



MEMORANDUM

TO: Dr. France A. Córdova

Director

National Science Foundation

Dr. Maria T. Zuber

Chair

National Science Board

FROM: Allison Lerner allison (e/ne/

Inspector General

DATE: November 14, 2017

SUBJECT: Audit of the National Science Foundation's

Fiscal Years 2017 and 2016 Financial Statements

This memorandum transmits Kearney & Company's reports on its financial statement audit of the National Science Foundation (NSF) for FY 2017, which includes FY 2016 comparative information.

Audit Reports on Financial Statements; Internal Control over Financial Reporting; and Compliance with Laws, Regulations, Contracts, and Grant Agreements

The Chief Financial Officer's (CFO) Act of 1990 (P.L. 101-576), as amended, requires that NSF's Inspector General or an independent external auditor, as determined by the Inspector General, audit NSF's financial statements in accordance with Government Auditing Standards (GAS) issued by the Comptroller General of the United States. We contracted with the independent certified public accounting firm Kearney & Company (Kearney) to audit NSF's financial statements as of September 30, 2017, and for the fiscal year then ended. The contract requires that the audit be performed in accordance with GAS and the Office of Management and Budget (OMB) Bulletin 17-03, Audit Requirements for Federal Financial Statements.

For Fiscal Year 2017 Kearney provided: (1) its opinion on the financial statements, (2) a report on internal control over financial reporting, and (3) a report on compliance with laws, regulations, contracts, and grant agreements. In its audit of NSF, Kearney:

• Found that the financial statements present fairly, in all material respects, the financial position of NSF as of September 30, 2017 and 2016, as well as NSF's net cost of operations, changes in net position, and budgetary resources for the years then ended, in accordance accounting principles generally accepted in the United States of America.



- Did not identify any deficiencies in internal control that it considers to be material weaknesses.¹
- Identified no instances of noncompliance or other matters that are required to be reported under GAS
- Identified no instances in which NSF's financial management systems did not comply with the *Federal Financial Management Improvement Act of 1996* (FFMIA).

NSF's response to the draft reports, dated November 6, 2017, follows Kearney's reports.

OIG Evaluation of Kearney's Audit Performance

To fulfill our responsibilities under the *CFO Act of 1990*, as amended, and other related Federal financial management requirements, we reviewed Kearney's approach and planning of the audit; evaluated the qualifications and independence of Kearney and its staff; monitored the progress of the audit at key points; coordinated periodic meetings with NSF management to discuss audit progress, findings, and recommendations; reviewed Kearney's audit reports to ensure compliance with GAS and OMB Bulletin No. 17-03; and coordinated issuance of the audit reports.

Our review, as differentiated from an audit in accordance with GAS, was not intended to enable us to express, and we do not express, an opinion on NSF's financial statements; internal control; or compliance with laws, regulations, contracts, and grant agreements. Kearney is responsible for the attached auditor's reports, dated November 14, 2017, and the conclusions expressed therein.

Kearney's Independent Auditor's Report is meant only to be distributed and read as part of the Agency Financial Report (AFR). Also, Kearney's Independent Auditor's Report is not a stand-alone document because it refers to the AFR contents and should not be circulated to anyone other than those receiving this transmittal.

We appreciate the courtesies and cooperation NSF extended to Kearney and OIG staff during the audit. If you or your staff have any questions, please contact me or Mark Bell, Assistant Inspector General for Audits, at 703.292.7100.

Attachment

¹ A material weakness is significant deficiency, or combination of significant deficiencies, that results in more than a remote likelihood that a material misstatement of the financial statements will not be prevented or detected.





INDEPENDENT AUDITOR'S REPORT

To the Director and Inspector General of the National Science Foundation

Report on the Financial Statements

We have audited the accompanying financial statements of the National Science Foundation (NSF), which comprise the balance sheet as of September 30, 2017 and 2016, the related statements of net cost and changes in net position, and the combined statement of budgetary resources (hereinafter referred to as the "financial statements") for the years then ended, as well as the related notes to the financial statements.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America; the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States; and Office of Management and Budget (OMB) Bulletin No. 17-03, *Audit Requirements for Federal Financial Statements*. Those standards and OMB Bulletin No. 17-03 require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.



Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of NSF as of September 30, 2017 and 2016, as well as its net cost of operations, changes in net position, and budgetary resources for the years then ended, in accordance with accounting principles generally accepted in the United States of America.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the Management's Discussion and Analysis, Required Supplementary Stewardship Information, and Required Supplementary Information as named in the Agency Financial Report (hereinafter referred to as the "required supplementary information") be presented to supplement the financial statements. Such information, although not a part of the financial statements, is required by OMB and the Federal Accounting Standards Advisory Board (FASAB), who consider it to be an essential part of financial reporting for placing the financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing it for consistency with management's responses to our inquiries, the financial statements, and other knowledge we obtained during our audits of the financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Information

Our audits were conducted for the purpose of forming an opinion on the financial statements taken as a whole. The information in the NSF Mission and Vision Statement, About This Report, Message from the Director, Other Information, and the Appendices, as listed in the Table of Contents of NSF's Agency Financial Report, are presented for purposes of additional analysis and are not a required part of the financial statements. Such information has not been subjected to the auditing procedures applied in the audits of the financial statements; accordingly, we do not express an opinion or provide any assurance on the information.



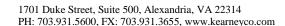
Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards* and OMB Bulletin No. 17-03, we have also issued reports, dated November 14, 2017, on our consideration of NSF's internal control over financial reporting and on our tests of NSF's compliance with provisions of applicable laws, regulations, contracts, and grant agreements, as well as other matters for the years ended September 30, 2017. The purpose of those reports is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on internal control over financial reporting or on compliance and other matters. Those reports are an integral part of an audit performed in accordance with *Government Auditing Standards* and OMB Bulletin No. 17-03 and should be considered in assessing the results of our audit.

Alexandria, Virginia

Kearney " Cory ony

November 14, 2017





INDEPENDENT AUDITOR'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING

To the Director and Inspector General of the National Science Foundation

We have audited the financial statements of the National Science Foundation (NSF) as of and for the years ended September 30, 2017 and 2016, and we have issued our report thereon dated November 14, 2017. We conducted our audits in accordance with auditing standards generally accepted in the United States of America; the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States; and Office of Management and Budget (OMB) Bulletin No. 17-03, *Audit Requirements for Federal Financial Statements*.

Internal Control over Financial Reporting

In planning and performing our audits of the financial statements, we considered NSF's internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of NSF's internal control. Accordingly, we do not express an opinion on the effectiveness of NSF's internal control. We limited our internal control testing to those controls necessary to achieve the objectives described in OMB Bulletin No. 17-03. We did not test all internal controls relevant to operating objectives as broadly defined by the Federal Managers' Financial Integrity Act of 1982 (FMFIA), such as those controls relevant to ensuring efficient operations.

A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent or detect and correct misstatements on a timely basis. A material weakness is a deficiency, or combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented or detected and corrected on a timely basis. A significant deficiency is a deficiency, or combination of deficiencies, in internal control that is less severe than a material weakness yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies; therefore, material weaknesses or significant deficiencies may exist that were not identified. Given these limitations, during our audit, we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

We noted certain additional matters involving internal control over financial reporting that we will report to NSF's management in a separate letter.



Status of Prior Year Finding

In the *Independent Auditor's Report on Internal Control over Financial Reporting* within the audit report on NSF's fiscal year (FY) 2016 financial statements, we noted one issue that was related to internal control over financial reporting. The status of the FY 2016 internal control finding is summarized in the table below.

Status of Prior-Year Finding

Control Deficiency	FY 2016 Status	FY 2017 Status
Information Technology (IT)	Significant Deficiency	No longer considered a
Control Environment	Significant Deficiency	significant deficiency.

Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and the results of that testing, and not to provide an opinion on the effectiveness of NSF's internal control. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* and OMB Bulletin No. 17-03 in considering the entity's internal control. Accordingly, this communication is not suitable for any other purpose.

Alexandria, Virginia

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November 14, 2017



Attachment I – National Science Foundation's Management Response





OFFICE OF BUDGET, FINANCE & AWARD MANAGEMENT

MEMORANDUM

Date: November 6, 2017

To: Allison Lerner, Inspector General

From: Teresa Grancorvitz, Acting Chief Financial Officer

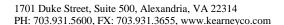
Subject: Management's Response to Independent Auditor's Report for

Fiscal Year (FY) 2017

I appreciate the opportunity to comment on the draft Independent Public Auditor's Report on the National Science Foundation's (NSF) FY 2017 financial statements. During FY 2017, we continued the outstanding collaboration that began last year under unusually challenging conditions. Although every year carries its own set of unique challenges, I believe the strong basis of cooperation that we established last year coupled with constructive audit input, facilitated NSF's progress in achieving excellent audit results. Therefore, it is with great pleasure that NSF receives its 20th consecutive unmodified audit opinion on its financial statements. This accomplishment includes the continuation of its record of no material weaknesses in internal control over financial reporting, and the resolution of the prior year significant deficiency on NSF's information technology control environment.

I commend NSF's staff for their continued commitment to the success of the audit, while accomplishing our operational objectives and making continuous improvements in our systems and business processes. We also welcome the proactive and professional approach that Kearney & Company and your staff followed during the course of the audit.

If you have any questions or require additional information, please contact Mike Wetklow, Deputy Chief Financial Officer and Division Director for Financial Management at mwetklow@nsf.gov.





INDEPENDENT AUDITOR'S REPORT ON COMPLIANCE WITH LAWS, REGULATIONS, CONTRACTS, AND GRANT AGREEMENTS

To the Director and Inspector General of the National Science Foundation

We have audited the financial statements of the National Science Foundation (NSF) as of and for the years ended September 30, 2017 and 2016, and we have issued our report thereon dated November 14, 2017. We conducted our audits in accordance with auditing standards generally accepted in the United States of America; the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States; and Office of Management and Budget (OMB) Bulletin No. 17-03, *Audit Requirements for Federal Financial Statements*.

Compliance and Other Matters

As part of obtaining reasonable assurance about whether NSF's financial statements are free from material misstatement, we performed tests of its compliance with provisions of applicable laws, regulations, contracts, and grant agreements, noncompliance which could have a direct and material effect on the determination of financial statement amounts, as well as provisions referred to in Section 803(a) of the Federal Financial Management Improvement Act of 1996 (FFMIA).

We limited our tests of compliance to these provisions and did not test compliance with all laws, regulations, contracts, and grant agreements applicable to NSF. Providing an opinion on compliance with those provisions was not an objective of our audits; accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards* and OMB Bulletin No. 17-03.

The results of our tests of compliance with FFMIA disclosed no instances in which NSF's financial management systems did not comply substantially with the Federal financial management system's requirements, applicable Federal accounting standards, or application of the United States Standard General Ledger at the transaction level.



Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of compliance and the results of that testing and, therefore, does not express an opinion on the effectiveness of the entity's compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* and OMB Bulletin No. 17-03 in considering the entity's compliance. Accordingly, this communication is not suitable for any other purpose.

Alexandria, Virginia November 14, 2017

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National Science Foundation

Financial Statements

As of and for the Fiscal Years ended September 30, 2017 and 2016

National Science Foundation Balance Sheet As of September 30, 2017 and 2016 (Amounts in Thousands)

Assets		<u>2017</u>		<u>2016</u>
Intragovernmental Assets				
Fund Balance With Treasury (Note 2)	\$	13,282,046	\$	12,971,429
Accounts Receivable		9,780		4,316
Advances to Others		75,169		64,682
Total Intragovernmental Assets		13,366,995	_	13,040,427
Cash and Other Monetary Assets (Note 2)		30,359		21,951
Accounts Receivable, Net		2,276		1,513
General Property, Plant and Equipment, Net (Note 3)		281,888		266,726
Total Assets	\$	13,681,518	\$	13,330,617
Liabilities				
Intragovernmental Liabilities				
Accounts Payable	\$	10,458	\$	25,105
Other Intragovernmental Liabilities		4,574		5,777
Total Intragovernmental Liabilities		15,032		30,882
Accounts Payable		60,340		120,441
Actuarial FECA Liability		1,249		1,171
Environmental and Disposal Liabilities (Note 6)		10,189		18,247
Accrued Grant Liabilities		381,073		412,639
Accrued Payroll and Other Liabilities		7,751		7,333
Accrued Annual Leave		18,811		18,012
Total Liabilities	\$	494,445	\$_	608,725
Net Position				
Unexpended Appropriations - Other Funds	\$	12,328,610	\$	11,923,203
Cumulative Results of Operations - Other Funds		325,069		289,469
Cumulative Results of Operations - Dedicated Collections (Note 7)		533,394		509,220
Total Net Position	_	13,187,073	_	12,721,892
Total Liabilities and Net Position	\$_	13,681,518	\$_	13,330,617

National Science Foundation Statement of Net Cost For the Years Ended September 30, 2017 and 2016 (Amounts in Thousands)

Program Costs (Note 8)		<u>2017</u>		<u>2016</u>	
Research and Related Activities					
Gross Costs	\$	6,106,485	\$	5,979,543	
Less: Earned Revenue		(99,531)		(108,177)	
Net Research and Related Activities		6,006,954	_	5,871,366	
Education and Human Resources					
Gross Costs	\$	785,978	\$	861,295	
Less: Earned Revenue		(4,043)		(2,514)	
Net Education and Human Resources		781,935	_	858,781	
Major Research Equipment and Facilities Construction					
Gross Costs	\$	181,093	\$	182,474	
Less: Earned Revenue		-			
Net Major Research Equipment and Facilities Construction		181,093	_	182,474	
Donations and Dedicated Collections					
Gross Costs	\$	146,222	\$	133,726	
Less: Earned Revenue		-		-	
Net Donations and Dedicated Collections	_	146,222	_	133,726	
Net Cost of Operations (Notes 8 and 14)	\$	7,116,204	\$	7,046,347	

National Science Foundation Statement of Changes in Net Position For the Year Ended September 30, 2017 (Amounts in Thousands)

(ramou	inis in Thousands)	Funds From	<u>2017</u> All Other	
		ated Collection	Funds	Total
Cumulative Results of Operations				
Beginning Balances (Note 7)	\$	509,220	289,469	798,689
Budgetary Financing Sources				
Appropriations Used		-	6,996,111	6,996,111
Non-exchange Revenue		-	23	23
Donations		-	40,838	40,838
Funds from Dedicated Collections				
Transferred In / (Out) (Note 7)		138,135	-	138,135
Other Financing Sources				
Transfers In / (Out) Without Reimbursement		-	107	107
Imputed Financing From Costs Absorbed By Others		-	7,385	7,385
Other		-	(6,621)	(6,621)
Total Financing Sources		138,135	7,037,843	7,175,978
Net Cost of Operations (Notes 7, 8, and 14)		(113,961)	(7,002,243)	(7,116,204)
Cumulative Results of Operations (Note 7)	\$	533,394	325,069	858,463
Unexpended Appropriations				
Beginning Balances	\$	-	11,923,202	11,923,202
Budgetary Financing Sources				
Appropriations Received		-	7,472,215	7,472,215
Cancelled Authority Adjustments		-	(70,696)	(70,696)
Appropriations Used		-	(6,996,111)	(6,996,111)
Total Budgetary Financing Sources		-	405,408	405,408
Total Unexpended Appropriations	\$	-	12,328,610	12,328,610
Not Position	¢	533 304	12 653 670	13 197 072
Net Position	\$	533,394	12,653,679	13,187,0

National Science Foundation Statement of Changes in Net Position For the Year Ended September 30, 2016 (Amounts in Thousands)

	I	Funds From	<u>2016</u> All Other	
	Dedic	ated Collections	Funds	Total
Cumulative Results of Operations	_			
Beginning Balances (Note 7)	\$	469,922	308,703	778,625
Budgetary Financing Sources				
Appropriations Used		-	6,897,524	6,897,524
Non-exchange Revenue		-	26	26
Donations		-	24,416	24,416
Funds from Dedicated Collections				
Transferred In / (Out) (Note 7)		139,293	-	139,293
Other Financing Sources				
Transfers In / (Out) Without Reimbursement		-	-	-
Imputed Financing From Costs Absorbed By Others		-	9,020	9,020
Other		-	(3,868)	(3,868)
Total Financing Sources		139,293	6,927,118	7,066,411
Net Cost of Operations (Notes 7, 8, and 14)		(99,995)	(6,946,352)	(7,046,347)
Cumulative Results of Operations (Note 7)	\$	509,220	289,469	798,689
Unexpended Appropriations				
Beginning Balances	\$	-	11,427,234	11,427,234
Budgetary Financing Sources				
Appropriations Received		-	7,463,485	7,463,485
Cancelled Authority Adjustments		-	(69,992)	(69,992)
Appropriations Used		-	(6,897,524)	(6,897,524)
Total Budgetary Financing Sources		-	495,969	495,969
Total Unexpended Appropriations	\$ <u></u>	-	11,923,203	11,923,203
Net Position	\$	509,220	12,212,672	12,721,892

 ${\it The\ accompanying\ notes\ are\ an\ integral\ part\ of\ these\ statements}.$

National Science Foundation Statement of Budgetary Resources For the Years Ended September 30, 2017 and 2016 (Amounts in Thousands)

Budgetary Resources		<u>2017</u>	<u>2016</u>
	Φ.	249.265 Ф	204.527
Unobligated Balance - Brought Forward, October 1 Recoveries of Prior Year Unpaid Obligations	\$	348,265 \$ 123,260	394,527 105,748
Other Changes in Unobligated Balance		(70,064)	(67,967)
Unobligated Balance from Prior Year Budget Authority, Net	-	401,461	432,308
Appropriations		7,651,210	7,627,220
Spending Authority from Offsetting Collections		68,026	97,461
Total Budgetary Resources (Note 12)	\$	8,120,697 \$	8,156,989
Status of Budgetary Resources			
New Obligations and Upward Adjustments (Note 9 & 12)	\$	7,754,266 \$	7,808,724
Unobligated Balance, End of Year	,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	.,,.
Apportioned, Unexpired (Note 2)		183,264	160,313
Unapportioned, Unexpired (Note 2)		24,102	28,162
Unobligated Balance, Unexpired, End of Year		207,366	188,475
Unobligated Balance, Expired, End of Year (Note 2)		159,065	159,790
Total Unobligated Balance, End of Year		366,431	348,265
Total Status of Budgetary Resources	\$	8,120,697 \$	8,156,989
Change in Obligated Balance			
Unpaid Obligations			
Unpaid Obligations - Brought Forward, October 1	\$	12,740,408 \$	12,078,549
New Obligations and Upward Adjustments (Note 9)		7,754,266	7,808,724
Gross Outlays		(7,351,520)	(7,041,117)
Recoveries of Prior Year Unpaid Obligations		(123,260)	(105,748)
Unpaid Obligations, End of Year		13,019,894	12,740,408
Uncollected Payments			
Uncollected Payments from Federal Sources - Brought Forward, October 1	\$	(95,386) \$	(103,956)
Change in Uncollected Payments from Federal Sources		21,425	8,570
Uncollected Payments from Federal Sources, End of Year		(73,961)	(95,386)
Memorandum (non-add) Entries			
Obligated Balance, Start of Year	\$	12,645,022 \$	11,974,593
Obligated Balance, End of Year (Note 2)	\$	12,945,933 \$	12,645,022
Budget Authority and Outlays, Net			
Budget Authority, Gross	\$	7,719,236 \$	7,724,681
Actual Offsetting Collections		(90,082)	(108,056)
Change in Uncollected Payments from Federal Sources		21,425	8,570
Recoveries of Prior Year Paid Obligations		631	2,025
Budget Authority, Net	\$	7,651,210 \$	7,627,220
Gross Outlays	\$	7,351,520 \$	7,041,117
Actual Offsetting Collections	φ	(90,082)	(108,056)
Net Outlays		7,261,438	6,933,061
Distributed Offsetting Receipts (Note 12)		(46,140)	(28,648)
Net Agency Outlays	\$	7,215,298 \$	6,904,413
The Tage No.	Ψ	,,=10,=70 \$	3,201,713

Notes to the Principal Financial Statements

Note 1. Summary of Significant Accounting Policies

A. Reporting Entity

The National Science Foundation (NSF or "Foundation") is an independent federal agency created by the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75). Its primary mission is to promote the progress of science; to advance the national health, prosperity, and welfare; and to secure the national defense. NSF initiates and supports scientific research and research fundamental to the engineering process and programs to strengthen the Nation's science and engineering potential. NSF also supports critical education programs in science, technology, engineering, and mathematics (STEM) fields, which help prepare future generations of scientists and engineers. NSF funds research and education in science and engineering by awarding grants and contracts to educational and research institutions throughout the United States and its territories. NSF, by law, cannot operate research facilities except in the polar regions. NSF enters into relationships through awards to fund the research operations conducted by grantees. Information on NSF funding by institution can be found at https://dellweb.bfa.nsf.gov/AwdLst2/default.asp NSF is led by a presidentially-appointed, Senate confirmed, Director and the 24-member National Science Board (NSB). The NSB members represent a cross section of prominent leaders in science and engineering research and education, and are appointed by the President for 6-year terms. The NSF Director is an ex officio member of the Board.

NSF has a total workforce of about 2,100 at its Alexandria, VA, headquarters, including the staff of the NSB Office and the Office of the Inspector General. The NSF workforce includes approximately 1,400 career employees, 200 rotator scientists from research institutions in temporary positions, and 450 contract workers. NSF provides the opportunity for scientists, engineers, and educators to join the Foundation as temporary program directors and advisors. These "rotators" provide input during the merit review process of proposals; provide insight for new directions in the fields of science, engineering, and education; and support cutting-edge interdisciplinary research. Rotators can come to NSF under multiple mechanisms. The largest numbers come on Intergovernmental Personnel Act assignments, or IPAs, who remain employees of their home institutions. NSF facilitates IPA assignments through grants to their institution as a reimbursement in whole or in part for salary and benefits, and that reimbursement is then paid by the institution to their employee. All rotators are subject to criminal conflict of interest statutes as well as the Government-wide Standards of Ethical Conduct of Employees of the Executive Branch which prohibit them from participating in NSF proposals and awards affecting themselves and their home organizations.

B. Basis of Presentation

These financial statements have been prepared to report the financial position and results of operations of NSF as required by the Chief Financial Officers Act of 1990, the Government Management Reform Act of 1994, the Reports Consolidation Act of 2000, and the Office of Management and Budget (OMB) Circular No. A-136, *Financial Reporting Requirements*. While the statements have been prepared from the books and records of NSF in accordance with United States Generally Accepted Accounting Principles (U.S. GAAP) for federal entities and the formats prescribed by OMB, the statements are in addition to the financial reports used to monitor and control budgetary resources, which are prepared from the same books and records.

C. Basis of Accounting

The accompanying financial statements have been prepared in accordance with U.S. GAAP for federal entities using the accrual method of accounting. Under the accrual method, revenues are recognized when earned, and expenses are recognized when a liability is incurred, without regard to receipt or payment of

cash. The accompanying financial statements also include budgetary accounting transactions that ensure compliance with legal constraints and controls over the use of federal funds.

D. Revenues and Other Financing Sources

NSF receives the majority of its funding through appropriations contained in the Commerce, Justice, Science, and Related Agencies Appropriations Act. NSF receives annual, multi-year, and no-year appropriations that may be expended within statutory limits. NSF also receives funding via warrant from a receipt account for dedicated collections that is reported as H-1B Nonimmigrant Petitioner Account (H-1B) funds. Additional amounts are obtained from reimbursements for services provided to other federal agencies as well as from receipts to the NSF Donations Account. Also, NSF receives interest earned on overdue receivables and excess cash advances to grantees. The interest earned on overdue receivables and excess cash advances to grantees is returned to Treasury at the end of each fiscal year.

In FY 2017, the Science Appropriations Act, 2017 under Public Law 115-31, provided funding for each of NSF's appropriations. In addition, the Act provided an administrative provision allowing NSF to transfer up to 5 percent of current year funding between appropriations. Appropriations are recognized as a financing source at the time the related "funded" program or administrative expenditures are incurred. Appropriations are also recognized when used to purchase Property, Plant and Equipment (PP&E). "Unfunded" liabilities result from liabilities not covered by budgetary resources and will be paid when future appropriations are made available for these purposes. Donations are recognized as revenues when funds are received. Revenues from reimbursable agreements are recognized when the services are provided and the related expenditures are incurred. Reimbursable agreements are mainly for grant administrative services provided by NSF on behalf of other federal agencies.

Under the general authority of the Foundation, NSF is authorized to accept and use both U.S. and foreign funds in the NSF Donations Account. In accordance with 42 U.S.C. 1862 Section 3 (a)(3), NSF has authority "to foster the interchange of scientific and engineering information among scientists and engineers in the United States and foreign countries" and in 42 U.S.C. 1870 Section 11 (f), NSF is authorized to receive and use funds donated by others. Donations may be received from foreign governments, private companies, academic institutions, non-profit foundations, and individuals. These funds must be donated without restriction other than that they be used in furtherance of one or more of the general purposes of the Foundation. Funds are made available for obligations as necessary to support NSF programs.

E. Fund Balance with Treasury and Cash and Other Monetary Assets

Fund Balance with Treasury is composed of appropriated funds that are available to pay current liabilities and finance authorized purchase commitments. Cash and Other Monetary Assets include non-appropriated funding sources from donations and undeposited collections. Cash receipts and disbursements are processed by Treasury.

F. Accounts Receivable

Accounts Receivable consist of amounts due from governmental agencies, private organizations, and individuals. Additionally, NSF has the right to conduct audits on awardees to verify billed amounts. These audits may result in monies owed back to NSF. Upon resolution of the amount owed by the awardee to NSF, a receivable is recorded.

NSF establishes an allowance for loss on accounts receivable from non-federal sources that are deemed uncollectible but regards amounts due from other federal agencies as fully collectible. NSF analyzes each account independently to assess collectability and the need for an offsetting allowance or write-off. NSF writes off delinquent debt from non-federal sources that is more than 2 years old.

G. Advances to Others

Advances to Others consist of advances to federal agencies which are issued when agencies are operating under working capital funds or are unable to incur costs on a reimbursable basis. Advances are reduced when documentation supporting expenditures is received and recorded. Additionally, some NSF grantees receive advanced funds prior to incurring expenses. Payments are only made within the amount of the recorded grant obligation and are intended to cover immediate cash needs.

H. General Property, Plant and Equipment, Net

NSF capitalizes PP&E with costs exceeding \$25.0 thousand and useful lives of 2 or more years; items not meeting these criteria are recorded as operating expenses. NSF currently reports capitalized PP&E at original acquisition cost; assets acquired from the General Services Administration (GSA) excess property schedules are recorded at the value assigned by the donating agency; and assets transferred in from other agencies are valued at the cost recorded by the transferring entity for the asset net of accumulated depreciation or amortization.

The PP&E balance consists of Equipment, Aircraft and Satellites, Buildings and Structures, Leasehold Improvements, Construction in Progress, Internal Use Software, and Software in Development. These balances are comprised of PP&E maintained "in-house" by NSF to support operations and PP&E under the U.S. Antarctic Program (USAP). The majority of USAP property is under the custodial responsibility of the NSF prime contractor for the program.

Depreciation expense is calculated using the straight-line half-year convention. The economic useful life classifications for capitalized assets are as follows:

Equipment

5 years Computers and peripheral equipment, fuel storage tanks, laboratory equipment,

and vehicles

7 years Communications equipment, office furniture and equipment, pumps and

compressors

10 or 15 years Generators, Department of Defense equipment

20 years Movable buildings (e.g., trailers)

Aircraft and Satellites

7 years Aircraft, aircraft conversions, and satellites

Buildings and Structures

31.5 years Buildings and structures placed in service prior to 1994
39 years Buildings and structures placed in service after 1993

Leasehold Improvements

NSF's headquarters are leased through GSA under an occupancy agreement. The cancellation clause within the agreement allows NSF to terminate use with a 120-day notice. NSF is billed by GSA for the leased space as rent based upon estimated lease payments made by GSA plus an administrative fee. Therefore, the cost of headquarters is not capitalized by NSF. All NSF leases are cancellable and/or in effect for a period of no more than 1 year. Leasehold improvements performed by GSA are financed with NSF appropriated funds. Amortization is calculated using the straight-line half-year convention upon transfer from construction in progress.

Construction in Progress

Costs incurred for construction projects are accumulated and tracked as construction in progress until the asset is placed in service. At 75 percent completion of real property construction, an on-site

Conditional Occupancy inspection is performed to evaluate for compliance with the approved plans, design, specifications, and changes. Items that pertain to the safety and health of any future occupants of the facility must be corrected before a Conditional Occupancy is granted and the facility occupied. When Conditional Occupancy is granted, the completed project is transferred from construction in progress to real property and depreciated over the respective useful life of the asset.

Internal Use Software and Software in Development

NSF controls, values, and reports purchased or developed software as tangible property assets, in accordance with the Statement of Federal Financial Accounting Standards (SFFAS) No. 10, *Accounting for Internal Use Software*. NSF identifies software investments as capital property for items that, in the aggregate, cost \$500.0 thousand or more to purchase, develop, enhance, or modify a new or existing NSF system, or configure a government-wide system for NSF needs. Software projects that are not completed at year end and are expected to exceed the capitalization threshold are recorded as software in development. All internal use software meeting the capitalization threshold is amortized over a 5-year period using the straight-line half-year convention.

Assets Owned by NSF in the Custody of Other Entities: NSF awards grants, cooperative agreements, and contracts to various organizations, including colleges and universities, non-profit organizations, state and local governments, Federally Funded Research and Development Centers (FFRDCs), and private entities. The funds provided may be used in certain cases to purchase or construct PP&E to be used for operations or research on projects or programs sponsored by NSF. In these instances, NSF funds the acquisition of property, but transfers control of the assets to these entities. NSF's authorizing legislation specifically prohibits the Foundation from operating such property directly.

In practice, NSF's ownership interest in such PP&E is similar to a reversionary interest. To address the accounting and reporting of these assets, specific guidance was sought by NSF and provided by the Federal Accounting Standards Advisory Board (FASAB). This guidance stipulates that NSF should: (i) disclose the value of such PP&E held by others in its financial statements based on information contained in the audited financial statements of these entities (if available); and (ii) report information on costs incurred to acquire the research facilities, equipment, and platforms in the Research and Human Capital Activity costs as required by SFFAS No. 8, *Supplementary Stewardship Reporting*. Very few entities disclose information on NSF-owned property in their audited financial statements. Therefore, NSF has elected to disclose only the number of entities in possession of NSF-owned property. Entities that separately present the book value of NSF-owned property in their audited financial statements and FFRDCs, if applicable, are listed in Note 4, *General Property, Plant and Equipment in the Custody of Other Entities*, along with the book value of the property held.

I. Other Intragovernmental Liabilities

Other Intragovernmental Liabilities consist of advances from others, federal payroll payable, and liabilities for non-entity assets. Advances From Others consist of amounts obligated and advanced by other federal entities to NSF for grant administration and other services to be furnished under reimbursable agreements. Liabilities for federal payroll payable consist of the federal portion of payroll benefits, taxes, and unfunded Federal Employees' Compensation Act (FECA) liabilities. Liabilities for non-entity assets are recorded to offset accounts receivable balances associated with cancelled appropriations.

J. Accounts Payable

Accounts Payable consist of liabilities to commercial vendors, contractors, federal agencies, and disbursements in transit. Accounts Payable to federal agencies, commercial vendors, and contractors are expenses for goods and services received but not yet paid for by NSF at the end of the fiscal year. At year end, NSF accrues for the amount of estimated unpaid expenses to vendors for which invoices have not been

received, but goods and services have been delivered and rendered. *Accounts Payable* also consist of disbursements in transit recorded by NSF but not paid by Treasury.

K. Accrued Grant Liabilities

Accrued Grant Liabilities consist of estimated liabilities to grantees for expenses incurred but not reported (IBNR) by September 30. NSF's grant accrual methodology utilizes a linear regression model based on the statistical correlation between prior year unliquidated obligations and prior year expenses IBNR. NSF utilizes the Award Cash Management Service (ACM\$), a grantee cash request and expenditure reporting system. ACM\$ enables all grantee institutions to request funds at the award level to support project needs.

L. Accrued Payroll and Other Liabilities

Accrued Payroll and Other Liabilities consist of accrued payroll and undeposited collections. NSF's payroll services are provided by the Department of the Interior's Interior Business Center. Accrued Payroll relates to services rendered by NSF employees, for which they have not yet been paid. At year end, NSF accrues the amount of salaries and benefits earned, but not yet paid. Undeposited collections are funds received by NSF, but not remitted to Treasury prior to September 30.

M. Employee Benefits

A liability is recorded for actual and estimated future payments to be made for workers' compensation pursuant to the FECA. The estimated actuarial FECA liability consists of the net present value of estimated future payments calculated by the U.S. Department of Labor (DOL) and the actual unreimbursed cost paid by DOL for compensation paid to recipients under FECA. The actual costs incurred are reflected as a liability because NSF will reimburse DOL 2 years after the actual payment of expenses. Future NSF Agency Operations and Award Management (AOAM) appropriations are used for DOL's estimated reimbursement.

Annual leave is accrued as it is earned, and the accrual is reduced as leave is taken. Each year, the balance in the accrued annual leave account is adjusted to reflect changes. To the extent current and prior-year appropriations are not available to fund annual leave earned but not taken, funding will be obtained from future AOAM appropriations. Sick leave and other types of non-vested leave are expensed as taken.

N. Net Position

Net Position is the residual difference between assets and liabilities and is composed of unexpended appropriations and cumulative results of operations. *Unexpended Appropriations* represent the amount of undelivered orders and unobligated balances of budget authority. Unobligated balances are the amount of appropriations or other authority remaining after deducting the cumulative obligations from the amount available for obligation. The *Cumulative Results of Operations* represent the net results of NSF's operations since the Foundation's inception.

O. Retirement Plan

In FY 2017, approximately 6 percent of NSF employees participated in the Civil Service Retirement System (CSRS), to which NSF matches contributions equal to 7 percent of pay. The majority of NSF employees are covered by the Federal Employees Retirement System (FERS) and Social Security. A primary feature of FERS is the thrift savings plan to which NSF automatically contributes 1 percent of pay. The maximum NSF matching contribution is 5 percent of employee pay, of which 3 percent is fully matched, and 2 percent is matched at 50 percent. NSF also contributes the employer's matching share for Social Security for FERS participants.

Although NSF funds a portion of the benefits under FERS and CSRS relating to its employees and withholds the necessary payroll deductions, the Foundation has no liability for future payments to employees under these plans, nor does NSF report CSRS, FERS, Social Security assets, or accumulated

plan benefits on its financial statements. Reporting such amounts is the responsibility of the Office of Personnel Management (OPM) and the Federal Retirement Thrift Investment Board.

SFFAS No. 5, Accounting for Liabilities of the Federal Government, requires employing agencies to recognize the cost of pensions and other retirement benefits during their employees' active years of service. OPM actuaries determine pension cost factors by calculating the value of pension benefits expected to be paid in the future, and provide these factors to the agency for current period expense reporting. Information is also provided by OPM regarding the full cost of health and life insurance benefits on the OPM Benefit Administration website.¹

P. Contingencies and Possible Future Costs

Contingencies - Claims and Lawsuits: NSF is a party to various legal actions and claims brought against it. In the opinion of NSF management and legal counsel, the ultimate resolution of the actions and claims will not materially affect the financial position or operations of the Foundation. NSF recognizes the contingency in the financial statements when claims are expected to result in a material loss (and the payment amounts can be reasonably estimated), whether from NSF's appropriations or the Judgment Fund, administered by the Department of Justice under Section 1304 of Title 31 of the United States Code.

Claims and lawsuits can also be made and filed against awardees of the Foundation by third parties. NSF is not a party to these actions and NSF believes there is no possibility that NSF will be legally required to satisfy such claims. Judgments or settlements of the claims against awardees that impose financial obligation on them may be claimed as costs under the applicable contract, grant, or cooperative agreement and thus may affect the allocation of program funds in future fiscal years. In the event that the claim becomes probable and amounts can be reasonably estimated, the claim will be recognized.

Contingencies – Unasserted Claims: For claims and lawsuits that have not been made and filed against the Foundation, NSF management and legal counsel determine, in their opinion, whether resolution of the actions and claims they are aware of will materially affect the Foundation's financial position or operations. NSF recognizes a contingency in the financial statements when unasserted claims are probable of assertion, and if asserted, would be probable of an unfavorable outcome and expected to result in a measurable loss, whether from NSF's appropriations or the Judgment Fund. NSF discloses unasserted claims if the loss is more likely than not to occur, but the materiality of a potential loss cannot be determined.

Termination Claims: NSF engages organizations, including FFRDCs, in cooperative agreements and contracts to manage, operate, and maintain research facilities for the benefit of the scientific community. As part of these agreements and contracts, NSF funds on a pay-as-you-go basis certain employee benefit costs (accrued vacation and other employee related liabilities, severance pay and medical insurance), long term leases, and vessel usage and drilling. In some instances, an award decision is made to continue operation of a facility with a different entity performing operation and management duties. In such an occurrence, NSF does not classify the facility as terminated. Claims submitted by the previous managing entity for expenditures not covered by the indirect cost rate included in the initial award are subject to audit and typically paid with existing program funds.

Agreements with FFRDCs include a clause that commits NSF to seek appropriations for termination expenses, if necessary, in the event a facility is terminated. NSF considers termination of these facilities only remotely possible. Should a facility be terminated, NSF is obligated to seek termination expenses for FFRDCs in excess of the limitation of funds set forth in the agreements, including any Post-Retirement Benefit liabilities, from Congress. Nothing in these agreements can be construed as implying that Congress will appropriate funds to meet the terms of any claims. Termination costs that may be payable to an FFRDC

https://www.opm.gov/retirement-services/publications-forms/benefits-administration-letters/2017/17-102.pdf

¹ OPM Benefit Administration website:

operator cannot be estimated until such time as the facility is terminated. In September 2017, a hurricane struck the United States territory of Puerto Rico where NSF provides funding for a facility, Arecibo Observatory, which was damaged by the hurricane. It is uncertain at this time if the hurricane damage sustained by the Arecibo Observatory in Puerto Rico will result in a financial impact to the facility and NSF. Due to the high degree of uncertainty and the evolving situation, the timeline for assessing these costs is uncertain.

Environmental and Disposal Liabilities: NSF manages USAP. The Antarctic Conservation Act and its implementing regulations identify the requirements for environmental clean-up in Antarctica. NSF continually monitors USAP in regards to environmental issues. NSF establishes its environmental liability estimates in accordance with the requirements of the SFFAS No. 5, Accounting for Liabilities of the Federal Government, and as amended by SFFAS No. 12, Recognition of Contingent Liabilities Arising from Litigation, and the Federal Financial Accounting and Auditing Technical Release No. 2, Determining Probable and Reasonably Estimable for Environmental Liabilities in the Federal Government.

While NSF is not legally liable for environmental clean-up costs in the Antarctic, there are occasions when the NSF Division of Polar Programs chooses to accept responsibility and commit funds toward clean-up efforts of various sites as resources permit. Decisions to commit funds are in no way driven by concerns of probable legal liability for failure to engage in such efforts, but rather a commitment to environmental stewardship of Antarctic natural resources. Environmental clean-up projects started and completed during the year are reflected in NSF's financial statements as expenses for the current fiscal year. An estimated cost would be accrued for approved projects that are anticipated to be performed after the fiscal year end or will take more than one fiscal year to complete.

Separate from environmental clean-up costs related to the Antarctic Conservation Act, NSF discloses NSF-owned buildings in the Antarctic that have been identified as having, or expected to have, friable and non-friable asbestos containing material. NSF's estimated cost for asbestos related clean-up is shown on the Balance Sheet as a liability. Additional detail on the estimate methodology is included in Note 6, *Environmental and Disposal Liability*.

Q. Use of Estimates

Management has made certain estimates and assumptions when reporting assets, liabilities, revenues, and expenses, and also in the note disclosures. Estimates underlying the accompanying financial statements include accounting for grant liabilities, accounts payable, environmental liabilities, payroll, and PP&E. Actual results may differ from these estimates, and the difference will be adjusted for and included in the financial statements of the following fiscal year.

R. Reclassifications

In FY 2017, certain FY 2016 balances related to advances from others and accounts payable with federal agencies were reclassified to conform to FY 2017 presentation on the Balance Sheet. These reclassifications have no effect on previously reported total assets, liabilities, or net position.

Note 2. Fund Balance With Treasury

Fund Balance with Treasury (FBWT) consisted of the following components as of September 30, 2017 and 2016:

(Amounts in Thousands)		2017		
			Funds from	
	Appropriated	Donated	Dedicated	
	Funds	Funds	Collections	Total
Obligated	\$ 12,453,155 \$	42,255	\$ 450,523	\$ 12,945,933
Unobligated Available, Unexpired	67,090	30,872	85,302	183,264
Unobligated Unavailable, Unexpired	10,795	1,750	11,557	24,102
Unobligated Unavailable, Expired	159,065	-	-	159,065
Less: Cash and Other Monetary Assets	(41)	(30,318)	-	(30,359)
Add: Undeposited Collections	41	-	-	41
Total FBWT	\$ 12,690,105 \$	44,559	\$ 547,382	\$ 13,282,046
(Amounts in Thousands)		2016		
			Funds from	
	Appropriated	Donated	Dedicated	

				Funds from	
		Appropriated	Donated	Dedicated	
	_	Funds	Funds	Collections	Total
Obligated	\$	12,155,149 \$	36,858 \$	453,015 \$	12,645,022
Unobligated Available, Unexpired		75,882	22,268	62,163	160,313
Unobligated Unavailable, Unexpired		14,031	1,666	12,465	28,162
Unobligated Unavailable, Expired		159,790	-	-	159,790
Less: Cash and Other Monetary Assets		(93)	(21,858)	-	(21,951)
Add: Undeposited Collections	_	93	-	<u>-</u>	93
Total FBWT	\$	12,404,852 \$	38,934 \$	527,643 \$	12,971,429

The NSF Donations Account includes amounts donated to NSF from all sources. Funds in the NSF Donations Account may be used to further one or more of the general purposes of the Foundation. The donated funds are reported as FBWT or as *Cash and Other Monetary Assets*. Donations reported as *Cash and Other Monetary Assets* represent cash held outside of Treasury at commercial banks in interest bearing accounts. These funds are collateralized up to \$26.4 million by the bank, through the Federal Reserve Bank of St. Louis, in accordance with Treasury Financial Manual Volume 1, Chapter 6-9000. *Undeposited Collections* are funds received by NSF, but not remitted to Treasury prior to September 30. *Unobligated Available* balances include current-period amounts available for obligation or commitment. *Unobligated Unavailable* balances include recoveries of prior year obligations and other unobligated expired funds that are unavailable for new obligations.

In FY 1999, in accordance with P.L. 105-277, a special fund, H-1B account, was established in the general fund of the U.S. Treasury. These funds are considered Funds from Dedicated Collections and are not included in Appropriated Funds. The funds represent fees collected for each petition for nonimmigrant status. Under the law, NSF was prescribed a percentage of these fees for specific programs.

Note 3. General Property, Plant and Equipment, Net

The components of *General Property, Plant and Equipment, Net* as of September 30, 2017 and 2016 are shown below. As of September 30, 2017, NSF had not identified any asset impairments.

(Amounts in Thousands)	2017			
		Acquisition	Accumulated	
	_	Cost	Depreciation	Net Book Value
Equipment	\$	164,796	(148,675) \$	16,121
Aircraft and Satellites		115,806	(115,806)	-
Buildings and Structures		314,961	(146,138)	168,823
Leasehold Improvements		39,906	(12,600)	27,306
Construction in Progress		841	-	841
Internal Use Software		88,294	(62,307)	25,987
Software in Development		42,810		42,810
Total PP&E	\$	767,414	(485,526) \$	281,888

(Amounts in Thousands)	2016				
		Acquisition		Accumulated	Not Dools Wales
	_	Cost		Depreciation	Net Book Value
Equipment	\$	154,365	\$	(137,650) \$	16,715
Aircraft and Satellites		115,806		(115,806)	-
Buildings and Structures		319,125		(141,477)	177,648
Leasehold Improvements		11,705		(11,524)	181
Construction in Progress		2,710		-	2,710
Internal Use Software		87,189		(46,313)	40,876
Software in Development		28,596		-	28,596
Total PP&E	\$	719,496	\$	(452,770) \$	266,726

Note 4. General Property, Plant, and Equipment in the Custody of Other Entities

NSF received a ruling from FASAB on accounting for PP&E owned by NSF but in the custody of and used by others (see Note 1H. *General Property, Plant, and Equipment, Net*). The FASAB guidance requires PP&E in the custody of others be excluded from NSF PP&E as defined in the SFFAS No. 6, *Accounting for Property, Plant and Equipment*. NSF is required to disclose the dollar amount of NSF PP&E held by others in the footnotes based on information contained in the most recently issued audited financial statements of the organization holding the assets.

As of September 30, 2017, there were 26 colleges or universities and 22 commercial entities that were given award funds for property. With the exception of the entities listed below, none of the colleges, universities or commercial entities reported NSF-owned property separately.

The amount of PP&E owned by NSF but in the custody of an NSF awardee is identified in the table below. In some cases entities operate on a fiscal year end basis other than September 30.

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		Fiscal Year
Entities with Reported NSF Government Owned Equipment	Amount	Ending
Association of Universities for Research in Astronomy, Inc AURA	\$750,783	9/30/16
Consortium for Ocean Leadership - COL	\$166,076	9/30/16
Incorporated Research Institutions for Seismology - IRIS	\$2,649	6/30/16
National Radio Astronomy Observatory - AUI	\$452,519	9/30/16
University Corporation for Atmospheric Research - UCAR	\$211,016	9/30/16

Note 5. Leases

In addition to its headquarters, NSF occupies common spaces with other federal agencies overseas through the Department of State's (State) International Cooperative Administrative Support Services (ICASS) system. NSF uses ICASS in Brussels and Tokyo for residential and non-residential space. Previously, NSF used ICASS in Beijing, but that lease expired in FY 2017. In FY 2016, the NSF Europe Regional Office relocated from Paris, France to Brussels, Belgium, resulting in the termination of the Paris lease. ICASS is a voluntary cost distribution system and the agreement to receive ICASS services is through an annual Memorandum of Understanding (MOU) between NSF and State. Additionally, NSF leases residential space in Tokyo. As with all NSF leases, this lease is cancellable and/or for a period not more than a year. NSF leases its headquarters under an operating lease with GSA. The cancellation clause within the agreement allows NSF to terminate use with a 120-day notice. In August 2017, NSF relocated to a new headquarters in Alexandria, VA. The following is a schedule of future minimum lease payments for the current and future headquarters, warehouses, and office space in Denver, Colorado. The current leases are active through FY 2032.

(Amounts in Thousands)

	Building Operating
Fiscal Year	Lease Amount
2018	29,821
2019	24,831
2020	24,815
2021	24,866
2022	24,902
2023 and After	251,537
Total Minimum Lease Payments	\$ 380,772

Note 6. Environmental and Disposal Liability

Pursuant to FASAB Technical Bulletin 2006-1, *Recognition and Measurement of Asbestos-Related Cleanup Costs*, federal entities are required to recognize a liability for federal property asbestos cleanup costs. Some NSF owned buildings and structures used to support the USAP have been identified as having, or expected to have, friable and non-friable asbestos containing material.

As required by SFFAS No. 6, *Accounting for Property, Plant and Equipment*, NSF works with the current USAP contractor through the Antarctic Support Contract (ASC) to determine the need for asbestos liability adjustments based on actual asbestos costs incurred on an annual basis. Actual asbestos remediation costs are submitted quarterly by the ASC and the asbestos liability is reduced by the reported amount. No asbestos remediation costs were incurred as of September 30, 2017. During FY 2017, changes to NSF's estimated asbestos liability consisted of cost re-estimates, resulting in a decrease from \$18.2 million in FY 2016 to \$10.2 million in FY 2017.

Note 7. Funds from Dedicated Collections

In FY 1999, Title IV of the American Competitiveness and Workforce Improvement Act of 1998 (P.L. 105-277) established the H-1B Nonimmigrant Petitioner Account in the General Fund of the U.S. Treasury. Funding is established from fees collected for alien, nonimmigrant status petitions. This law requires that a prescribed percentage of the funds in the account be made available to NSF for the following activities:

- Computer Science, Engineering, and Mathematics Scholarship (CSEMS)
- Grants for Mathematics, Engineering, or Science Enrichment Courses
- Systemic Reform Activities

The H-1B Nonimmigrant Petitioner fees are available to the Director of NSF until expended. The funds may be used for scholarships to low income students, or to carry out a direct or matching grant program to support private and/or public partnerships in K-12 education. The H-1B fund is set up as a permanent indefinite appropriation by NSF. These funds are described in the Budget of the United States Government (President's Budget). Funds from Dedicated Collections are accounted for in a separate Treasury Account Symbol (TAS), and the budgetary resources are recorded as Funds from Dedicated Collections Transferred In / (Out). Funds from Dedicated Collections are reported in accordance with SFFAS No. 43, Funds from Dedicated Collections: Amending Statement of Federal Financial Accounting Standards 27, Identifying and Reporting Earmarked Funds. For the years ended September 30, 2017 and September 30, 2016, NSF was subject to H-1B sequestrations in the amount of \$9.7 million and \$6.8 million, respectively.

(Amounts in Thousands)		2017	2016
Balance Sheet as of September 30, 2017 and 2016			
Fund Balance With Treasury	\$	547,382 \$	527,643
Intragovernmental Advances to Others		-	313
Accounts Receivable, Net		51	-
Total Assets	_	547,433	527,956
Accounts Payable		94	3,289
Accrued Grant Liabilities		13,945	15,447
Total Liabilities	_	14,039	18,736
Cumulative Results of Operations		533,394	509,220
Total Liabilities and Net Position	\$	547,433 \$	527,956
Statement of Net Cost for the Years Ended September 30, 2017 and 201	16		
Program Costs	\$	113,961 \$	99,995
Net Cost of Operations	\$	113,961	99,995
Statement of Changes in Net Position for the Years Ended September 3	0, 2017 and 20	16	
Net Position Beginning of Period	\$	509,220 \$	469,922
Funds from Dedicated Collections Transferred In / (Out)		138,135	139,293
Net Cost of Operation		(113,961)	(99,995)
Change in Net Position		24,174	39,298
Net Position End of Period	\$	533,394 \$	509,220

Note 8. Statement of Net Cost

The Statement of Net Cost presents NSF's support for research and education awards as a single program with three primary appropriations: Research and Related Activities (R&RA), Education and Human Resources (EHR), and Major Research Equipment and Facilities Construction (MREFC). Donations and Dedicated Collections are also presented in the Statement of Net Cost and in the tables below.

In pursuit of its mission, NSF incurs costs in line with the Foundation's strategic plan for 2014-2018: *Investing in Science, Engineering, and Education for the Nation's Future*. The strategic goals outlined in this plan are: "Transform the Frontiers of Science and Engineering", "Stimulate Innovation and Address Societal Needs through Research and Education", and "Excel as a Federal Science Agency". "Transform the Frontiers of Science and Engineering" emphasizes the seamless integration of research and education as well as the close coupling of research infrastructure and discovery. "Stimulate Innovation and Address Societal Needs through Research and Education" points to the tight linkage between NSF programs and societal needs, and highlights the role that new knowledge and creativity play in economic prosperity and society's general welfare. "Excel as a Federal Science Agency" emphasizes the importance to NSF of attaining excellence and inclusion in all operational aspects. Stewardship costs directly reflect the third strategic goal, "Excel as a Federal Science Agency", and are prorated among the Net Cost programs. Stewardship costs include expenditures incurred from the AOAM, NSB, and Office of Inspector General (OIG) appropriations. These appropriations support salaries and benefits of persons employed at NSF; general operating expenses, including support of NSF's information systems technology; staff training, audit and OIG activities; and OPM and DOL benefits costs paid on behalf of NSF.

As of September 30, 2017 and 2016, approximately 95 percent of NSF's expenses amounting to \$6.9 billion and \$6.8 billion, respectively, were directly related to the "Transform the Frontiers of Science and Engineering" and "Stimulate Innovation and Address Social Needs through Research and Education" strategic outcome goals. As of September 30, 2017 and 2016, costs related to the stewardship activities totaled \$364.0 million and \$371.2 million, respectively.

In accordance with OMB Circular No. A-136, costs incurred for services provided by other federal entities are reported in the full costs of NSF programs and are separately identified in this note as "Federal." Costs incurred with non-federal entities are identified in this note as "Public." All earned revenues are offsetting collections provided through reimbursable agreements with other federal entities and are retained by NSF. Earned revenues are recognized when the related program or administrative expenses are incurred and are deducted from the full cost of the programs to arrive at the net cost of operating NSF's programs. NSF applies a cost recovery fee on other federal entities consistent with applicable legislation and U.S. Government Accountability Office decisions. NSF recovers the costs incurred in the management, administration, and oversight of activities authorized and/or funded by interagency agreements where NSF is the performing agency.

Intragovernmental and Public Costs and Earned Revenue by Program

(Amounts in Thousands)				2017		
		Federal		Public		Total
Research and Related Activities						
Gross Costs	\$	272,117	\$	5,834,368	\$	6,106,485
Less: Earned Revenue		(93,251)		(6,280)		(99,531)
Net Research and Related Activities	_	178,866		5,828,088		6,006,954
Education and Human Resources						
Gross Costs	\$	9,808	\$	776,170	\$	785,978
Less: Earned Revenue		(3,788)		(255)		(4,043)
Net Education and Human Resources	_	6,020		775,915	<u> </u>	781,935
Major Research Equipment and Facilities Construction						
Gross Costs	\$	-	\$	181,093	\$	181,093
Less: Earned Revenue		-		-		-
Net Major Research Equipment and Facilities Construction	_		_	181,093		181,093
Donations and Dedicated Collections						
Gross Costs	\$	631	\$	145,591	\$	146,222
Less: Earned Revenue		-		=		
Net Donations and Dedicated Collections	_	631		145,591		146,222
Net Cost of Operations	\$	185,517	\$	6,930,687	\$	7,116,204
(Amounts in Thousands)				2016		
(Amounts in Thousands)		Federal		2016 Public		Total
(Amounts in Thousands) Research and Related Activities		Federal				Total
	\$	Federal 221,997	\$		\$	Total 5,979,543
Research and Related Activities	\$		\$	Public	\$	
Research and Related Activities Gross Costs	\$	221,997	\$	Public 5,757,546	\$	5,979,543
Research and Related Activities Gross Costs Less: Earned Revenue	\$ 	221,997 (104,648)	\$	Public 5,757,546 (3,529)	\$ - -	5,979,543 (108,177)
Research and Related Activities Gross Costs Less: Earned Revenue Net Research and Related Activities	\$ \$	221,997 (104,648)		Public 5,757,546 (3,529)	_	5,979,543 (108,177)
Research and Related Activities Gross Costs Less: Earned Revenue Net Research and Related Activities Education and Human Resources	_ _	221,997 (104,648) 117,349 8,587		Public 5,757,546 (3,529) 5,754,017	_	5,979,543 (108,177) 5,871,366 861,295
Research and Related Activities Gross Costs Less: Earned Revenue Net Research and Related Activities Education and Human Resources Gross Costs	_ _	221,997 (104,648) 117,349		Public 5,757,546 (3,529) 5,754,017	_	5,979,543 (108,177) 5,871,366
Research and Related Activities Gross Costs Less: Earned Revenue Net Research and Related Activities Education and Human Resources Gross Costs Less: Earned Revenue Net Education and Human Resources	_ _	221,997 (104,648) 117,349 8,587 (2,432)		Public 5,757,546 (3,529) 5,754,017 852,708 (82)	_	5,979,543 (108,177) 5,871,366 861,295 (2,514)
Research and Related Activities Gross Costs Less: Earned Revenue Net Research and Related Activities Education and Human Resources Gross Costs Less: Earned Revenue	_ _	221,997 (104,648) 117,349 8,587 (2,432)		Public 5,757,546 (3,529) 5,754,017 852,708 (82)	\$ -	5,979,543 (108,177) 5,871,366 861,295 (2,514)
Research and Related Activities Gross Costs Less: Earned Revenue Net Research and Related Activities Education and Human Resources Gross Costs Less: Earned Revenue Net Education and Human Resources Major Research Equipment and Facilities Construction	\$	221,997 (104,648) 117,349 8,587 (2,432)	\$	Public 5,757,546 (3,529) 5,754,017 852,708 (82) 852,626	\$ -	5,979,543 (108,177) 5,871,366 861,295 (2,514) 858,781
Research and Related Activities Gross Costs Less: Earned Revenue Net Research and Related Activities Education and Human Resources Gross Costs Less: Earned Revenue Net Education and Human Resources Major Research Equipment and Facilities Construction Gross Costs	\$	221,997 (104,648) 117,349 8,587 (2,432)	\$	Public 5,757,546 (3,529) 5,754,017 852,708 (82) 852,626	\$ -	5,979,543 (108,177) 5,871,366 861,295 (2,514) 858,781
Research and Related Activities Gross Costs Less: Earned Revenue Net Research and Related Activities Education and Human Resources Gross Costs Less: Earned Revenue Net Education and Human Resources Major Research Equipment and Facilities Construction Gross Costs Less: Earned Revenue	\$	221,997 (104,648) 117,349 8,587 (2,432)	\$	Public 5,757,546 (3,529) 5,754,017 852,708 (82) 852,626	\$ -	5,979,543 (108,177) 5,871,366 861,295 (2,514) 858,781
Research and Related Activities Gross Costs Less: Earned Revenue Net Research and Related Activities Education and Human Resources Gross Costs Less: Earned Revenue Net Education and Human Resources Major Research Equipment and Facilities Construction Gross Costs Less: Earned Revenue Net Major Research Equipment and Facilities Construction	\$	221,997 (104,648) 117,349 8,587 (2,432)	\$	Public 5,757,546 (3,529) 5,754,017 852,708 (82) 852,626 182,474 - 182,474	\$ \$ \$	5,979,543 (108,177) 5,871,366 861,295 (2,514) 858,781 182,474
Research and Related Activities Gross Costs Less: Earned Revenue Net Research and Related Activities Education and Human Resources Gross Costs Less: Earned Revenue Net Education and Human Resources Major Research Equipment and Facilities Construction Gross Costs Less: Earned Revenue Net Major Research Equipment and Facilities Construction Onations and Dedicated Collections Gross Costs Gross Costs	\$ \$ 	221,997 (104,648) 117,349 8,587 (2,432) 6,155	\$	Public 5,757,546 (3,529) 5,754,017 852,708 (82) 852,626	\$ \$ \$	5,979,543 (108,177) 5,871,366 861,295 (2,514) 858,781
Research and Related Activities Gross Costs Less: Earned Revenue Net Research and Related Activities Education and Human Resources Gross Costs Less: Earned Revenue Net Education and Human Resources Major Research Equipment and Facilities Construction Gross Costs Less: Earned Revenue Net Major Research Equipment and Facilities Construction Donations and Dedicated Collections	\$ \$ 	221,997 (104,648) 117,349 8,587 (2,432) 6,155	\$	Public 5,757,546 (3,529) 5,754,017 852,708 (82) 852,626 182,474 - 182,474	\$ \$ \$	5,979,543 (108,177) 5,871,366 861,295 (2,514) 858,781 182,474
Research and Related Activities Gross Costs Less: Earned Revenue Net Research and Related Activities Education and Human Resources Gross Costs Less: Earned Revenue Net Education and Human Resources Major Research Equipment and Facilities Construction Gross Costs Less: Earned Revenue Net Major Research Equipment and Facilities Construction Onations and Dedicated Collections Gross Costs Less: Earned Revenue	\$ \$ 	221,997 (104,648) 117,349 8,587 (2,432) 6,155	\$	Public 5,757,546 (3,529) 5,754,017 852,708 (82) 852,626 182,474 - 182,474 133,555	\$ \$ \$	5,979,543 (108,177) 5,871,366 861,295 (2,514) 858,781 182,474 - 182,474

Note 9. Apportionment Categories of Obligations Incurred: Direct vs. Reimbursable Obligations

OMB Circular No. A-11, *Preparation, Submission, and Execution of the Budget*, requires direct and reimbursable obligations be reported as Category A, Category B, or Exempt from Apportionment. In FYs 2017 and 2016, NSF's SF-133, *Report on Budget Execution and Budgetary Resources*, reported all new obligations and upward adjustments under Category B which is by activity, project, or object.

As of September 30, 2017 and 2016, direct and reimbursable obligations were:

(Amounts in Thousands)	2017	2016
Apportionment Category B		_
Direct	\$ 7,679,769 \$	7,714,090
Reimbursable	74,497	94,634
New Obligations and Upward Adjustments	\$ 7,754,266 \$	7,808,724

Note 10. Undelivered Orders at the End of the Period

In accordance with SFFAS No. 7, *Accounting for Revenue and Other Financing Sources*, the amount of budgetary resources obligated for undelivered orders for the years ended September 30, 2017 and 2016 amounted to \$12.6 billion and \$12.2 billion, respectively.

Note 11. Permanent Indefinite Appropriations

NSF maintains permanent indefinite appropriations for R&RA, AOAM and MREFC. The R&RA appropriation is used for polar research and operations support, and for reimbursement to other federal agencies for operational and science support, and logistical and other related activities for USAP. In FYs 2017 and 2016 the permanent indefinite appropriations for R&RA were \$467.1 million and \$442.8 million, respectively, and are reported as transfers from the current year R&RA appropriation.

The AOAM appropriation is used to fund the multi-year effort associated with NSF's headquarters relocation. In FYs 2017 and 2016, the permanent indefinite appropriations for AOAM were \$21.2 million and \$30.8 million, respectively. The FY 2017 permanent indefinite appropriation is comprised of current year transfers from the following appropriations: \$2.0 million from AOAM, \$12.2 million from R&RA, and \$7.0 million from EHR. The FY 2016 permanent indefinite appropriation was comprised of current year transfers of \$3.8 million from AOAM and a \$27.0 million transfer from the R&RA, EHR, and MREFC appropriations. The latter transfer was the result of exercising the Administrative Provision described in Note 1D, *Revenue and Other Financing Sources*.

The MREFC appropriation supports the procurement and construction of unique national research platforms and major research equipment. In FY 2017, the permanent indefinite appropriation for MREFC was \$209.0 million. In FY 2016, the permanent indefinite appropriation for MREFC was \$198.3 million, which was reported net of transfers out as a result of the Administrative Provision.

Note 12. Explanation of Differences between the Statement of Budgetary Resources and the Budget of the United States Government

SFFAS No. 7, Accounting for Revenue and Other Financing Sources and Concepts for Reconciling Budgetary and Financial Accounting, requires explanations of material differences between amounts reported in the Statement of Budgetary Resources (SBR) and the actual balances published in the President's Budget. The FY 2019 President's Budget will include FY 2017 budget execution information and is scheduled for publication in February 2018.²

Balances reported in the FY 2016 SBR and the related President's Budget are shown in a table below for *Budgetary Resources, Obligations Incurred, Unobligated Balance - Unavailable, Distributed Offsetting Receipts*, and any related differences. The differences reported are due to differing reporting requirements for expired and unexpired appropriations between the Treasury guidance used to prepare the SBR and the OMB guidance used to prepare the President's Budget. The SBR includes both unexpired and expired appropriations, while the President's Budget presents only unexpired budgetary resources that are available for new obligations. Additionally, the *Distributed Offsetting Receipts* amount on the SBR includes donations, while the President's Budget does not.

(Amounts in	Thousands)
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		Budgetary		Obligations		Unobligated		Distributed
		Resources		Incurred		Balance -		Offsetting
						Unavailable		Receipts
Combined Statement of Budgetary Resources	\$	8,156,989	\$	7,808,724	\$	187,952	\$	28,648
Budget of the U.S. Government	\$_	7,991,548	\$_	7,803,073	\$_	28,162	\$_	3,000
Difference	\$	165,441	\$	5,651	\$	159,790	\$	25,648

Note 13. Awards to Affiliated Institutions

NSB members may be affiliated with institutions that are eligible to receive grants and awards from NSF. NSF made awards totaling \$1.1 billion to Board member affiliated institutions in FY 2017. The Board does not review all NSF award actions; however the following require NSB approval for the NSF Director to take action under delegated authority:

- Proposed awards that meet or exceed a threshold where the average annual award amount is the greater of one percent or more of the awarding Directorate's or Office's prior year plan or 0.1 percent or more of the prior year total NSF budget (enacted level); and
- Major Research Equipment and Facilities Construction (MREFC) awards.

The NSB passed a resolution on February 22, 2017 making one substantive change to its existing authority. The NSB will consult with the Director on programs which represent a significant, long-term investment, particularly those which will be funded as an ongoing NSF-wide activity or which involve substantive policy, interagency, or international issues, rather than take formal action to approve them.

The Director's Review Board (DRB) reviews proposed actions for evaluation adequacy and documentation, and compliance with Foundation policies, procedures and strategies. Items requiring DRB action include large awards and RFPs that meet or exceed a threshold of 2.5 percent of the prior year Division or

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² OMB Website: http://www.whitehouse.gov/omb

Subactivity Plan. In addition, the DRB reviews all items requiring NSB action as well as NSB information items prior to submission.

NSF may fund awards meeting the above requirements to institutions affiliated with Board members. Federal conflict-of-interest rules prohibit NSB members from participating in matters where they have a conflict of interest or there is an impartiality concern without prior authorization from the Designated Agency Ethics Official (DAEO). Prior to Board meetings, all NSB action items are screened for conflict-of-interest/impartiality concerns by the Office of the General Counsel. Members who have conflicts are either recused from the matter or receive a waiver from the DAEO to participate. In FY 2017, NSB did not approve any awards to Board member affiliated institutions.

Note 14. Reconciliation of Net Cost of Operations to Budget

(Amounts in Thousands)	2017	2016
Resources Used To Finance Activities		_
Budgetary Resources Obligated		
New Obligations and Upward Adjustments \$	7,754,266	\$ 7,808,724
Less: Spending Authority from Offsetting Collections and Recoveries	(191,917)	(205,234)
Obligations Net of Offsetting Collections and Recoveries	7,562,349	7,603,490
Less: Distributed Offsetting Receipts	(46,140)	(28,648)
Net Obligations	7,516,209	7,574,842
Other Resources		
Transfers In / (Out) Without Reimbursement	107	-
Imputed Financing	7,385	9,020
Other Resources	(6,621)	(3,868)
Net Other Resources Used to Finance Activities	871	5,152
Total Resources Used to Finance Activities	7,517,080	7,579,994
Resources Used to Finance Items Not Part of the Net Cost of Operations		
Change in Budgetary Resources Obligated for Goods, Services and		
Benefits Ordered but Not Yet Provided	(425,424)	(577,426)
Resources that Fund Expenses Recognized in Prior Periods	(7,466)	352
Budgetary Offsetting Collections and Receipts that Do Not Affect		
Net Cost of Operations	46,140	28,648
Resources that Finance the Acquisition of Assets	(47,626)	(17,088)
Total Resources Used to Finance Items Not Part of the		
Net Cost of Operations	(434,376)	(565,514)
Total Resources Used to Finance Net Cost of Operations	7,082,704	7,014,480
Components of the Net Cost of Operations that will not Require or Generate		
Resources in the Current Period		
Components Requiring or Generating Resources in Future Periods		
Other	120	649
Total Components of Net Cost of Operations that will Require		
or Generate Resources in Future Periods	120	649
Commence Not Describe on Commenting Describes		
Components Not Requiring or Generating Resources	22.240	21.754
Depreciation and Amortization	32,348	31,754
Other	1,032	(536)
Total Components of Net Cost of Operations that will not	22.200	21.210
Require or Generate Resources	33,380	31,218
Total Components of Net Cost of Operations that Will Not		
Require or Generate Resources in the Current Period	33,500	31,867
Net Cost of Operations \$	7,116,204	\$ 7,046,347
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Required Supplementary Stewardship Information

Stewardship Investments

For the Fiscal Years ended September 30, 2017 and 2016

Stewardship Investments Research and Human Capital (Dollar Amounts in Thousands)

	 2017		2016		2015	2014	2013
Basic Research	\$ 5,213,706	\$	5,216,976	\$	5,202,144	\$ 5,383,795	\$ 5,446,790
Applied Research	820,635		793,519		782,986	726,087	588,261
Education and Training	821,413		775,326		801,678	941,330	861,871
Non-Investing Activities	 364,024	_	371,217	_	329,685	309,837	327,357
Total Research & Human Capital Activities	\$ 7,219,778	\$	7,157,038	\$	7,116,493	\$ 7,361,049	\$ 7,224,279

Inputs, Outputs and/or Outcomes

Research and Human Capital Activities

<u>Investments In:</u>								
Universities	\$ 5,260,018	\$	5,289,267	\$	5,201,477	\$	5,407,717	\$ 5,025,068
Industry	169,101		300,279		365,221		286,916	337,818
Federal Agencies	229,668		178,845		167,018		252,596	208,806
Small Business	292,997		240,759		225,958		224,931	249,443
Federally Funded R&D Centers	247,549		231,977		231,813		234,515	280,032
Non-Profit Organizations	529,241		446,750		451,232		529,482	605,059
Other	 491,204		469,161		473,774	_	424,892	 518,053
	\$ 7,219,778	\$_	7,157,038	\$	7,116,493	\$	7,361,049	\$ 7,224,279
Support To:								
Scientists	\$ 585,172	\$	595,743	\$	584,865	\$	550,800	\$ 539,713
Postdoctoral Programs	200,840		195,874		203,128		190,188	190,564
Graduate Students	 628,367		625,059		629,922		586,443	 568,548
	\$ 1,414,379	\$_	1,416,676	\$_	1,417,915	\$	1,327,431	\$ 1,298,825
Outputs & Outcomes (Rounded):								
Number of:								
Award Actions	20,000		21,000		21,000		20,000	20,000
Senior Researchers	42,000		44,000		42,000		41,000	44,000
Other Professionals	14,000		14,000		14,000		17,000	14,000
Postdoctoral Associates	6,000		6,000		6,000		6,000	6,000
Graduate Students	41,000		41,000		42,000		40,000	42,000
Undergraduate Students	38,000		38,000		36,000		34,000	29,000
K-12 Students	172,000		170,000		172,000		130,000	124,000
K-12 Teachers	40,000		44,000		41,000		40,000	40,000

NSF's mission is to support basic scientific research and research fundamental to the engineering process as well as education programs in STEM fields. NSF's Stewardship Investments fall principally into the categories of Research and Human Capital. For expenses incurred under the Research category, the majority of NSF funding is devoted to basic research, with a relatively small share going to applied research. This funding supports both the conduct of research and the necessary supporting infrastructure, including state-of-the-art instrumentation, equipment, computing resources, aircraft, and multi-user facilities such as digital libraries, observatories, and research vessels. Basic research, applied research, and education and training expenses are determined by prorating the program costs of NSF's R&RA, EHR, and MREFC appropriations, donations, and funds from dedicated collections reported on the Statement of Net Cost. The proration uses the basic research, applied research, and education and training percentages of total estimated research and development obligations reported in the FY 2018 Budget Request to Congress. The actual numbers are not available until later in the following fiscal year. Non-Investing activities reflect stewardship costs incurred from the AOAM, NSB and OIG appropriations.

The data provided for scientists, postdoctoral associates, and graduate students are obtained from NSF's award budget information as recorded at the time the award is made. The number of award actions are actual values from NSF's Enterprise Information System (EIS). The remaining outputs and outcomes are estimates provided annually by the NSF Directorates. These estimates are reported in the annual NSF Budget Request to Congress.

NSF's Human Capital investments focus principally on education and training, toward a goal of creating a diverse, internationally competitive, and globally engaged workforce of scientists, engineers and well-prepared citizens. NSF supports activities to improve formal and informal science, mathematics, engineering and technology education at all levels, as well as public science literacy projects that engage people of all ages in life-long learning. The number of K-12 students involved in NSF activities is based on a robust data collection and analysis process. The reported number of K-12 students and teachers in FY 2017 excludes data from the EPSCoR¹ programs' investments in the jurisdictions of Alabama, Arkansas, Iowa, Kansas, Montana, and Puerto Rico. Reporting from these jurisdictions is expected to be final by December 2017 and will be reflected in the FY 2019 Budget Request to Congress.

¹ Established Program to Stimulate Competitive Research (EPSCoR)

Required Supplementary Information

Deferred Maintenance and Repairs

For the Fiscal Years ended September 30, 2017 and 2016

Deferred Maintenance and Repairs

NSF performs condition assessment surveys in accordance with SFFAS No. 42 for capitalized general PP&E, including fully depreciated general, and non-capital accountable personal property to determine if any maintenance and repairs are needed to keep an asset in an acceptable condition or restore an asset to a specific level of performance. NSF considers deferred maintenance and repairs to be any maintenance and repairs that are not performed on schedule, unless it is determined from the condition of the asset that scheduled maintenance does not have to be performed. Deferred maintenance and repairs also include any other type of maintenance or repair that, if not performed, would render the PP&E non-operational. Circumstances such as non-availability of parts or funding are considered reasons for deferring maintenance and repairs.

NSF considered whether any scheduled maintenance or repair necessary to keep fixed assets of the agency in an acceptable condition was deferred at years ended September 30, 2017 and 2016. Assets deemed to be in excellent, good, or fair condition are considered to be in acceptable condition. Assets in poor condition are in unacceptable condition and the deferred maintenance and repairs required to get them to an acceptable condition are reported. NSF determines the condition of an asset in accordance with standards comparable to those used in the private industry. Due to the environment and remote location of Antarctica, all deferred maintenance and repairs on assets in poor condition are considered critical in order to maintain operational status.

In accordance with SFFAS No. 42, NSF discloses the beginning and ending balances for the year ending September 30, 2017. At September 30, 2017 NSF determined that scheduled maintenance or repairs on one item of Antarctic capital equipment in poor condition was not completed and was deferred or delayed for a future period. The dollar amount of deferred maintenance for this item was \$2.1 thousand. The item is heavy, mobile equipment and is considered critical to NSF operations.

At September 30, 2016, NSF determined that scheduled maintenance or repairs on one item of Antarctic capital equipment in poor condition was not completed and was deferred or delayed for a future period. The dollar amount of deferred maintenance for this item was \$0.6 thousand. The item is heavy, mobile equipment and is considered critical to NSF operations.

Required Supplementary Information

Combining Statement of Budgetary Resources by Major Budget Accounts

In the following tables, NSF budgetary information for the fiscal years ended September 30, 2017 and 2016, as presented in the Statement of Budgetary Resources, is disaggregated for each of NSF's major budget accounts.

The Science Appropriations Act, 2017 2017 (Amounts in Thousands)

		Research and	Education and	Major Research	OIG, AOAM, and	Special and	
		Related Activities	Human Resources	Equipment	NSB	Donated	<u>Total</u>
Budgetary Resources							
Unobligated Balance - Brought Forward, October 1	\$	143,541	37,837	37,212	31,113	98,562 \$	348,265
Recoveries of Prior Year Unpaid Obligations		83,234	19,057	2,069	5,907	12,993	123,260
Other Changes in Unobligated Balance		(51,605)	(15,562)	_	(2,902)	5	(70,064)
Unobligated Balance from Prior Year Budget Authority, Net		175,170	41,332	39,281	34,118	111,560	401,461
Appropriations		6,005,645	873,050	214,860	378,660	178,995	7,651,210
Spending Authority from Offsetting Collections		59,407	4,332	-	4,287	<u> </u>	68,026
Total Budgetary Resources	\$	6,240,222	918,714	254,141	417,065	290,555 \$	8,120,697
Status of Budgetary Resources							
New Obligations and Upward Adjustments Unobligated Balance, End of Year	\$	6,085,237	878,360	222,780	406,815	161,074 \$	7,754,266
Apportioned, Unexpired		31,950	4,507	29,292	1,341	116,174	183,264
Unapportioned, Unexpired		4,790	3,936	2,069	-	13,307	24,102
Unobligated Balance, Unexpired, End of Year		36,740	8,443	31,361	1,341	129,481	207,366
Unobligated Balance, Expired, End of Year		118,245	31,911	-	8,909	<u> </u>	159,065
Total Unobligated Balance, End of Year		154,985	40,354	31,361	10,250	129,481	366,431
Total Status of Budgetary Resources	\$	6,240,222	918,714	254,141	417,065	290,555 \$	8,120,697
Change in Obligated Balance							
Unpaid Obligations							
Unpaid Obligations - Brought Forward, October 1, Gross	\$	10,100,815	1,787,878	240,296	121,546	489,873 \$	12,740,408
New Obligations and Upward Adjustments	-	6,085,237	878,360	222,780	406,815	161,074	7,754,266
Gross Outlays		(5,867,789)	(758,365)	(174,034)	(406,156)	(145, 176)	(7,351,520)
Recoveries of Prior Year Unpaid Obligations		(83,234)	(19,057)	(2,069)	(5,907)	(12,993)	(123,260)
Unpaid Obligations - End of Year, Gross		10,235,029	1,888,816	286,973	116,298	492,778	13,019,894
Uncollected Payments							
Uncollected Payments from Federal Sources - Brought Forward, October 1	\$	(87,745)	(7,214)	-	(427)	- \$	(95,386)
Change in Uncollected Payments from Federal Sources		24,901	(3,319)	-	(157)		21,425
Uncollected Payments from Federal Sources, End of Year		(62,844)	(10,533)	-	(584)	-	(73,961)
Memorandum (non-add) Entries							
Obligated Balance - Start of Year	\$	10,013,070	1,780,664	240,296	121,119	489,873 \$	12,645,022
Obligated Balance - End of Year	\$	10,172,185	1,878,283	286,973	115,714	492,778 \$	12,945,933
Budget Authority and Outlays, Net							
Budget Authority, Gross	\$	6,065,052	877,382	214,860	382,947	178,995 \$	7,719,236
Actual Offsetting Collections		(84,784)	(1,014)	-	(4,279)	(5)	(90,082)
Change in Uncollected Customer Payments from Federal Sources		24,901	(3,319)	-	(157)	-	21,425
Recoveries of Prior Year Paid Obligations		476	1	-	149	5	631
Budget Authority, Net	\$	6,005,645	873,050	214,860	378,660	178,995 \$	7,651,210
Gross Outlays	\$	5,867,789	758,365	174,034	406,156	145,176 \$	7,351,520
Actual Offsetting Collections		(84,784)	(1,014)		(4,279)	(5)	(90,082)
Net Outlays Distributed Offsetting Receipts		5,783,005	757,351	174,034	401,877	145,171 (46,140)	7,261,438 (46,140)
Net Agency Outlays	\$	5,783,005	757,351	174,034	401,877	99,031 \$	7,215,298
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The Science Appropriations Act, 2016 2016 (Amounts in Thousands)

		Research and Related Activities	Education and Human Resources	Major Research Equipment	OIG, AOAM, and NSB	Special and Donated	Total
Budgetary Resources							
Unobligated Balance - Brought Forward, October 1	\$	130,595	36,992	58,058	23,745	145,137 \$	394,527
Recoveries of Prior Year Unpaid Obligations		70,230	22,004	2,343	6,581	4,590	105,748
Other Changes in Unobligated Balance		(50,217)	(14,567)	-	(3,271)	88	(67,967)
Unobligated Balance from Prior Year Budget Authority, Net		150,608	44,429	60,401	27,055	149,815	432,308
Appropriations Spending Authority from Offsetting Collections		5,989,675 87,580	878,970 4,395	218,310	376,530 5,486	163,735	7,627,220 97,461
Total Budgetary Resources	\$	6,227,863	927,794	278,711	409,071	313,550 \$	8,156,989
Status of Budgetary Resources							
New Obligations and Upward Adjustments Unobligated Balance, End of Year	\$	6,084,322	889,957	241,499	377,958	214,988 \$	7,808,724
Apportioned, Unexpired		17,311	5,394	28,538	24,639	84,431	160,313
Unapportioned, Unexpired		3,219 20,530	2,023 7,417	8,674 37,212	115 24,754	14,131 98,562	28,162 188,475
Unobligated Balance, Unexpired, End of Year Unobligated Balance, Expired, End of Year		123,011	30,420	37,212	6,359	98,302	159,790
Total Unobligated Balance, End of Year		143,541	37,837	37,212	31,113	98,562	348,265
Total Status of Budgetary Resources	\$	6,227,863	927,794	278,711	409,071	313,550 \$	8,156,989
Change in Obligated Balance							
Unpaid Obligations							
Unpaid Obligations - Brought Forward, October 1, Gross	\$	9,671,789	1,736,551	174,408	92,422	403,379 \$	12,078,549
New Obligations and Upward Adjustments	-	6,084,322	889,957	241,499	377,958	214,988	7,808,724
Gross Outlays		(5,585,066)	(816,626)	(173,268)	(342,253)	(123,904)	(7,041,117)
Recoveries of Prior Year Unpaid Obligations		(70,230)	(22,004)	(2,343)	(6,581)	(4,590)	(105,748)
Unpaid Obligations - End of Year, Gross		10,100,815	1,787,878	240,296	121,546	489,873	12,740,408
Uncollected Payments							
Uncollected Payments from Federal Sources - Brought Forward, October 1	\$	(97,894)	(5,191)	-	(871)	- \$	(103,956)
Change in Uncollected Payments from Federal Sources		10,149	(2,023)	<u> </u>	444	<u>-</u>	8,570
Uncollected Payments from Federal Sources, End of Year		(87,745)	(7,214)	-	(427)	-	(95,386)
Memorandum (non-add) Entries Obligated Balance - Start of Year	\$	9,573,895	1,731,360	174,408	91,551	403,379 \$	11,974,593
Obligated Balance - End of Year	\$	10,013,070	1,780,664	240,296	121,119	489,873 \$	12,645,022
Budget Authority and Outlays, Net							
Budget Authority, Gross	\$	6,077,255	883,365	218,310	382,016	163,735 \$	7,724,681
Actual Offsetting Collections		(98,572)	(2,924)	-	(6,472)	(88)	(108,056)
Change in Uncollected Customer Payments from Federal Sources		10,149	(2,023)	-	444	-	8,570
Recoveries of Prior Year Paid Obligations		843	552		542	88	2,025
Budget Authority, Net	\$	5,989,675	878,970	218,310	376,530	163,735 \$	7,627,220
Gross Outlays	\$	5,585,066	816,626	173,268	342,253	123,904 \$	7,041,117
Actual Offsetting Collections		(98,572)	(2,924)	<u> </u>	(6,472)	(88)	(108,056)
Net Outlays		5,486,494	813,702	173,268	335,781	123,816	6,933,061
Distributed Offsetting Receipts	+		040 = 0	-	-	(28,648)	(28,648)
Net Agency Outlays	\$	5,486,494	813,702	173,268	335,781	95,168 \$	6,904,413

Other Information

GONE Act Requirements

Undisbursed Balances in Expired Grant Accounts

Grants Oversight & New Efficiency (GONE) Act Requirements

The GONE Act was enacted in 2016 (P. L. 114-117) with the goal of closing out expired financial assistance awards. OMB's *Circular A-136*, *Financial Reporting Requirements*, requires GONE Act reporting on awards and balances for which closeout has not yet occurred but for which the period of performance has elapsed by more than two years. Table 2.1, below, identifies the total number of NSF financial assistance awards, including grant, cooperative agreement, and fellowship awards that expired on or before September 30, 2015 but have not been closed out. Undisbursed balance information is provided also.

Table 2.1 – Age and Balances for Expired Awards not Closed

(Dollars in millions)

CATEGORY	2 - 3 Years	>3-5 years	>5 years
Number of Grants/ Cooperative Agreements With Zero Dollar Balances	133	275	75
Number of Grants/ Cooperative Agreements With Undisbursed Balances	0	0	0
Total Amount of Undisbursed Balances	\$0	\$0	\$0

Information shown above is as of 10/26/2017.

All the expired awards in Table 2.1 are financially closed (i.e., there are no undisbursed balances), but remain open for administrative reasons. (In this context, the term "expired" means the period of performance has ended.) The majority of these awards are open because the awardee has not yet provided the required project reports. Federal requirements incorporated into NSF policy require that a financial assistance award cannot be completely closed until all of the required project reports have been submitted, approved or reviewed, and posted.

NSF actively pursues closing all expired awards and cooperative agreements in a timely manner. In order to facilitate closeouts, expired awards missing project reports are designated by a special award status code for monitoring purposes. In terms of award report requirements, NSF has implemented several system-driven and enforced business rules including sending out due and overdue notices to the awardees.

In addition, NSF has identified challenges in related areas that have led to delays in the complete closeout of awards. These include system issues, which NSF is developing plans to address. Further, NSF will explore other options for ensuring that required project reports are submitted so that the awards, while financially closed, may be completely closed in a timely manner.

Undisbursed Balances in Expired Grant Accounts

In FY 2017, NSF funded research and education in science and engineering through grants and cooperative agreements to 1,798 colleges, universities, and other institutions. NSF grants are funded in one of two ways: 1) the grant may be funded fully at the time of award, called a standard grant, or 2) the grant may be funded incrementally (one year at a time), called a continuing grant. In both cases, all costs on the grant must be incurred by the grantee during the term of the grant period. At NSF, grantees typically have 120 days after the grant expires to complete final drawdowns and expenditures.

The information provided here pertains to the agency's two grant making appropriation accounts: Research and Related Activities (R&RA) and Education and Human Resources (EHR). The data reported are based on the following definitions:

- An **expired grant** is a grant award that has reached the grant end date and is eligible for closeout. For NSF, this means grants with an expired period of performance.
- Undisbursed balances on expired grants are amounts that remain available for expenditure on an expired grant award before it is closed out.

Once a grant has expired, NSF takes actions to close out the grant both administratively and financially. The financial closeout action takes place 120 days after the award expiration date when the undisbursed balances are de-obligated from the award. Administrative closeout is initiated after financial closeout is completed.

The methodology used to develop undisbursed balances on expired grant awards is consistent with the U.S. Government Accountability Office (GAO) conclusions documented in their April 2012 report, GAO-12-360, *Grants Management: Action Needed to Improve the Timeliness of Grant Closeouts by Federal Agencies*, along with discussion and clarifying information from GAO. The data reported here reflects the amount of undisbursed balances in grant accounts that have reached their end date and are eligible for closeout.

1. In the preceding three fiscal years, provide the total number of expired grant accounts with undisbursed balances (on the first day for each fiscal year) for the department, agency, or instrumentality and the total amount that has not been obligated to specific grant or project remaining in the accounts.

The number of expired grants with undisbursed balances for the preceding three fiscal years is provided in Table 2.2. The numbers and balances reflect a point in time before expired awards are closed out during normal processes described above. For FY 2017, there were 4,982 expired grants with undisbursed balances of \$95,235,628.

	FY 2017 (as of 9/30/17)	FY 2016 (as of 9/30/16)	FY 2015 (as of 9/30/15)
Number of expired grants	4,982	5,132	4,406
Undisbursed balances prior to closeout	\$95,235,628	\$113,215,313	\$72,275,377

Table 2.2 – Status of Undisbursed Balances in Expired Grants

2. Details on future action the department, agency, or instrumentality will take to resolve undisbursed balances in expired grant accounts.

NSF continually monitors its grant awards throughout their lifecycle following a comprehensive post-award monitoring process. NSF grants are closed based on their period of performance end date. 120 days after the grant period has expired, all unliquidated (or undisbursed) award balances are de-obligated. Having small undisbursed balances at the end of the grant period is a routine occurrence, as not all grantees fully spend all of the funds obligated in the course of their research.

3. The method that the department, agency or instrumentality uses to track undisbursed balances in expired grant accounts.

NSF completes financial closeout of expired grant awards on a daily basis using a set of automated and manual activities. Eligibility for closeout for all NSF awards begins 120 days after the award expiration date. The NSF closeout process automatically de-obligates any unliquidated (unspent) award balance, produces an award closeout transaction to flag the award as financially closed, and sends the financial closeout date to NSF's award management system. This initiates final administrative closeout procedures in the award management system.

The expected award closeout date is made available to awardees and staff through the Award Cash Management Service (ACM\$). ACM\$ requires the submission of award level payment amounts and expenditures each time funds are requested by awardees and allows NSF to complete post-award monitoring at the individual award level throughout the lifecycle of the award.

4. Process for identification of undisbursed balances in expired grant accounts that may be returned to the Treasury of the United States.

When a grant is closed out, the unliquidated (or undisbursed) balances are de-obligated. The de-obligated grant balances are treated one of three ways:

- If the source appropriation is still active, the balances are recovered by NSF and remain available for valid new obligations until the source appropriation's expiration date.
- If the source appropriation has expired but funds have not yet been canceled, the grant balances are recovered by NSF and remain available for upward adjustments on other existing obligations within the source appropriation.
- If the source appropriation has been canceled, the grant balances are returned to the Treasury.

Prior to September 30, 2017, all undisbursed grant balances in canceling appropriations were deobligated. These grant balances will be returned to Treasury.