences on women's career choices such as family and economic factors, institutional environments and broader social and cultural issues. The career paths of underrepresented and financially disadvantaged women will also be examined. Topics include the role mentoring and funding support play throughout women's academic careers to the impact of family-friendly policies in retaining women in the scientific workforce. The grantees are:

- Stephanie B. Abbuhl, University of Pennsylvania, "Women & Academic Medicine: A Randomized Multi-level Trial
- Mary Carnes, University of Wisconsin-Madison, Advancement of Women in STEMM: A Multi-level Research and Action Project
- Thomas Diprete, Columbia University, Educational Pathways to Science and Other Careers for Academically Talented Women
- Karen Fruend, Boston University Medical Campus, Longitudinal Follow-up to the National Faculty Survey
- Donna K. Ginther, University of Kansas, Economic Explanations for Gender Differences in Biomedical Careers
- Deborah L. Helitzer, University of New Mexico, Achieving a Critical Mass of Women Biomedical Faculty: Impact of 3 US Programs
- Reshma Jagsi, University of Michigan at Ann Arbor, Examining How Gender Differences in Outcomes Develop Among Physician Researchers
- Yael G. Levitte, Cornell University, Entry and Retention of Women in the Sciences: A Cohort Comparison
- Richard McGee, Northwestern University, Pivotal Career Decisions Guiding Potential Women Science Faculty
- Donna Nelson, University of Oklahoma, Building an Evidence Base for Developing Effective Intervention Strategies for Women
- Joan Reede, Harvard Medical School, Factors that Promote and Support Careers of Women of Color in Academic Medicine
- Virginia Valian, Hunter College, Gatekeepers and Gender Schemas
- Amparo Villablanca, University of California, Davis, Women's Careers in the Medical Sciences and Family Friendly Policies
- Wendy Williams, Cornell University, Assessing and Reducing Gender Bias in STEM Recruitment, Mentorship and Evaluation

The NIH components funding the awards include the *Eunice Kennedy Shriver* National Institute of Child Health and Human Development; the National Cancer Institute; the National Center for Research Resources; the National Heart, Lung, and Blood Institute; the National Institute on Aging; the National Institute of Allergy and Infectious Diseases; the National Institute of Biomedical Imaging and Bioengineering; the National Institute of General Medical Sciences; the National Institute of Mental Health; the National Institute of Neurological Disorders and Stroke; the National Institute of Nursing Research; the NIH Office of AIDS Research; the NIH Office of Behavioral and Social Sciences Research and the NIH Office of Research on Women's Health.

NSF'S GRADUATE EDUCATION DIVISION SOLICITS PROPOSALS FOR RESEARCH AND EVALUATION OF STEM EDUCATION

The Division of Graduate Education (DGE) in the National Science Foundation's Directorate for Education and Human Resources (EHR) asks for proposals to support for research and evaluation projects focused on graduate education.

The funding will come through NSF's Research and Evaluation on Education in Science and Engineering (REESE) program. The REESE Program Solicitation (NSF 09-601) can be viewed at: http://www.nsf.gov/publications/pub_summ.jsp?WT.z_pims_id=13667&ods_key=nsf09601.

The proposals should have the potential to strengthen research on graduate education in science, technology, engineering, and mathematics (STEM). As examples, NSF encourages proposals that can contribute to knowledge about how to successfully broaden participation in graduate-level education programs and proposals that investigate the effectiveness of new trends and challenges in graduate STEM education. Successful proposals will demonstrate expertise in both the disciplines being studied and research methodology. In principle, this can be achieved by selecting a team of co-Pls that bridge knowledge of STEM disciplines with expertise in education research or social science research methods.

The division is **not** encouraging proposals that seek to evaluate programs wholly or in part because all DGE programs are on a schedule to be evaluated regularly.

The goal is to build a research community that can more effectively address current issues, trends, and questions in STEM graduate education, such as:

- What factors are most important in a student's decision to undertake STEM graduate study?
- What is the impact of increased mentoring on the success of graduate students?

- What are the implications for student learning that emerge from STEM research fields, particularly cross-disciplinary ones?
- What are the differences in the cognitive skills required for doctoral level work in the various STEM disciplines?
- What changes in skills are expected for STEM professionals and how do graduate programs learn about them?
- How do advanced degree earners make career choices within academia, industry, government sectors, and entrepreneurial endeavors?
- What are the effects on graduate education of growing international cooperation in research and education?
- What is the value of international experience to the excellence of the dissertation research?
- What are valuable uses of new technologies (including new cyber infrastructure developments) in both education and research?
- What factors influence the speed of diffusion of new methods of graduate education or the diffusion of new programs in emerging STEM disciplines?
- How can we advance the understanding of the causes and effects of progress in and barriers to broadening participation in STEM graduate education?

The Division wants "knowledge diffusion proposals" (e.g., research syntheses) for durations of one to two years not to exceed \$250,000, empirical research projects for durations of up to three years with project budgets up to \$1.5 million, and large empirical projects for durations of up to five years with project budgets up to \$2.5 million. The synthesis projects will permit investigators to develop rigorous research designs, techniques, and methods and to forge partnerships with researchers representing appropriate disciplines and areas of expertise. The solicitation now also includes a new proposal type, Pathways, which provides opportunities for exploratory work to pilot new research questions and approaches and to conduct feasibility studies prior to submitting a full proposal. Applicants should review the REESE Program Solicitation to ensure that eligibility requirements are met.

For further information: please contact REESE staff at (703) 292-8650 or <u>DRLREESE@nsf.gov</u> or DGE staff at 703-292-8630.

NSF INTERDISCIPLINARY PROGRAM ON HUMAN AND NATURAL SYSTEMS MAKES AWARDS, SEEKS PROPOSALS

The Dynamics of Coupled Natural and Human Systems (CNH) is a multi-directorate program jointly operated by three NSF directorates (Biological Sciences; Geosciences; and Social, Behavioral, and Economic Sciences). The Forest Service of the U.S. Department of Agriculture (USDA) also participates as a partner in the conduct of annual CNH competitions. CNH is a direct successor of a special competition that was part of the Biocomplexity in the Environment emphasis area.

According to NSF, the research conducted through NSF's Dynamics of Coupled Natural and Human Systems (CNH) Program, now in its third year as a multi-directorate program, provides a better understanding of natural processes and cycles, and human behavior and decisions, and how and where they intersect.

On October 14, NSF announced this year's awards. They address topics that include environmental variability, human vulnerability, and societal adaptation during the last millennium in the greater Mekong Basin; coupling human choice and biogeochemical cycling in urban ecosystems; computational modeling for the socioecological sciences; climate change and responses in a coupled marine system; and fires in western Amazonia: understanding and modeling the roles of climatic, social, demographic and land-use change. This year's grantees will study:

- Coupling human choice and biogeochemical cycling in urban ecosystems (Lawrence Baker, University of Minnesota)
- Computational modeling in the socioecological sciences (Michael Barton, Arizona State University)

- Environmental variability, human vulnerability, and societal adaptation during the last millennium in the greater Mekong Basin (Brendan Buckley, Columbia University)
- Coupled natural-human systems and emerging infectious diseases (Jefferson Fox, Center for Cultural and Technical Interchange, East-West Center)
- Coupled natural-human systems in the Chicago Wilderness: evaluating the biodiversity and social outcomes of different models of restoration planning (Liam Heneghan, DePaul University)
- Climate change and responses in a coupled marine system (Bonnie McCay, Rutgers University)
- Fires in Western Amazonia: understanding and modeling the roles of climatic, social, demographic, and land-use change (Miguel Pinedo-Vasquez, Columbia University)
- Assessing and adaptively managing wildfire risk in the wildland-urban interface (Anthony Prato, University of Missouri)
- Social-ecological dynamics of aquatic species invasions on a lake-rich landscape (Robert Provencher, University of Wisconsin)
- Hyper-extractive economies and sustainability: policy scenarios for sustainable water use in the High Plains aquifer (David Steward, Kansas State University)
- Climatic extremes, mining, and *Mycobacterium ulcerans*: a coupled systems approach (Petra Tschakert, Penn State University)
- An integrated computational approach to three fisheries (James Wilson, University of Maine)
- Climate change impact assessments for international market systems with long-term investments (Julie Winkler, Michigan State University)
- Environmental markets with application to nitrogen trading in the Neuse River Basin (Andrew Yates, University of Richmond)

In addition, NSF seeks proposals for this year's competition. The deadline is November 17, 2009. For further information contact: Tom Baerwald, tbaerwal@nsf.gov or 703/292-7301.

The full solicitation can be found at: http://www.nsf.gov/pubs/2007/nsf07598/nsf07598.pdf.

NSF ENCOURAGES INTERDISCIPLINARY WORK ON ENVIRONMENT, SCIENCE AND SOCIETY

The National Science Foundation's Directorate for Social, Behavioral, and Economic Sciences (SBE) and the Directorate for Geosciences (GEO) continues to foster increases in collaboration between the geosciences and the social and behavioral sciences by augmenting funding for interdisciplinary research related to Environment, Society, and the Economy. (For an earlier solicitation, see Update, March 9, 2009.)

According to NSF, human systems have contributed to environmental changes, and human systems will need to respond and adapt to both predicted and unexpected environmental changes. The role, pace, and impact of predicted regional and local environmental change will need to be factored into human decision processes with careful attention paid to uncertainties. Strategies need to be identified and assessed that are best suited to cover replacement costs for lost services or recover from the effects of natural hazards under specific scenarios. It will be important to compare the environmental as well as human impacts of various carbon management efforts, such as "cap and trade." There may be ways to include environmental risks or impacts in cost structures. New methods to manage the differential effects of global change on national economies may be developed.

These emerging and challenging problems require integration of concepts, observations, and modeling across diverse fields. GEO and SBE seek to promote interdisciplinary collaborations and integrative research that link the geosciences and the social and behavioral sciences in new and vital ways. Proposals that generate intellectual excitement in both the participating communities are sought. Also encouraged are proposals that have broad educational, societal, or infrastructure impacts that capitalize on this interdisciplinary opportunity.

In addition, climate change and human activities will have significant impacts on many aspects of earth systems. Human responses will include carbon sequestration, water and air purification, fisheries and agricultural production, and species habitat. Some environmental, human and climate-induced changes will occur gradually; other changes will be abrupt. For example, models show that changes in climate will directly affect coastal regions, many of which have large urban populations. Climate change also is expected to increase the intensity of storms and alter their patterns. Rising sea levels will change deposition and erosion along beaches, affecting coastal communities. Climate change may alter the duration and magnitude of monsoonal rainfalls and river flooding, and communities will have to respond appropriately to these new stresses. Landslide hazards may be affected by changes in wildfire frequency or the

intensity of rainfall. Warming temperatures also are expected to increase energy requirements for cooling, and changes in precipitation could affect hydropower production and sustainability of water supplies.

Natural environmental changes impact humans as well. Many human and natural effects not cited here have direct bearing on economic policies and decisions that confront individuals, groups, firms, and governments at local, regional, national, and global levels.

Projects should involve interdisciplinary teams of researchers from both the geosciences and social, behavioral, and economic sciences, but they may also include other disciplines.

This is not a special competition or new program. Relevant proposals must be submitted to an existing SBE and GEO program according to those programs' regular target or deadline dates. Target and deadline dates for applicable programs may be found at:

http://www.nsf.gov/dir/index.jsp?org=geo and http://www.nsf.gov/dir/index.jsp?org=sbe.

For more information contact these program officers: Robert O'Connor, SBE/SES, <u>roconnor@nsf.gov</u>, 703-292-7263; Rita Teutonico, SBE/OAD, <u>rteutoni@nsf.gov</u>, 703-292-7118; or Thomas Baerwald, SBE/BCS, <u>tbaerwal@nsf.gov</u>, 703-292-7301.

NATIONAL ADVISORY COUNCIL FOR HEALTHCARE RESEARCH AND QUALITY SEEKS NOMINATIONS FOR NEW PUBLIC MEMBERS

The Agency for Healthcare Research and Quality (AHRQ) is currently seeking nominations for seven new public members for its National Advisory Council for Healthcare Research and Quality. The Council advises the Secretary of the Department of Health and Human Services (HHS) and the Director of AHRQ on issues related to the Agency's efforts to improve the quality, safety, efficiency, and effectiveness of health care. The 21-member Council meets in the Washington, DC, metropolitan area, approximately three times a year. Members generally serve 3-year terms, and new members will start their service in the spring of 2010.

AHRQ is seeking individuals who are distinguished in the conduct of research, demonstration projects, and evaluations with respect to health care; in the field of health care quality research or health care improvement; in the practice of medicine or other health professions; in the private health care sector (including health plans, providers, purchasers) or administrators of health care delivery systems; in the fields of health care economics, information systems, law, ethics, business, or public policy; and in representing the interests of patients and consumers of health care.

Nominations are due November 20 and should be mailed to Deborah Queenan, AHRQ, 540 Gaither Road, Room 3238, Rockville, MD 20850 or faxed to her at (301) 427-1341. For more information see the October 9th <u>Federal Register</u> notice.

APPLICATIONS WANTED FOR COMMUNITIY NETWORK PROGRAMS TO REDUCE CANCER DISPARITIES

Identifying and understanding the social determinants of health are critical factors that must be considered in efforts addressing health disparities. These determinants include but are not limited to: socioeconomic status, culture, transportation options, housing quality, access to services, and social or environmental stressors. While many beneficial biomedical and behavioral procedures and/or services are available for prevention, early detection, diagnosis, treatment and survivorship, many health disparities continue because these benefits are not shared by all. Further efforts are needed to address these disparities and important roles in such efforts should be played by community-driven outreach, research, and training programs.

An often overlooked aspect of health disparities problems are the limited number of well-trained competitive researchers in biomedical and behavioral sciences from diverse populations and/or who have appropriate cultural sensitivities and insights into sources of health disparities needed for effective strategies to reduce these disparities. Additionally, few investigators are trained in research approaches that engage community members, notably Community-Based Participatory Research (CBPR). Accordingly, there is the need to increase the number of well-trained health disparities researchers, specifically including individuals from diverse backgrounds.

CNP is designed to address the cancer burden in racial and ethnic minorities and other underserved populations by using CBPR. The CNP - Centers for Reducing Cancer Disparities through Outreach, Research and Training (RFA-CA—09-032) funding opportunity announcement seeks applications for CNP Centers that will use the CBPR approach to reduce specific cancer disparities through a combination of outreach, research and training. The goal of the Centers is to increase knowledge of, access to and utilization of beneficial biomedical and behavioral procedures related to cancer in areas ranging from prevention to early detection, diagnosis, treatment, and survivorship. The announcement places particular emphasis on high quality intervention research involving controlled and rigorous studies. Applicant teams must be based established partnerships between academic institution(s) and targeted community entities/community-serving healthcare organizations.

Letters of intent are due November 15, 2009. Applications are due December 15, 2009. For more information and/or to apply see http://grants.nih.gov/grants/guide/rfa-files/RFA-CA-09-032.html.

The National Institutes of Health (NIH), the Agency for Health Care Research and Quality (AHRQ), the Office of Minority Health (OMH), the Health Resources and Services Administration (HRSA), the Centers for Disease Control and Prevention, and the Army Medical Research and Material Command are seeking applications for the Community Networks Program (CNP). NIH institutes and Centers participating include the National Cancer Institute, the National Center for Research and Resources, the Office of Research on Women's Health, the National Institute for Allergy and Infectious Diseases, and the Office of Behavioral and Social Sciences Research.

NIDA, NIAAA, AND NINR SEEK APPLICATIONS FOR BEHAVIORAL & INTEGRATIVE TREATMENT DEVELOPMENT PROGRAM

According to the National Institute on Drug Abuse (NIDA), behavioral treatments play a critical role in most evidence-based drug abuse treatments, and often constitute the entire treatment. Over the past two decades, numerous evidence-based behavioral and integrative treatments for drug abuse and addiction have been created. Recent advances in science, particularly in neuroscience, provide evidence that more can be done to incorporate new scientific discoveries into behavioral treatment and intervention development, in order to improve clinical outcomes. Additionally, as more is known about mechanism of action of treatment, and as new technologies are developed, treatments and interventions are more easily transportable to community settings.

Likewise, according to the National Institute on Alcohol Abuse and Alcoholism (NIAAA), for alcohol abuse and dependence, most of the treatments available in the U.S. also have been behavioral in nature. A large number of clinical trials have demonstrated effectiveness for several types of behavioral therapies, including cognitive behavioral therapy, motivational enhancement therapy, marital family therapy, brief interventions, and the community reinforcement approach. NIAAA acknowledges that although progress has been made in a broad range of behavioral interventions to treat alcohol abuse and dependence, many alcoholics do not respond adequately to currently available behavioral therapies.

Accordingly, NIDA, NIAAA, and the National Institute on Nursing Research (NINR) are seeking research grant applications on the development and testing of behavioral and integrative treatments for drug and alcohol abuse and dependence. The Funding Opportunity Announcement (FOA) (PA-10-012) reaffirms the Institutes continued commitment to major programs of research on behavioral and integrative treatments. The term "behavioral treatments" is defined in a broad sense and includes but is not limited to psychotherapies, cognitive, relapse prevention, remediation, rehabilitation, skills training, counseling, family, and exercise therapies and includes screening, brief, computerized, adherence, therapist training and HIV prevention interventions. "Integrative" refers to combinations with other treatments, including medications or complementary and alternative treatments. For alcohol abuse and dependence, the announcement will support research to develop new innovative behavioral therapies or modify existing treatments to improve their effectiveness and devise ways to improve the engagement, retention, adherence, and outcome of alcoholism treatment across various populations of alcohol dependent and abuse subjects.

The purpose of the announcement for investigator-initiated applications is to encourage Stage II or Stage III research to conduct clinical trials, examine mechanisms of behavior change, determine dose-response, optimize combinations, and/or ascertain best sequencing of behavioral, combined, sequential, or integrated behavioral and pharmacological (1) drug abuse treatment interventions in diverse settings, including interventions for patients with comorbidities; (2) interventions to prevent the acquisition or transmission of HIV infection among individuals in drug abuse treatment; (3) interventions to promote adherence to drug abuse treatment, HIV and addiction medications; and (4) interventions to treat chronic pain. This FOA will use the Research Project Grant (R01) mechanism and runs in parallel with the FOAs of identical scientific scope, PA-10-011 which encourages applications under the NIH Small Research Grant (R03)

mechanism and PA-10-013 which encourages applications under the Clinical Trial Planning Grant for Drug Abuse Treatment (R34) mechanism.

The announcement encourages research on behavioral and integrative treatments or any medication/treatment adherence interventions for any substance abusing population or populations with pain. This includes Stage II and Stage III clinical trials of behavioral, combined, or integrated treatment interventions, adherence interventions, and HIV prevention interventions. This also includes treatment dose-response studies, and studies of the optimal sequencing of treatment, adherence, and prevention interventions. Also of interest are integrated or sequential treatments for populations with substance use disorder(s) and co-occurring medical and/or psychiatric condition(s). Research on the treatment of any drug of abuse, including illicit drugs, prescription medications, nicotine, alcohol and multiple drugs is encouraged. The Institutes are particularly interested in interdisciplinary combined basic and clinical studies that seek to determine, within the context of treatment, adherence, and/or HIV prevention research, determinants of basic mechanisms of behavior change. Applicants are strongly encouraged to include (and if necessary develop) measures of proposed mediators, moderators, and mechanisms of behavior change relevant to their intervention. This may include, for example, behavioral, cognitive, social, affective, and/or neurobiological measures.

Specific areas of interest include, but are not limited to: translational research; technologically-enhanced behavioral treatments and training procedures research; combined behavioral and medication treatment research; setting-specific and delivery mode treatment research; comorbidity research; treatment training procedures research; hiv prevention in drug abuse treatment research; and pain treatment research.

NIDA has also established a web-based Networking Project (NNP) to encourage investigators to collaborate with other scientists to gain access to specialized expertise, unique research resources, diverse populations, or geographic locations not otherwise available. For applicants interested in identifying potential collaborators, the NNP website is available at http://nnp.drugabuse.gov, as a source of information on the mission, focus, and leadership of NIDA's research networks. The website features an interactive map with more than 300 local network sites, a directory of close to 400 addiction researchers and practitioners, and the extensive resources of 14 NIDA-supported research networks located across the country. If appropriate for the proposed research, NIDA encourages grant applicants to use the resources of the NNP and make reference in the grant application when they are utilized.

The earliest that applications can be submitted is January 5, 2010. For more information and/or to apply see http://grants1.nih.gov/grants/guide/pa-files/PA-10-012.html.

NIMH TO SEEK APPLICATIONS TO DEVELOP NATIONAL MENTORING NETWORKS TO ENHANCE WORKFORCE DIVERSITY

The National Institute of Mental Health (NIMH) has announced the Institute's intent to issue a Request for Applications (RFA) that propose to conceptualize, plan and pilot an innovative prototype of a national infrastructure to mentor individuals from diverse backgrounds (individuals from underrepresented racial and ethnic groups, individuals with disabilities, and individuals from disadvantaged backgrounds) who are conducting research relevant to the mission of the NIMH. The agency expects the resulting infrastructure will be capable of sustaining an effective and vibrant national mentoring network. Each mentoring network should have a focused scientific theme that is highly germane to the mission and strategic priorities of the NIMH including the Center for Mental Health Research on AIDS. The Institute expects that each mentoring network will recruit outstanding researchers as mentors for individuals at various career stages beginning no earlier in the career path than the post-baccalaureate level. The networks are envisioned to enhance the professional development of the participating individuals, sustain their career trajectory through research independence, and lead to scientific advances that will help transform the understanding and treatment of mental illness and HIV/AIDS.

NIMH expects to publish the RFA in the fall of 2009 with an expected receipt date in late January, 2010. The Notice is an effort to allow potential applicants sufficient time to develop meaningful collaborations and responsive projects. It encourages investigators with expertise in mentorship and mental health-related research to begin to consider applying for this RFA. Collaborative applications between academic and other institutions (e.g., public-private partnerships) combining expertise in mentorship and mental health-related research are encouraged, and these investigators should also begin considering applying for this application.

While applications are not being accepted at this time, questions can be directed to Nancy L Desmond, via Telephone: (301) 443-3107 or Email: ndesmond@.nih.gov.

NIH SEEKS TRANSFORMATIVE RESEARCH PROJECTS

The National Institutes of Health (NIH) is seeking "exceptionally innovative, high risk, original and/or unconventional research projects that have the potential to create or overturn fundamental paradigms" for its Transformative R01 (T-R01) program. The T-R01 program was specifically created under the NIH Roadmap for Medical Research and will be piloting novel approaches to peer review and program management to facilitate identification and support of groundbreaking advances, unproven concepts and truly transformative ideas. The NIH encourages Transformative Research Projects Program (R01) applications from scientists representing all disciplines relevant to the NIH mission, including the biological, behavioral, clinical, social, physical, chemical, computational, engineering, and mathematical sciences.

Launched in 2004, the NIH Roadmap for Medical Research is a series of initiatives designed to address fundamental knowledge gaps, develop transformative tools and technologies, and/or foster innovative approaches to complex problems. Funded through the NIH Common Fund, these programs cut across the missions of individual NIH Institutes and Centers (ICs) and are intended to accelerate the translation of research to improvements in public health. Additional information about the NIH Roadmap and Common Fund can be found at www.roadmap.nih.gov.

The high degree of risk inherent to truly transformative research is expected and welcomed in T-R01 proposals. Transformative projects in any area of NIH interest are encouraged and are considered responsive to T-R01 funding opportunities. The goal of the T-R01 Program is to provide support for collaborative investigative teams or individual scientists who propose transformative approaches to major contemporary challenges in biomedical or behavioral science. To be considered transformative, projects must have the potential to create or overturn fundamental scientific paradigms through the use of new and novel approaches or to lead to major improvements in health through the development of highly innovative therapies, diagnostic tools, or preventive strategies. Successful projects should have a major impact in a broad area of biomedical or behavioral research. Consistent with this highly transformative focus, proposals supported under the Transformative Research Projects program will reflect ideas substantially different from mainstream concepts being pursued in the investigators' laboratory or elsewhere.

For more information about the T-R01 program (RFA-RM-09-022) and/or to apply see http://grants.nih.gov/grants/guide/rfa-files/RFA-RM-09-022.html. Letters of intent are due December 22, 2009. Applications are due January 22, 2009.

UNIVERSITY OF TEXAS AT BROWNSVILLE JOINS COSSA

The University of Texas at Brownsville has joined the Consortium. COSSA appreciates its support and looks forward to working with the university on matters of mutual interest.

CONSORTIUM OF SOCIAL SCIENCE ASSOCIATIONS COSSA

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Deputy Director for Health Policy: Angela L. Sharpe
Associate Director for Public Affairs: Pamela L. Pressley
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Population Association of America

Social Science History Association

Society for Behavioral Medicine

Society for Research on Adolescence Society for the Psychological Study of Social Issues

Sociologists for Women in Society

Southern Political Science Association

Southern Sociological Society

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