TEXAS SENATOR CALLS FOR NSF TO REFOCUS EFFORTS AWAY FROM SOCIAL SCIENCES

Speaking at the Lasker Awards (for contributions to biomedical research) luncheon on September 23, Senator Kay Bailey Hutchison (R-TX) argued that the National Science Foundation (NSF) should refocus its efforts away from the social sciences and towards what she called the “hard sciences.”

In a statement issued by her office on September 30, the Senator elaborated on her position, which caused quite a stir in the social and behavioral science communities. She stated: “We also need to direct the NSF’s focus firmly to the hard sciences. Recently, the NSF proposed expanding its research on human and social dynamics for 2006. I don’t want the NSF to stray from concentrating on biology, chemistry, and physics, and instead, devote funds to social science research. That is not where we should be directing its resources at this time.”

Senator Hutchison chairs the Senate Commerce, Science, and Transportation Subcommittee on Space and Science, and serves on the Commerce, Justice, Science Appropriations Subcommittee as well, which handles NSF’s budget. She would like to see NSF’s budget increased, but only for certain areas of science.

Hutchison also expressed concern that “our universities are not nurturing scientists in the numbers we need to lead the world through the next century.” Of particular concern to the Senator is the possibility that China, India, and other countries will surpass the U.S. in “the fundamental discoveries that lead to great leaps forward in so many fields.”

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FISCAL YEAR BEGINS, PUSH FOR SPENDING CUTS ACCELERATES

Fiscal year 2006 began on October 1 and once again Congress had to pass a Continuing Resolution (CR) to keep the government functioning. With only two spending bills signed into law by the start of the fiscal year, the CR was necessary. Congress cleared the Department of Homeland Security spending bill on October 7 and it awaits the president’s signature. The CR will run until November 18, giving Congress seven weeks to finish the rest of the appropriations bills, some of which (e.g. the Labor, Health and Human Services, and Education bill) have not passed the Senate yet.

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In a letter to the Senator, COSSA Executive Director Howard Silver questioned the notion of “refocusing” NSF’s efforts. He pointed out that the two research divisions of the Social, Behavioral and Economic Sciences Directorate have a current budget of about $170 Million. The budget for the Math and Physical Sciences Directorate’s is over $1 Billion. In addition, the Biology Directorate receives over a half Billion dollars. Silver argued that it appears NSF is already devoting considerable resources to these “hard sciences.”

In addition, in the age of interdisciplinary research, many projects have social/behavioral scientists working with biologists (NSF’s long-term ecological sites and cognitive neuroscience), engineers (research on earthquakes), computer scientists (NSF’s cyber-infrastructure initiative), and even physical scientists (global climate change, complexity theory, and network dynamics). Furthermore, the development of the government’s nanotechnology initiative, much of which is funded by NSF, includes research on the social, ethical, legal, and environmental implications of this much-anticipated technology.

Of particular note on the Senator’s web page is her concern about the aftermath of hurricanes Katrina and Rita. One of the areas explored by the HSD priority at NSF is research on risk assessment, decision-making, and decision support systems in the event of natural disasters and terrorist attacks. It also supports research examining vulnerability and resilience in these situations.

The Senator’s agenda could influence next year’s NSF reauthorization and perhaps, the Senate appropriations bill.

FISCAL YEAR (Continued from Page 1)

The CR will hinder many agencies, as its provisions require funding to stay at the House-passed, Senate-passed, or FY 2005 level, whichever is lowest. Thus, for the moment, the National Science Foundation (NSF) and National Institutes of Health (NIH) are spending at FY 2005 rates, while the Census Bureau is far below its FY 2005 level.

As Congress moves to complete the FY 2006 budget process, the restrictive funding situation present at the beginning of the year has only become worse. Clean-up spending needs from hurricanes Katrina and Rita are having a significant impact, with many members calling for spending offsets to fund the relief efforts. Both House Speaker Dennis Hastert (R-IL) and House Budget Committee Chairman Jim Nussle (R-IA) have called for across-the-board reductions in discretionary spending. Nussle has proposed a two-percent cut. An across-the-board reduction of this nature would cost NSF over $100 million and the NIH close to $600 million. One likely point of contention in Congress will be whether to include the Department of Defense (DOD) in this proposed reduction, while the nation is at war. The DOD appropriations bill, passed by the Senate on October 7, includes another $50 billion for the wars in Iraq and Afghanistan.

In addition, Congressional leaders are under increased pressure to further reduce mandatory spending, which includes programs such as Medicaid, Medicare, Social Security, and Higher Education student aid. A reconciliation bill that would cut this type of spending has been on the agenda all year. Coming to agreement on how much to cut has been extremely difficult and constitutes a political hot-potato. Now the push to complete this process is gaining momentum. The possibility of a tax increase or surcharge for all to “share the sacrifice,” as suggested by some, is not on any of the key players’ radar screens right now.

This is also the time when the Office of Management and Budget (OMB) puts together agency spending packages for the FY 2007 budget that the President will release in February. The spending constraints for this year will remain operative on next year’s budget as well.

BEHAVIORAL SCIENTIST ONE OF THIRTEEN TO RECEIVE PIONEER AWARD

On September 29, National Institutes of Health (NIH) Director Elias Zerhouni announced the 13 recipients of the second annual NIH Director’s Pioneer Award. According to Zerhouni, the “extraordinary” quality of the 840 applications that the NIH received prompted the agency to fund 13 individuals, exceeding the agency’s original intent and budget to support only seven. Leda Cosmides, a professor of psychology and co-director of the Center for Evolutionary Psychology at the University of California, Santa Barbara (UCSB), a finalist in last year’s competition, is the first behavioral scientist to...
receive a Pioneer Award. Cosmides, who earned her Ph.D. from Harvard, co-founded the Center for Evolutionary Psychology with John Tooby, a professor of anthropology at UCSB.

The NIH Director’s Pioneer Award, initiated by Zerhouni, is part of the NIH Roadmap for Medical Research designed to identify scientists with ideas that have high impact potential, but that may be too imaginative and inventive, span too diverse a range of disciplines, or be at too early a stage to do well in the traditional peer-review process. The Award allows recipients to pursue new and groundbreaking research that “could have significant impact if successful but that, due to their novelty or other factors, also have inherently high risks of failure.” Recipients will receive $500,000 in direct costs per year for five years. According to the NIH director, the Roadmap for Medical Research “implies a change in culture” and it is his hope that it “will be institutionalized and remain an incubator” for research.

Zerhouni explained that the impetus for the Pioneer Award was NIH’s attempt to find new ways of “funding pioneering research” from a “common pool of funds.” Taking nothing away from NIH’s world-renowned peer-review process, Zerhouni argued that the award is the agency’s “attempt to identify bold ideas earlier and evaluate whether review systems can be improved.” The current peer-review process, Zerhouni maintained, is the “best quality-control mechanism there is . . . especially in preventing bad research.”

The agency, he continued, will now track the 1300 applicants from the first year, along with the 840 applicants from the current year to see how they do in the regular peer-review process as compared to the recipients of the Pioneer Award. Within five years, the NIH should have an answer as to how to prevent barriers between fields of science, Zerhouni contended.

Diverse, Early-Career Applications Increase

According to National Institute of General Medical Sciences (NIGMS) Director Jeremy Berg who oversaw the awards, this year’s process was informed by last year’s experience. Early career researchers and scientists from diverse fields were encouraged to apply, he said. In addition, Berg explained, the demographics of the reviewers also changed to reflect the “talent and diversity” of the nation’s pool of applicants. “Once those changes were made, the process took care of itself…It is a case study of how tweaking a process leads to a very different end,” said Berg.

The 2005 recipients are diverse in their backgrounds, which include neuroscience, genetics, epidemiology, chemistry, stem cell biology, behavioral science, infectious diseases, and technology development. More than half of the awardees reflect the NIH’s effort to recruit applications from individuals in the early stages of their careers. In addition, six of the 13 recipients are women. Nine men received the award last year. The 2005 recipients include:

Vickie L. Chandler – Regents’ Professor of Plant Sciences and Molecular and Cellular Biology, University of Arizona, Tucson, who studies the control of gene expression.

Hollis T. Cline – professor and director of research, Cold Spring Harbor Laboratory, who studies neural connectivity in the brain.

Leda Cosmides – professor of psychology, University of California, Santa Barbara, who applies evolutionary psychology to discover the design of the human mind and brain.

Titia de Lange -- Leon Hess Professor, Rockefeller University, New York, who studies chromosomes caps called telomeres.

Karl Deisseroth -- an assistant professor of bioengineering and psychiatry, Stanford University, who develops and employs new technology to probe neural circuits in the brain.

Pehr A.B. Harbury -- an associate professor in the Department of Biochemistry, Stanford University School of Medicine, who studies the chemical evolution of small molecules.

Erich D. Jarvis – an associate professor in the Department of Neurobiology, Duke University Medical Center, whose research focuses on the molecular basis of vocal learning.

Thomas A. Rando – an associate professor in the Department of Neurology and Neurological Sciences, Stanford University School of Medicine, who studies the role of stem cells in tissue repair and regeneration.

Derek J. Smith – a research associate in the Department of Zoology, University of Cambridge and a research scientist in virology at Erasmus Medical Center, Rotterdam, The Netherlands, who uses
mathematics to study the influenza virus and other rapidly-evolving infectious agents.

Giulio Tononi – a professor in the Department of Psychiatry, University of Wisconsin-Madison Medical School, who studies the neural basis of consciousness and the function of sleep.

Clare M. Waterman – Storer – an associate professor in the Department of Cell Biology, The Scripps Research Institute, who studies how cells change shape and move.

Nathan D. Wolfe – an assistant professor in the Department of Epidemiology, The Johns Hopkins University Bloomberg School of Public Health, who studies the emergence of infectious diseases.

Junying Yuan – a professor of cell biology at Harvard Medical School, who will explore the possible existence of a novel cellular mechanism that detects and removes misfolded, neurotoxic proteins.

**Scientists Should be Able to Communicate their Science to the Public**

Responding to a question as to the most positive thing NIH could do with regard to training, Pioneer Award recipient, Erich Jarvis, associate professor in the Department of Neurobiology at Duke University, emphasized that it is important for scientists to be “willing to speak in a more public way” about their work. It is “important that people in government are aware of what is happening in our science...so that we don’t have questions from Congress in the future.” Cosmides added that is imperative that “every good scientist learn to communicate” with the public, especially with science writers who convey researchers’ work to the public.

**SENATE COMMITTEE DEBATES MARRIAGE DEVELOPMENT ACCOUNTS**

On October 6, Senator Sam Brownback (R-KS), chair of the Senate Appropriations Subcommittee on the District of Columbia, convened a hearing to examine the Marriage Development Accounts included in the FY 2006 DC Appropriations bill as well as discuss the decline in marriage and the increase in the out-of-wedlock birthrate in the District (See UPDATE, June 28, 2004).

The Senate FY 2006 appropriations bill for DC contains $3 million in funding for a social “experiment” that will match federal and private funds for low-income couples who work, save money, participate in marriage as well as financial counseling, and marry. The Committee has directed $1.5 million to the Capital Area Asset Building Corporation (CAAB) for establishing marriage development accounts (MDAs), of which $400,000 will be set aside for program planning, marketing, evaluation, and account administration. The other rest of the $3 million will fund mentoring, counseling, community outreach, as well as training and technical assistance for two marriage promotion programs in the area. The House-passed spending bill for DC includes no such program.

As envisioned by Brownback, marriage development accounts and pre-marriage development accounts for engaged couples would be available to couples earning less than $50,000 a year with a net worth of less than $10,000, excluding automobiles. For every dollar they save through the accounts, couples would be eligible for $3 in matching funds (up to $9,000) from federal and private sources. The money accrued in the MDA may only be used to: (1) buy a home; (2) pay for post-secondary education or vocational training; or (3) start or expand a small business. Engaged couples must marry prior to withdrawing funds from their MDAs, and if the couple does not marry, neither will be entitled to the federal contributions in the account.

Couples who participate in pre-marital and marital counseling will also receive a $300 bonus in their accounts. Unmarried youth will be required to receive life-skills training and to work with mentors to develop long-term education, job training, and asset-building goals.

**Concerns Remain About Government Overstepping Boundaries**

Because the MDA program is unique in that it is the first of its kind to tie marriage promotion activities to poverty reduction among low-income couples with children, Brownback’s proposal has been quite controversial. While all participants in the hearing supported his initiative, a few panelists aired concerns about limiting assistance to married families and possible shortcomings of the evaluation component of the program.

Rep. Eleanor Holmes Norton (D), the House of Representatives’ Delegate for DC, testified that while Brownback’s proposal is promising and provides a genuine incentive for low-income couples who are
engaged or married to save money, she is skeptical about the MDAs as they are currently proposed.

She told Brownback that she was concerned about the government acting outside of its traditional sphere of interest. For example: using federal funds for marriage, a traditionally-private institution; the necessity of some partners to end marriage, particularly when there is physical or emotional abuse; whether the program would be prudent use of scarce Congressional resources; and longstanding racial sensitivity about family matters stemming from societal racism and official government policies alike.

However, Norton said to Brownback, “Because I believe the proposal is promising and may prove replicable to the further benefit of the District and other jurisdictions, I strongly recommend a credible control study be provided in the legislation. I do not believe that this or other governmental efforts to encourage stable marriages will gain traction without such studies.”

Brownback told Holmes Norton he appreciated the specific concerns she raised about the proposal and assured her that he would clarify the evaluation portion in the committee report.

**Evaluation Component Critical**

Though Ron Haskins of the Brookings Institute and Colleen Daily, Executive Director of Capital Area Asset Building Corporation (CAAB), are enthusiastic proponents of the proposal, both cautioned Brownback during their testimonies that the evaluation component is critical to the success of MDAs and that the lack of funding or specificity for the study’s implementation cannot be ignored.

While the Brownback proposal seems to be a wise investment of public funds in confronting one of the nation’s leading social problems, Haskins believes it is essential that part of the money be used to conduct research on the effects of the program.

“What is needed now is evidence that programs actually can have impacts in reducing non-marital births, increasing marriage, and producing positive impacts on the development and well-being of children.”

Haskins recommended that the evaluation language set aside at least $100,000 to conduct research on the effects of the programs, using random assignment designs, if possible.

“There must be an evaluation based on real studies… Otherwise, I’m afraid it’s not going to be a good evaluation,” concluded Haskins.

Daily concurred with Haskins’ assessment by telling Brownback that the evaluation component is critical to the success of the program. CAAB, which would oversee the MDA, has already experienced great success in administering Independent Development Accounts (IDAs) for low-income individuals residing in the District and she attributes their success to the current evaluation system.

“IDAs have expanded across the country because it has such a strong evaluation system…Whether or not [MDAs] are successful, you need to be able to evaluate and change the program as it goes along,” she explained.

Ultimately, if proven successful, Brownback intends to replicate the MDA model on a national scale. It is likely that other Congressional members will follow suit by trying to incorporate additional “marriage development and improvement” initiatives into the upcoming Temporary Assistance to Needy Families (TANF) reauthorization. Presently, the MDA measure has been approved by the Appropriations Committee.

**NATIONAL CHILDREN’S STUDY SET TO BEGIN**

On September 29, after five years of planning, the U.S. Department of Health and Human Services, through the National Institutes of Health (NIH) and the Centers for Disease Control and Prevention (CDC), along with the U.S. Environmental Agency, formally announced that the agencies will begin the implementation of the National Children’s Study (NCS). The Study’s six so-called Vanguard Centers (Study Centers) were also announced including one Coordinating Center that will begin implementing the NCS.

NCS is the largest long-term study ever conducted in the United States of the environment’s effects on human health and development. It resulted from a directive by Congress in 2000 to undertake a national, long-term study of children’s health and their subsequent development in relation to environmental exposure. The National Institute of Child Health and Human Development (NICHD) was directed to lead the effort in conjunction with other federal agencies.

The Study “would meticulously measure” the environmental exposures of 100,000 children from before birth and, in some cases, even before pregnancy, “while
tracking their health and development, from infancy through childhood, until age 21, seeking the root causes of many childhood and diseases,” according to NICHD Director Duane Alexander.

The Coordinating Center – spearheaded by WESTAT with Harvard Medical School, University of Pennsylvania, and Saston Communications – will be responsible for information management, statistical sampling, data collection and analysis, as well as quality control. The six Vanguard Centers will recruit the study participants, collect and process data, and pilot new research methods for incorporation into the Study. The Centers are located in the following areas:

**Orange County, California** – University of California-Irvine with Children’s Hospital of Orange County.

**New York City (Queens), New York** – Mt. Sinai School of Medicine with Columbia University Mailman School of Public Health, New York City Department of Health and Mental Hygiene, University of Medicine and Dentistry of New Jersey, and Columbia University Department of Obstetrics and Gynecology.

**Duplin County, North Carolina** – University of North Carolina-Chapel Hill with Battelle Memorial Institute and Duke University.

**Montgomery County, Pennsylvania** – Children’s Hospital of Philadelphia and Drexel University School of Public Health with the University of Pennsylvania.

**Salt Lake County, Utah** – University of Utah.

**Waukesha County, Wisconsin** – University of Wisconsin-Madison and Medical College of Wisconsin with National Opinion Research Center, Marquette University, UW-Milwaukee Center for Urban Initiatives Research, UW Marine and Freshwater Biomedical Sciences Center/Institute for Environmental Health, and Children’s Service Center of Wisconsin.

The Centers were selected through a competitive process. They were chosen because they have: successfully demonstrated advanced clinical research and data collection capabilities, along with the ability to collect and manage biological and environmental specimens; shown that they have community networks for identifying, recruiting, and retaining eligible families; and a commitment to the protection and privacy of data.

Over the next year, the lead federal agencies and the Centers will work together to develop strategies for recruitment and data collection. The majority of women and families will join the Study through door-to-door, Census-type screening. Others will join through local physicians’ offices, health clinics, and hospitals. Study participants will come from more than 100 selected sites (79 metropolitan counties and 26 rural, non-metropolitan areas) as designated by the U.S. Census Bureau. A national probability method was used for site selection to ensure representation of the entire nation while preserving the local community dimensions of health and the environment. Criteria for site selection included demographics, number of births, and number of babies born with low birth weights (See UPDATE, December 13, 2004).

As funding allows, the teams will enroll at least 250 newborns each year for five years beginning in 2007. They will also begin collecting information from participants. According to the current timeline, initial results will be available around 2010. The lead federal agencies plan to award additional Study Centers to work in a total of 105 sites, pending future funding. The timing of the new competitive process for selecting these additional Study Centers is dependent upon future funding but could begin in 2006. While there is adequate money to begin the implementation phase of the NCS, the future of the study is in jeopardy if an additional $57 million is not approved by Congress.

Meanwhile, a Study assembly meeting of those interested in the NCS is planned for November. Assembly meetings are open to anyone from the scientific community and general public who are interested in learning more about the progress of the Study. The meeting will focus on scientific progress to date, introduction of the newly-awarded Vanguard Centers and Coordinating Center, “and the challenges and opportunities in this unprecedented study of the effects of the environment on child health and development.”

Additional information on the NCS, as well as the Study Plan along with a new map and list sites can be viewed at: http://nationalchildrensstudy.gov.

**MIDDLE EAST TRANSCRIPTS NOW AVAILABLE**

Transcripts from COSSA’s July 18 Congressional Briefing entitled, “Transforming the Middle East: The Future for Democracy and Economic Growth” are now available. Please contact our office to request copies by calling (202)842-3525, emailing cossa@cossa.org, or visiting our website at www.cossa.org.
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 may apply.

**Intervention and Practice Research for Combat Related Mental Disorders and Stress Reactions**

Posttraumatic Stress Disorder (PTSD) was first brought to the attention of the U.S. government by war veterans. Important factors for posttraumatic adjustment include individual and family history of mental health problems, the nature of the combat, changes in combat experiences, other stress and trauma, physical injuries, and the social and political context to which combatants return. The National Institute of Mental Health (NIMH), along with the Clinical Science Research and Development Services (CSR&D/VA) and the Military Operational Medicine Research Program (USAMRMC/DOS), are seeking research proposals (RFA-MH-06-0004) to enhance and accelerate research on the identification, prevention, and treatment of combat-related posttraumatic psychopathology and similar adjustment problems.

The RFA will target studies involving active-duty or recently-separated National Guard and Reserve troops involved in current and recent military operations (e.g., Iraq and Afghanistan). The sponsoring organizations encourage collaboration involving VA, DOD, and other clinicians and researchers that provide screening, assessment, and/or direct care (resilience building, early intervention/prevention, treatment, rehabilitation, maintenance) to groups and individuals who are at-risk, combat exposed, and/or diagnosed with posttraumatic psychopathology.

Given the current state of science and practice regarding the identification, treatment, prevention of PTSD and related posttraumatic psychopathology, the knowledge of current treatment needs, and anticipated increases in need for services, the sponsoring agencies are encouraging applications for research along a continuum of scientific and clinical needs, including, but not limited to:

- Unit/group-based resilience building interventions targeting socio-environmental risk and resilience factors to minimize adverse outcomes and speed recovery from predictable acute stress responses.
- Rigorous testing of early intervention to prevent chronic and severe cases of PTSD from developing.
- Research to definitively establish whether intervention is more appropriate immediately following combat exposure and if so, what type of intervention.
- Research to test whether or not interventions like those involving prolonged exposure are more appropriate after a certain time period has passed, and/or specific symptomatology has developed.
- Research to identify clear and consistent predictors to determine what types of patients or patients with what specific risk/resilience profiles will benefit (or not) from less and more intensive forms of therapy.
- Research to overcome stigma associated with identification and treatment of mental disorders.
- Research to coordinate administrative and health data for post-deployment screening, assessment and referral services spanning DOD, VA, ad community-based outpatient clinics – especially for returning Guard and Reserve troops with severe stress reactions.
- Collaborative DOD, VA, and community-mental health efforts to identify at-risk individuals early on and coordinate treatment options and benefits to minimize long-term consequences.