The importance of social and behavioral science research to the nation’s economic and national security is enormous. Most of the problems we face benefit from research in these sciences. In addition, basic research in these sciences contributes to American innovation. One example: In the mid-1980s, NSF made a commitment to fund the National Center for Geographic Information and Analysis (NCGIA) at three universities. The research supported there evolved into the multi-billion Geographic Information Systems (GIS) industry. These systems are now applied by states, counties, and localities for many purposes from planning to disaster response, evidenced in New York City during the September 11, 2001 attacks. GIS also became the backbone of crime mapping activities such as CompuStat that have played an important role in the crime reduction America has experienced in the past two decades. These GIS are also used by the private sector to improve delivery systems and store location planning. What basic research supported by FY 2012 budget funds will become the next GIS?

Aside from the agencies reported below, behavioral and social research also receives support from the Cabinet Department agencies where the Obama Administration, in many instances, proposes increases in FY 2012 for research and evaluation.
Highlights of the FY 2012 proposal are:

– The Social, Behavioral, and Economic Sciences (SBE) directorate at the NSF receives a significant increase and is an integral part of the key NSF initiatives such as Science, Engineering, and Education for Sustainability (SEES), Cyberinfrastructure Framework for 21st Century Science and Engineering (CIF21), and Cybersecurity.

– At the NIH, the FY 2012 budget would continue support of Common Fund Programs to assist in reforming the health care system. A Health Economics initiative would examine the effects of changing incentives for consumers, providers and insurers; scientific questions underlying supply-side changes in organization of health care, and the economics of prevention.

– At the Department of Education, proposed boosts would increase studies, evaluations, and measurements on Administration’s education reform efforts.

Table 1. Social and Behavioral Sciences in the Federal R&D Budget (budget authority in millions of dollars)

<table>
<thead>
<tr>
<th></th>
<th>FY 2010 Actual</th>
<th>FY 2012 Budget</th>
<th>Change FY 10-12</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>National Science Foundation</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social and Behavioral Sci</td>
<td>255</td>
<td>301</td>
<td>46</td>
</tr>
<tr>
<td>Edu and Human Resources</td>
<td>873</td>
<td>911</td>
<td>38</td>
</tr>
<tr>
<td>Formal &amp; Informal Learn</td>
<td>260</td>
<td>264</td>
<td>4</td>
</tr>
<tr>
<td>REESE</td>
<td>64</td>
<td>55</td>
<td>-9</td>
</tr>
<tr>
<td><strong>National Institutes of Health</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Behav and Social Sci Res</td>
<td>3,526</td>
<td>3,590</td>
<td>64</td>
</tr>
<tr>
<td>Basic Research</td>
<td>1,163</td>
<td>1,184</td>
<td>21</td>
</tr>
<tr>
<td><strong>Department of Education</strong></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Inst of Education Sciences</td>
<td>659</td>
<td>760</td>
<td>101</td>
</tr>
<tr>
<td>Department of Defense R&amp;D</td>
<td>82,902</td>
<td>77,753</td>
<td>-5,148</td>
</tr>
<tr>
<td>Science and Technology 1/</td>
<td>14,749</td>
<td>13,011</td>
<td>-1,739</td>
</tr>
<tr>
<td>DARPA 1/</td>
<td>2,986</td>
<td>2,985</td>
<td>-1</td>
</tr>
</tbody>
</table>

Source: Agency budget justifications and DOD "RDT&E Programs" (R-1). All figures rounded to the nearest million. Changes calculated from unrounded figures. 1/ Figures in total obligational authority (TOA).
NSF supports 57 percent of academic basic research in the social sciences. FY 2010 and the FY 2011 Continuing Resolution funding for SBE is $255.3 million. For FY 2012, NSF proposes to increase SBE’s funding to $301.1 million.

SBE will commit funds to participating in NSF’s Cross Directorate programs such as SEES, CIF21, and the Comprehensive National Cybersecurity Initiative. There is also a new proposed $4 million commitment to funding research to understand population change in the 21st century focusing on migration and aging and its implications for job creation.

The FY 2012 budget proposes $113.8 million for the Social and Economic Sciences (SES) division, a boost of almost $15 million over the FY 2010 level. A significant part of the increase will go to SEES investigations. SES will also support research on community-based networks as part of CIF-21. As part of the Cybersecurity initiative, SES would support research on the intersection of cybersecurity, economics, and society. The new budget also includes funding to increase access to data generated from SBE’s three large surveys: the Panel Study on Income Dynamics, the General Social Survey, and the American National Elections Studies.

The Behavioral and Cognitive Sciences (BCS) division would increase by $11.3 million to $105.9 million under the FY 2012 proposed budget. Most of the increase would go to core programs, but BCS would also fund research as part of SEES to support investments in understanding human behavior and decision making about energy use, interactions among natural and human systems, and vulnerability and resilience. BCS will also increase support for interdisciplinary activities in learning and the brain sciences.

The America COMPETES reauthorization legislation renamed the Science Resources Statistics (SRS) division. It is now the National Center for Science and Engineering Statistics (NCSES). The proposed FY 2012 funding of $38 million represents a $3.4 million increase over

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1 http://www.nsf.gov/sbe
2 http://www.nsf.gov/ehr
FY 2010. The increase would allow the NCSES to increase support for the National Survey of College Graduates. NCSES would also begin a pilot project to test the feasibility of tagging and extracting federal agencies’ administrative records to improve the quality and timeliness of the federal research and development surveys.

SBE’s new Office of Multidisciplinary Activities (SMA) has a proposed FY 2012 budget of $43.4 million, up from $26.9 million in FY 2010. This large increase would include support for the SEES and CIF21 initiatives and fund research at the intersection of the economic and computer sciences. SMA would also continue its support for the Science of Science and Innovation Policy (SciSIP) and STAR METRICS.

SBE has proposed to initiate a “gradual phasing down” of the Science of Learning Centers program and would decrease funding in FY 2012 by $5.4 million.

The Education and Human Resources Directorate’s (EHR) Division of Research on Learning in Formal and Informal Settings (DRL) has a proposed increase to $264 million, $4 million over current funding. Within these funds, NSF asks for a $10 million boost to $22 million for the Research and Evaluation on Education in Science and Engineering (REESE) program in order to support research, evaluations, syntheses, and comparison studies to improve assessments of STEM education and workforce programs.

**NATIONAL INSTITUTES OF HEALTH (NIH)** ³

Understanding the complex influences of behavior on health is a critical part of NIH’s mission. There is strong evidence that half of all deaths in the U.S. can be attributed to behavioral factors such as smoking, poor diet, substance abuse and physical inactivity. In addition, behavioral and social factors contribute to the staggering costs of preventable morbidity and mortality. NIH-supported behavioral and social science research ranges from basic research on memory, learning and perception, to prevention research, to clinical trials and comparative effectiveness research. NIH is the largest funder of behavioral and social science research in the federal government. Behavioral and social science research (BSSR) is part of the portfolio of every NIH institute and center.

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³ http://obssr.od.nih.gov
The NIH RePORT system tracks estimates and spending of both BSSR and Basic BSSR.

In FY 2010, NIH reports spending $3.53 billion on BSSR, with an additional $603 million of Recovery Act spending. In FY 2012, NIH projects spending $3.59 billion for BSSR. Within that funding, in FY 2010, Basic BSSR spending was at $1.16 billion with an additional $198 million in Recovery Act funding. Projected funding for Basic BSSR under the FY 2012 proposal would be $1.18 billion.

Two new Common Fund programs, which primarily draw from the behavioral and social sciences, were established in FY 2011 to assist in reforming the health care system. The Health Economics program ($11.6 million in FY 2012) supports a series of developmental projects that build on the findings of comparative effectiveness research (CER) to identify and develop new approaches to improve health and increase the efficiency and quality of health care delivery. One Health Economics initiative is the HMO Research Network Collaboratory program. Its purpose is to leverage and expand existing information technology, electronic records systems, and scientific capacity within HMO health service networks to accelerate large epidemiological studies and clinical trials that address cross-cutting NIH priorities. New Health Economics projects in FY 2012 will develop and analyze the economics of prevention strategies, evaluate costs and outcomes of health care delivery, and improve existing data resources to promote data sharing and linkage across data sets and researchers.

Some of the projects funded through the Common Fund’s High Risk/High Reward initiatives seek to enhance the evidence base for clinical care by identifying and examining behavioral aspects of patient health, compliance and health costs. Specific projects include developing clinical markers for mood disorders as a way to design more effective treatments and monitor compliance and response to treatment, and assessing how the communication of health information to patients affects their attitudes and prevention behavior related to cancer.

Support for the Science of Behavior Change initiative would grow in FY 2012 to $5 million an increase of $0.3 million over the FY 2010 enacted level. The Common Fund launched the Science of Behavior Change program in FY 2010 to enhance understanding of human behavior change across a broad range of health-related behaviors, and to use this
Silver, Sharpe, Kelly, Kobor, and Sroufe

knowledge to develop more effective and economical behavioral interventions.

The NIH Office of Behavioral and Social Sciences Research (OBSSR) is the primary coordinating entity for BSSR. It was authorized by Congress in 1994. The FY 2012 budget estimate for OBSSR is $28.0 million, a slight increase over FY 2010’s $27.4 million. This Office furthers the mission of NIH by emphasizing the critical role that behavioral and social factors play in health, health care and well-being. OBSSR is a liaison between NIH and the extramural research communities, other federal agencies, academic and scientific societies, national voluntary health agencies, the media, and the general public on matters pertaining to behavioral and social science research. Robert Kaplan, a research psychologist is the new OBSSR Director, arriving in February, 2011, from the David Geffen School of Medicine at UCLA.

In FY 2012, the Office will again support the NIH Basic Behavioral and Social Science Opportunity Network (OppNet), a trans-NIH initiative begun in FY 2010 to expand the agency's funding of basic behavioral and social science research. This research studies mechanisms and processes that influence behavior at the individual, group, community and population levels. Findings from basic BSSR lead to new approaches for reducing risky behaviors and improving the adoption of healthy practices. NIH committed $10 million in ARRA funds to OppNet in FY 2010, and proposed $20 million from combined sources of the Office of the Director and participating institutes in FY 2011. The President’s budget does not specify the amount of support for the OppNet initiative in the Office of the Director’s budget. However, the Institutes and Centers’ FY 2012 budget proposals include a total of $10 million for OppNet.

In addition, OBSSR will support two new initiatives in FY 2012. The first, Mobile Technology Research to Enhance Health, focuses on using mobile technologies to facilitate research and health care delivery. The second initiative, the Population Health Consortium, focuses on enhancing, supporting and promoting sustainable population health research across existing NIH-funded centers and investigators.

The Office will continue to fund multi-year programs, including research to reduce or eliminate health disparities; a program to enhance the behavioral and social sciences content of medical school curricula; research to develop and translate basic behavioral and social science research into effective health behavior interventions; research on social
networks and health; and studies using systems science methodologies to address policy resistant problems in public health. OBSSR will also continue to support research which applies systems approaches to health disparities through the Network on Inequality, Complexity, and Health.

Another important initiative involving a significant portion of BSSR is the National Children’s Study (NCS), coordinated by the Eunice Kennedy Shriver National Institute for Child Health and Human Development (NICHD). The FY 2012 budget request for the NCS is $193.9 million, equal to the FY 2010 funding level. In FY 2012, NIH’s Office of the Director will support continuation of the NCS pilot phase known as the Vanguard Study and commencement of the NCS Main Study. This would support community outreach and communications for the Main Study, support bio-specimen and environmental collections, and provide for administrative components including data coordination, an information management system, and study logistics.

DEPARTMENT OF EDUCATION: INSTITUTE OF EDUCATION SCIENCES (IES)  

The IES is the federal government’s principal agency for conducting research on education. Its four Centers, the National Center for Education Research (NCER), the National Center for Education Statistics (NCES), the National Center for Education Evaluation and Regional Assistance (NCEE/RA), and the National Center for Special Education Research (NCSER), comprise the central operational structure for the agency.

The proposed budget requests an overall increase to fund the IES – from $659.0 million in FY 2010 to $760.5 million for FY 2012. State and local school improvement requirements in the economic stimulus programs, such as Race to the Top, have called attention to the need for a more robust research platform to support education innovation.

The Education Research, Development, and Dissemination account provides for National Research and Development Centers (NRDCs) as well as the What Works Clearinghouse, the Education Resources Information Center, and special research competitions. These research activities would receive $260.5 million in FY 2012, increased from $200.2 million in FY 2010. The increased funding would support

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4 http://www.ed.gov/offices/ies
research on early childhood, on adult learning, and on the relationship of post-secondary education and employment. Additionally, IES hopes to undertake a research program to provide an integrated assessment of the education components of the economic stimulus package in education.

The IES authorization mandates at least eight NRDCs. Currently funded centers conduct research on use of longitudinal data; rural education; cognition and science instruction; instructional technology; technology for science education; choice and innovation; data driven reform; assessment, standards and accountability; English language learners; early childhood education; performance incentives; and postsecondary education.

The National Center for Education Statistics (NCES), under its new commissioner Jack Buckley, remains the primary data source for education systems and policy makers across the nation and has established large longitudinal databases on vital issues regarding students, schools, and school personnel. It also supports U.S. participation in international studies of education achievement. The NCES budget would increase from $108.5 million to $117.0 million under the Administration’s proposal. The additional funding would support the first study of sub-baccalaureate education and training for adults. The additional funding would also provide a survey designed to study summer learning loss. In addition, the request seeks $100 million, an increase of $42 million over FY 2010 to help states continue to develop data systems to measure individual student achievement.

The National Assessment of Educational Progress (NAEP), which measures and reports on the status and trends of student learning over time, was level funded in FY 2010, but received a $5 million increase in the FY 2012 budget proposal to $135.1 million. The additional funds would support a study that will permit policy makers to compare academic achievement of U.S. students with those of other countries as well as provide for development of assessments in economics and technological literacy.

**DEPARTMENT OF DEFENSE (DOD)**

Driven by its mission focus, the Department of Defense (DoD) supports an $80 billion research and development (R&D) enterprise, most of which funds weapons development programs. Within the overall R&D account, DoD's basic and applied research portfolio includes support for
behavioral, cognitive and social science. The majority of this research is funded through intramural and extramural programs within the Army Research Institute (ARI) and Army Research Laboratory (ARL); the Office of Naval Research (ONR); the Air Force Office of Scientific Research (AFOSR) and the Air Force Research Laboratory (AFRL). These military service laboratories conduct and sponsor basic (6.1), applied/exploratory development (6.2), and advanced development (6.3) research in the human systems area. All of the services fund research in the broad categories of personnel, training and leadership development; warfighter protection, sustainment and physical performance; and system interfaces and cognitive processing. In addition, there are additional human systems research programs funded through the Office of the Secretary of Defense, the Defense Advanced Research Projects Agency (DARPA), and a variety of other smaller DoD entities.

The President’s FY 2012 budget request would result in a decrease for DoD’s research and development, falling from a FY 2010 level of $14.7 billion to $13.0 billion. Most of this decrease would come in the form of cuts to 6.3 advanced development research. Basic 6.1 research in each of the service labs would receive increased support and both Navy and Defense-Wide Agencies would also see increases in their 6.2 applied research accounts. DARPA is slated for no increase over its FY 2010 level, maintaining a funding level of $2.99 billion in FY 2012.

Within these overall S&T accounts, it is unclear at press time how human-centered, behavioral research programs specifically would fare in each of the military laboratories and defense-wide agencies under the President’s request. The National Research Council report on *Human Behavior in Military Contexts* recommended doubling the current budgets for 6.1 and 6.2 behavioral and social science research “across the U.S. military research agencies.” In the current budget environment, behavioral research accounts can expect to see very small increases.