



# Committee on National Statistics

THE NATIONAL ACADEMIES



**People, Projects, and Publications**  
**2014–2015**

# Contents

1	Overview of the Committee on National Statistics .....	3
2	CNSTAT Members and Staff, 2014–2015 .....	5
3	Biographical Information on CNSTAT Chairs and Directors.....	6
4	Past CNSTAT Members, 1972–2014.....	11
5	CNSTAT Projects, by Sponsor, October 2014 .....	17
6	Current Federal Agency Core Sponsors of CNSTAT .....	19
7	Chronological List of CNSTAT Publications.....	21

## **Committee on National Statistics**

Division of Behavioral and Social Sciences and Education  
National Research Council

500 Fifth Street NW, Washington, DC 20001  
(202) 334-3096 • FAX (202) 334-3751  
<http://sites.nationalacademies.org/DBASSE/CNSTAT>



NAS Building and Keck Center Photos: Cultural Programs of the National Academy of Sciences

# 1 Overview of the Committee on National Statistics

## Mandate and Structure

The Committee on National Statistics (CNSTAT) was established at the National Academies in 1972 at the recommendation of the President's Commission on Federal Statistics, chaired by W. Allen Wallis. Its original mandate was to provide an independent, objective resource for evaluating and improving the work of the highly decentralized U.S. federal statistical system. While it still serves that mandate, it also has undertaken studies for a broad range of research and program agencies of the federal government.

The Committee's mission is to improve the statistical methods and information on which public policy decisions are based. It works to improve the data collection and estimation methods for a wide range of federal statistical activities, to further the application of statistics to better implement and evaluate federal programs, and to improve statistical methods for application to public affairs and to social, economic, and other scientific research.

CNSTAT is part of the Division of Behavioral and Social Sciences and Education of the National Academies. CNSTAT is a standing unit that oversees and develops a portfolio of work related to its mission. In the Academies structure, there are about 50 standing units, many of which are termed "boards." Among those currently in existence, CNSTAT is the eleventh oldest, the oldest being the Food and Nutrition Board, established in 1940.

The work of CNSTAT is guided by an interdisciplinary committee of about 15 experts in applied statistics, biostatistics, economics, demography, sociology, survey research, statistical agency management, and operations research (see Sections 2 and 4 of this booklet for lists of current and past members). The members are volunteers appointed by the president of the National Academy of Sciences, in the capacity of chair of the NRC; they serve staggered 3-year terms, with an opportunity for a second term.

CNSTAT meets as a board 3 times a year. Under the current arrangement, the fall and spring meetings include a public seminar and a lunch with the heads of major statistical agencies. The winter meeting includes only CNSTAT members and is held either in Washington, DC, or Irvine, California.

## Panel Studies and Other Activities

The Committee carries out its mission by convening panels of volunteer experts to conduct studies on data and methods needed to improve understanding on topics related to the economy, public health, crime, education, immigration,

poverty, welfare, terrorism, and other public policy issues. Each study involves a series of meetings, some public, in which the panel members gather information and deliberate. The panel produces a report that contains findings and recommendations for further action, usually directed toward specific government agencies.

To study some topics, the Committee organizes workshops, in which the invited participants are not only experts from academia and the private sector, but also relevant staff members of federal agencies. Workshops may be stand-alone projects or part of the information-gathering activities of a panel study. The Committee can also convene a standing committee to assist an agency to develop a specific program; such committees do not issue reports but provide valuable interchange and often spin-off workshops or consensus panel studies.

The Committee itself periodically publishes *Principles and Practices for a Federal Statistical Agency* (see p. 4). This

"white paper" has proven useful and popular to federal statistical agencies in evaluating their operations and in making the case for the strong position of independence and credibility that makes the output of federal statistical agencies so valuable for the public good.

A list of all current CNSTAT projects, by sponsor, can be found in Section 5, and a complete

list of published CNSTAT reports is in Section 7. Additional information on CNSTAT projects and reports can be found on CNSTAT's web site, <http://sites.nationalacademies.org/DBASSE/CNSTAT>. CNSTAT reports (and other National Academies reports) are available as free PDF downloads at <http://www.nap.edu>, the web site of The National Academies Press; that site also offers purchase of hard-copy reports.

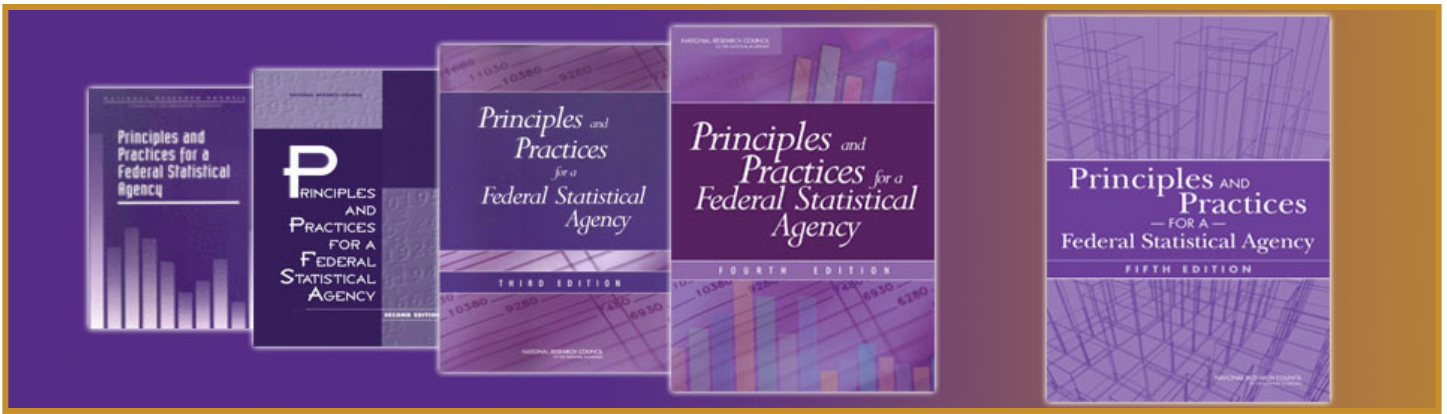
## Core Support

In addition to funding provided for specific studies, CNSTAT is fortunate to enjoy core support from a large group of statistical, policy, and research agencies. This support is critically important in enabling CNSTAT to address issues that cannot be resolved by one-time efforts, to conduct studies of interest to more than one agency, and to hold public seminars and other activities of the Committee. Panels and workshops are separately funded. Most agencies contribute core funding through a multi-year grant that is administered by the Methodology, Measurement, and Statistics Program of the National Science Foundation. CNSTAT's current core contributors are listed in Section 6.

**"The Commission recommends that a National Academy of Sciences–National Research Council committee be established to provide an outside review of federal statistical activities.... We recommend that the [committee] serve as an Advisory Committee to [the Office of Management and Budget] on issues of evaluation, and suggest mechanisms to promote the evaluation process."**

**—Recommendations 5-4 and 5-12 of the President's Commission on Federal Statistics (1971)**





## Principles and Practices for a Federal Statistical Agency

The Committee on National Statistics first issued *Principles and Practices for a Federal Statistical Agency* in 1992. Beginning in early 2001, with the second edition, it committed to updating “P&P” every four years to coincide with a new presidential administration or second term; the fifth edition was released in May 2013. This document underscores for the executive and legislative branches of government the important public good provided by strong federal statistical agencies.

### Principles for a Federal Statistical Agency

- Relevance to Policy Issues
- Credibility Among Data Users
- Trust Among Data Providers
- Independence from Political and Other Undue External Influence

### Practices for a Federal Statistical Agency

- A Clearly Defined and Well-Accepted Mission
- Necessary Authority to Protect Independence
- Continual Development of More Useful Data
- Openness About Sources and Limitations of the Data Provided
- Wide Dissemination of Data
- Cooperation with Data Users
- Respect for the Privacy and Autonomy of Data Providers
- Protection of the Confidentiality of Data Providers’ Information
- Commitment to Quality and Professional Standards of Practice
- An Active Research Program
- Professional Advancement of Staff
- A Strong Internal and External Evaluation Program
- Coordination and Collaboration with Other Statistical Agencies



## 2 CNSTAT Members and Staff, 2014–2015

**LAWRENCE D. BROWN** (Chair), Department of Statistics, Wharton School, University of Pennsylvania  
**JOHN M. ABOWD**, School of Industrial and Labor Relations, Cornell University  
**MARY ELLEN BOCK**, Department of Statistics, Purdue University  
**DAVID CARD**, Department of Economics, University of California, Berkeley  
**MICHAEL E. CHERNEW**, Department of Health Care Policy, Harvard Medical School  
**DONALD A. DILLMAN**, Department of Sociology, Washington State University  
**CONSTANTINE GATSONIS**, Center for Statistical Sciences, Brown University  
**JAMES S. HOUSE**, Survey Research Center, Institute for Social Research, University of Michigan  
**MICHAEL HOUT**, Department of Sociology, New York University  
**SALLIE KELLER**, Virginia Bioinformatics Institute at Virginia Tech, Arlington, VA  
**LISA LYNCH**, Office of the Provost, Brandeis University  
**THOMAS L. MESENBURG**, Retired, Formerly U.S. Census Bureau  
**SARAH M. NUSSER**, Department of Statistics, Center for Survey Statistics and Methodology, Iowa State University  
**COLM A. O'MUIRCHARTAIGH**, Harris Graduate School of Public Policy Studies, The University of Chicago  
**RUTH D. PETERSON**, Criminal Justice Research Center, The Ohio State University  
**EDWARD H. SHORTLIFFE**, Departments of Biomedical Informatics, Columbia University and Arizona State University

**CONSTANCE F. CITRO**, Director  
**MICHAEL COHEN**, Senior Program Officer  
**DANIEL CORK**, Senior Program Officer  
**AGNES GASKIN**, Administrative Assistant  
**HERMANN HABERMANN**, Senior Program Officer  
**CAROL HOUSE**, Senior Program Officer  
**MARY ANN KASPER**, Senior Program Assistant  
**NANCY KIRKENDALL**, Senior Program Officer  
**JULIA KISA**, Financial Associate  
**CHRISTOPHER MACKIE**, Senior Program Officer  
**ANTHONY MANN**, Program Associate  
**KRISZTINA MARTON**, Senior Program Officer  
**RICHARD PAIN**, Senior Program Officer  
**ESHA SINHA**, Associate Program Officer  
**MICHAEL SIRI**, Program Associate  
**JACQUI SOVDE**, Program Associate  
**DANIEL WEINBERG**, Senior Program Officer  
**GOOLOO WUNDERLICH**, Senior Program Officer



# 3 Biographical Information on CNSTAT Chairs and Directors

**WILLIAM H. KRUSKAL** (deceased) was the first chair of the Committee on National Statistics, holding that position from 1972–1978. He had previously served as a member of the President's Commission on Federal Statistics, which recommended the establishment of an independent body at the National Academies to review the nation's decentralized statistical system. Dr. Kruskal received a B.A. in mathematics and philosophy and an M.A. in mathematics from Harvard University, and a Ph.D. in mathematical statistics from Columbia University.



Dr. Kruskal joined the faculty of the University of Chicago as an instructor in statistics in 1950 and became professor emeritus in 1990. He founded the Chicago statistics department and served as department chair, dean of the social sciences, and interim dean of the newly established Harris Graduate School of Public Policy Studies. He was an elected fellow of the American Statistical Association, the Institute of Mathematical Statistics, the American Association for the Advancement of Science, and the American Academy of Arts and Sciences. Along with W. Allen Wallis, who chaired the President's Commission on Federal Statistics, he devised the widely used Kruskal-Wallis test.

Dr. Kruskal worked diligently to establish CNSTAT and recruited its first director, Margaret Martin.



**CONRAD TAEUBER** (deceased) served as chair of the Committee on National Statistics from 1978–1981 and as a member beginning in 1973. He received a Ph.D. degree from the University of Minnesota. Dr. Taeuber had a long career in federal service (1934–1973), holding positions as economic analyst in the Federal

Emergency Relief agency, head economist in the Department of Agriculture, economist at the UN Food and Agricultural Organization, and, beginning in 1951, as an executive at the U.S. Census Bureau. From 1973 until 1985 he was senior professor of demography at the Kennedy Institute of Georgetown University. He was a fellow of the American Statistical Association.

**STEPHEN E. FIENBERG** is Maurice Falk university professor of statistics and social science at Carnegie Mellon University, holding appointments in the Department of Statistics, the Heinz College, the Machine Learning Department, and CyLab. He served as chair of the Committee on



National Statistics from 1981–1984 and from 1985–1987 following a sabbatical year at the Center for Advanced Study in the Behavioral Sciences. He was a member of the committee beginning in 1978. Dr. Fienberg received a B.Sc. in mathematics and statistics from the University of Toronto and an A.M. and Ph.D. in statistics from Harvard University. He previously served as vice president of York University, Toronto, and was on the faculty of the University of Minnesota. He is a member of the National Academy of Sciences and served on the advisory committee of the National Research Council's Division of Behavioral and Social Sciences and Education. He is a fellow of the American Statistical Association, the American Academy of Arts and Sciences, the American Association for the Advancement of Science, the American Academy of Political and Social Science, the Institute of Mathematical Statistics, the International Society for Bayesian Analysis, the Royal Society of Canada, and the Royal Statistical Society, and an elected member of the International Statistical Institute.

Dr. Fienberg has chaired and served on numerous National Research Council panels on such topics as sharing research data, statistical assessments as evidence in the courts, decennial census methodology, evaluation of bilingual education studies, measuring racial discrimination, the polygraph and lie detection, and the technical and privacy dimensions of information on terrorism. He currently serves on the NAS Council and as co-chair of the National Academies' Report Review Committee.



**LINCOLN E. MOSES** (deceased), formerly a professor emeritus of statistics at Stanford University, served as chair of the Committee on National Statistics in 1985 and was a member in 1976–1977 and 1981–1986. Dr. Moses received an A.B. degree in social sciences and a Ph.D. degree in statistics from

Stanford University. He was on the faculty of the Stanford statistics department from 1952–1992, serving as head of the department, associate dean of humanities and sciences, and dean of graduate studies. He was the first administrator of the Energy Information Administration from 1978–1980. He was a member of the Institute of Medicine, a fellow of the American Statistical Association, the Institute of Mathematical Statistics, the American Association for the Advancement of Science, and the Academy of Arts and Sciences, and an elected member of the International Statistical Institute.

Dr. Moses served on numerous Institute of Medicine study committees on such topics as AIDS research and the social, behavioral, and statistical sciences, needle exchange and bleach distribution programs, oral contraceptives and breast cancer, risk assessment of hazardous air pollutants,

energy demand analysis, and assessment of research doctorate programs in the United States.



**BURTON E. SINGER** is an adjunct professor at the Emerging Pathogens Institute, University of Florida. He recently retired from Princeton University as the Charles and Marie Robertson professor of public and international affairs. He served as chair of the Committee on National Statistics from 1987–1993 and was a member

of the committee from 1981–1985. Dr. Singer received a B.S. in engineering science from the Case Institute of Technology, an M.S. in mechanical engineering from the Case Institute of Technology, and a Ph.D. in statistics from Stanford University. He previously held faculty positions at the Columbia University Department of Statistics and the Laboratory of Populations at Rockefeller University and at Yale University. He is a member of the National Academy of Sciences and the Institute of Medicine and served on the advisory committee of the National Research Council's Division of Behavioral and Social Sciences and Education and on the NRC's Board on Environmental Studies and Toxicology. He is a fellow of the American Statistical Association and the American Association for the Advancement of Science.

Dr. Singer has chaired and served on several National Research Council panels on such topics as immigration statistics, assessing studies of bilingual education, future research directions for the social and behavioral sciences at NIH, and modeling the spread of HIV and the demographic effects of AIDS. He is currently a member of the Research Board for the Gulf of Mexico Research Initiative.

**NORMAN M. BRADBURN** is senior fellow at NORC at the University of Chicago. He served as chair of the Committee on National Statistics from 1993–1998 and as vice chair and member beginning in 1987. Dr. Bradburn received a B.A. from the University of Chicago, a B.A. in philosophy, politics, and economics from the University of Oxford, and an M.A. in clinical psychology and a Ph.D. in social psychology from Harvard University. Most recently, he was the assistant director for the Social, Behavioral, and Economic Sciences Directorate at the National Science Foundation. He is Tiffany and Margaret Blake distinguished service professor emeritus at the University of Chicago and former vice president and director of research at NORC. He was provost of the University of Chicago from 1984–1989. He chaired the National Research Council's Board on International Comparative Studies in Education and was a member of its Advisory Committee for Behavioral and Social Sciences and Education. He is a fellow of the American Statistical Association, a fellow of the American Academy of Political and Social Sciences, member of the American Academy of Arts and Sciences, and an elected member of the



International Statistical Institute.

Dr. Bradburn has chaired and served on several National Research Council panels on such topics as alternative methods for the census, the performance of the 2000 census, standards of evidence in the social and behavioral sciences, confidentiality protection and data access, and mandatory retirement in higher education. Most recently, he served as a member of the Committee on an Assessment of Research Doctorate Programs.



**JOHN E. ROLPH** is professor emeritus of statistics in the Department of Data Sciences and Operations at the Marshall School of Business, University of Southern California. He currently is proprietor of Rolph Family Vineyards on the California's Central Coast. He served as chair of the Committee on National Statistics

from 1998–2004 and as vice chair and member beginning in 1990. He was also a member of the National Research Council's Committee on Law and Justice. He received A.B. and Ph.D. degrees in statistics from the University of California at Berkeley. He previously was on the research staff of the RAND Corporation. He has also held faculty positions at University College London, Columbia University, the RAND Graduate School for Policy Studies, and the Health Policy Center of RAND/UCLA. He is a fellow of the American Statistical Association, the American Association for the Advancement of Science, and the Institute of Mathematical Statistics, and is an elected member of the International Statistical Institute.

Dr. Rolph has chaired and served on several National Research Council panels on such topics as methodology for the decennial census, statistical methods for testing and evaluating defense systems, measuring racial discrimination, and evaluating studies of bilingual education. Most recently, he chaired the Committee on the Feasibility, Accuracy, and Technical Capability of a National Ballistics Database and served on the Panel on Developing Science, Technology, and Innovation Indicators for the Future.

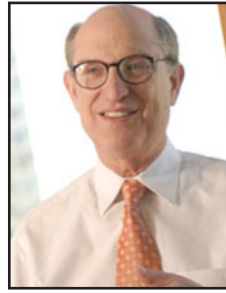
**WILLIAM F. EDDY** is John C. Warner professor of statistics at Carnegie Mellon University (emeritus), where he also holds appointments in the Machine Learning Department, the Department of Biological Sciences, and the Center for the Neural Basis of Cognition. He served two terms as chair of the Committee on National Statistics (2004–2010) and previously was a member of the committee from 1996–2000. He received a B.A. in statistics from Princeton University and M.A., M.Phil., and Ph.D. degrees in statistics from Yale University. He is a fellow of the American Statistical Association, the American Association for the Advancement of Science, and the Institute of Mathematical Statistics, and is an elected member of the International Statistical Institute. He previously chaired





the National Research Council's Committee on Applied and Theoretical Statistics.

Dr. Eddy has served on numerous National Research Council panels on such topics as transportation surveys and priorities for transportation statistics, natural gas statistics, improving data to analyze food and nutrition policies, statistics and oceanography, guidelines for statistical software, computing and communications research to improve government use of technology, and statistical methods for software engineering for defense systems. Recently, he was a member of the Committee on the Feasibility, Accuracy, and Technical Capability of a National Ballistics Database. Most recently he chaired the Panel on Redesigning the Commercial Buildings and Residential Energy Consumption Surveys.



**LAWRENCE D. BROWN** is Miers Bush professor in the Department of Statistics of the Wharton School at the University of Pennsylvania. He is a fellow of the American Statistical Association, a fellow and past president of the Institute of Mathematical Statistics, and a member of the National Academy of Sciences. He is a past member of both the Division of Behavioral and Social Sciences and Education Advisory Committee and the Committee on National Statistics (1999-2005), and became CNSTAT chair in 2010. Most recently, he chaired the Panel to Review the 2010 Census Program of Evaluations and Experiments; previously, he served on the Panel to Review the 2000 Census and chaired the Panel to Review Research and Development Statistics at the National Science Foundation. He also served on the NRC's Commission on Physical Sciences, Mathematics, and Applications and its Board on Mathematical Sciences. He currently serves on the National Academies' Report Review Committee. He was a critic of the Census Bureau's plans to incorporate sampling in the census. He has a B.S. from the California Institute of Technology and a Ph.D. from Cornell University.

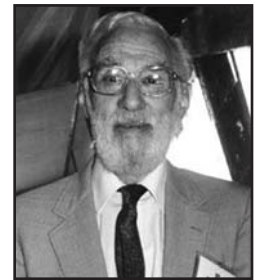


**MARGARET E. MARTIN** (deceased) was the first director of the Committee on National Statistics (1972-1978). She received a B.A. degree in economics from Barnard College and a Ph.D. degree in economics from Columbia University. Prior to joining CNSTAT, Dr. Martin had a 30-year career in the U.S. Bureau of the Budget's Division of Statistical Standards, retiring as

assistant chief of the Statistical Policy Division in charge of labor and income statistics. She was a fellow of the American Statistical Association and served as its president, and was an elected member of the International Statistical Institute. Dr. Martin continued to contribute to CNSTAT projects after her retirement, including studies of the Survey of Income and Program Participation, sharing research data, and principles and practices for a federal statistical agency.

**EDWIN D. GOLDFIELD** (deceased) was director of the Committee on National Statistics from 1978 until 1987. He joined CNSTAT in 1975 as study director for the panel that produced *Privacy and Confidentiality as Factors in Survey Response*.

Mr. Goldfield received an M.A. in statistics from Columbia University and did graduate work at American University. He began his career at the U.S. Census Bureau with a temporary appointment in 1940 to work on the processing of the decennial census. That temporary appointment stretched out to a 35-year government career, during which his assignments included program coordinator of the 1950 Decennial Census, chief of the Statistical Reports Division, assistant director of the Bureau, and chief of the International Statistics Program Center. Mr. Goldfield was a fellow of the American Statistical Association and served as president of the Washington Statistical Society. After his retirement from CNSTAT, he remained active as a senior associate.





**MIRON L. STRAF** is deputy director for special projects in the Division of Behavioral and Social Sciences and Education (DBASSE) at the National Academies. He served as director of the Committee on National Statistics (1987–1999) and, prior to that, as research director for the committee. He received his B.A. and M.A. degrees in mathematics from Carnegie Mellon

University and his Ph.D. in statistics from the University of Chicago. He is a fellow of the American Statistical Association and served as its president; he is also a fellow of the Royal Statistical Society and an elected member of the International Statistical Institute. Between his service as CNSTAT director and his appointment as DBASSE deputy director, Dr. Straf worked at the National Science Foundation helping to develop the research priority area for the social, behavioral, and economic sciences. He has taught on the faculties of the University of California, Berkeley, and the London School of Economics and Political Science.

For CNSTAT, Dr. Straf contributed to studies on environmental monitoring, sharing research data, cognitive aspects of survey methodology (for which he received the Innovators Award of the American Association of Public Opinion Research), and statistical assessments as evidence in the courts. He was the prime mover behind CNSTAT's influential white paper, *Principles and Practices for a Federal Statistical Agency*. During his time with CNSTAT, he developed over 50 major studies and over 40 conferences on the application of statistics to public policy. His recent projects for DBASSE include studies leading to the reports *Using Science as Evidence in Public Policy* and *Furthering America's Research Enterprise*.

**ANDREW A. WHITE** is senior research statistician at the National Center for Education Statistics at the U.S. Department of Education. He served as director of the Committee on National Statistics from 2000 through 2003. He served as deputy director (1997–1999) and as senior study director (1996–1997) on an intergovernmental personnel agreement with the National Center for Health Statistics. He received a B.A. in political science and an M.P.H. and Ph.D. in biostatistics from the University of Michigan. Prior to joining CNSTAT, Dr. White was a survey designer, research staff chief, and executive staff member of the National Center for Health Statistics and a consulting statistician with the Michigan Department of Public Health. He is a fellow of the American Statistical Association and the American Educational Research Association, an elected member of the International Statistical Institute, and a past president of the Washington Statistical Society.

For CNSTAT, he directed a study on methods for the 2000 census, and contributed to studies on methods for accounting



for environmental costs and benefits in the national income and product accounts, and the research programs of the Economic Research Service at USDA.



**CONSTANCE F. CITRO** became director of the Committee on National Statistics in 2004. She began her career with CNSTAT in 1984 as study director for the panel that produced *The Bicentennial Census: New Directions for Methodology in 1990*. Dr. Citro received her B.A. in political science from the University of Rochester, and M.A. and Ph.D. degrees

in political science from Yale University. Prior to joining CNSTAT, she held positions as vice president of Mathematica Policy Research, Inc., and Data Use and Access Laboratories, Inc. She is a fellow of the American Statistical Association and an elected member of the International Statistical Institute.

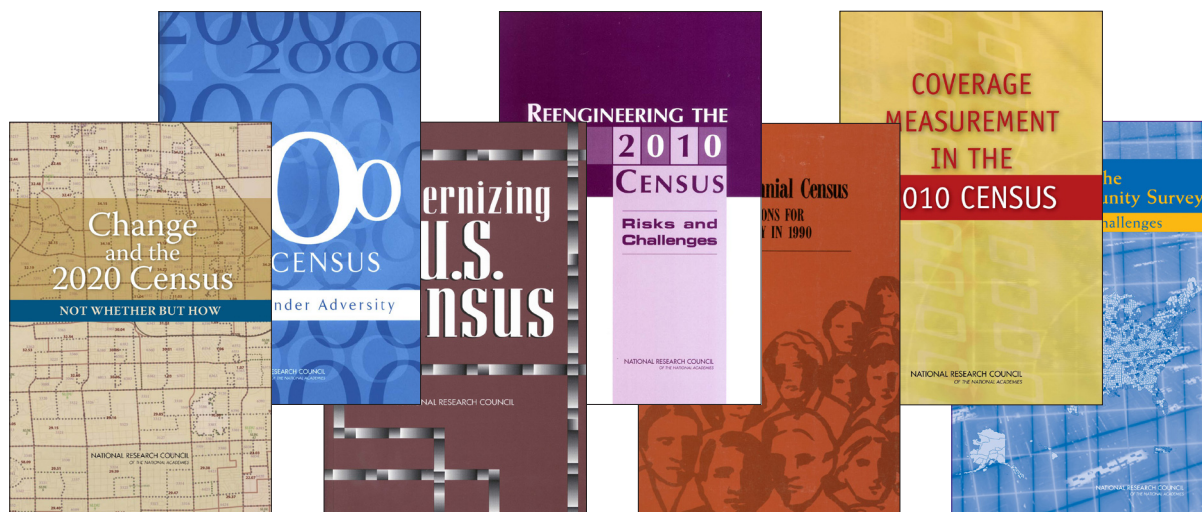
For CNSTAT, she directed evaluations of the 2000 census, the U.S. poverty measure, the Survey of Income and Program Participation, microsimulation models for social welfare programs, and the NSF science and engineering personnel data system, in addition to studies on institutional review boards and social science research, estimates of poverty for small geographic areas, data and methods for retirement income modeling, and 1990 census methodology. She contributed to studies on research needs for evaluation of changes in welfare programs, principles and practices for a federal statistical agency, measuring racial discrimination, and the American Community Survey.



# The Decennial Census and American Community Survey

Studies of the decennial census are among the most plentiful in CNSTAT's portfolio, from a consideration of plans for the 1980 census to studies on aspects of 2020 census planning. One CNSTAT panel explored the complexity in answering the most basic of census questions—the number of people who reside at, and should be counted at, a particular location—and suggested methodological improvements to collecting residence information. Another panel study considered the goals of census coverage measurement in the 2010 census and assessed possibilities for using administrative records to evaluate coverage and improve other census operations. Among the most ambitious of CNSTAT's census studies was a “real-time,” independent assessment of the 2000 census, which followed the process from dress rehearsal to the late stages of coverage evaluation. In 2010, CNSTAT's Panel to Review the 2010 Census conducted 58 site visits to local and regional census offices, data capture centers, and other census facilities, as part of its task to evaluate the 2010 census. That panel is completing its work with a major focus on early research and planning for a cost-effective 2020 census and will be followed by a Standing Committee on Reengineering the 2020 Census.

More than a simple replacement for the long-form sample of past censuses, the Census Bureau's new American Community Survey (ACS) presents a fundamental change in the availability and timeliness of detailed social and economic data. A 1998 CNSTAT workshop helped shape early pilot work for the ACS, and a major panel study reviewed the complex estimation and interpretation challenges of the survey in a report released in 2007. More recently, CNSTAT panels have evaluated ACS uses by other federal agencies, including the Food and Nutrition Service, and considered the coverage of the “group quarters” population (such as college students and nursing home residents) in ACS estimates. Most recently, CNSTAT convened an expert workshop on user needs and a panel on priority technical issues for the ACS that has just completed its work.





# 4 Past CNSTAT Members, 1972–2014

Katharine G. Abraham	2004–2010
Department of Economics, University of Maryland, College Park	
Joseph G. Altonji	1998–2004
Department of Economics, Yale University	
Robert M. Bell	2001–2007
AT&T Research Laboratories, Florham Park, NJ	
James O. Berger	1986–1989
Department of Statistical Science, Duke University	
David H. Blackwell (deceased)	1987–1990
Department of Statistics, University of California, Berkeley	
Norman M. Bradburn (Chair, 1993–1998)	1987–1998
NORC at the University of Chicago (emeritus)	
Leo Breiman (deceased)	1983–1986
Department of Statistics, University of California, Berkeley	
David R. Brillinger	1977–1979
Department of Statistics, University of California, Berkeley	
Ronald S. Brookmeyer	1988–1991
Department of Biostatistics, University of California, Los Angeles	
Alicia Carriquiry	2008–2014
Department of Statistics, Iowa State University	
Douglas G. Chapman (deceased)	1972–1974
Center for Quantitative Science, University of Washington	
Joel E. Cohen	1982–1985
Laboratory of Populations, Rockefeller University	
Cuthbert Daniel (deceased)	1972–1973
Statistical Consultant, Rhinebeck, NY	
Julie DaVanzo	1995–2001
RAND, Santa Monica, CA	
Herbert A. David (deceased)	1975–1977
Department of Statistics and Statistics Laboratory, Iowa State University (emeritus)	
Martin H. David	1988–1994
Department of Economics, University of Wisconsin–Madison (emeritus)	
Angus S. Deaton	1989–1992
Woodrow Wilson School of Public and International Affairs, Princeton University	
Morris H. DeGroot (deceased)	1975–1979
Department of Statistics, Carnegie Mellon University	
William H. DuMouchel	2006–2012
Oracle Health Sciences	
Otis Dudley Duncan (deceased)	1979–1981
Department of Sociology, University of Arizona	
William F. Eddy (Chair, 2004–2010)	1996–2000; 2004–2010
Department of Statistics, Carnegie Mellon University (emeritus)	
Stephen E. Fienberg (Chair, 1981–1987)	1978–1984; 1985–1987
Department of Statistics, Carnegie Mellon University	
Wayne A. Fuller	1983–1986
Department of Statistics, Iowa State University (emeritus)	
Seymour Geisser (deceased)	1984–1987
School of Statistics, University of Minnesota	
John F. Geweke	1992–1998
Economic Discipline Group, University of Technology, Sydney, Australia	
Jean D. Gibbons	1980–1983
Department of Management Science and Statistics, University of Alabama (emerita)	
Claudia D. Goldin	1990–1991
Department of Economics, Harvard University	

Noreen Goldman	1991–1994
Office of Population Research, Princeton University	
Louis Gordon	1987–1993
Susquehanna International Group, Bala-Cynwyd, PA	
Bernard G. Greenberg (deceased)	1972–1973
Department of Biostatistics, University of North Carolina	
Joel B. Greenhouse	1991–1997
Department of Statistics, Carnegie Mellon University	
Robert M. Groves	2000–2006
Office of the Provost, Georgetown University	
Zvi Griliches (deceased)	1979–1982
Department of Economics, Harvard University	
Hermann Habermann	1999–2002
U.S. Census Bureau, U.S. Department of Commerce (retired)	
John C. Haltiwanger	2004–2010
Department of Economics, University of Maryland	
Morris H. Hansen (deceased)	1972–1976
Westat, Rockville, MD	
Eric A. Hanushek	1992–1998
Hoover Institution, Stanford University	
Robert M. Hauser	1989–1995
Division of Behavioral and Social Sciences and Education, National Research Council	
Jerry A. Hausman	1985–1989
Department of Economics, Massachusetts Institute of Technology	
Clifford Hildreth (deceased)	1976–1982
Center for Economic Research, University of Minnesota	
Paul W. Holland	2003–2006
Educational Testing Service, Princeton, New Jersey (retired)	
Joel L. Horowitz	2000–2006
Department of Economics, Northwestern University	
V. Joseph Hotz	2006–2012
Department of Economics, Duke University	
J. Stuart Hunter	1976–1981
School of Engineering and Applied Science, Princeton University (emeritus)	
Nicholas P. Jewell	1993–1996
School of Public Health, University of California, Berkeley	
F. Thomas Juster (deceased)	1983–1989
Survey Research Center, University of Michigan	
Karen Kafadar	2006–2012
Department of Statistics, University of Virginia	
William D. Kalsbeek	1998–2004
Carolina Survey Research Laboratory, Department of Biostatistics, University of North Carolina (emeritus)	
G. Graham Kalton	1986–1992
Westat, Rockville, MD	
Nathan Keyfitz (deceased)	1975–1982
Center for Population Studies, Harvard University	
Leslie Kish (deceased)	1980–1983
Institute for Social Research, University of Michigan	
Gary G. Koch	1981–1984
Department of Biostatistics, University of North Carolina	
William H. Kruskal (Chair, 1972–1978) (deceased)	1972–1978
Department of Statistics, University of Chicago	
Nan M. Laird	1985–1988
Department of Biostatistics, Harvard School of Public Health	
Stanley Lebergott (deceased)	1972–1975
Department of Economics, Wesleyan University	
Arleen A. Leibowitz	2001–2004
School of Public Policy and Social Research, University of California, Los Angeles (emerita)	

# Federal Household and Business Surveys

An important role fulfilled by CNSTAT panels is to evaluate federal household and business surveys and consider ways in which they can be improved and updated. CNSTAT panels have made recommendations on topics ranging from increasing the efficiency of the data collection methods to enhancing the usability of the data.

A recent study advised the Bureau of Labor Statistics on options for redesigning the Consumer Expenditure Surveys, which are the principal source of knowledge about changing patterns of consumer spending in the United States. Another recent study evaluated redesign options for the Energy Information Administration's Commercial Buildings Energy Consumption Survey and Residential Energy Consumption Survey, which are the most relevant sources of data available to researchers and policy makers interested in residential and commercial energy consumption. CNSTAT panels have also provided guidance on improving the Survey of Income and Program Participation, the National Crime Victimization Survey, the Agricultural Resource Management Survey, the National Center for Science and Engineering Statistics surveys of research and development expenditures (in academia, the business sector, and government), and other flagship household and business surveys of the federal statistical system.

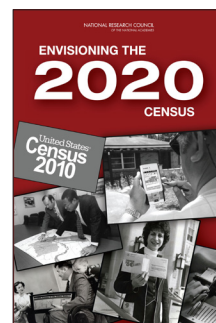
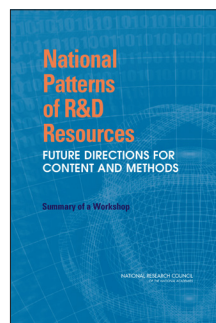
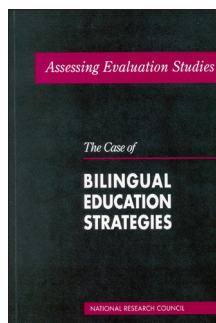
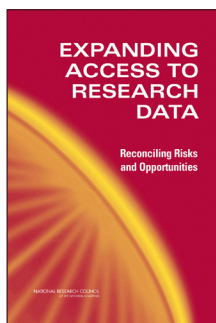
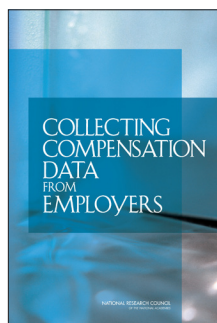
Workshops organized by CNSTAT have brought together leaders in the statistical, policy analysis, and research communities to discuss challenges common to federal household surveys, such as declining response rates, and challenges common to business surveys, such as impediments to developing a synchronized business address list for use in government surveys.





Howard Levene (deceased) Department of Statistics, Columbia University	1978–1981
Roderick J. A. Little Department of Biostatistics, University of Michigan	1996–2002
Thomas A. Louis U.S. Census Bureau, U.S. Department of Commerce, and Department of Biostatistics, Johns Hopkins Bloomberg School of Public Health	1997–2003
Nancy R. Mann Formerly Department of Biomathematics, University of California, Los Angeles	1977–1980
Charles F. Manski Department of Economics, Northwestern University	1996–2000
Douglas Massey Department of Sociology, Princeton University	2004–2010
Paul Meier (deceased) Department of Statistics, Columbia University	1978–1984
Jane A. Menken Institute of Behavioral Science, University of Colorado, Boulder	1983–1989
Rupert G. Miller, Jr. (deceased) Department of Statistics, Stanford University	1973–1976
Geoffrey H. Moore (deceased) Center for International Business Cycle Research, Columbia University	1977–1980
William A. Morrill Caliber, Fairfax, VA	1989–1992
Sally C. Morton Department of Biostatistics, University of Pittsburgh	2007–2013
Lincoln E. Moses (Chair, 1984–1985) (deceased) Department of Statistics, Stanford University	1976–1977; 1981–1986
Frederick Mosteller (deceased) Department of Statistics, Harvard University	1972–1978
Vijayan N. Nair Department of Statistics and Department of Industrial and Operations Engineering, University of Michigan	2002–2008
Marc L. Nerlove Department of Agricultural and Resource Economics, University of Maryland	1975–1978
Joseph P. Newhouse Department of Health Care Policy, Harvard Medical School	2006–2012
William D. Nordhaus Department of Economics, Yale University	1993–1999
Janet L. Norwood U.S. Bureau of Labor Statistics, U.S. Department of Labor (retired)	1992–1998
Ingram Olkin Department of Statistics, Stanford University (emeritus)	1977–1983
Edward B. Perrin Department of Health Services, School of Public Health, University of Washington (emeritus)	1995–2000
John W. Pratt Harvard Business School, Harvard University (emeritus)	1982–1988
Daryl Pregibon Google, Inc., New York, NY	2000–2006
S. James Press Department of Statistics, University of California, Riverside (emeritus)	1984–1990
Samuel H. Preston Population Studies Center, University of Pennsylvania (emeritus)	2005–2011
Kenneth Prewitt School of International and Public Affairs, Columbia University	2003–2008
Dorothy P. Rice Department of Social and Behavioral Sciences, and Institute for Healthy Aging, and Institute for Health Policy Studies, University of California, San Francisco (emerita)	1988–1994
John E. Rolph (Vice-chair, 1993–1996; Chair, 1998–2004) Department of Data Sciences and Operations, Marshall School of Business, University of Southern California (emeritus)	1990–1996; 1998–2004

Paul R. Rosenbaum	1996–1999
Department of Statistics, The Wharton School, University of Pennsylvania	
Donald B. Rubin	1988–1992
Department of Statistics, Harvard University	
Keith F. Rust	1992–1998
Westat, Rockville, MD	
Louise M. Ryan	2004–2008
School of Mathematical Sciences, University of Technology, Sydney, Australia	
Francisco Samaniego	1998–2001
Department of Statistics, University of California, Davis (emeritus)	
I. Richard Savage (deceased)	1972–1977
Department of Statistics, Yale University	
Nora Cate Schaeffer	2001–2007
Department of Sociology, University of Wisconsin–Madison	
Richard L. Schmalensee	1998–2001
Sloan School of Management, Massachusetts Institute of Technology	
Elizabeth L. Scott (deceased)	1972–1977
Department of Statistics, University of California, Berkeley	
Matthew D. Shapiro	1999–2002
Department of Economics, University of Michigan	
William H. Shaw (deceased)	1972–1976
E. I. DuPont de Nemours & Co., Wilmington, DE	
Christopher A. Sims	1982–1985
Department of Economics, Princeton University	
Burton H. Singer (Chair, 1987–1993)	1981–1985; 1987–1993
Emerging Pathogens Institute, University of Florida	
Courtenay M. Slater	1982–1988
CEC Associates, Washington, DC (retired)	
Daniel L. Solomon	1992–1995
College of Physical and Mathematical Sciences, North Carolina State University	
Hal Stern	2008–2014
Donald Bren School of Information and Computer Sciences, University of California, Irvine	
Conrad Taeuber (Chair, 1978–1981) (deceased)	1973–1981
Center for Population Research, Georgetown University	
Judith M. Tanur	1981–1987
Department of Sociology, State University of New York at Stonybrook (emerita)	
John H. Thompson	2011–2013
U.S. Census Bureau, U.S. Department of Commerce	
Roger Tourangeau	2007–2013
Westat, Rockville, MD	
Edward R. Tufte	1978–1983
Graphics Press, Cheshire, CT	
Kenneth W. Wachter	1985–1991
Department of Demography, University of California, Berkeley	
David L. Wallace	1984–1985
Department of Statistics, University of Chicago (emeritus)	
Alan M. Zaslavsky	2006–2012
Department of Health Care Policy, Harvard Medical School	





## Health and Social Welfare

CNSTAT's landmark report *Measuring Poverty: A New Approach* (1995) proposed revised poverty measures to more accurately measure economic disadvantage. After use by the Census Bureau on an experimental basis, a formula based on *Measuring Poverty* was adopted by New York City as its official poverty measure in 2008 and was used in a new Supplemental Poverty Measure published by the Census Bureau in 2011. CNSTAT's work on welfare and poverty issues expanded to include a major study of measures of food insecurity and hunger, a study of measuring financial vulnerability from spending on medical care, and a workshop on developing a research agenda on the causes and consequences of child food insecurity and hunger. The Committee has also twice conducted in-depth reviews of the Census Bureau's Survey of Income and Program Participation and is embarked on a study of the 2014 SIPP redesign.

Most recently, CNSTAT has begun a set of activities on measures of self-reported well-being—expanding on traditional economic measures to get a sense of the general “happiness” (or relative “misery”) of the population. Such measures have begun to gain traction in the United States and around the world. Relatedly, CNSTAT just completed a study of measuring civic engagement and social cohesion.



# 5 CNSTAT Projects, by Sponsor, October 2014

## Department of Agriculture

- Methods for Integrating Multiple Data Sources to Improve Crop Estimates (panel)
- Model-Based Methods for Producing Estimates of Livestock with Appropriate Measures of Uncertainty (workshop)
- Rationalizing Rural Area Classifications for ERS/USDA (workshop)

## Department of Commerce

- Addressing Priority Technical Issues for the Next Decade of the American Community Survey (panel)
- Reengineering the 2020 Census (standing committee)
- Review and Evaluation of the 2014 SIPP Content and Design (panel)
- Review of the 2010 Census (panel)
- Selected Methods for Improving the National Income and Product Accounts (expert meetings)

## Department of Defense

- Strengthening Data Science Methods for Department of Defense Personnel and Readiness Missions (panel, led by the Board on Mathematical Sciences and Their Applications)
- Theory and Application of Reliability Growth Methods to Defense Systems (panel)

## Department of Education

- National Assessment of Educational Progress (NAEP) Achievement Levels Evaluation (panel, led by the Board on Testing and Assessment)

## Department of Health and Human Services

- Combining RCT and Observational Data (planning meeting)
- Integrating New Behavioral Health Measures into SAMHSA's Data Collection Programs (joint with the DBASSE Board on Behavioral, Cognitive, and Sensory Sciences and the IOM Board on Health Sciences Policy) (standing committee)

## Department of Homeland Security

- Affordability of National Flood Insurance Program (NFIP) Premiums (panel, led by the Water Science and Technology Board)
- Integration of Immigrants into American Society (panel, led by the Committee on Population, also supported by the Carnegie Corporation of New York, the National Science Foundation, and the Russell Sage Foundation)

## Department of Justice

- Modernizing the Nation's Crime Statistics (panel, joint with the Committee on Law and Justice)

## Department of Transportation

- Research Methodologies and Statistical Approaches to Understanding Driver Fatigue Factors in Motor Carrier Safety and Driver Health (joint with the Board on Human-Systems Integration and the Transportation Research Board) (panel)

## Department of Veterans Affairs

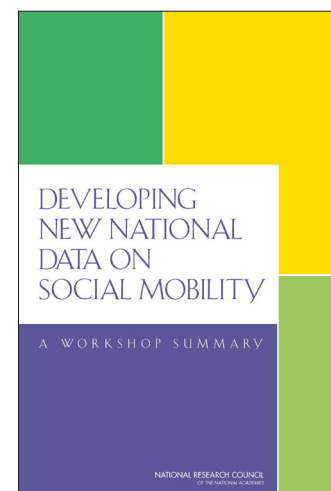
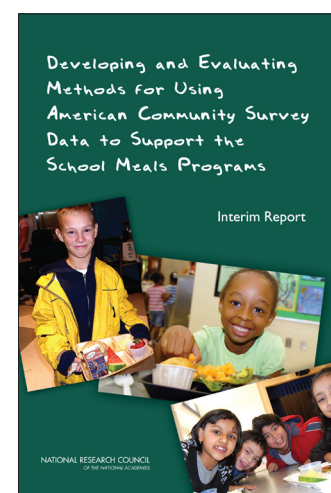
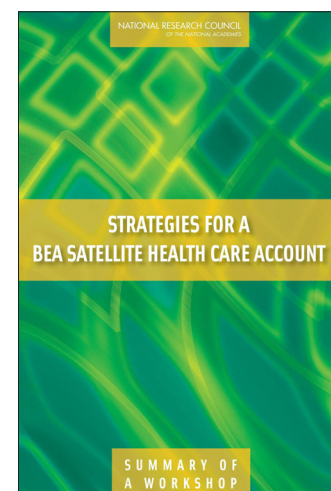
- Evaluation of the Department of Veterans Affairs Mental Health Services (panel, led by the Board on the Health of Select Populations)

## John D. and Catherine T. MacArthur Foundation

- Economic and Fiscal Consequences of Immigration (panel)

## National Science Foundation

- Measuring Research and Development Expenditures in the U.S. Nonprofit Sector: Conceptual and Design Issues (workshop)



# Science, Technology, and Innovation (STI) Indicators

The nation's science and engineering (S&E) workforce and public and private sector investments in research and development (R&D) are essential to continued economic growth, improvements in the standard of living, and progress on many important aspects of well-being, including safety and health. CNSTAT has conducted in-depth reviews of the portfolio of data collection programs of the National Science Foundation on S&E education and employment and R&D by the federal government, industry, and academia, seeking to make each survey more relevant, timely, and cost-effective. A just-completed study of indicators of science, technology, and innovation (STI) for the future identified priority measures for the National Center for Science and Engineering Statistics (NCSES) to develop, modify, and highlight. STI indicators are vital to give policy makers a sense of how the United States compares with other countries and to help answer questions about the best use of government resources for bolstering the S&E enterprise. CNSTAT also held a symposium that brought together the principal investigators from the first grants under the new NSF Science of Science and Innovation Policy program (SciSIP). CNSTAT is continuing work for NCSES on several topics, including issues in surveying R&D expenditures by the growing nonprofit sector and alternatives for redesigning the suite of S&E personnel surveys.



# 6 Current Federal Agency Core Sponsors of CNSTAT

## U.S. Department of Agriculture

Economic Research Service  
Food and Nutrition Service  
National Agricultural Statistics Service

## U.S. Department of Commerce

Bureau of Economic Analysis  
Census Bureau

## U.S. Department of Education

National Center for Education Statistics

## U.S. Department of Energy

Energy Information Administration

## U.S. Department of Health and Human Services

Agency for Healthcare Research and Quality  
Assistant Secretary for Planning and Evaluation  
National Center for Health Statistics  
National Institute on Aging

## U.S. Department of Homeland Security

Citizenship and Immigration Services, Research Evaluation Division

## U.S. Department of Housing and Urban Development

Office of Policy Development and Research

## U.S. Department of Justice

Bureau of Justice Statistics

## U.S. Department of Labor

Bureau of Labor Statistics

## U.S. Department of Transportation

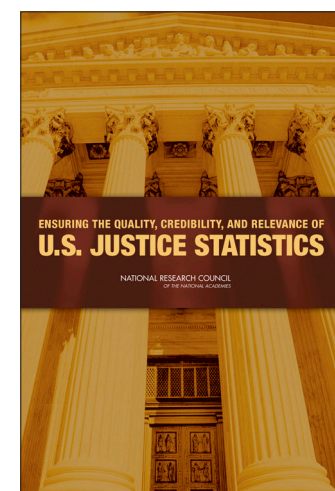
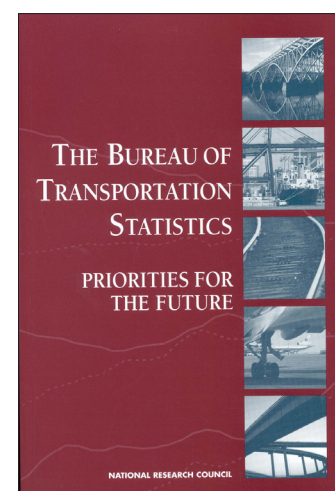
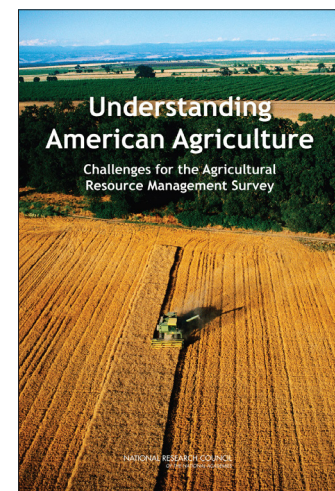
Bureau of Transportation Statistics

## National Endowment for the Arts

Office of Research and Analysis

## National Science Foundation

Methodology, Measurement, and Statistics Program  
National Center for Science and Engineering Statistics







## Public SEMINARS

### CASM@25

(Cognitive Aspects of Survey Methodology)  
25 Years (and Counting) of Cognitive Survey Research

CNSTAT's regular meetings in May and October traditionally include a public seminar on a topic of interest to the Washington statistical and economic measurement community. Ranging from keynote addresses to panel discussions, seminars have addressed crosscutting topics in federal and private survey research (such as general increases in nonresponse) and production of statistics (such as discrepant—and seemingly competing—estimates of social and economic phenomena). Economic topics have also been spotlighted, such as possibilities for national time accounting.

Featured seminar speakers have included:

- Erik Brynjolfsson, Massachusetts Institute of Technology, on technology-driven nongovernment data collection and implications for federal statistics;
- Tim Holt, former head of the United Kingdom's Office for National Statistics and president of the Royal Statistical Society, on "The Official Statistics Olympic Challenge: Wider, Deeper, Quicker, Better, Cheaper";
- Former Bureau of Labor Statistics commissioner Janet Norwood on "The Changing Nature of Employment";
- William Nordhaus, Sterling Professor of Economics at Yale University, on "Measuring the Economic Effects of Global Warming;" and
- Robert Bell, AT&T Labs Research; Emmanuel Candes, Stanford University; and Lester Mackey, University of California, Berkeley, on "The Story of the Netflix Prize."
- Scott Keeter, director of survey research, Pew Research Center; Joseph Lenski, executive vice president of Edison Research; and Clyde Tucker, head, CNN Decision Desk, on "Reflections on Election Polling and Forecasting from Inside the Boiler Room"
- Angus Deaton, Princeton University, on "The Great Escape: Health, Wealth, and the Origins of Inequality"



Measuring the Economic Effects  
of Global Warming:  
Models, Data, and Methods



National Time Accounting:  
The Currency of Life

At its May 2009 meeting, CNSTAT cosponsored a major symposium—The Federal Statistical System: Recognizing Its Contributions, Moving It Forward—with the American Academy of Political and Social Sciences. The session included keynote remarks by the directors of the Office of Management and Budget and the Office of Science and Technology Policy.

How Can We Conduct Telephone Surveys





# 7 Chronological List of CNSTAT Publications

- 1976**  
Setting Statistical Priorities  
Surveying Crime
- 1977**  
Environmental Monitoring  
Planning and Coordination of the Federal Statistics System (staff paper)  
Statistical Data Requirements in Legislation (staff paper)  
Subnational Statistics and Federal-State Cooperative Systems (staff paper)
- 1978**  
Counting the People in 1980: An Appraisal of Census Plans
- 1979**  
Measurement and Interpretation of Productivity  
Privacy and Confidentiality as Factors in Survey Response  
Proceedings of Symposia (5th, 6th, 7th, 8th, 9th) on Statistics and the Environment (co-sponsored by American Statistical Association)  
Symposium on Incomplete Data: Preliminary Proceedings
- 1980**  
Conference on Immigration Statistics  
Conference on Sharing of Social Science Research Data  
Estimating Population and Income of Small Areas
- 1981**  
Indicators of Equity in Education (report of a conference)  
Report of the Meeting of a Panel to Review the Statistical Methodology of the Report Public and Private Schools  
Rural America in Passage: Statistics for Policy  
Surveys of Subjective Phenomena: Summary Report
- 1982**  
Mineral Demand Modeling  
A Review of the Statistical Program of the Bureau of Mines
- 1983**  
Family Assistance and Poverty: An Assessment of Statistical Needs  
Incomplete Data in Sample Surveys (3 vols.)
- 1984**  
The Comparability and Accuracy of Industry Codes in Different Data Systems (staff paper)  
Cognitive Aspects of Survey Methodology: Building a Bridge Between Disciplines  
Planning the 1990 Census: Priorities for Research and Testing. Interim Report  
Statistics for Transportation, Communication, and Finance and Insurance: Data Needs and Availability  
Surveying Subjective Phenomena (2 vols.)
- 1985**  
The Bicentennial Census: New Directions for Methodology in 1990  
Immigration Statistics: A Story of Neglect  
Letter Report to U.S. Census Bureau on Approach for the 1990 Census  
Natural Gas Data Needs in a Changing Regulatory Environment  
Planning Conference for a Study of Statistics on Supply of and Demand for Precollege Science and Mathematics Teachers  
Sharing Research Data
- 1986**  
Creating a Center for Education Statistics: A Time for Action  
Letter Report to U.S. Census Bureau on Large-Scale Post-Enumeration Survey in 1990  
Statistics About Service Industries
- 1987**  
Counting Injuries and Illnesses in the Workplace: Proposals for a Better System  
Letter Report to U.S. Census Bureau on Technical and Operational Feasibility of Adjustment  
Rethinking Quality Control: A New System for the Food Stamp Program  
Toward Understanding Teacher Supply and Demand: Priorities for Research and Development, Interim Report
- 1988**  
The Aging Population in the Twenty-First Century: Statistics for Health Policy  
From Quality Control to Quality Improvement in AFDC and Medicaid  
Income and Poverty Statistics: Problems of Concept and Measurement (report of a conference)  
Letter Report to U.S. Department of Commerce on Large-Scale Post-Enumeration Survey in 1990  
Priorities for the 1990 Census Research, Evaluation and Experimental (REX) Program
- 1989**  
The Evolving Role of Statistical Assessments as Evidence in the Courts  
Small-Area Estimates for Military Personnel Planning: Report of a Workshop  
The Survey of Income and Program Participation: An Interim Assessment  
Surveying the Nation's Scientists and Engineers: A Data System for the 1990s

## 1990

Disability Statistics: An Assessment (report of a workshop)  
The Future of Meta-Analysis  
Precollege Science and Mathematics Teachers: Monitoring Supply, Demand, and Quality

## 1991

Improving Information for Social Policy Decisions: The Uses of Microsimulation Modeling (2 vols.)  
Small-Area Intercensal Estimates for the 1990s: Summary of a Workshop

## 1992

Assessing Evaluation Studies: The Case of Bilingual Education Strategies  
Behind the Numbers: U.S. Trade in the World Economy  
Conference on the Future of the Survey of Income and Program Participation  
Data for Decisions: Requirements for National Transportation Policy Making (with Transportation Research Board)  
Principles and Practices for a Federal Statistical Agency: First Edition  
Teacher Supply, Demand, and Quality: Policy Issues, Models, and Data Bases  
Toward a National Health Care Survey: A Data System for the 21st Century

## 1993

A Census That Mirrors America: Interim Report  
Clinical Trials and Statistics: Proceedings of a Symposium  
Conference on Disclosure Limitation Approaches and Data Access  
Forecasting Survival, Health, and Disability: Summary of a Workshop  
The Future of the Survey of Income and Program Participation  
Letter Report to U.S. Census Bureau on Long-form Questionnaire in the 1995 Census Test  
Planning the Decennial Census: Interim Report  
Private Lives and Public Policies: Confidentiality and Accessibility of Government Statistics (co-sponsored by Social Science Research Council)  
Quality in Student Financial Aid Programs: A New Approach  
Transportation and the Mathematical Sciences: The Changing Interaction, Proceedings of a Symposium  
Workshop on the Not-for-Profit Sector in the National Accounts and Related Systems

## 1994

Assigning Economic Value to Natural Resources (with Commission on Geosciences, Environment, and Resources)  
Counting People in the Information Age  
Letter Report to Congress on Privacy and Confidentiality of Health Care Information

Trends in Disability at Older Ages: Summary of a Workshop

## 1995

Following the Money: U.S. Finance in the World Economy  
Integrating Federal Statistics on Children: Report of a Workshop (with Board on Children, Youth, and Families)  
Measuring Poverty: A New Approach  
Modernizing the U.S. Census  
Statistical Methods for Testing and Evaluating Defense Systems: Interim Report  
Toward Improved Modeling of Retirement Income Policies: Interim Report

## 1996

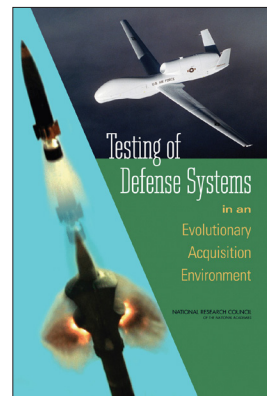
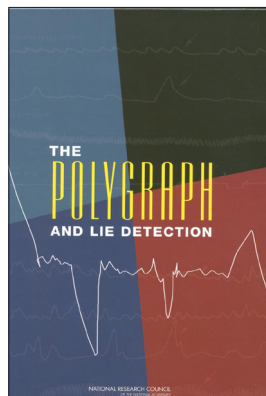
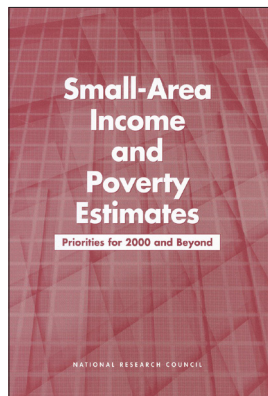
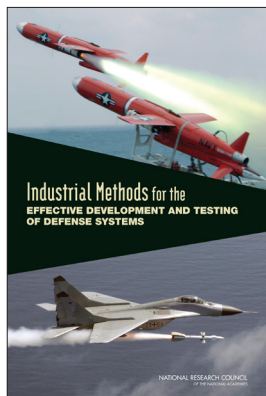
Assessing Knowledge of Retirement Behavior  
Improving Data on America's Aging Population: Summary of a Workshop  
Local Fiscal Effects of Illegal Immigration: Report of a Workshop (with Committee on Population)  
Sampling in the 2000 Census. Interim Report I  
Spotlight on Heterogeneity: The Federal Standards for Racial and Ethnic Classification (summary of a workshop)  
Statistics on U.S. Immigration: An Assessment of Data Needs for Future Research

## 1997

Assessing Policies for Retirement Income: Needs for Data, Research, and Models  
Assessment of Performance Measures for Public Health, Substance Abuse, and Mental Health  
The Bureau of Transportation Statistics: Priorities for the Future (with Transportation Research Board)  
Disability Evaluation Study Design: First Interim Report (with Institute of Medicine)  
Improving Theory and Research on Quality Enhancement in Organizations: Report of a Workshop  
Letter Report to U.S. Census Bureau on Mailing Procedures for the 2000 Census  
The New Americans: Economic, Demographic, and Fiscal Effects of Immigration (with Committee on Population)  
Preparing for the 2000 Census: Interim Report II  
Small-Area Estimates of School-Age Children in Poverty. Interim Report I—Evaluation of 1993 County Estimates for Title I Allocations

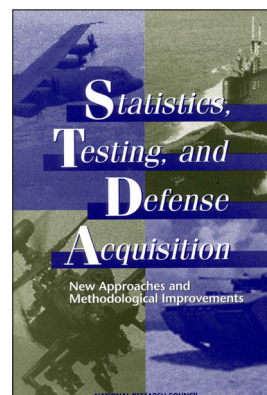
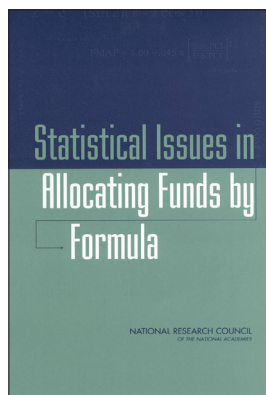
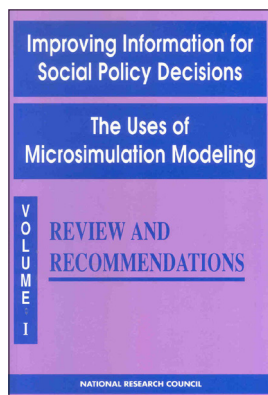
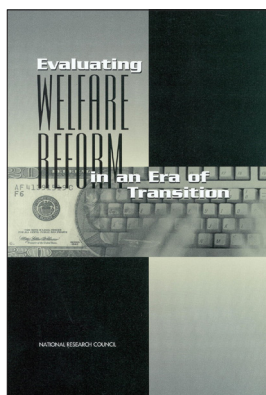
## 1998

The Immigration Debate: Studies on the Economic, Demographic, and Fiscal Effects of Immigration (with Committee on Population)  
Longitudinal Surveys of Children (with Board on Children, Youth, and Families)  
Measuring the Government Sector of the U.S. Economic Accounts

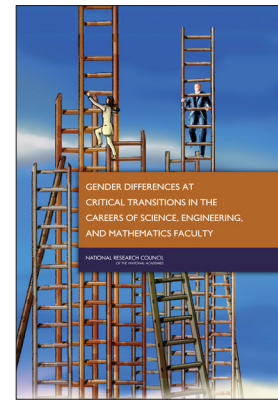
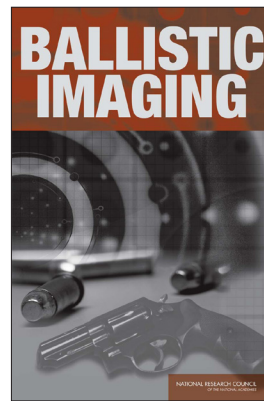
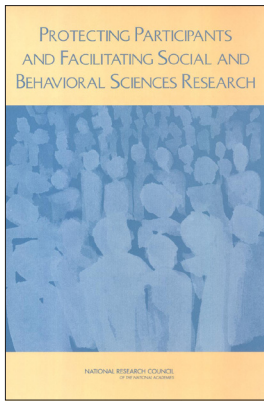


## Statistical Methods and Estimates for Policy Use

Over several decades CNSTAT has undertaken a range of studies to improve statistical methods and estimates for use in policy making and implementation. A landmark 1991 study evaluated microsimulation models that are used extensively by executive branch and congressional agencies for assessing the pros and cons of alternative tax and transfer programs; its recommendations led to better understanding, documentation, and hardware and software platforms for these important public policy tools. Subsequent studies examined models for retirement income and Medicare policies. A major study in the late 1990s evaluated small-area estimation models that combine administrative records with survey data to produce more reliable estimates than are possible with survey data alone: the estimates produced by one such model, the Census Bureau's Small Area Income and Poverty Estimates (SAIPE) program, are used to allocate federal funds to school districts to support disadvantaged students. In the late 2000s, CNSTAT completed a major study for the Food and Drug Administration on methods for reducing and compensating for missing data in clinical trials of alternative treatments for medical conditions. For the past 20 years, CNSTAT has undertaken studies to help the Department of Defense improve its statistical and engineering methods for testing and evaluating defense systems. Other policy-relevant methodological studies have evaluated the accuracy of the polygraph for lie detection, alternative methods for estimating the size of markets for illegal drugs, and measures of disparity for women-owned small businesses in federal contracting.





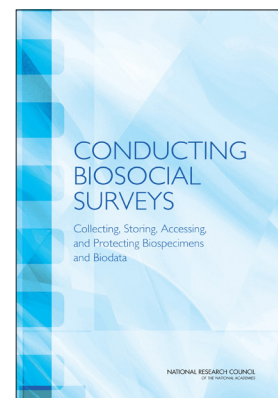
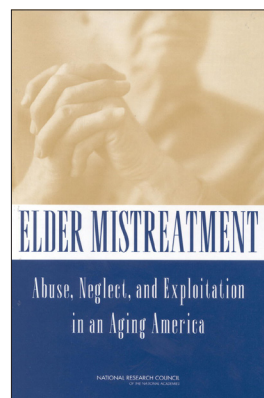
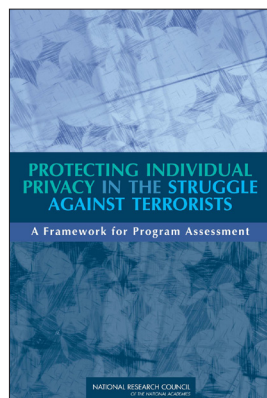
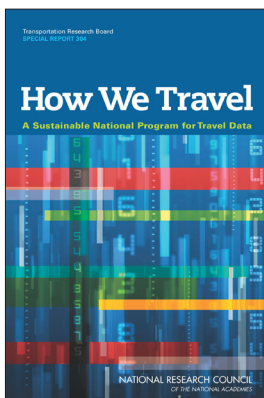


## Bridging Disciplines

CNSTAT studies often serve to bridge disciplines in unique and beneficial ways. A seminal report on *Cognitive Aspects of Survey Methodology* brought new attention to the interface of cognitive psychology and personal surveys. A workshop on survey automation suggested the need to better tap computer science expertise as computer-assisted survey techniques become more prevalent (and the questionnaires more complex). A landmark study on *Measuring Racial Discrimination* evaluated the past and potential future contributions of social psychology, microeconomics, survey research, and advances in the theory and practice of causal inference to this important and challenging subject.

## Cooperative Studies

Reflecting the nature of statistics as a discipline, CNSTAT frequently engages in cooperative studies within the Division of Behavioral and Social Sciences and Education and with units throughout the Academies. Subjects on which CNSTAT has collaborated include institutional review board practices, disability measurement, feasibility of a ballistic image database, policies on illegal drugs, and an in-depth review of the programs of the Bureau of Justice Statistics.



Providing National Statistics on Health and Social Welfare Programs in an Era of Change, Summary of a Workshop  
 Small-Area Estimates of School-Age Children in Poverty: Interim Report 2—Evaluation of Revised 1993 County Estimates for Title I Allocations  
 The Social Security Administration's Disability Decision Process: A Framework for Research, Second Interim Report (with Institute of Medicine)  
 Statistics, Testing, and Defense Acquisition: New Approaches and Methodological Improvements

## 1999

Assessment of Two Cost-Effectiveness Studies on Cocaine Control Policy (with Committee on Law and Justice)  
 Data and Methodological Issues for Tracking Former Welfare Recipients: A Workshop Summary  
 Evaluating Food Assistance Programs in an Era of Welfare Reform: Summary of a Workshop  
 Evaluating Welfare Reform: A Framework and Review of Current Work, Interim Report  
 Health Performance Measurement in the Public Sector: Principles and Policies for Implementing an Information Network  
 Letter Report to U.S. Census Bureau on the Design for the Accuracy and Coverage Evaluation Survey  
 Measuring a Changing Nation: Modern Methods for the 2000 Census  
 Measuring Functional Capacity and Work Requirements: Summary of a Workshop (with Institute of Medicine)  
 Measuring Health Performance in the Public Sector: A Summary of Two Reports  
 Nature's Numbers: Expanding the National Economic Accounts to Include the Environment  
 Review of the Disability Evaluation Study Design: Third Interim Report (with Institute of Medicine)  
 Small-Area Estimates of School-Age Children in Poverty: Interim Report 3—Evaluation of 1995 County and School District Estimates for Title I Allocations  
 Sowing Seeds of Change: Informing Public Policy in the Economic Research Service of USDA  
 Statistics, Testing, and Acquisition: Background Papers

## 2000

Designing the 2010 Census: First Interim Report  
 Improving Access to and Confidentiality of Research Data: Report of a Workshop  
 Letter Report to U.S. Census Bureau on the Plans for Adjustment Decision  
 Measuring the Science and Engineering Enterprise: Priorities for the Division of Science Resources Studies (with Office of Scientific and Engineering Personnel)  
 Small-Area Estimates of School-Age Children in Poverty: Evaluation of Current Methodology  
 Small-Area Income and Poverty Estimates: Priorities for 2000 and Beyond

Summary of a Workshop on Information Technology Research for Federal Statistics (with Computer Science and Telecommunications Board)  
 Survey Measurement of Work Disability: Summary of a Workshop (with Institute of Medicine)  
 Time-Use Measurement and Research: Report of a Workshop

## 2001

2000 Census: Interim Assessment (includes November 2001 letter report)  
 The American Community Survey: Summary of a Workshop and Technical Papers  
 Assessment of the 2000 Local Update of Census Addresses (LUCA) Program  
 Choosing the Right Formula: Initial Report  
 Crime Victims with Developmental Disabilities (with Committee on Law and Justice)  
 Estimating Eligibility and Participation for the WIC Program: Phase I Report  
 Evaluating Welfare Reform in an Era of Transition  
 Informing America's Policy on Illegal Drugs: What We Don't Know Keeps Hurting Us (with Committee on Law and Justice)  
 Letter Report to U.S. Census Bureau on Initial 2010 Census Plan  
 Preparing for an Aging World: The Case for Cross-National Research (with Committee on Population)  
 Principles and Practices for a Federal Statistical Agency: Second Edition  
 Proceedings, First Workshop: Panel to Review the 2000 Census  
 Proceedings, Second Workshop: Panel to Review the 2000 Census  
 Proceedings, Third Workshop: Panel to Review the 2000 Census  
 Toward a Health Statistics System for the 21st Century: Summary of a Workshop

## 2002

At What Price? Conceptualizing and Measuring Cost-of-Living and Price Indexes  
 Data Needs for the State Children's Health Insurance Program  
 Dynamics of Disability: Measuring and Monitoring Disability for Social Security Programs (with Institute of Medicine)  
 Key Transportation Indicators: Summary of a Workshop  
 Letter Report to Institute of Medicine Committee on Assessing the System for Protecting Human Research Participants (Appendix B in Responsible Research)  
 Letter Report to U.S. Department of Defense on Test Design and Evaluation for the Interim Armored Vehicle  
 Measuring Housing Discrimination in a National Study: Report of a Workshop  
 Reliability Issues for DoD Systems: Report of a Workshop

Studies of Welfare Populations: Data Collection and Research Issues

## 2003

Designing Nonmarket Accounts for the United States: Interim Report  
 Elder Mistreatment: Abuse, Neglect, and Exploitation in an Aging America (with Committee on Law and Justice)  
 Estimating Eligibility and Participation for the WIC Program: Final Report  
 Improved Operational Testing and Evaluation: Better Measurement and Test Design for the Interim Brigade Combat Team with Stryker Vehicles, Final Report  
 Improving the Design of the Scientists and Engineers Statistical Data System  
 Innovations in Software Engineering for Defense Systems (with Committee on Applied and Theoretical Statistics)  
 Letter Report to U.S. Office of Management and Budget on Principles and Practices for Federal Statistical Agencies  
 Measurement Problems in Criminal Justice Research Workshop Summary (with Committee on Law and Justice)  
 Measuring Access to Learning Opportunities (with Center for Education)  
 Measuring Personal Travel and Goods Movement: A Review of the Bureau of Transportation Statistics' Surveys (with Transportation Research Board)  
 Planning the 2010 Census: Second Interim Report  
 The Polygraph and Lie Detection (with Board on Behavioral, Cognitive, and Sensory Sciences)  
 Protecting Participants and Facilitating Social and Behavioral Sciences Research (with Board on Behavioral, Cognitive, and Sensory Sciences)  
 Statistical Issues in Allocating Funds by Formula  
 Survey Automation: Report and Workshop Proceedings

## 2004

The 2000 Census: Counting Under Adversity  
 Eliminating Health Disparities: Measurement and Data Needs  
 Enhancing the Data Infrastructure in Support of Food and Nutrition Programs, Research, and Decision Making: Report of a Workshop  
 Improved Operational Testing and Evaluation and Methods of Combining Test Information for the Stryker Family of Vehicles and Related Army Systems: Phase II Report  
 Improving Racial and Ethnic Data on Health: Report of a Workshop  
 Letter Report to Bureau of Transportation Statistics on International Trade on U.S. Highways  
 Measuring Racial Discrimination  
 Measuring Research and Development Expenditures in the U.S. Economy: Interim Report  
 Reengineering the 2010 Census: Risks and Challenges

## 2005

Analyzing Information on Women-Owned Small Businesses in Federal Contracting  
 Beyond the Market: Designing Nonmarket Accounts for the United States  
 Expanding Access to Research Data: Reconciling Risks and Opportunities  
 Experimental Poverty Measures: Summary of a Workshop  
 Improving Data to Analyze Food and Nutrition Policies  
 Measuring Food Insecurity and Hunger: Phase I Report  
 Measuring International Trade on U.S. Highways  
 Measuring Research and Development Expenditures in the U.S. Economy  
 Principles and Practices for a Federal Statistical Agency: Third Edition

## 2006

Food Insecurity and Hunger in the United States: An Assessment of the Measure  
 Improving Business Statistics Through Data Sharing: Summary of a Workshop  
 Once, Only Once, and in the Right Place: Residence Rules in the Decennial Census  
 Testing of Defense Systems in an Evolutionary Acquisition Environment

## 2007

Measuring Respirator Use in the Workplace (with Board on Chemical Sciences and Technology)  
 Research and Plans for Coverage Measurement in the 2010 Census: Interim Assessment  
 State and Local Government Statistics at a Crossroads  
 Understanding American Agriculture: Challenges for the Agricultural Resource Management Survey  
 Understanding Business Dynamics: An Integrated Data System for America's Future  
 Using the American Community Survey: Benefits and Challenges

## 2008

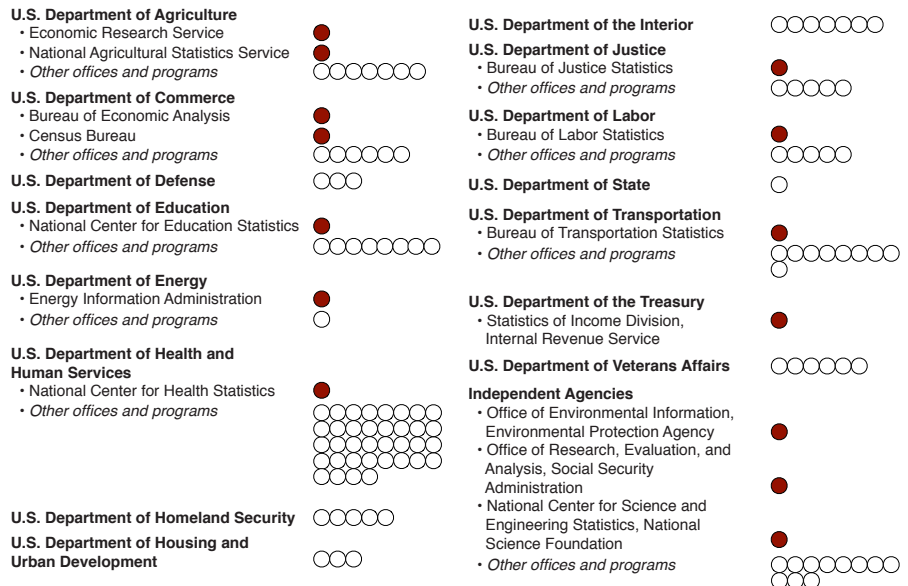
Ballistic Imaging (with Committee on Law and Justice and National Materials Advisory Board)  
 Coverage Measurement in the 2010 Census  
 Experimentation and Evaluation Plans for the 2010 Census: Interim Report  
 The National Children's Study Research Plan: A Review (with Institute of Medicine)  
 Protecting Individual Privacy in the Struggle Against Terrorists: A Framework for Program Assessment (with Committee on Law and Justice and Computer Science and Telecommunications Board)  
 Strategies for a BEA Satellite Health Account: Summary of a Workshop  
 Surveying Victims: Options for Conducting the National Crime Victimization Survey (with Committee on Law and Justice)  
 Using the American Community Survey for the National Science Foundation's Science and Engineering Workforce Statistics Programs



# Coordinating and Sustaining Federal Statistics

The federal statistical system is a critical part of the nation's science and information infrastructure. Each of the circles in the diagram to the right represents a federal agency that expected to spend at least \$500,000 on "statistical services" in fiscal year 2014, whether for analysis of existing data or the collection of original data series. The labeled circles, shown in

red, are those agencies that are commonly known as the principal statistical agencies of the federal government, by virtue of their participation in an interagency council convened by the U.S. Office of Management and Budget. The diagram illustrates the high degree of decentralization in the U.S. federal statistical system, differing from the practice in some other countries of consolidating activity in a single national statistical office. CNSTAT, its activities, and its studies and workshops serve as a centralizing influence for this highly decentralized system. The recommendations and lessons learned from individual panel studies are frequently pertinent to multiple agencies, and the Committee strives to enable activities on methodological problems that may be difficult for individual agencies to address on their own.



**2009**

Data on Federal Research and Development Investments: A Pathway to Modernization

A Database for a Changing Economy: Review of the Occupational Information Network (O\*NET; with Center for Education)

Ensuring the Quality, Credibility, and Relevance of U.S. Justice Statistics (with Committee on Law and Justice)

Experimentation and Testing Plans for the 2010 Census: Letter Report

Gender Differences at Critical Transitions in the Careers of Science, Engineering, and Mathematics Faculty (with Committee on Women in Science, Engineering, and Medicine)

Improving the Measurement of Late-Life Disability in Population Surveys: Beyond ADLs and IADLs (with Committee on Population)

Intangible Assets: Measuring and Enhancing Their Contribution to Corporate Value and Economic Growth—Summary of a Workshop (with Board on Science, Technology and Economic Policy)

Principles and Practices for a Federal Statistical Agency: Fourth Edition

Protecting and Accessing Data from the Survey of Earned Doctorates: A Workshop Summary

Protecting Student Records and Facilitating Education Research: Workshop Summary (with Center for Education)

Reengineering the Survey of Income and Program Participation

Vital Statistics: Summary of a Workshop

**2010**

Accounting for Health and Health Care: Approaches to Measuring the Sources and Costs of Their Improvement

Commercial Buildings Energy Consumption Survey: Letter Report (with Board on Energy and Environmental Systems)

Conducting Biosocial Surveys: Collecting, Storing, Accessing, and Protecting Biospecimens and Biodata (with Committee on Population)

Data on Federal Research and Development Investments: A Pathway to Modernization

Databases for Estimating Health Insurance Coverage for Children: A Workshop Summary

Developing and Evaluating Methods for Using American Community Survey Data to Support the Schools Meals Program: Interim Report

Envisioning the 2020 Census

Improving Health Care Cost Projections for the Medicare Population: Summary of a Workshop

Measuring the Group Quarters Population in the American Community Survey: Interim Report

The Prevention and Treatment of Missing Data in Clinical Trials

**2011**

Allocating Federal Funds for State Programs for English Language Learners (with Board on Testing and Assessment)

Change and the 2010 Census: Not Whether But How Communicating National Science Foundation Science and Engineering Information to Data Users: Letter Report

Communicating Science and Engineering Data in the Information Age (with Computer Science and Telecommunications Board)

Facilitating Innovation in the Federal Statistical System: Summary of a Workshop

The Future of Federal Household Surveys: A Workshop Summary

How We Travel: A Sustainable National Program for Travel Data (with Transportation Research Board)

Industrial Methods for the Effective Testing and Development of Defense Systems (with Board on Army Science and Technology)

**2012**

Collecting Compensation Data from Employers

Effective Tracking of Building Energy Use: Improving the Commercial Buildings and Residential Energy Consumption Surveys (with Board on Energy and Environmental Systems)

Improving Measurement of Productivity in Higher Education (with Board on Testing and Assessment and Board on Higher Education and Workforce)

Improving Measures of Science, Technology, and Innovation: Interim Report (with Board on Science, Technology, and Economic Policy)

Key National Education Indicators: Workshop Summary (with Board on Testing and Assessment)

Measuring What We Spend: Toward a New Consumer Expenditure Survey

Medical Care Economic Risk: Measuring Financial Vulnerability from Spending on Medical Care (with Board on Health Care Services)

Small Populations, Large Effects: Improving the Measurement of the Group Quarters Population in the American Community Survey

Testing of Body Armor Materials: Phase III (with Board on Army Science and Technology)

The Subjective Well-Being Module of the American Time Use Survey: Assessment for Its Continuation

Using American Community Survey Data to Expand Access to the School Meals Program

**2013**

Benefits, Burdens, and Prospects of the American Community Survey: Summary of a Workshop

Capturing Change in Science, Technology, and Innovation: Improving Indicators to Inform Policy

Design of the National Children's Study: A Workshop Summary (with Board on Children, Youth, and Families)

Developing New National Data on Social Mobility: A Workshop Summary (with Committee on Population)

Estimating Illegal Entries at the U.S.-Mexico Border  
 Estimating the Incidence of Rape and Sexual Assault  
 National Patterns of R&D Resources: Future Directions  
 for Content and Methods: Summary of a Workshop  
 Nonresponse in Social Science Surveys: A Research  
 Agenda  
 Principles and Practices for a Federal Statistical Agency:  
 Fifth Edition  
 Research Opportunities Concerning the Causes and  
 Consequences of Child Food Insecurity and Hunger: A  
 Workshop Summary  
 Subjective Well Being: Measuring Happiness, Suffering,  
 and Other Dimensions of Experience  
 Supplemental Nutrition Assistance Program: Examining  
 the Evidence to Define Benefit Adequacy (with Food  
 and Nutrition Board)

Issues in Returning Individual Results from Genome  
 Research Using Population-Based Banked Specimens,  
 with a Focus on the National Health and Nutrition  
 Examination Survey: A Workshop Summary  
 Measuring Research and Development Expenditures in  
 the U.S. Nonprofit Sector: Conceptual and Design  
 Issues: Summary of a Workshop (forthcoming)  
 The National Children's Study 2014: An Assessment (with  
 Board on Children, Youth, and Families)  
 Pathways to Exploration: Rationales and Approaches for  
 a U.S. Program of Human Space Exploration (with  
 Aeronautics and Space Engineering Board and Space  
 Studies Board)  
 Proposed Revisions to the Common Rule for the  
 Protection of Human Subjects in the Behavioral and  
 Social Sciences (with Board on Behavioral, Cognitive,  
 and Sensory Sciences, Committee on Population, and  
 Board on Health Sciences Policy)  
 Realizing the Potential of the American Community  
 Survey: Challenges, Tradeoffs and Opportunities  
 (forthcoming)  
 Reliability Growth: Enhancing Defense System Reliability  
 (forthcoming)  
 Science of Science and Innovation Policy: Principal  
 Investigators' Conference Summary

## 2014

Civic Engagement and Social Cohesion: Measuring  
 Dimensions of Social Capital to Inform Policy  
 Data and Research to Improve the U.S. Food Availability  
 System and Estimates of Food Loss: A Workshop  
 Report  
 Developing New National Data on Social Mobility: A  
 Workshop Summary (with Committee on Population)

FOOTNOTE: See the publications page of CNSTAT's web site, <http://sites.nationalacademies.org/DBASSE/CNSTAT/Reports>, for links to reports available from The National Academies Press and where to obtain other reports.



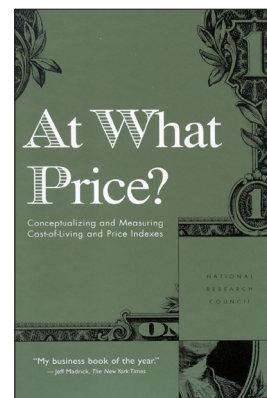
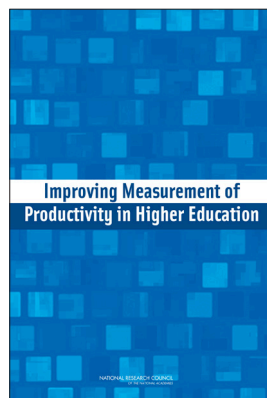
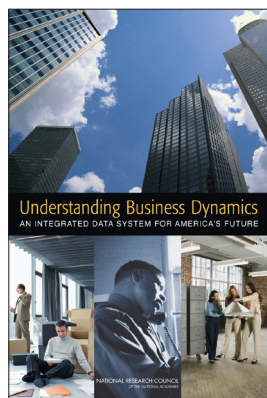
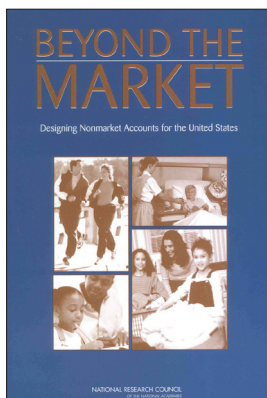


# Economic Measurement

One of CNSTAT's long-standing goals is the improvement of economic measurement and crucial data sources for that measurement. *At What Price? Conceptualizing and Measuring Cost-of-Living and Price Indexes* examined the foundations for consumer price indexes, comparing the strengths, weaknesses, and limitations of traditional "fixed basket" and cost-of-living-based approaches. *Beyond the Market: Designing Nonmarket Accounts for the United States* discussed how to extend the accounting principles that underlie the measurement of gross domestic product to develop broader measures of how well we are doing as a nation—how to design accounts in such areas as health, education, home production, and environmental improvement (or pollution) that can help us better understand economic growth and income determination. *Accounting for Health and Healthcare* continued this line of work, focusing on the costs of and returns from medical care and other "inputs" to population health, conceptualized within an economic accounting framework. *Improving Measurement of Productivity in Higher Education* presented an analytically well-defined concept of productivity in higher education and, while recognizing the great difficulty of doing so, offers practical guidelines for its measurement.

CNSTAT studies have also examined the unique data issues involved when businesses or firms are the unit of measurement. *Understanding Business Dynamics* explored available data on the births, deaths, expansions, and contractions of firms and establishments. CNSTAT studies have explored portions of the recurring Economic Census, including a review of the state and local governments program of the Census Bureau's economic programs directorate.

CNSTAT, working with the Committee on Population (CPOP), has under way a study on the economic, labor market, and fiscal impacts of immigration. The expert panel will address questions about the impacts of immigration on living standards and the macro economy; wages and income of U.S. natives and immigrants, and for different education, skill, and occupation groups; budgets and fiscal health at the federal, state and local levels; and inter-governmental fiscal dynamics (e.g., the distribution of the budget impact across federal, state, and local entities). A CPOP companion study will investigate the integration of immigrants into American communities.



## The Academies

On March 3, 1863, President Abraham Lincoln signed an act incorporating the National Academy of Sciences, an honorific society that “shall, whenever called upon by any department of the Government, investigate, examine, experiment, and report upon any subject of science or art.” Pursuant to its charter, the Academy established two similar societies, the National Academy of Engineering in 1964 and the Institute of Medicine in 1970. To tap the expertise in the broader scientific and technical community for its studies, the Academy created an operational and staff arm—the National Research Council—in 1916, at the request of President Woodrow Wilson. Collectively, these four non-profit organizations are known as The National Academies.



As mandated by the original 1863 charter, “the actual expense of [National Academies] investigations [are] to be paid from appropriations which may be made for the purpose, but the Academy shall receive no compensation whatever for any services to the Government of the United States.” Instead, the expert members of study committees and boards volunteer their time and effort. The members of study panels are chosen for expertise and balance, and are appointed through an intensive nominations process.

The independence of National Academies studies is vigorously maintained. Once a panel study is started, the sponsor of the study has no direct control over its progress. Sponsors have no veto power on panel membership and no access to the panel’s deliberative sessions. They also have no access to the panel’s findings and recommendations until the completion of a rigorous blind review process, which is coordinated by a Report Review Committee made up of Academy members. Just as the membership of study panels is carefully evaluated for expertise and balance, so, too, is the slate of reviewers chosen to critique the panel’s written report. In order to complete review, the panel and its staff must respond to the Report Review Committee concerning all review comments, and approval must be secured from a designated monitor or coordinator.

Approximately 5,000 people are members of the National Academy of Sciences, the National Academy of Engineering, or the Institute of Medicine; election to membership in one of the Academies is considered one of the highest honors that can be accorded a scientist.



**The Committee on National Statistics (CNSTAT) was established in 1972 at the National Academies to improve the statistical methods and information on which public policy decisions are based. The committee carries out studies, workshops, and other activities to foster better measures and fuller understanding of the economy, the environment, public health, crime, education, immigration, poverty, welfare, and other public policy issues. It also evaluates ongoing statistical programs and tracks the statistical policy and coordinating activities of the federal government, serving a unique role at the intersection of statistics and public policy. The committee's work is supported by a consortium of federal agencies through a National Science Foundation grant.**