DIRECTORATE FOR SOCIAL, BEHAVIORAL, AND ECONOMIC SCIENCES (SBE)   **$320,410,000**

SBE Funding

(Dollars in Millions)

	FY 2023 Base Plan[1]	FY 2024 (TBD)	FY 2025 Request	Change over FY 2023 Base Plan Amount	Percent
Behavioral and Cognitive Sciences (BCS)	$102.21	-	$108.39	$6.18	6.0%
Social and Economic Sciences (SES)	103.61	-	103.79	0.18	0.2%
SBE Office of Multidisciplinary Activities (SMA)	25.17	-	25.38	0.21	0.8%
National Center for Science and Engineering Statistics (NCSES)	78.07	-	82.85	4.78	6.1%
Total	**$309.06**	**-**	**$320.41**	**$11.35**	**3.7%**

[1] For comparability with FY 2025, the FY 2023 levels do not include this organization's share of Mission Support Services that were funded through the R&RA and EDU directorates and offices.

About SBE

SBE researchers examine fundamental questions about the dynamic abilities of humans, the strength and resilience of essential institutions, human interactions with physical and built environments, the creation of jobs and industries, societal and ethical implications of emerging technologies such as artificial intelligence (AI), national security, and relations between nations, and finding new ways to improve quality of life for all Americans. SBE-supported research empowers America's private and public sectors to grow the economy, secure the homeland, improve the health and safety of American families, enhance equitable decision making, and increase the competitiveness of farms, factories, and offices across the Nation. SBE strategically seeks opportunities to build a better future. One way it does this is by investing in the new and increasingly diverse, dynamic, and skilled generation of young researchers in support of NSF's goal to Create Opportunities Everywhere. SBE support for early-career investigators, undergraduates, graduate students, and postdoctoral research fellows trains and prepares beginning scholars to develop rigorous and effective new ways to capitalize on the increasing availability of large amounts of data to advance knowledge about human behavior. SBE researchers, for example, will have increasing opportunities to use and combine data from administrative records, surveys, brain imaging, and biospecimens, as well as output from behavioral, environmental, and geographic sensors to learn how to improve wellbeing and other life outcomes.

SBE is also home to the National Center for Science and Engineering Statistics (NCSES). One of only 13 principal statistical agencies in the federal government, it is the Nation's source for science and engineering information in a global context. NCSES collects, analyzes, and disseminates information on representation across the scientific enterprise; research and development; innovation; the science and engineering workforce; the condition and progress of STEM; and U.S. competitiveness in science, engineering, technology, and research and development.

SBE's FY 2025 Request is shaped by three guiding principles:

1) *Support fundamental research and research infrastructure that advances key national priorities*. SBE's research emphases include enhancing national security and preparedness; understanding, mitigating, and adapting to environmental change; strengthening American infrastructure; broadening participation in STEM; studying the causes of, impacts on, and practices for addressing inequity throughout society; creating new opportunities for populations adversely affected by change; empowering American innovation through research in emerging industries such as AI,

with a focus on worker productivity and well-being in a growing range of work environments; reliability of information networks; and improving quality of life for communities across the country.

2) *Support NCSES, the Nation's source for information on the science and engineering enterprise*. Various federal government initiatives, including the Foundations for Evidence-Based Policymaking Act (Evidence Act) and CHIPS and Science Act (P.L. 117-167), focus on improving federal agency performance and the productivity of America's science and engineering enterprise as a whole. These efforts require the Nation to make more effective use of the types of data that NCSES collects, analyzes, and disseminates. Increased support for NCSES allows the Nation to be more informed, more effective, and more agile in converting America's incredible talent and ability into better educational outcomes, more opportunity, greater productivity, and higher rates of innovation in all areas of American life.

3) *Support and advance cross-directorate activities that address urgent national challenges*. Whether the topic is creating the new jobs and industries to support economic recovery that helps everyone, increasing national security through tools that better identify new and emerging threats, or improving community resilience by improving response to natural disasters and pandemics, broadening opportunity and understanding the people involved is critical. SBE works with all of NSF, other agencies, and non-governmental partners in industry and philanthropy to support research that solves big problems by putting people first. With an FY 2025 Request of $320.41 million, SBE will maximize support in disciplinary and interdisciplinary programs that support Administration and NSF-wide priorities to advance emerging technologies, create opportunities everywhere, build a resilient planet, and strengthen research infrastructure. Funding will also support building research capacity at under-resourced and emerging research institutions and expanding the STEM talent pool through the Build and Broaden program. SBE will also support NCSES's expanding role in the federal statistical enterprise.

The FY 2025 Request includes continued support for investments that integrate the social, behavioral, and economic sciences into multi-directorate and multidisciplinary activities that address issues of major scientific, national, and societal importance. These include research related to National AI Research Institutes; Secure and Trustworthy Cyberspace; Centers for Research and Innovation in Science, the Environment and Society (CRISES); and Strengthening American Infrastructure (SAI).

In FY 2025, SBE will continue its support for early career investigators—Faculty Early Career Development (CAREER) awards; undergraduates—Research Experiences for Undergraduates (REU); graduate students—Doctoral Dissertation Research Improvement Grants (DDRIG); and postdoctoral research fellows—SBE Postdoctoral Research Fellowships (SPRF) program.

SBE's FY 2025 Request includes increased support for NCSES to continue implementation of the Standard Application Process and the development and implementation of the National Secure Data Service demonstration project. Consistent with recent executive orders that highlight the importance of objective and trustworthy data, SBE support will help NCSES continue to expand data tools, implement data collections, and address requirements of the CHIPS and Science Act and the Evidence Act. SBE is also committed to supporting NSF's efforts to meet all Evidence Act requirements, including having NCSES's Director serve as the Foundation's Statistical Official.

Major Investments

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SBE Major Investments

(Dollars in Millions)
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Area of Investment[1,2]	FY 2023 Base Plan	FY 2024 (TBD)	FY 2025 Request	Change over FY 2023 Base Plan Amount	Change over FY 2023 Base Plan Percent
Advanced Manufacturing	$0.50	-	$0.52	$0.02	4.0%
Artificial Intelligence	16.92	-	17.68	0.76	4.5%
BaRP: USGCRP	20.00	-	20.90	0.90	4.5%
Biotechnology	1.50	-	1.57	0.07	4.7%
Build and Broaden	8.00	-	8.36	0.36	4.5%
Ethical and Responsible Research (ER2)	2.20	-	2.20	-	-
Human-Environment and Geographical Sciences	7.30	-	7.30	-	-
Human Networks and Data Science (HNDS)	8.00	-	8.00	-	-
Research Infrastructure in the Social & Behavioral Sciences (RISBS)	10.55	-	16.00	5.45	51.7%
SBE Postdoctoral Research Fellowships (SPRF)	6.00	-	4.64	-1.36	-22.7%
Secure & Trustworthy Cyberspace	4.00	-	4.00	-	-
Science of Science	6.30	-	6.30	-	-
Strengthening American Infrastructure	6.00	-	6.00	-	-

[1] Major investments may have funding overlap and thus should not be summed.

[2] This table reflects this directorate's support for selected topics. Investment priorities and presentation may differ by organization and so should not be summed across narratives.

To learn more about cross-agency themes and initiatives supported by SBE, including, Advanced Manufacturing, Artificial Intelligence, Biotechnology, Climate, Secure and Trustworthy Computing, see individual narratives in the NSF-Wide Investments chapter.

- Build and Broaden (B2): SBE will increase investments in an innovative program that supports research collaborations and partnerships between scholars at minority serving institutions (MSIs) and other institutions or organizations. Projects 1) build capacity and enhance research productivity in the SBE sciences at MSIs; 2) provide researchers with new ways to diversify and sustain collaborations; 3) foster partnerships that strengthen career and research trajectories for MSI faculty; 4) broaden participation of underrepresented entities in STEM entrepreneurship and innovation; and 5) contribute to more innovative science by diversifying research and widening the STEM pathways.

- Ethical and Responsible Research (ER2): SBE will continue to lead the NSF-wide ER2 program, which supports fundamental research about what constitutes or promotes responsible and ethical conduct of research (RECR). The ER2 program seeks to encourage science, technology, engineering, and mathematics researchers, practitioners, and educators at all career stages to conduct research with integrity and to educate others about RECR. ER2 also supports investigating the ethical consequences of research activities in emerging scientific and technological areas such as AI, gene editing, synthetic biology, robotics, cryptography, research with indigenous populations, and data-related research practices.

- Human Networks and Data Science (HNDS): SBE will maintain support for HNDS, which supports applications of data science positioned at the intersection of the social, computer, and statistical sciences. HNDS aims to apply methods of data and network science to large quantities of data to advance theories in the SBE sciences. Infrastructure projects funded through the program develop

user-friendly, large-scale, next-generation data resources and relevant analytic techniques to advance fundamental research in SBE areas of study, and research projects funded under HNDS make theoretical contributions to SBE disciplines by applying data-intensive methods to explain human behavior, including the application of social data science and the construction of models of existing or emerging human networks at all levels of human experience. HNDS directly contributes to Administration and NSF priorities such as Networking and Information Technology Research and Development (NITRD) and Emerging Industries (EI), including AI.

- Research Infrastructure in the Social and Behavioral Sciences (RISBS): SBE will continue support for RISBS, which supports projects that create computational tools and data to facilitate basic research in the social and behavioral sciences that can lead to improved health, prosperity, and security. RISBS directly supports key longitudinal surveys and panel studies that provide researchers with data on how American society functions and changes over time, as well as innovative projects to develop leading-edge methodologies and technologies that will inform existing or future research infrastructure activities in the SBE sciences.

- SBE Postdoctoral Research Fellowships (SPRF): SBE will increase its commitment to SPRF that promotes fundamental research in the SBE sciences by providing opportunities for recent doctoral graduates to obtain additional training and research experience; targets the participation of underrepresented groups in STEM; and encourages doctoral scientists who are not yet in full-time positions to take advantage of the two-year fellowship to prepare for scientific careers in academia, industry, private sector, or government. FY 2025 funding will expand support for broadening participation with an emphasis on fellows from underrepresented groups, states, and institutions.

- Science of Science: SBE will maintain support for the Science of Science: Discovery, Communication and Impact (SoS:DCI) program, which is designed to advance theory and knowledge about increasing the public value of scientific activity. SoS:DCI funds research that builds theoretical and empirical understanding of the science of science with the potential to strengthen America's global leadership in science and increase national competitiveness across a broad range of domains. These include proposals that analyze strategies for strengthening and diversifying the scientific workforce, as well as ways to cultivate and communicate high-impact discovery and translational research across sectors in support of NSF's Create Opportunities Everywhere (COE) and EI goals.

- Strengthening American Infrastructure: SBE will maintain its commitment to this investment, which links experts on physical, computational, and material aspects of infrastructure design with scientists whose fundamental research explains how humans will—and will not—use infrastructure. This human-centered approach to infrastructure is a critical component to building better, smarter, and more cost-effective roads, electric grids, hospitals, and more. Improving infrastructure in these ways spurs private-sector innovation, grows the economy, and is essential to national competitiveness.

- Human-Environment and Geographical Sciences (HEGS): HEGS is a key program that supports the goals of the USGCRP crosscut. As the challenge of increased environmental change becomes more urgent, this program is key in supporting interdisciplinary research on human adaptation and societal resilience. The program supports research on the nature, causes, and consequences of human-environmental interactions along with the spatial dimensions of human activities and environmental processes across a range of scales. This program generates high-impact research on mitigating and adapting to environmental change with immediate societal benefits, and it specifically contributes to NSF's Building a Resilient Planet goal.

Centers Programs

SBE Funding for Centers Programs

(Dollars in Millions)

	Division	FY 2023 Base Plan[1]	FY 2024 (TBD)	FY 2025 Request	Change over FY 2023 Base Plan	
					Amount	Percent
Artificial Intelligence Research Institutes	Mult.	$1.52	-	$1.52	-	-
STC: Center for Braiding Indigenous Knowledges and Science (CBIKS)	BCS	-	-	6.00	6.00	N/A
Total		**$1.52**	**-**	**$7.52**	**$6.00**	**396.0%**

[1] For comparability with FY 2025, the FY 2023 levels do not include this organization's share of Mission Support Services that were funded through the R&RA and EDU directorates and offices.

For detailed information on individual centers programs, please see the Cross-Theme Topics section of the NSF-Wide Investments chapter.

SBE Divisions

SBE Division Funding by Category

(Dollars in Millions)

	FY 2023 Base Plan[1]	FY 2024 (TBD)	FY 2025 Request	Change over FY 2023 Base Plan	
				Amount	Percent
BCS	**$102.21**	**-**	**$108.39**	**$6.18**	**6.0%**
Research	97.27	-	103.45	6.18	6.4%
Education	0.44	-	0.44	-	-
Infrastructure	4.50	-	4.50	-	-
SES	**$103.61**	**-**	**$103.79**	**$0.18**	**0.2%**
Research	97.62	-	86.89	-10.73	-11.0%
Education	0.50	-	0.50	-	-
Infrastructure	5.49	-	16.40	10.91	198.7%
SMA	**$25.17**	**-**	**$25.38**	**$0.21**	**0.8%**
Research	16.11	-	17.68	1.57	9.7%
Education	9.06	-	7.70	-1.36	-15.0%
NCSES	**$78.07**	**-**	**$82.85**	**$4.78**	**6.1%**
Infrastructure	78.07	-	82.85	4.78	6.1%

[1] For comparability with FY 2025, the FY 2023 levels do not include this organization's share of Mission Support Services that were funded through the R&RA and EDU directorates and offices.

Behavioral and Cognitive Sciences (BCS). BCS supports scientific research that examines the sources of the human condition and the character of thinking and behavior. Programs examine these issues at multiple levels, ranging from genetics and brain activity to social, cultural, and environmental

contexts. BCS also manages infrastructure-related activities in Human Networks and Data Science, which seek to advance relevant analytical techniques and develop user-friendly, large-scale, next-generation data resources to improve quality of life for all Americans. These activities are complemented by active involvement in funding competitions and development of partnerships inside and outside of government that support collaborative and cross-disciplinary projects that increase understanding of learning and education, the human brain, culture and the environment, and behavior.

Social and Economic Sciences (SES). SES is concerned with the growth of the Nation through provision of goods, services, opportunities, and well-being. SES supports research on how people collectively live, work, and prosper in productive businesses and other organizations. Priority topics include: management tools, risk assessment, and planning; workforce measurement, training, and development; markets, competition, and the economy; social trends and demographics; security and preparedness; accountable institutions and behaviors; the science of and the legal and regulatory aspects of innovation, technology, and science; the safety and trustworthiness of new technologies; as well as the statistics, modeling, and other methodologies that enable forward-thinking research. SES also supports large infrastructure activities through the Research Infrastructure in the Social and Behavioral Sciences Program, which supports projects that create computational tools and data to facilitate basic research in the social and behavioral sciences that can lead to improved health, prosperity, and security.

SBE Office of Multidisciplinary Activities (SMA). SMA provides a focal point for the range of activities that cut across SBE and NSF disciplinary boundaries. SMA supports efforts that seek to improve the scale and effectiveness of the scientific workforce. It supports Research Experiences for Undergraduates Sites, ER2, Analytics for Equity, and the SPRF program. In FY 2025, SMA will play a key role in several crosscutting NSF investments as well as interdisciplinary research and training via activities such as the SPRF Fundamental Research and Broadening Participation tracks. As the lead directorate for managing the ER2 program, with support from other NSF directorates, SBE coordinates the Online Ethics Center for Engineering and Science award. While all SBE divisions pursue interdisciplinary work, SMA assists with seeding multidisciplinary activities for the future, such as leveraged and targeted co-funding directed towards national, NSF, and directorate priorities in research such as EF, BaRP, and COE.

National Center for Science and Engineering Statistics (NCSES). NCSES is one of the federal government's 13 principal statistical agencies; its unique mission is to provide objective, policy-relevant information regarding the science and engineering enterprise in a global context. NCSES provides policymakers, researchers, and the public with high-quality data and analysis on R&D, innovation, the education of scientists and engineers, and the science and engineering workforce. NCSES supports research on the education and training of researchers, statistical methodology and data quality improvement efforts, and information compilation and dissemination to meet the statistical and analytical needs of its diverse user community. NCSES also plays a critical role in government-wide shared- services for evidence building

The FY 2025 Request of $82.85 million supports NCSES's data collection and analytic activities, which provide key evidence used widely in policy discussions and evidence-based decision making. The request will support nationally representative surveys of U.S. investment in R&D and innovation by sector including business, higher education, government, and non-profit. In addition, this request

includes data collection on the education of scientists and engineers; the science and engineering workforce, including the skilled technical workforce; and the cybersecurity workforce. This request will support work expanding longitudinal data collection that hopes to shed light on how individuals enter, maintain relevance, and seek advancement in the science and engineering workforce, and understanding when and why they leave. In addition, work will be funded to expand the ability to measure demographics in populations, including implementing new race and ethnicity collection standards and the exploration of collecting additional demographic information for underserved communities. Funding will support the analysis and dissemination of data on the science and engineering ecosystem, including the congressionally mandated reports *Science and Engineering Indicators;* and *Diversity and STEM: Women, Minorities, and Persons with Disabilities in Science and Engineering*. With this funding, NCSES will continue to support the National Science Board with data, analysis, and publication support, including with a pilot data tool to improve equitable access to and timeliness of statistical information.

In an effort to meet escalating IT infrastructure needs and security requirements, this funding will increasingly support NCSES data tools, website publication infrastructure, and other dissemination tools to maintain and increase data accessibility. In response to GAO findings, NCSES will invest in strategic communication and engagement activities. To fulfill the NCSES role as the U.S. delegate to the Organisation for Economic Co-operation and Development (OECD) Working Party of National Experts on Science and Technology Indicators, this funding will support NCSES reporting of U.S. R&D statistics and work on international comparability of R&D statistics, including those on the S&E workforce and international efforts on S&E policy evidence-building. In efforts to address falling response rates and increasing survey costs, funding will support research into data linking and use of administrative data. This includes investments in robust metadata to enable linking to non-NCSES data sets to inform S&E evidence-building activities.

Funding supports NCSES continued leadership of government-wide evidence-building activities and initiatives such as continued management of the Standard Application Process portal for applying to access restricted-use data from statistical agencies and units. FY 2025 funding will support expansion of this portal in features, usability, agency participation, and datasets. In addition, this funding will support the National Secure Data Service demonstration project and related statistical system-wide projects. This demonstration project was authorized in the CHIPS and Science Act of 2022. FY 2025 work will continue to support the testing of a secure computing space as well as data concierge services to expand the utility and use of federal statistical data for evidence building. In addition, funding will support work in a variety of research topics salient Administration including AI, privacy-preserving technologies, and other shared services.

Directorate for Social, Behavioral, and Economic Sciences