“...the Academy shall, whenever called upon by any department of the Government, investigate, examine, experiment, and report upon any subject of science or art....”

1863 Charter of the National Academy of Sciences
For advice on issues of science, engineering, and medicine, the nation’s leaders turn to the National Academies of Sciences, Engineering, and Medicine. As a private, nonprofit organization located in Washington, D.C., the Academies provide a unique public service by enlisting the nation’s foremost scientists, engineers, health professionals, and other experts to collaborate on studies and other activities in order to address the many science-related challenges facing the nation.

Most Academies’ studies are undertaken in response to requests from Congress and federal agencies, which understand and value the independent voice of the institution. In recent years, studies and other activities have increasingly been requested by private entities, foundations, and state and local governments.

For each activity, the Academies identify the expertise needed and call on the most appropriate experts to volunteer their services as committee members. Uncompromising investigation, continuous oversight, and formal review ensure that the work of the committees adheres to the highest scientific standards. Because of its rigorous processes, the institution’s reports are often highly influential in public policy.
One of six program units of the Academies, the Division of Behavioral and Social Sciences and Education (DBASSE) serves to advance the frontiers of the behavioral and social sciences and their applications to public policy. DBASSE’s work uses statistical and other quantitative and qualitative methods to improve decision making in social, educational, national security, and economic policy. With expertise drawn from a broad range of disciplines, activities in DBASSE address such challenging issues as education, workforce productivity and economic well-being, crime reduction, health and aging, environmental decisionmaking, international development, the governance of complex institutions, and the use of data for research and policy.

The goal of DBASSE’s work is to help decision makers better understand the scientific issues that are part of key national questions. For example:

- How can poverty in the United States be measured best given marked changes in the nation’s economy and in public policies that have affected economic well-being?
- How can the public participate effectively in environmental assessment and decision making?
- How do individual choices and behaviors affect health and longevity?
- How can parents, teachers, and schools know how well students are learning?
- How can government analysts take advantage of knowledge about human and organizational behavior to better understand the increasingly voluminous amounts of data they receive?

In addition to applying the best social and behavioral science to public policy issues, DBASSE advances science by identifying necessary research and data improvements. In these ways, DBASSE fosters an awareness of the best cutting-edge science and its use in decisions on public policies and programs.

DBASSE provides expert, independent advice through authoritative committee reports, which range from targeted studies to comprehensive reviews of many scientific literatures. We also convene experts with wide ranges of perspectives to discuss timely issues via workshops, symposia and roundtables. Such events have from 25 to 500 participants or more and often result in published proceedings or summaries.
Evaluates Government Programs

*Strengthening the National Institute of Justice* (NIJ) offers a blueprint for this agency in its role as a critical science agency and funder of research aimed at improving the nation’s efforts to control crime and improve justice. NIJ has adopted many of the report’s recommendations in new policies and procedures developed to strengthen the agency’s science mission.

Provides Advice on Statistical Methods, Surveys, and Research Designs

*Measuring Research and Development Expenditures in the U.S. Economy* critically reviews the National Science Foundation’s (NSF) survey of business R&D, which is conducted for the NSF by the Census Bureau. The report’s recommendations led to a new Business Research, Development, and Innovation Survey, which is providing important information for assessing the nation’s competitiveness in the global economy. The study also contributed to a decision by NSF to start up a new research field, the science of science and innovation policy.

Informs Education Practice and Policy

*A Framework for K-12 Science Education: Practices, Cross-cutting Concepts, and Core Ideas* identifies the key scientific practices, concepts, and ideas that all students should learn by the time they complete high school. A consortium of states has used the report as the basis for the development of the Next Generation Science Standards; it is also being used to reorient and reprioritize funding by federal agencies that invest in science education.

Applies Behavioral and Social Science to Defense and National Security Issues

*Protecting Individual Privacy in the Struggle Against Terrorists: A Framework for Program Assessment* concludes that government agencies with counterterrorism programs that collect or “mine” personal data — such as phone, medical, and travel records — should be required to systematically evaluate the programs’ effectiveness, lawfulness, and impacts on privacy. Published in 2008, the report offers a framework agencies can use to assess existing programs and to determine the likely impact of new programs.
Improves Economic Measurement and Data Sources

Measuring Poverty: A New Approach proposes a revised approach to measuring poverty that would more accurately reflect economic disadvantage and the effects of government tax and income assistance programs. A formula based on the report was adopted by New York City as its poverty measure in 2008. The formula is also reflected in poverty measures developed by a number of states and communities and in a new national Supplemental Poverty Measure first published by the Census Bureau in 2011.

Applies Behavioral and Social Science to Health and Human Development Issues

Preventing Mental, Emotional, and Behavioral Disorders Among Young People reviews the research on the prevention of mental disorders and substance abuse among young people and documents that many of these problems are preventable. The report recommends strategies for enhancing the well-being of young people, especially for officials at the local, state, and federal levels that play a role in mental health promotion and prevention. The report led to several new initiatives at the Substance Abuse and Mental Health Services Administration, a congressional directive to the newly-created Office of Adolescent Health to implement its recommendations, and actions at the state and local level.

Advises Regulatory Agencies

Congress directed the Federal Aviation Administration (FAA) to update federal regulations that govern pilot flight and duty time, taking into account recent research related to sleep and fatigue. The Effects of Commuting on Pilot Fatigue reviews research related to the prevalence and characteristics of commuting to work by pilots and to the relationship between commuting and pilot fatigue. It includes an examination of the science of sleep, fatigue, and circadian rhythms; airline and regulatory oversight policies; and pilot and airline practices. The report provides useful information to the FAA and was cited by administration representatives during their decisionmaking.

Proposes Priorities for Scientific Research

Restructuring Federal Climate Research to Meet the Challenges of Climate Change proposes six priorities for restructuring the United States’ Global Change Research Program (USGCRP) to develop a more robust knowledge base and support informed responses to climate change. These recommendations are reflected in the USGCRP’s National Global Change Research Plan 2012–2021.
Informs Government Spending Decisions

Commissioned by the U.S. Department of Education, *Allocating Federal Funds for State Programs for English-Language Learners* assesses the accuracy of the estimates from state administrative data and the American Community Survey that are used to allocate federal funds for educating English-language learners. The study recommended a new formula based on both data sources, and this recommended formula is contained in legislative proposals pending before Congress.

Applies Behavioral and Social Science to Legal, Environmental, and Societal Issues

Requested by the U.S. Department of Energy, *The Polygraph and Lie Detection* analyzes the validity and usefulness of this technology for pre-employment and employment screening for federal agencies. The report addresses the difficulties of measuring polygraph accuracy, the use of the technique for interrogation and for deterrence, and potential alternative techniques for lie detection.

Provides International Perspectives on Policy

Although the United States spends more on health care than any other nation, a growing body of research shows that Americans are in poorer health and live shorter lives than people in many other high-income countries. *U.S. Health in International Perspective: Shorter Lives, Poorer Health* is a comprehensive look at multiple diseases, injuries, and behaviors across the life span, comparing the United States with 16 peer nations — affluent democracies that include Australia, Canada, Japan, and many western European countries. It offers insights on factors that may be responsible for the nation’s health disadvantage and has been widely cited in recent public debates about health practice and policy in the United States.

Convenes and Fosters Exchange Among Researchers, Policymakers, and Stakeholders

The *Roundtable on Crime Trends* brings together scholars and practitioners to discuss the changes in crime the United States has experienced over the past 20 years, clarify the important findings from contemporary scholarship, explore the implications and relevance for future prevention and enforcement efforts, and discuss ways to inform a long-term research agenda aimed at strengthening the knowledge base. The roundtable is exploring cross-cutting explanations for the crime trends in order to serve both immediate and longer-term objectives: describing current social science research as it applies to reducing crime generally and laying the foundation for future work.
The work of DBASSE is carried out by 10 boards and standing committees. Each board or committee has a specific area of focus which is described below, along with contact information for each.

**Board on Behavioral, Cognitive, and Sensory Sciences**
BBCSS monitors advances in the behavioral, cognitive, and sensory sciences and studies how developments in these fields can enhance public policy and practice.
Phone: 202-334-3868
http://nationalacademies.org/bbcss

**Board on Children, Youth, and Families**
Administered jointly with the Institute of Medicine, BCYF convenes experts from multiple disciplines to analyze the best available evidence on critical issues facing children, youth, and families today.
Phone: 202-334-1935
http://nationalacademies.org/bcyf

**Board on Environmental Change and Society**
BECS guides and monitors research on interactions between humans and the environment and considers their implications for policy.
Phone: 202-334-3218
http://nationalacademies.org/becs

**Board on Human-Systems Integration**
BOHSI seeks to advance understanding of the relationship between humans and their technologies and environments, and studies how to apply this knowledge so that technologies and systems are designed with users’ needs in mind.
Phone: 202-334-3357
http://nationalacademies.org/bohsi

**Board on Science Education**
BOSE investigates how science is learned and can effectively be taught from early childhood to adulthood, in both schools and informal settings.
Phone: 202-334-2164
http://nationalacademies.org/bose

**Board on Testing and Assessment**
BOTA assists policy makers and the public by providing evidence-based guidance on the use of tests and assessments in educational settings and workplaces and for research about the effects of a wide range of educational policies.
Phone: 202-334-3776
http://nationalacademies.org/bota

**Committee on Law and Justice**
CLAJ strives to improve governmental decision making and public policy, and promote the understanding and dissemination of research in matters involving law and justice.
Phone: 202-334-3730
http://nationalacademies.org/claj

**Committee on National Statistics**
CNSTAT strives to improve the statistical methods and information upon which public policy decisions are based, fostering better measures to promote a fuller understanding of important social topics such as the economy, public health, crime, education, poverty, and other public policy issues.
Phone: 202-334-3096
http://nationalacademies.org/cnstat

**Committee on Population**
CPOP brings the knowledge and methods of the population sciences—which shed light on the size, territorial distribution, and composition of populations—to bear on major issues of science and public policy, such as aging, health, immigration, and national development.
Phone: 202-334-3167
http://nationalacademies.org/cpop

**Teacher Advisory Council**
TAC, comprised of master classroom teachers from many subject areas and grade levels, provides guidance to Academies staff across the institution who work on education-related issues.
Phone: 202-334-2091
http://nationalacademies.org/tac
To access information about DBASSE’s work:

Go to www.nationalacademies.org/DBASSE to browse our reports and current projects, read brief summaries of reports, find out about upcoming events, and sign up to receive email updates or newsletters. DBASSE reports can also be downloaded free or purchased at the National Academies Press at www.nap.edu or 1-888-624-6242.

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