



COSSA

Washington UPDATE



May 2, 2011 Volume 30, Issue 8



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On to the FY 2012 Appropriations Process!

Having finally completed action on the FY 2011 appropriations, Congress returns on May 2 from a two week recess to turn its attention to the debt ceiling problem and the FY 2012 budget. The emphasis in both situations is finding more Federal spending to cut.

Before leaving, the House passed its version of the FY 2012 budget resolution. This resolution sets overall spending caps for the appropriations committee to divide up among its 12 Subcommittees, which make the original recommendations on agency and program funding. The budget put together by House Budget Committee Chairman Rep. Paul Ryan (R-WI) and adopted by the House calls for another \$30 billion in reduced spending from the FY 2011 numbers. The resolution caps non-war discretionary spending at \$1.019 trillion as compared to FY 2011's \$1.05 trillion. This spending cap is also \$7 billion below the level of spending in H.R. 1 that passed the House in February and made significant cuts to many programs (see [Update, February 22, 2011](#)). The House's assumption is that non-defense discretionary spending would fall from \$468 billion in FY 2011 to \$438 billion in FY 2012. The President's proposed FY 2012 budget released in February asks for \$456 billion in non-security discretionary programs.

The Senate Budget Committee has not taken any action on its version of the FY 2012 Budget Resolution. Panel chairman Sen. Kent Conrad (D-ND) is one of the so-called Gang of Six that is negotiating a bipartisan agreement to reduce the nation's debt that would presumably include spending cuts, revenue raisers, and entitlement reforms. The Senate leaders, Majority Leader Sen. Harry Reid (D-NV) and Minority Leader Sen. Mitch McConnell (R-KY), have announced their intention to take "test votes" on the overall spending numbers in the House-passed Ryan budget and President Obama's proposed FY 2012 budget. Both are not expected to pass.

With its version of the Budget Resolution completed, the House leadership has decided that rather than waiting for the Senate to pass its version, the House will move to markups in the 12 appropriations Subcommittees starting in mid-May. Using the technique of "deeming" the resolution enacted, the House can provide the spending panels their allocations and the Subcommittees can start the process of deciding funding for agencies and programs such as the National Science Foundation, the National Institutes of Health, and all the others.

Of course, this would only be one step in a process that many expect will end sometime in the fall with some grand deficit reduction agreement between the Administration and the Congress. Whether the late-night May 1 announcement of the death of Osama Bin Laden will have any impact on the President's leverage over the spending process is hard to tell.

NIH Releases FY 2011 Fiscal Policy

On April 25, the National Institutes of Health (NIH) released a notice to provide guidance about the NIH Fiscal Operations Plan for FY 2011 for implementing the provisions of the recently enacted Department of Defense and Full-Year Continuing Appropriations Act of 2011. This legislation provided the NIH with a FY 2011 budget of \$30.9 billion, approximately one percent less than the FY 2010 funding level of \$31.2 billion.

For non-competing research awards, all of the NIH Institutes and Centers, with the exception of the National Cancer Institute (NCI), will have their funding reduced to one percent below the FY 2010 award level. For NCI, modular and non-modular research grants will get reduced to three percent below the FY 2010 award level. For all of NIH, inflationary adjustments in FY 2012 and beyond will be set at two percent. This policy will not apply to projects supported by Career Awards, SBIR/STTRs, and Ruth L. Kirschstein-National Research Service Award (NRSA) Individual Fellowships and Institutional Training Grants. NIH has the option of revising awards that have already been made.

Legislation Would Remove Many Positions from Senate Confirmation: NIJ, BJS, NCES Leaders Included

Legislation that has emerged from the Senate Committee on Homeland Security and Government Affairs, chaired by Sen. Joseph Lieberman (I-CT), would stop almost 200 nominees for positions within federal agencies as well as advisory and policy committees from having to endure the Senate confirmation process.

As part of a bipartisan agreement among Senate leaders Sen. Harry Reid (D-NV) and Sen. Mitch McConnell (R-KY), the bill includes the commissioner of the National Center for Education Statistics, as well as all the heads of the components of the Office of Justice Programs, such as the directors of the National Institute of Justice (NIJ) and the Bureau of Justice Statistics (BJS), in the list of presidential appointments no longer requiring Senate confirmation.

Sponsored by Sen. Chuck Schumer (D-NY), the legislation is a reaction to the prolonged confirmation process that many nominees have had to endure as the Senate has become mired in partisan sniping and dysfunction. Some nominees have waited months and some over a year for the Senate to act.

Another group of people affected by the bill are the members of the National Science Board, which at the moment is operating with only 15 of its 24 members Senate-confirmed. Many of the other positions included in the legislation are Assistant Secretaries for Public and Legislative Affairs across the Federal departments.

Fixed Term for Census Director Attached to Legislation

As part of the Senate Committee markup, Sen. Tom Carper (D-DE) was able to attach one of the provisions of the Census Oversight Efficiency and Management Reform Act. The Act, which included a number of efforts to increase the independence of the Bureau, passed the Senate at the end of the 111th Congress, but because of White House objections failed to pass the House. The salvaged provision would provide the director of the Census with a five-year fixed term.

Science Subcommittee Examines Behavioral Science Uses for Airport Security

On April 6, the Subcommittee on Investigations and Oversight of the House Science, Space, and Technology Committee, met to examine the Transportation Security Administration's (TSA) efforts to incorporate behavioral science into its security architecture. Specifically, as Subcommittee Chair Rep. Paul Broun (R-GA) pointed out, the panel wanted to hear about the validity of the Screening of Passengers by Observational Techniques (SPOT) program. This program employs Behavioral Detection Officers (BDOs) at airport terminals to detect behavioral-based indicators of threats to aviation security. The Department of Homeland Security (DHS) has requested additional funds in its FY 2012 budget request to hire more BDOs and expand the number of airports at which they are stationed.

The witnesses at the hearing were: Stephen Lord of the Government Accountability Office (GAO); Larry Willis from the Science and Technology Directorate at DHS; Paul Ekman, Psychology Professor Emeritus at UC San Francisco; Maria Hartwig, Psychology Professor at the John Jay College of Criminal Justice; Peter DiDomenica of the Boston University Police Department; and Philip Rubin, Chief Executive Officer of Haskins Laboratories and Chairman of the National Academies' Board on Behavioral, Cognitive, and Sensory Sciences. Missing from the witness table, much to the chagrin of Broun, Ranking Democrat Rep. Donna Edwards (D-MD), and other members

of the Subcommittee, was any representative from the TSA.

Lord reviewed a GAO report that concluded there was a lack of scientific validation of SPOT for identifying suspicious passengers in an airport environment before its deployment nationwide. GAO cited a National Academies' report that suggested that "a scientific consensus does not exist on whether behavior detection principles can be reliably used for counterterrorism purposes." Willis testified that the DHS is currently awaiting a final report from the American Institutes for Research that compares the SPOT program with a random screening process. He reported some preliminary results that indicated using SPOT detection techniques works better than random screening for identifying high-risk travelers.

DiDomenica told the panel about his long career training people in a Behavioral Assessment Screening Program (BASS), a terrorist interdiction program based on behavior and statement analysis that is used in the U.S., Canada and the United Kingdom. He also helped develop the SPOT program. He strongly supported the use of these behavioral science techniques, but argued for better training police officers to assist the BDOs. "I know SPOT and BASS techniques do work in identifying potential terrorists and other dangerous people," he asserted.

Ekman and Hartwig disagreed on the usefulness of these behavioral techniques. Ekman noted his 40 years of research on facial expression, body movement, emotion, and deception. He claimed that this research "provided evidence very relevant to the scientific underpinning of the SPOT program." Hartwig challenged Ekman's research and noted that people are quite poor at detecting deception. She cited a meta-analysis that demonstrated people average 54 percent correct judgments in catching liars. She also suggested that liars don't display nonverbal and facial cues, therefore the BDOs would be left with little to observe to assess the credibility of travelers. She concluded that the "accumulated body of scientific work on behavioral cues to deception does not provide support for the premise of the SPOT program."

Rubin, who has also been the director of the National Science Foundation's Division of Behavioral and Cognitive Sciences, testified that there have been a long series of reports and research that link behavioral science and security. He tried to provide the panel with recommendations for moving forward. These included:

- Creation of reliable research base of studies examining many of the issues related to security and the detection of deception;
- Development of model systems, including simulations, to understand behavior at the level of deception;
- Incorporation of knowledge on the complexity, subtleties and idiosyncrasies of human behavior using research on judgment, decision making and risk assessment;
- Comprehension of the interplay and differences between affect, emotion, stress and other factors;
- Ensuring that we are not distracted or misled by the tools and toys that fascinate us since technological fixes that hold considerable promise can be seductive but also counterproductive;
- Giving serious attention to the ethical issues and regulations related to human subjects and to possible conflicts of interest;
- Developing understanding how urgency, organizational structure, and institutional barriers can shape programs and assessments; and
- Providing support for independent evaluation of new controversial projects and issues with appropriate scientific, technical, statistical, and methodological expertise.

In 2004, COSSA presented a congressional briefing on *Detecting Deception: Research to Secure the Homeland*. The transcript of that session was the most requested of any of the congressional briefings COSSA produced. An executive summary is available at:

<http://www.cossa.org/seminars/seminars.shtml>. The interest in the possibility of detecting terrorists through behavioral techniques has always been high. Yet, the debate about the usefulness of this research continues.

DOD and USDA Collaboration for Military Families

On Wednesday, April 27th, the United States Department of Agriculture (USDA) and the Department of Defense (DOD) officially launched the USDA/DOD Military Extension Partnership to support military service members and their families in their communities. DOD and USDA have been working together for decades to support military families, but this latest partnership, according to USDA Chief Scientist and Under Secretary for Research, Education and Economics Catherine Woteki, "will give the established civilian network of extension offices a greater ability to help our service members and their loved ones." This military-extension partnership is part of the "Joining Forces" initiative launched by First Lady Michelle Obama and Jill Biden. It leverages the resources of the Cooperative Extension Service, which is supported by USDA's National Institute of Food and Agriculture (NIFA.)

This partnership is aimed at accomplishing three primary objectives to address the emerging needs of military families:

- Increasing and strengthening community capacity in support of military families,
- Increasing professional and workforce development opportunities for those working with military families, and
- Expanding and strengthening family, childcare and youth development programs.

Some programs include:

- The Clearinghouse for Military Family Readiness, a web-based, one-stop shop for service providers working with military families. In addition to a comprehensive library of program curricula and activities, the clearinghouse also provides an effectiveness index so providers can make better decisions about what will work in their community.
- Project Y.E.S, a youth extension service aimed at recruiting college students who are proven youth leaders who can act as role models and mentors for other young people. Their mission is to engage and train other student groups to augment volunteer efforts on behalf of military families in local communities.
- The 4-H Military Internship Program, which places college student interns in child development, school age or youth programs within the Armed Services.

More information is available at: www.nifa.usda.gov.

NIGMS Releases Strategic Plan for Biomedical/Behavioral Research Training



On April 28, the National Institute for General Medical Sciences (NIGMS) director Jeremy Berg released the final version of the Institute's plan for research training, *Investing in the Future: National Institute of General Medical Sciences Strategic Plan for Biomedical and Behavioral Research Training*. Berg, who is stepping down in June, notes in the preface, that "Science and the conduct of research continue to evolve, though, as do workforce needs." As director, he wanted "to be sure" that the Institute's activities related to training scientists were "aligned with the [NIGMS's] commitment to build an excellent, diverse research workforce to help achieve the NIH mission..." According to the Strategic Plan, in looking forward, "Research institutions, government agencies and professional organizations share the responsibility for assuring that the nation's pool of trainees can meet the needs presented by modern society."

The Plan answers the question: "What is Success?"

- For society, success is having a strong and diverse cadre of creative thinkers and innovative problem solvers.
- For a research institution, success is advancing knowledge through teaching and the conduct of research.
- For an individual, success is acquiring the skills and knowledge to obtain and enjoy a successful and rewarding scientific career.

For NIGMS, success means that a "well-trained scientist: is conversant in a common set of biological/biomedical principles; can identify an important problem and knows how to address it; has a range of career options and the ability to choose among them; and is competitive in his or her chosen field, interest areas, specialty or discipline."

The Plan has four themes:

- 1) Research training is a responsibility shared by NIH, academic institutions, faculty and trainees. The Plan highlights the "need for cooperation, collaboration and clear communication among all parties involved in research training within the biomedical and behavioral sciences.
- 2) Research training focuses on student development, not simply selection of talent. The Strategic Plan notes that the current research environment does not "always put the needs of the trainees first" and cited a "broadly articulated dissatisfaction with the attention trainees received." The Institute "asserts that training is intentional, and not incidental, endeavor. . ."
- 3) Breadth and flexibility enable research training to keep pace with the opportunities and demands of contemporary science and provide the foundation for a variety of scientific career paths. The need to change the perception of what constitutes a successful training outcome was a clear and overarching theme that emerged during the 15 month process. "The idea that success is limited to academic research careers is modified and broadened to include those careers in industry, government, education, communications, law and other

sectors require that require sophisticated research skills." To accomplish this goal, the Strategic Plan specifically calls for: "Increase[d] collaborations with societies, professional associations and other organizations to build awareness of the breadth of scientific career options and opportunities."

4) Diversity is an indispensable component of research training excellence, and it must be advanced across the entire research enterprise. The Plan acknowledges social science research that has "demonstrated that students trained in racially, ethnically and otherwise diverse academic settings in higher education acquire important skills and perspectives that enable them to identify and solve problems of societal importance." It further recognizes that "diversity across the board still falls far short of mirroring that of the U.S. population, and thus the need for change is urgent. Equally if not more troubling is the fact that faculty minority representation is especially low, providing a scant number of role models for youth considering research careers." The actions associated with this theme, it is noted in the Plan, "underscore the need for the government and institutions to actively pursue, and monitor the impact of, a range of approaches to enhance diversity in biomedical and behavioral research."

In the NIGMS Feedback Loop, Berg notes that the Institute has "already started implementing the plan's action items." He recognizes that some of the items will require collaboration and the Institute will "again be reaching out to [its] stakeholders."

A copy of the Plan can be downloaded from the Institute's website:

<http://publications.nigms.nih.gov/trainingstrategicplan/>

NIH Establishes Working Group on the Future Biomedical Research Workforce

On April 27, National Institutes of Health director Francis Collins announced the members of his Advisory Council to Director (ACD) Working Group charged with taking a comprehensive look at the makeup of the biomedical and behavioral research workforce in order to make recommendations to the ACD. Shirley Tilghman, President of Princeton University, and Sally Rockey, NIH deputy director for extramural research, will co-chair the working group.

The working group has been asked to consider questions such as:

- What is the right size of the workforce?
- What are the appropriate types of positions that should be supported to allow people to have successful careers and to continue to advance biomedical and behavioral sciences?
- What is the best way to support these various positions?
- What types of training should be provided?

The Working Group expects to gather input from the extramural community, including students, postdoctoral fellows, investigators, scientific societies, and grantee institutions. In December the ACD approved a charge for the working group that included requiring it to develop a model for a sustainable and diverse U.S. biomedical research workforce using appropriate expertise from NIH and external sources. The charge further included: "Developing the model will include an analysis

of the current composition and size of the workforce to understand the consequences of current funding policies on the research framework. The model should include an assessment of present and future needs in the academic research arena, but also current and future needs in industry, science policy, education, communication, and other pathways. The model will also require assessment of current and future availability of trainees from the domestic and international communities."

The model can help inform decisions about how to train the optimal number of people for the appropriate types of positions that will advance science and promote health.

Collins announced formation of the working group at the December 9, 2010, ACD meeting (see *Update*, [December 13, 2010](#)), citing the many issues related to the biomedical workforce particularly in the face of the budget situation. At that meeting, he pointed out that many people are trained on research grants, along with the fact that it is taking increasingly longer for individuals to receive their first investigator-initiated award. The average age is now 42.

Members of the working group include:

Sandra Degen - University of Cincinnati
Laura Forese - New York Presbyterian Hospital/Weill Cornell Medical Center, New York City
Freeman Hrabowski - University of Maryland, Baltimore County
James Jackson - Institute for Social Research, University of Michigan, Ann Arbor
Leemor Joshua - Watson School of Biological Sciences, Cold Spring Harbor, N.Y. and Howard Hughes Medical Institute investigator, Cold Spring Harbor Laboratory
Richard Lifton - Howard Hughes Medical Institute investigator, Yale School of Medicine
Garry Neil - Corporate Office of Science and Technology, Johnson & Johnson, New Brunswick, N.J.
Naomi Rosenberg - Sackler School of Graduate Biomedical Sciences, Tufts University School of Medicine, Boston
Bruce A. Weinberg - John Glenn School of Public Affairs, Ohio State University, Columbus
Keith Yamamoto - School of Medicine, University of California, San Francisco

Roger Beachy Leaves NIFA

Roger Beachy has announced his resignation from his position as Director of the United States Department of Agriculture's National Institute of Food and Agriculture (NIFA) effective May 20, 2011. He will return to St. Louis to spend more time with his family.

Beachy led the reorganization that transformed USDA's Cooperative State Research, Education, and Extension Service (CSREES) into NIFA in 2010. Through a commitment to high standards and to promoting research and education, he helped lead the way for cutting edge research to be done throughout the Land-Grant university system and other partner organizations.

USDA will shortly begin a search to replace Beachy. In the meantime, Chavonda Jacobs-Young, Director in the Office of the Chief Scientist, has been appointed NIFA's Acting Director.

NIFA, in Keeping with the Administration's Priorities, Announces Grants to Fight Childhood Obesity

On Monday, April 25th, the United States Department of Agriculture (USDA) announced new support of research to confront childhood obesity. Motivated by the growing obesity epidemic, USDA's National Institute of Food and Agriculture (NIFA) announced research, education and extension grants, funded through USDA's Agriculture and Food Research Initiative (AFRI), for 24 institutions

aimed at reducing the prevalence of childhood obesity across the nation. The next day, April 26, at the Food Summit hosted by *The Atlantic* magazine, Kathleen Merrigan, Deputy Secretary of the USDA, noted that these new funds are a critical part of USDA's and the Administration's battle against obesity.

The long-term goal of USDA-sponsored obesity research is to reduce the prevalence of overweight and obese children and adolescents. This year's funding is focused on supporting research programs aimed at obesity in children ages two through eight. Projects were funded in Arkansas, California, Illinois, Iowa, Kansas, Maryland, Michigan, Nebraska, North Carolina, New Jersey, New York, Oregon, Pennsylvania, South Dakota, Tennessee, Texas and West Virginia.

Highlights include:

- Three projects in California that will develop obesity prevention strategies for minority and under-served children.
- A project at Pennsylvania State University that will develop a graduate-level training course to train students in obesity prevention methods.
- A project at West Virginia University that partners scientists with public schools to develop site-specific intervention strategies that can be used by parents, teachers and community members.

A full list of awardees can be found online at:

www.nifa.usda.gov/newsroom/news/2011news/obesity_awards.html.

The obesity epidemic that fuels these awards is a matter of hot debate at the moment as behavioral, genetic, and environmental factors are examined as culprits. One panel of experts at the *Atlantic* summit focused its attention on consumer choice, nutrition, policy and all of their impacts on obesity. Scott Kahan, Co-Director of the George Washington University Weight Management Center, asserted that to address the major obesity issues in this country we must first address the "toxic environment" that nurtures the problem—an environment where the least healthy foods are the cheapest, best advertised, engineered to be the tastiest, and carry the highest calorie contents.

Many on the panel agreed that improving the environment was important, but the question of to what extent people are mere victims of their environments and to what extent they are making their own food and drink decisions arose. Jennifer Grossman, Senior Vice President of the Dole Nutrition Institute, pointed out that the current atmosphere is "making it easier for people to make the wrong choices" and noted that sugar, found in most packaged foods, can be addictive. However, Susan Neely, President and Chief Executive Officer of the American Beverage Association, noted that moving calorie information to the front of the package will provide consumers with a better opportunity to make informed choices for themselves, regardless of prices and advertising. The ability of proposed high taxes on soda to influence consumer beverage choice was also called into question. Neely noted that one study found it would take a 40 percent tax on sodas to actually deter consumers from buying them. The panel hotly debated if the same could be said for young consumers who are not only more vulnerable to advertising, but have more limited spending money.

White House Assistant Chef Sam Kass also spoke at the summit. He detailed many of the programs that First Lady Michelle Obama had developed to fight obesity in children, including her [Let's Move! Initiative](#). Improving child nutrition is also the focal point of the Healthy, Hunger-Free Kids Act signed by President Obama in December 2010. This legislation reauthorizes USDA'S child nutrition programs, including the [Summer Food Service Program](#) and the [National School Lunch Program](#), which serves nearly 32 million children each day. It will allow USDA, for the first time in over 30 years, the chance to make reforms to the school lunch and breakfast programs by improving the critical nutrition and hunger safety net for millions of children. Investigating science-based interventions and studying obesity in children can also strengthen these programs. Chef Kass noted that the USDA is currently writing the rules created from this law and that the Department has so far received over 130,000 public comments.

USDA Seeks Nominations for Vacancies on the NAREE Advisory Board

The United States Department of Agriculture (USDA) has announced solicitation for nominations to fill eight vacancies on the [National Agricultural Research, Extension, Education and Economics Advisory Board \(NAREE\)](#). The seat reserved for a representative of a National Social Science Association is among these eight slots. Since the Advisory Board's inception in 1996, each member has represented a specific category related to farming or ranching, food production and processing, forestry research, crop and animal science, land-grant institutions, non-land grant college or agricultural sciences, food retailing and marketing, rural economic development, and natural resource and consumer interest groups, among many others. The terms for these eight members who represent specific categories will expire September 30, 2011. Nominations for a three-year appointment for these eight vacant categories are sought. USDA will carefully review all nominees for their expertise, leadership, and relevance to a category.

The slots to be filled are:

Category B: Farm Cooperatives

Category D: Plant Commodity Producer

Category E: National Aquaculture Association

Category H: National Food Science Organization

Category J: National Nutritional Science Society

Category K: 1862 Land-Grant Colleges and Universities

Category M: 1994 Equity in Education Land-Grant Institutions

Category Y: National Social Science Association

USDA will accept nominations until July 12, 2011. To submit a nomination, the nominee's name, resume, and completed [Form AD-755](#) must be sent to the USDA National Agricultural Research, Extension, Education and Economics Advisory Board Office, 1400 Independence Avenue, SW., Room 3901, South Building, Washington, DC 20250-2255. Specific membership categories must be specified in nomination letters.

For further information contact: J. Robert Burk, 202-720-3684 or Robert.Burk@ars.usda.gov.

Genes, Cognition and Behavior Report Released

In June 2010 the National Science Foundation (NSF)'s Political Science program brought together nine scientists from multiple disciplines to participate in a workshop on Genes, Cognition, and Behavior. Its purpose was to discuss how NSF, through its funding mechanisms, can foster scientific efforts that examine the interactions of these three phenomena (for a description of the meeting, see [Update July 12, 2010](#)). A report prepared by Arthur Lupia of the University of Michigan, who led the workshop, is now available.

The report notes that evolving research makes "it increasingly apparent that a greater understanding of social behavior can come from dynamic new inquiries that integrate leading-edge social science with practices and content from research on genes and brain cells. There is a growing belief that our ability to address many critical social challenges can be transformed by greater knowledge of social behavior's biological foundations."

However, the report acknowledges, because of insufficient knowledge of each other's disciplines "the existing knowledge base of how to conduct biologically-informed social behavioral research is minimal." Another difficulty is there are relatively few datasets where data on social behavior and genes and cognition are collected simultaneously.

The report includes the white papers produced for the workshop to provide "rigorous and broad

expertise about the current state and near-future of research agendas associated with genes, brains, and social behavior."

At the same time, the report concludes that "there exist exciting opportunities to support transformative biologically-informed social science research." Yet it hastens to add that: "There are multiple inferential, intellectual, and cultural challenges inherent in such pursuits." One of these "is an appetite amongst some in the media and the public for dramatic claims about genetic determinants of particular behaviors."

In order to overcome the many challenges, workshop participants argued for "creating clusters of researchers who have knowledge of both biological and social scientific research" and supported educational programs that would expand the number of social scientists who have expertise in relevant biological areas.

Enhanced data development could occur by "exploring the social behavior of participants in existing health studies," rather than "genotyping respondents in extant social science databases or creating entirely new datasets."

Finally, the report recommends increased collaborations and funding for the research and education programs noted above.

The report is available at: http://www.isr.umich.edu/cps/workshop/NSF_Report_Final.pdf.

Institute on Medicine Releases Research on Families Report

The Board on Children, Youth and Families of the Institute of Medicine recently released a report, *Toward an Integrated Science of Research on Families*, based on a workshop held in July 2010. Produced by the Board's Committee on the Science of Research on Families, chaired by Hirokazu Yoshikawa, Professor at the Harvard Graduate School of Education, the report focuses on how to improve research and data collection on families.

The report acknowledges that "the American family is a complicated institution, and it is rapidly becoming more so." This has occurred because demographic changes, immigration, economic upheavals, and changing societal mores have created new and altered structures, processes, and relationships in families. "As a result," the panel notes, "the lives of infants, children, and adolescents differ in fundamental ways from those of past generations."

Therefore, the panel suggests, "family science is at the brink of a new and exciting integration across methods, disciplines, and epistemological perspectives," and "the methods used to study families are becoming more wide-ranging." Moving beyond demographic data and qualitative studies, researchers are now increasingly integrating assessments of physiological, biological, and epigenetic processes. However, "these multidisciplinary and multi-method studies require greater emphasis on teambuilding and long-term approaches."

In summarizing the workshop, the report: 1) Discusses recent research studies that offer significant contributions to understanding the social determinants of child health and developmental outcomes and health disparities; 2) Illustrates quantitative and qualitative methods and approaches associated with research on the diverse structure and dynamic qualities of family environments; 3) Assesses the relative contributions of selected study approaches and methodologies, including studies of marriage and family structure; life-course research studies; studies of human development; methodological research involving experimental, quasi-experimental, longitudinal, observational, survey, and time-use studies; and studies of selected cultural, ethnic, or immigrant populations; and 4) Proposes opportunities for collaboration among federal agencies to improve the quality of research and training in this field and the application of this knowledge base to understanding interactions among family environments and children's health outcomes.

IOM Report - Child and Adolescent Health and Health Care Quality: Measuring What Matters

According to the recently released Congressional-mandated Institute of Medicine (IOM) report, *Child and Adolescent Health and Health Care Quality: Measuring What Matters*, "Currently, there is no single data source that can provide valid and reliable indicators about the health and health care quality of children and adolescents." The IOM report states that "a lack of standardization in key areas - such as race and ethnicity, socioeconomic status, primary language spoken at home, and parental English proficiency - limits the ability of those who use data to identify, monitor, and address persistent health and health care quality disparities among children and adolescents."

Congress directed the IOM and the National Research Council (NRC) to conduct the study on the "efforts to measure child and adolescent health, and the quality their health care services" in the *Children's Health Insurance Program Reauthorization Act of 2009*. IOM and NRC formed the Committee on Pediatric Health and Health Care Quality Measures, chaired by Gordon H. DeFries, University of North Carolina at Chapel Hill. According to the Committee, it reviewed hundreds of population surveys (census records and health surveys) and administrative data sets (based on payment and health records).

Gaps in Measurement

The report points out that the gaps in measurement areas focus "on the social and behavioral determinants of health and health care quality." Contextual factors, including physical and social environment (safe neighborhoods or crowded housing), personal health behaviors, and social relationships (parent-child attachment), the report notes, influence health status of children and adolescents and their use of health care services. Information about these factors, however, is often lacking in existing data sets. Other gaps cited in the report include:

- **Quality measures for preventive services** are important because most individuals in this age group are generally healthy and because early interventions may prevent the onset of serious health disorders as the child or adolescent reaches adulthood.
- **Standardized measures of child health** are important for all child health problems, but especially for preventable, ongoing or serious health conditions.
- **Identifying core data elements.** Variations persist in data elements pertaining to race, ethnicity, income, wealth and education.
- **Family-focused measures are a new frontier for research in development of measures.** The health of other family members may directly affect the health of children and adolescents, including access to and use of health care services.
- **Social determinants of health.** These data are needed to determine those elements that offer timely potential for prediction of disparities.
- **Health literacy measures** deserve greater recognition in the identification of future research priorities and the testing of new measures in national surveys.
- **Measures that focus on the needs of the "whole child."** These include biological influences and measures of behaviors and levels of functioning. They can address the distinct needs of children and adolescents, including their unique epidemiology, their dependent status, and their developmental stages.
- **Measures of care transitions** are especially important for children with special health care needs.
- **Place-based measurements** are a new area of focus targeting selected geographic regions and population groups at the state, county and even neighborhood levels.

Methodological Areas Deserving Attention

The Committee also recognized methodological areas that deserve attention and endorsed the use of innovative measurement practices that can adapt to changing conditions, changing populations, and opportunities for health improvement. These included:

- The lack of ability to use many data sources to access the status of specific groups of children and youth, particularly vulnerable populations, who are at risk of poor health outcomes because of their health conditions and social environments.
- The need for greater transparency to expose the strengths and limitations of surveys in tracking the status of key child and adolescent populations of interest; in identifying appropriate reference groups over time; and in implementing innovative measurement practices.
- The ability to connect data from clinical records of children and adolescents enrolled in public health plans to population health surveys and administrative data sets, may affect children's health status and their access to and use and quality of health care services.
- The possibility/potential of longitudinal data with multiple observations for the same children/families over time would enrich the quality of measures used in population health surveys and health care quality studies.
- The potential of electronic data capture and linkage to greatly enhance future measurement activity. Special attention will be needed to ensure that advances in electronic data capture adhere to existing privacy and confidentiality guidelines and laws.
- The inability of electronic health records to capture conceptual or metric precision.

Recommendations: A Stepwise Approach

The Committee recommended a stepwise approach designed to stimulate and support collaborative efforts among federal and state agencies and key stakeholder groups in five areas:

- 1) **Set shared health and health care quality goals for children and adolescents in the U.S.** Priority areas for the goals go beyond the traditional focus on such indicators as morbidity, mortality, and chronic and acute conditions. Seven priority areas were identified: childhood morbidity and mortality; chronic disease conditions; preventable common health conditions (especially mental and behavioral health and oral health); functional status; end-of-life conditions; health disparities; and social determinants of health. The Committee recommended that the Secretary of Health and Human Services (HHS) convene an interagency group to establish national health and health care quality goals within a life-course framework.
- 2) **Develop annual reports and standardized measures for existing data sets of health and health care quality that can be collected and used to assess progress toward these goals.** The Committee recommended that the Secretary of HHS include specific measures of the health and health care quality of children and adolescents in annual reports to Congress. It also recommended that these measures include standardize definitions of race/ethnicity, socioeconomic status, and special health needs.
- 3) **Create new measures and data sources in priority areas.** The Secretary of HHS should develop a strategy for continuous improvement of the system for collecting, analyzing, and reporting health and health care quality measures for children and adolescents, including a periodic review of those measures that are used, recommended, or required by the federal government.

The Secretary of HHS should develop new measures of health and health care quality focused on preventive services with a lifecourse perspective. The Secretary should also

support interagency collaboration within HHS to develop measures, data sources, and reporting focused on relationships between the social determinants of health and the health care quality of children and adolescents. The Secretary should also encourage interagency collaboration within HHS to introduce a lifecourse perspective that strengthens the capacity of existing data sources to measure health conditions, levels of functioning, and health influences. In addition, the Secretary should place priority on interaction between HHS agencies and other federal agencies to strengthen the capacity to link data sources in areas related to behavioral health and the social determinants of health and health care quality.

4) **Improve methods for data collection, reporting and analysis.** The Committee recommended that the Secretary of HHS should identify significant opportunities to link data across health care, education, and human service settings, with the goal of improving timeliness and fostering greater transparency as to the multiple factors that affect the health of children and adolescents and the quality of the services aimed at addressing those factors. Finally, the Secretary should promote policy, research, and convening efforts that can facilitate linkages among digital data sets while also resolving legal and ethical concerns about privacy and data sharing.

5) **Improve public and private capacities to use and report data.** The Secretary of HHS should establish a timetable for all states to report on a core set of standardized measures that can be used in the health information technology structure to assess health and health care quality for children and adolescents. Congress and HHS should formulate alternative strategies that would enable states to develop the necessary data sources and analyses to meet such a requirement.

Download a copy of the report [here](#).

Report and Briefing Implore State Action on STEM Education

Change the Equation, an advocacy group comprised of over 110 current and former CEOs dedicated to increasing science, technology, engineering and math (STEM) literacy, has released their new state-specific reports, "Vital Signs", which assesses the condition of STEM learning in all 50 States and the District of Columbia. Change the Equation released their findings at their first policy briefing, "Raising STEM Expectations to Prepare Students to Succeed" on April 22.

The importance of STEM literacy for students and the U.S. economy is gaining attention as jobs in the highest growth sectors increasingly require STEM knowledge. Carl Wieman, associate director for science at the Office of Science and Technology Policy, argued that states need to set realistic STEM expectations that will meet the growing demands of our economy.

Despite the recent push for increasing student proficiency in STEM with state-level math assessments, Linda Rosen, CEO of Change the Equation, believes "state assessments alone are not a good indicator of how well students are doing in STEM subjects." While states report that the majority of their students are meeting their academic standards, on average reported proficiency rates on the state tests are about 37 percentage points higher than the state's actual scores on the National Assessment of Educational Progress (NAEP) tests. NAEP results show only 38 percent of 4th graders and 33 percent of 8th graders achieve proficient or advanced status in math. There are several other troubling STEM trends: few students, about 10 percent nationwide, take Advanced Placement math tests; about 35-40 percent of students arrive unprepared for college level work causing institutions of higher education to offer remedial classes.

In frank language to show just how frustrated corporations are getting with this crisis Craig Barrett, Chairman of Change the Equation and retired CEO/Chairman of the Board at Intel Corporation, said governors need to get serious about improving STEM education. "I'm absolutely tired of serving on blue ribbon panels to look at this problem and write up reports, because it doesn't do any damn good

to write a report," Barrett declared.

The news in the Change the Equation report is not all grim. NAEP scale scores, which give states a way to track trends in student performance, have risen in math over the past 15 years. Scores in 4th grade math rose 16 points between 1996 and 2009, and among Black and Hispanic students gains were even larger with increases of 23 and 22 points, respectively over the same period. However, despite these significant gains the achievement gap between white students and Black and Hispanic students remains high.

Michael Casserly, executive director of the Council of the Great City Schools, commented that our nation's low expectations are catching up with us and reducing our competitive ability as a nation. He stated we need the commitment of the President and the private sector if we are to recapture the nation's preeminence in math and science.

High expectations are necessary but not enough to raise student proficiency. Policymakers need to ensure that policies target the diverse learning needs of all students without creating standards that fail to live up to the needs of students and the economy.

The report is available at: <http://www.changetheequation.org/why/stem-education-in-your-state>.

NSF Seeks Proposals to Transform STEM Undergraduate Education

The National Science Foundation (NSF) has issued a solicitation under its Transforming Undergraduate Education in Science, Technology, Engineering, and Mathematics (STEM) program. It seeks proposals that will "improve the quality" of programs in this area. The solicitation especially encourages projects that will bring about widespread adoption of classroom practices that embody understanding of how students learn most effectively.

According to NSF, the program will support efforts to create, adapt, and disseminate new learning materials and teaching strategies to reflect advances both in STEM disciplines and in what is known about teaching and learning. It will fund projects that develop faculty expertise, implement educational innovations, assess learning and evaluate innovations, prepare K-12 teachers, or conduct research on STEM teaching and learning. It also will support projects that further the work of the program itself, for example, synthesis and dissemination of findings across the program. Finally, the program will fund projects representing different stages of development, ranging from small, exploratory investigations to large, comprehensive projects.

There are four types of projects. Type 1 Projects will have total budgets that may not exceed \$200,000 (\$250,000 when four-year colleges and universities collaborate with two-year colleges) for 2 to 3 years. Examples of Type 1 projects could include:

- A project that develops materials that use a new instructional approach based on the current understanding of how students learn, or introduces content from current research into an existing course.
- A project that integrates new instrumentation or equipment into undergraduate laboratories or field work in a way that demonstrably improves student learning.
- A collaborative project between faculty from two-year and four-year schools that develops a model to provide the needed courses for a seamless transfer in an efficient way.
- A pilot project that explores the practical aspects of using remote laboratories or instruction among several institutions.
- A pilot project that integrates current science and pedagogy into the teacher preparation curriculum.
- A pilot study to explore Internet-based approaches for faculty professional development.
- A project that develops an instrument to assess students' knowledge in a particular area,

their abilities with certain processes, or their attitude about some aspect of STEM.

- A pilot study to begin understanding how various factors affect how students learn particular content or skills.

Type 2 projects will have total budgets that may not exceed \$600,000 for 2 to 4 years.

Example of Type 2 projects might include:

- A project that develops material for a sequence of courses that vertically integrates a conceptual or pedagogical approach at several institutions.
- A project involving several diverse partnerships between community colleges and four-year schools to develop robust models for providing community college courses needed for a true two-plus-two transfer program.
- A project that uses faculty professional development as a part of a widespread beta-testing effort with faculty in several diverse institutions in order to disseminate proven, innovative instructional material or approaches.
- A project that converts an effective, in-person faculty professional development approach to an Internet-based or blended approach in order to improve accessibility and sustainability.
- A project involving several diverse institutions that uses an existing instrument to assess students' knowledge in a particular area or their abilities with certain processes.
- A study involving several diverse institutions to identify what factors and characteristics effect how faculty members and departments adopt innovative approaches.

Type 3 Projects will have negotiable budgets that may not exceed \$5 million over 5 years.

Examples of Type 3 projects might include:

- A project that involves a regional or national effort to disseminate proven materials or pedagogies.
- A project that develops a self-sustaining model for faculty professional development that introduces new faculty to a field or provides retraining for experienced faculty.
- A national or regional level project involving a wide range of diverse institutions that uses an existing assessment instrument to develop a database on students' knowledge in a particular area or their abilities with certain processes.
- A study involving a broad range of diverse institutions that explores how various factors affect how students learn particular content or skills.
- A study involving a broad range of diverse institutions that systematically compares the efficacy and efficiency of several instructional methodologies such as hands-on, remote, and virtual laboratories.

NSF will also award Central Resource projects where budget are negotiable, depending on the scope and scale of the activity the total budget may not exceed \$3 million. These Central Resource projects assume responsibility for leadership and implementation of activities that sustain the STEM undergraduate education community as it works to transform undergraduate STEM education. Central Resource projects will work to increase the capabilities of and communications within the STEM education community and to increase and document the impact of these projects.

The dues dates are complicated. For Type 1 proposals from submitting organizations located in states or territories beginning with A through M, May 26, 2011. For Type 1 proposals from submitting organizations located in states or territories beginning with N through W, May 27, 2011. For Type 2 and 3 proposals and for Central Resource Projects, January 13, 2012. Small workshop proposals may be submitted at any time after consultation with a program officer. NSF expects to spend almost \$36 million on these awards.

For further information contact: Myles Boylan (703) 292-4617, or mboylan@nsf.gov.

The solicitation is available at: <http://www.nsf.gov/pubs/2010/nsf10544/nsf10544.htm>.

Wendy Baldwin New PRB President



The Population Reference Bureau (PRB), a member of COSSA, has announced that Wendy Baldwin will become its next President. She succeeds William Butz, who left in February 2011 to join the International Institute for Applied Systems Analysis (IIASA) in Vienna, Austria, as a senior research scholar, and the Wittgenstein Centre for Population and Global Human Capital, as director of coordination and outreach. James Scott, PRB's chief financial and operating officer, has been Acting President.

Baldwin comes to PRB from the Population Council in New York, where she has been Vice President for the Poverty, Gender, and Youth Program. Prior to her work at the Population Council, she was Vice President for Research at the University of Kentucky.

Before going to Kentucky, Baldwin had a 30-year career at the National Institutes for Health (NIH). For eight years she served as NIH's Deputy Director for Extramural Research in the Office of the Director. Previously, she was Deputy Director, Chief of the Demographic and Behavioral Sciences Branch, and Health Scientist at the National Institute of Child Health and Human Development (NICHD), where she led the development of programs on adolescent childbearing and sexual behavior and AIDS risk behaviors.

She worked closely with COSSA on many issues including the controversies in the late 1980s over surveys of both adult and adolescent sexual behavior that were cancelled by the federal government. The adolescent survey resurfaced, thanks to former Rep. Pat Schroeder (D-CO), as the National Longitudinal Survey of Adolescent Health (ADDHealth) that has contributed hugely to our knowledge of teen behavior and social networks.

She has published dozens of research articles in journals and edited volumes on topics related to adolescent sexual health, adolescent contraceptive use, and women and HIV/AIDS. She has also testified before Congress on numerous occasions. Baldwin has served as Vice President of the Population Association of America and the Council of the American Sociological Association as well as the Board of Directors of the Association for the Accreditation of Human Research Protection Programs (AAHRPP). She has also been a member of the PRB Board of Directors. In addition, she has served on numerous panels for the National Academy of Sciences, the Institute of Medicine, and the World Health Organization.

Baldwin has a B.A. from Stetson University and M.A. and Ph.D. degrees in sociology and demography from the University of Kentucky.

Society for Anthropological Sciences Joins COSSA

COSSA is pleased to announce that the Society for Anthropological Sciences (SAS) has joined the Consortium. The SAS was organized to promote empirical research and social science in anthropology and to further the development of anthropological science as empirical knowledge based on testable theory, sound research design, and systematic methods for the collection and analysis of data. COSSA welcomes the SAS and looks forward to working together on matters of mutual interest.

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The Consortium of Social Science Associations (COSSA) is an advocacy organization promoting attention to and federal support for the social and behavioral sciences.

UPDATE is published 22 times per year. ISSN 0749-4394.

