Smithsonian Institution
Office of the Inspector General

Memo

Date: May 9, 2019

To: David M. Rubenstein, Chair, Board of Regents
Risa J. Lavizzo-Mourey, Chair, Audit and Review Committee, Board of Regents
Dr. David Skorton, Secretary

Cc: Mike McCarthy, Acting Chief Operating Officer and Under Secretary for Finance & Administration
Kate Forester, Acting Chief of Staff to the Regents
Greg Bettwy, Chief of Staff, Office of the Secretary
Tracy Fraser, Director, Office of Sponsored Projects
Charles Alcock, Director, Smithsonian Astrophysical Observatory
Elliott Gruber, Director, National Postal Museum
Jean Garvin, Director, Office of Finance and Accounting

From: Cathy L. Helm, Inspector General

Subject: *Audit of Federal Awards Performed in Accordance with Title 2 U.S. Code of Federal Regulations Part 200 Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (OIG-A-19-05)

This memorandum transmits the third and final report of the fiscal year 2018 financial statement audits of the Smithsonian Institution (Smithsonian) performed by the independent public accounting firm of KPMG LLP (KPMG). KPMG expressed two unmodified opinions on this report. First, KPMG opined that the Smithsonian complied, in all material respects, with the compliance requirements of the Smithsonian's two major federal programs; research and development cluster and the United States Postal Service. Second, KPMG opined that the Smithsonian's expenditures of federal awards were fairly stated in all material respects in relation to the financial statements as a whole.

The Office of the Inspector General serves as the Contracting Officer's Technical Representative in overseeing KPMG's work. As part of our oversight activities, we reviewed KPMG's audit report and documentation and interviewed its representatives. Our review disclosed no instances where KPMG did not comply, in all material respects, with the American Institute of Certified Public Accountants' generally accepted auditing standards and the U.S. Government Accountability Office's *Government Auditing Standards*.

If you have any questions, please do not hesitate to contact me or Joan Mockeridge, Assistant Inspector General for Audits, at 202.633.7050.

Attachment

SMITHSONIAN INSTITUTION

Audit of Federal Awards Performed in Accordance with
Title 2 U.S. Code of Federal Regulations Part 200 *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards*

September 30, 2018

(With Independent Auditors' Reports Thereon)

SMITHSONIAN INSTITUTION

Audit of Federal Awards Performed in Accordance with
Title 2 U.S. Code of Federal Regulations Part 200 *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards*

Table of Contents

	Page
Independent Auditors' Report	1
Financial Statements:	
Statement of Financial Position	3
Statement of Activities	4
Statement of Cash Flows	5
Notes to Financial Statements	6–25
Schedules of Expenditures of Federal Awards	
Summary Schedule of Expenditures of Federal Awards	26
Detail Schedule of Expenditures of Federal Awards	27–35
Notes to Schedules of Expenditures of Federal Awards	36
Independent Auditors' Report on Internal Control over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance with *Government Auditing Standards*	37–38
Independent Auditors' Report on Compliance for Each Major Program; Report on Internal Control over Compliance; and Report on Schedules of Expenditures of Federal Awards Required by the Uniform Guidance	39–40
Schedule of Findings and Questioned Costs	41

KPMG LLP
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1801 K Street, NW
Washington, DC 20006

Independent Auditors' Report

The Office of the Inspector General, Audit and Review Committee
of the Board of Regents, and Secretary Skorton
Smithsonian Institution:

Report on the Financial Statements

We have audited the accompanying financial statements of Smithsonian Institution (Smithsonian), which comprise the statement of financial position as of September 30, 2018, and the related statements of activities and cash flows for the year then ended, and 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 U.S. generally accepted accounting principles; 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.

Auditors' Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit 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 auditors' 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 in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Smithsonian'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 Smithsonian Institution as of September 30, 2018, and the changes in its net assets and its cash flows for the year then ended in accordance with U.S. generally accepted accounting principles.

KPMG LLP is a Delaware limited liability partnership and the U.S. member firm of the KPMG network of independent member firms affiliated with KPMG International Cooperative ("KPMG International"), a Swiss entity.

Other Matter

Fund Detail

Our audit was conducted for the purpose of forming an opinion on the financial statements as a whole. The fund detail is presented for purposes of additional analysis and is not a required part of the financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the financial statements. The information has been subjected to the auditing procedures applied in the audit of the financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the financial statements or to the financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the fund detail is fairly stated in all material respects in relation to the financial statements as a whole.

Report on Summarized Comparative Information

We have previously audited the Smithsonian's 2017 financial statements, and we expressed an unmodified audit opinion on those audited financial statements in our report dated January 22, 2018. In our opinion, the summarized comparative information presented herein as of and for the year ended September 30, 2017 is consistent, in all material respects, with the audited financial statements from which it has been derived.

Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have also issued our report dated January 8, 2019 on our consideration of Smithsonian Institution's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely 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 the effectiveness of Smithsonian's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering Smithsonian's internal control over financial reporting and compliance.

KPMG LLP

Washington, District of Columbia
January 8, 2019

SMITHSONIAN INSTITUTION

Statement of Financial Position

September 30, 2018
(with summarized financial information as of September 30, 2017)

(Dollars in millions)

	Fund detail		Total funds	
	Trust	**Federal**	**2018**	**2017**
Assets:				
Cash, cash equivalents and U.S. Treasury balances	$ 109.4	524.6	634.0	440.2
Receivables and advances	250.9	3.1	254.0	282.1
Inventories	12.8	0.3	13.1	13.5
Deferred expenses and other assets	47.7	—	47.7	58.8
Investments	1,880.6	—	1,880.6	1,752.9
Property and equipment, net	746.2	1,600.9	2,347.1	2,342.3
Total assets	$ 3,047.6	2,128.9	5,176.5	4,889.8
Liabilities:				
Accounts payable and accrued expenses	$ 124.2	165.0	289.2	296.1
Deferred revenue	59.2	—	59.2	59.1
Unexpended federal appropriations	—	461.1	461.1	289.0
Deferred gain on sale of real estate	8.2	—	8.2	12.1
Environmental remediation obligation	—	49.8	49.8	49.9
Long-term debt	148.0	—	148.0	199.6
Total liabilities	339.6	675.9	1,015.5	905.8
Net assets:				
Unrestricted	1,389.2	1,453.0	2,842.2	2,766.5
Temporarily restricted	772.6	—	772.6	692.0
Permanently restricted	546.2	—	546.2	525.5
Total net assets	2,708.0	1,453.0	4,161.0	3,984.0
Commitments and contingencies				
Total liabilities and net assets	$ 3,047.6	2,128.9	5,176.5	4,889.8

See accompanying notes to financial statements.

SMITHSONIAN INSTITUTION

Statement of Activities

Year ended September 30, 2018
(with summarized financial information for year ended September 30, 2017)

(Dollars in millions)

	Unrestricted fund detail			Temporarily restricted trust funds	Permanently restricted trust funds	Total funds	
	Trust	Federal	Total			2018	2017
Operating revenues and other additions:							
Government revenue:							
Federal appropriations	$ —	870.4	870.4	—	—	870.4	841.0
Government grants and contracts	117.5	—	117.5	—	—	117.5	113.7
Total government revenue	117.5	870.4	987.9	—	—	987.9	954.7
Contributions	41.5	—	41.5	135.9	18.8	196.2	187.1
Business activities and other:							
Business activities	183.2	—	183.2	—	—	183.2	201.9
Short-term investment income	4.0	—	4.0	—	—	4.0	2.5
Endowment payout	42.6	—	42.6	33.9	—	76.5	75.5
Private grants	8.0	—	8.0	—	—	8.0	6.7
Rentals, fees, commissions, and other	22.1	10.4	32.5	—	—	32.5	31.7
Gain on sale of real estate	3.9	—	3.9	—	—	3.9	3.9
Imputed benefit revenue	—	71.3	71.3	—	—	71.3	50.7
Total business activities and other	263.8	81.7	345.5	33.9	—	379.4	372.9
Total operating revenues	422.8	952.1	1,374.9	169.8	18.8	1,563.5	1,514.7
Net assets released from restrictions	144.4	—	144.4	(144.4)	—	—	—
Total operating revenues and other additions	567.2	952.1	1,519.3	25.4	18.8	1,563.5	1,514.7
Expenses:							
Program activities:							
Research	142.5	160.2	302.7	—	—	302.7	298.7
Collections management	28.1	243.8	271.9	—	—	271.9	239.6
Education, public programs, and exhibitions	104.6	274.4	379.0	—	—	379.0	381.6
Business activities	156.4	—	156.4	—	—	156.4	150.4
Total program activities	431.6	678.4	1,110.0	—	—	1,110.0	1,070.3
Supporting activities:							
Administration:							
Centrally managed	20.6	104.1	124.7	—	—	124.7	122.3
Unit managed	63.5	133.6	197.1	—	—	197.1	196.8
Advancement	49.6	1.4	51.0	—	—	51.0	64.0
Total supporting activities	133.7	239.1	372.8	—	—	372.8	383.1
Total expenses	565.3	917.5	1,482.8	—	—	1,482.8	1,453.4
Change in net assets before nonoperating activitie	1.9	34.6	36.5	25.4	18.8	80.7	61.3
Nonoperating activities:							
Environmental remediation costs	—	—	—	—	—	—	1.4
Gain on partial sale of Smithsonian Network	12.4	—	12.4	—	—	12.4	—
Gain on note repayment	0.7	—	0.7	—	—	0.7	—
Nonoperating investment gains - Endowment	39.4	—	39.4	55.2	1.9	96.5	99.2
Change in net assets of related organizations and other	3.6	—	3.6	—	—	3.6	2.2
Losses on disposition of assets	—	(0.5)	(0.5)	—	—	(0.5)	(0.5)
Collection items not capitalized:							
Proceeds from sales	—	—	—	—	—	—	—
Collection items purchased	(14.1)	(2.3)	(16.4)	—	—	(16.4)	(10.4)
Change in net assets	43.9	31.8	75.7	80.6	20.7	177.0	153.2
Net assets, beginning of year	1,345.3	1,421.2	2,766.5	692.0	525.5	3,984.0	3,830.8
Net assets, end of year	$ 1,389.2	1,453.0	2,842.2	772.6	546.2	4,161.0	3,984.0

See accompanying notes to financial statements.

SMITHSONIAN INSTITUTION

Statement of Cash Flows

Year ended September 30, 2018
(with summarized financial information for year ended September 30, 2017)

(Dollars in millions)

		Fund detail		Total funds	
		Trust	Federal	2018	2017
Cash flows from operating activities:					
Change in net assets	$	145.2	31.8	177.0	153.2
Adjustments to reconcile change in net assets to net cash (used in) provided by operating activities:					
Loss on disposition of assets		—	0.5	0.5	—
Collection items purchased		14.1	2.3	16.4	10.4
Depreciation and amortization		53.3	109.8	163.1	153.6
Present value discount and accretion		(0.1)	0.9	0.8	0.6
Contributions for permanent restricted purposes		(18.8)	—	(18.8)	(14.1)
Contributions for construction of facilities		(7.1)	—	(7.1)	(13.3)
Appropriations for repair, restoration, and construction		—	(136.6)	(136.6)	(121.5)
Net investment gains		(155.2)	—	(155.2)	(161.0)
Gain on partial sale of Smithsonian Network		(12.4)	—	(12.4)	—
Gain on note repayment		(0.7)	—	(0.7)	—
Decrease (increase) in assets:					
Receivables and advances		(15.3)	(0.8)	(16.1)	33.4
Inventories		0.4	—	0.4	(0.4)
Deferred expenses and other assets		(0.7)	—	(0.7)	(1.6)
Increase (decrease) in liabilities:					
Accounts payable and accrued expenses		(11.2)	0.5	(10.7)	29.3
Deferred revenue		0.1	—	0.1	(0.3)
Unexpended federal appropriations		—	(3.8)	(3.8)	9.4
Deferred gain on sale of real estate		(3.9)	—	(3.9)	(3.9)
Environmental remediation obligation		—	(1.0)	(1.0)	(2.2)
Net cash (used in) provided by operating activities		(12.3)	3.6	(8.7)	71.6
Cash flows from investing activities:					
Collection items purchased		(14.1)	(2.3)	(16.4)	(10.4)
Purchases of property and equipment		(24.9)	(139.3)	(164.2)	(183.4)
Disposition of assets		—	(0.5)	(0.5)	—
Purchases of investment securities		(586.3)	—	(586.3)	(472.3)
Proceeds from sales/maturities of investment securities		613.9	—	613.9	445.9
Proceeds from partial sale of Smithsonian Network		24.2	—	24.2	—
Proceeds from loan receivable		2.7	—	2.7	—
Net cash provided by (used in) investing activities		15.5	(142.1)	(126.6)	(220.2)
Cash flows from financing activities:					
Contributions for permanent restricted purposes		24.2	—	24.2	27.3
Contributions for construction of facilities		43.9	—	43.9	22.1
Appropriations for repair, restoration, and construction		—	312.5	312.5	133.3
Principal payments on long-term debt		(51.5)	—	(51.5)	(1.5)
Net cash provided by financing activities		16.6	312.5	329.1	181.2
Net change in cash, cash equivalents and U.S. Treasury balances		19.8	174.0	193.8	32.6
Cash, cash equivalents and U.S. Treasury balances:					
Beginning of year		89.6	350.6	440.2	407.6
End of year	$	109.4	524.6	634.0	440.2
Noncash investing activities:					
Construction cost accruals	$	2.2	14.0	16.2	12.5
Cash paid for interest	$	4.2	—	4.2	3.8

See accompanying notes to financial statements.

(1) Organization

The Smithsonian Institution (Smithsonian) was created by act of Congress in 1846 in accordance with the terms of the will of James Smithson of England, who, in 1826, bequeathed property to the United States of America "to found at Washington, under the name of the Smithsonian Institution, an establishment for the increase and diffusion of knowledge among men." Congress established the Smithsonian as a trust of the United States of America and vested responsibility for its administration in the Smithsonian Board of Regents (Board).

The Smithsonian is a museum and an education and research complex consisting of 17 museums and the National Zoological Park in Washington, DC, and two museums in New York City. Additional facilities and programs are operated in five states and Panama. Research is carried out in the museums and other facilities throughout the world. During fiscal year 2018, 28.8 million individuals visited Smithsonian museums and other facilities.

As of September 30, 2018, the Smithsonian's extensive collection contained approximately 155.1 million objects: 0.4 million works of art, 8.8 million historical artifacts, and 145.9 million natural and physical science specimens (living and nonliving). The Smithsonian also maintains 173,900 cubic feet and 0.7 million items of archival holdings and 2.1 million library volumes. During fiscal year 2018, approximately 105,600 natural and physical science specimens were disposed of.

A substantial portion of the Smithsonian's operations is funded by annual federal appropriations. Federal appropriations are also received for the construction or repair and restoration of its facilities. Construction of certain facilities has been funded entirely by federal appropriations, while others have been funded by a combination of federal and private funds.

In addition to federal appropriations, the Smithsonian receives private support, government grants and contracts, and earns income from investments and its various business activities. Business activities include Smithsonian magazines, other publications, online catalogs, and theaters, shops and food services located in its museums and centers.

(2) Summary of Significant Accounting Policies

(a) Basis of Presentation

The financial statements present the financial position, financial activities, and cash flows of the Smithsonian on the accrual basis of accounting. Funds received from direct federal appropriations and related transactions are reported as federal funds. All other funds and related transactions are reported as trust funds.

These financial statements include certain fiscal year 2017 summarized, comparative information in total but not by net asset class. Such information does not include sufficient detail to constitute a presentation in conformity with U.S. generally accepted accounting principles. Accordingly, such information should be read in conjunction with the Smithsonian's financial statements as of and for the year ended September 30, 2017, from which the summarized information was derived.

These financial statements do not include the accounts of the National Gallery of Art, the John F. Kennedy Center for the Performing Arts, or the Woodrow Wilson International Center for Scholars,

which were established by Congress within the Smithsonian, but are governed by independent boards of trustees and therefore not controlled by the Smithsonian.

Expenses are presented on a functional basis in the statement of activities. Programs include research, collections management, education, public programs and exhibitions, and business activities. Supporting services include administration and advancement. Administration is reported as centrally managed, through the Office of Under Secretary for Finance and Administration, or unit managed, as part of an individual museum or center. Depreciation, security, and other general operating costs that benefit more than one program are allocated across programs and services based on relative square feet.

(b) Use of Estimates

The preparation of financial statements in conformity with U.S. generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates. The most significant estimates affecting the Smithsonian's financial statements relate to the net asset value of nonmarketable investments, environmental remediation obligations and other liabilities, and the allowance for contributions receivable.

(c) Federal Funds

Federal appropriations revenues are classified as unrestricted and recognized as exchange transactions as expenses are incurred. The net assets of federal funds consist primarily of the Smithsonian's net investment in property and equipment purchased with or constructed using federal funds less unfunded liabilities for environmental remediation obligations and annual leave and estimated Federal Employee Compensation Act (FECA) liabilities for workers compensation claims.

For fiscal 2018, the Smithsonian was appropriated $731.4 for operations and $311.9 for construction or repair and restoration of facilities. Federal appropriations for operations are generally available for two years. Federal appropriations for construction or repair and restoration of facilities are generally available for obligation until expended. Unexpended appropriation is shown in the liability section of the statement of financial position.

In accordance with Public Law 110-161, appropriations for operations are maintained for five years following the year of appropriation, at which time the appropriation account is closed and any unexpended balance is returned to the U.S. Treasury. During fiscal year 2018, the unexpended balance of the fiscal 2012 appropriation, amounting to $0.8, was returned.

(d) Trust Funds

Trust net assets, revenues, expenses and gains and losses are classified and reported based on the existence or absence of donor-imposed restrictions as follows:

(i) Unrestricted

Unrestricted net assets are not subject to donor-imposed or other legal stipulations on the use of the funds. Funds functioning as endowment (board designated) in this category represent unrestricted net assets that have been designated by the Board for long-term investment.

(ii) Temporarily Restricted

Temporarily restricted net assets are subject to donor-imposed stipulations that may be met by actions of the Smithsonian and/or the passage of time. Donor restricted and board designated endowment funds in this category represent donor-restricted contributions and accumulated earnings from true endowments that have been designated for long-term investment, respectively. Once the temporary restriction has been met (i.e., the donor stipulation has been fulfilled, assets placed in service, and/or the stipulated time period has elapsed), net assets are reported as reclassifications from temporarily restricted net assets to unrestricted net assets.

(iii) Permanently Restricted

Permanently restricted net assets are subject to donor-imposed stipulations requiring the principal be maintained permanently by the Smithsonian. Generally, the donors of these assets permit the use of all or part of the income earned on investment of the assets for either general or donor-specified purposes.

Trust fund revenues are reported as increases in unrestricted net assets unless the use of the related assets is limited by the donor. Expenses are reported as decreases in unrestricted net assets. Gains and losses on investments are reported as increases or decreases in unrestricted net assets unless their use is restricted by explicit donor stipulations or by law. Losses on investments that reduce the assets of donor-restricted endowment funds below the level required by donor stipulations or by law are generally classified as reductions of unrestricted net assets and reported as non-operating losses in the statement of activities. Subsequent gains that restore the fair value of the assets of the endowment fund to the required level are classified as increases in unrestricted net assets and reported as non-operating gains in the statement of activities.

(e) Cash Equivalents

The Smithsonian considers all highly liquid investments purchased with an average maturity of three months or less, including U.S. Treasury balances, to be cash equivalents. Cash equivalents for trust funds include funds held by the U.S. Treasury of $19.4 and $62.8 of institutional money market funds with maturity dates of three months or less. Cash and cash equivalents for federal funds consist entirely of U.S. Treasury balances of $524.6 for federal appropriation capital and operating expenses.

(f) Working Capital

The Smithsonian has adopted a working capital policy to meet immediate and long-term cash needs using high-quality investments. The working capital investment policy requires funds be invested in short-term instruments that will allow for required liquidity and provide a maximum interest return within defined risk constraints. As of September 30, 2018, the fund, totaling $275.0, is comprised of $62.8 in cash equivalents with maturity dates of three months or less and short-term investments of $212.2, all of which are included in investments (see note 5).

(g) Trade Accounts Receivable

Trade accounts receivable generally consists of accounts receivable related to magazine advertising and certain concession agreements and are stated at invoice amount. Allowances are recognized for uncollectible amounts based on past collection experience.

(h) Contributions

Contributions, including unconditional promises to give, are recognized as revenues in the appropriate category of net assets in the period received. Conditional promises to give are not recognized until the conditions on which they depend are substantially met. Contributions of assets other than cash are recorded at estimated fair value at the date of gift, except items that are contributed and held as part of the Smithsonian's collections are not capitalized. Contributions restricted to the acquisition of long-lived assets are recorded as temporarily restricted revenue in the period received. Generally, the donor's restrictions are considered met and the net assets are released from restriction when the related long-lived asset is placed in service.

Contributions receivable are reported net of management's estimate of uncollectible amounts which is based on judgment and analyses of donors' creditworthiness, past collection experience, and other relevant factors. Estimated collectible contributions scheduled to be received after one year are discounted using a risk-adjusted rate for the expected period of collection. Amortization of the discount is recorded as contribution revenue.

In-kind contributions of goods and services totaling $13.3 were received in fiscal year 2018 and recognized as program support revenues and expenses in the statement of activities. In-kind contributions include donated space, equipment, and various other items. A substantial number of volunteers also make significant contributions of time to the Smithsonian, enhancing its activities and programs. Approximately 7,100 volunteers contributed about 532,400 hours of service to the Smithsonian during fiscal year 2018. In accordance with applicable guidance, the value of these contributions is not recognized in the financial statements.

(i) Deferred Revenues and Expenses

Revenues from magazine subscriptions and long-term contracts are deferred and recognized ratably over the period of the underlying agreement.

Promotion production expenses are recognized when related advertising materials are released. Direct-response advertising relating to the magazines is deferred and amortized over one year. As of September 30, 2018, deferred expenses and other assets include $6.8 of deferred promotion costs, related primarily to the magazines. Advertising expense, including direct response advertising of $7.3, totaled $12.0 in fiscal year 2018 and is included in business activities expenses in the statement of activities.

(j) Inventories

Inventories are reported at the lower of cost or market, and consist primarily of merchandise and books. Cost is determined using the first-in, first-out method.

(k) Investments

Smithsonian employs an investment strategy that utilizes equities, marketable alternatives, fixed income, private equity and venture capital, natural resources and real estate, and cash and cash equivalents to fulfill its fiduciary responsibility to its donors and constituents.

Investments in fixed income, certain global equities, publicly traded natural resources and cash and cash equivalents, including gift annuity program investments are reported at fair value, which are

determined primarily based on quoted market prices. Investments in private equity and venture capital, certain real estate, natural resources, marketable alternatives, and public equities held through commingled funds (collectively, nonmarketable investments) are stated at estimated fair value based on the funds' net asset values, or their equivalents (collectively, NAV) as a practical expedient, unless it is probable that all or a portion of the investment will be sold for an amount different from NAV. As of September 30, 2018, the Smithsonian had no plans or intentions to sell investments at amounts different from NAV. These estimated fair values may differ from the values that would have been used had a ready market existed for these investments, and the differences could be significant.

Investments are exposed to various risks including business, interest rate, market, exchange rate, liquidity, and credit risks. Due to the level of risk associated with certain investments, it is at least reasonably possible that significant changes in the values of investments could occur in the near term.

Changes in fair value are recognized in the statement of activities. Purchases and sales of investments are recorded on the trade date using average cost. Investment income is recorded when earned.

(l) Split Interest Agreements and Perpetual Trusts

Split interest agreements with donors consist primarily of irrevocable charitable remainder trusts, charitable gift annuities, and perpetual trusts. The assets for the charitable trusts are included in receivables and advances. Contribution revenues from charitable remainder trusts are recognized at the dates the trusts are established based on the net present value of the estimated future payments to be made to the donors and/or other beneficiaries. For the charitable gift annuities, assets are recognized at fair value at the dates of the annuity agreements and included in investments. An annuity liability is recognized for the present value of future cash flows expected to be paid to the donor and contribution revenues are recognized equal to the difference between the assets and the annuity liability. Liabilities are adjusted during the terms of the annuities for payments to donors, accretion of discounts, and changes in the life expectancies of the donors.

The Smithsonian is also the beneficiary of certain perpetual trusts held and administered by others. The fair values of the trusts are recognized as assets and contribution revenues at the dates the trusts are established. Distributions from the trusts are recorded as investment income and the assets are adjusted for changes in the fair value of the trust assets.

(m) Property and Equipment

Property and equipment purchased with federal or trust funds are recorded at cost. Property and equipment acquired through transfers from government agencies are recorded at net book value or fair

value at the date of transfer, whichever is more readily determinable. Property and equipment acquired through donation are recorded at estimated fair value at the date of the gift.

Property and equipment assets are depreciated on a straight-line basis over their estimated useful lives as follows:

Buildings	30 years
Major renovations	15 years
Equipment and software	3–7 years
Exhibit costs	10 years

Leasehold improvements are amortized over the shorter of the lease term or their useful lives.

Rent expense under operating leases that provide for scheduled rent increases over their terms is recognized on a straight-line basis.

Certain land occupied by Smithsonian buildings, located primarily in the District of Columbia, Maryland, and Virginia, were appropriated and reserved by Congress for the Smithsonian's use. The Smithsonian serves as trustee of the land for as long as they are used to carry out its mission. The land are titled in the name of the U.S. government and are not included in the accompanying financial statements.

(n) Collections – Stewardship Assets

The Smithsonian acquires its collections by purchase (using federal or trust funds) or by donation. Collections are held for public exhibition, education, or research. The Smithsonian's collections management policy includes guidance on the preservation, care, and maintenance of the collections and procedures relating to the accession/deaccession of collection items.

In conformity with the practice generally followed by museums, no value is assigned to the collections in the statement of financial position. Purchases of collection items are recognized as reductions in unrestricted net assets in the period of acquisition. Proceeds from deaccessions or insurance recoveries for lost or destroyed collection items are recognized as increases in the appropriate net asset class and are designated for future collection acquisitions.

Noncash deaccessions result from the exchange, donation, or destruction of collection items, and occur because objects deteriorate, are outside the scope of a museum's mission, or are duplicative. During the fiscal year, noncash deaccessions included works of art, animals, historical objects, and natural specimens.

Items that are acquired with the intent to sell, exchange, or otherwise be used for financial gain are not considered collection items and are recorded as other assets at their fair value at the date of acquisition. Contributed items held for sale, amounting to $0.9, are included in other assets.

(o) Annual Leave

The Smithsonian's federal and trust employees earn annual leave in accordance with federal laws and regulations and internal policies, respectively. Annual leave for all employees is recognized as an expense when earned. The liability for unused annual leave is included in accounts payable and

accrued expenses in the statement of financial position aggregated to $15.0 for trust and $28.9 for federal as of September 30, 2018.

(p) Sponsored Projects

The Smithsonian receives grants and enters into contracts with U.S. federal, state and local governments, which generally provide for reimbursement of costs. Revenues under these agreements are recognized as reimbursable expenditures are incurred as government grants and contracts. These revenues include recoveries of facilities and administrative costs that are generally based on a negotiated or agreed-upon percentage of direct costs, with certain exclusions.

(q) Advancement

The Smithsonian raises private financial support from individual donors, corporations, and foundations to fund programs and other initiatives. Financial support is also generated through numerous membership programs. Fund-raising costs are expensed as incurred and reported as advancement expenses in the statement of activities.

(r) Non-operating Activities

Non-operating activities include environmental remediation costs, non-operating investment income, changes in the net assets of related organizations, and changes in net assets related to collection items.

Non-operating investment income is calculated as the difference between the total return on the endowment (i.e., dividends, interest and net gain or loss) and the annual payout of the endowment funds, used to support operations.

The Smithsonian recognizes its interest in the net assets of organizations that are financially interrelated and the changes in its interest using a method similar to the equity method of accounting. The principal financially interrelated organizations are the Smithsonian Network and Friends of the National Zoo. During fiscal year 2018, the Smithsonian sold half of its interest in the Smithsonian Network recognizing a gain of $12.4.

(s) Income Taxes

The Smithsonian is recognized as exempt from income taxation under the provisions of Section 501(c)(3) of the Internal Revenue Code. Organizations described in that Section are taxable only on their unrelated business income. Advertising sales are the principal source of unrelated business income for the Smithsonian. The provision for income taxes was not material for fiscal year 2018. The Smithsonian recognizes the effect of income tax positions only if those positions are more likely than not of being sustained. The Smithsonian does not believe its financial statements include any uncertain tax positions.

(3) Receivables and Advances

Receivables and advances consisted of the following as of September 30, 2018:

		Trust	Federal	Total
Contributions receivable, net	$	192.9	—	192.9
Grants and contracts		21.5	—	21.5
Charitable trusts		19.3	—	19.3
Trade accounts, net of $0.5 allowances		15.1	3.1	18.2
Accrued interest and dividends		1.8	—	1.8
Advances and other		0.3	—	0.3
Total receivables and advances	$	250.9	3.1	254.0

Contributions receivable consist of the following:

Due within:		
Less than 1 year	$	102.6
1 to 5 years		100.3
5 years or beyond		0.1
		203.0
Less:		
Allowance for uncollectible contributions		(4.6)
Unamortized discount (at rates ranging from 1.1% to 2.9%)		(5.5)
Contributions receivable, net	$	192.9

(4) Federal Appropriations

Fiscal year 2018 federal appropriation is reconciled to federal appropriation revenue as follows:

		Salaries and expenses	Repair and restoration and construction	Total
Fiscal year 2018 federal appropriation	$	731.4	311.9	1,043.3
Unexpended 2018 appropriation		(93.1)	(283.2)	(376.3)
Amounts expended from prior years' appropriations		95.5	107.9	203.4
Federal appropriation revenue	$	733.8	136.6	870.4

Fiscal year 2018 federal appropriation is reconciled to federal appropriation expenses as follows:

		Salaries and expenses	Repair and restoration and construction	Total
Fiscal year 2018 federal appropriation	$	731.4	311.9	1,043.3
Unexpended 2018 appropriation		(93.1)	(283.2)	(376.3)
Depreciation		12.1	97.7	109.8
Imputed benefit costs		71.3	—	71.3
Collection items purchased		(2.3)	—	(2.3)
Amounts expended from prior years' appropriations		95.5	107.9	203.4
Capital expenditures		(2.6)	(136.7)	(139.3)
Loss on disposition of assets		0.5	—	0.5
Unfunded expenses – FECA, annual leave, and actuarial adjustment		(0.8)	9.2	8.4
Other funding		(1.3)	—	(1.3)
Federal appropriation expense	$	810.7	106.8	917.5

Unexpended appropriations for all fiscal years total $461.1 as of September 30, 2018 and consist of $132.0 in unexpended operating funds and $329.1 in unexpended construction funds. Unexpended operating and construction funds represent amounts appropriated for Smithsonian's operations and new facilities or renovations, respectively.

(5) Investments and Fair Value Measurements

The Smithsonian has adopted investment policies for its endowment, including board designated funds, which attempt to provide a predictable stream of funding in support of the operating budget, while seeking to preserve the real value of the endowment assets over time. The Smithsonian relies on a total return strategy in which investment returns are achieved through both capital appreciation (realized and unrealized) and current yield (interest and dividends), targeting a diversified asset allocation. The Board's Investment Committee reviews the long-term asset allocation for the endowment.

The three levels of the fair value hierarchy for recurring fair value measurements are prioritized based on the inputs to valuation techniques used to measure fair value and are as follows:

Level 1 – Quoted prices in active markets for identical assets or liabilities, as of the reporting date.

Level 2 – Observable inputs other than Level 1 prices such as quoted prices for similar assets or liabilities; quoted prices in markets that are not active; or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.

Level 3 – Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities. Level 3 assets and liabilities include financial instruments whose value is determined using pricing models, discounted cash flow methodologies or similar techniques, as well as instruments for which the determination of fair value requires significant management judgment or estimation.

The following summarizes Smithsonian's investments at fair value which are determined primarily based on quoted market prices as of September 30, 2018:

		Total	Level 1	Level 3	NAV [1]
Fixed income	$	212.2	212.2	—	—
Endowment investments:					
Global equities:					
Global markets		57.0	57.0	—	—
Emerging markets		5.6	5.6	—	—
Real assets:					
Energy and natural resources		31.1	31.1	—	—
Fixed income		69.9	69.9	—	—
Cash and equivalents		16.3	16.3	—	—
Pooled investments		179.9	179.9	—	—
Investments at NAV		1,462.5	—	—	1,462.5
Total pooled investments		1,642.4	179.9	—	1,462.5
Nonpooled investments:					
U.S. Treasury deposits		1.0	1.0	—	—
Total endowment		1,643.4	180.9	—	1,462.5
Gift annuities, primarily equities		25.0	25.0	—	—
Total investments		1,880.6	418.1	—	1,462.5
Charitable trusts		19.3	—	19.3	—
	$	1,899.9	418.1	19.3	1,462.5

[1] Investments held through limited partnerships and comingled funds for which fair value is estimated using the NAV's reported by the investment managers as a practical expedient have not been categorized within the fair value hierarchy; however, these investments are included in the table above to permit reconciliation with the statement of financial position.

The following summarizes information relating to the investments, which are stated at NAV as practical expedient for fair value and includes information about the nature, strategies, and risks of these major classes of nonmarketable investments:

	NAV	Redemption terms	Days of notices	Unfunded commitments
Global equity:				
Developed markets	$ 292.6	Weekly to annually	6-91	$ —
Emerging markets	106.7	Monthly to quarterly	10-90	—
Marketable alternatives:				
Long/short equity	111.8	Monthly to annually	60	—
Credit and distressed	110.7	Annually to at maturity	90-n/a	41.6
Multistrategy	29.4	Quarterly	60	—
Global marco	58.3	Monthly to semi-annually	2-60	—
Private equity:				
Private equity	149.5	Not applicable	N/A	84.8
Venture capital	326.6	Not applicable	N/A	87.1
Real assets:				
Energy and natural resources	110.7	Quarterly to at maturity	45-n/a	27.9
Real estate funds	140.9	Quarterly to at maturity	60-n/a	90.2
Fixed income	25.3	Quarterly to at maturity	90-n/a	—
	$ 1,462.5			$ 331.6

The following describes the nature, strategies, and risks of the major classes of the investments that are stated at NAV for fair value.

(a) Global Equity

Global equity is comprised of investments in funds and strategies invested in publicly listed equity securities in the global developed and emerging markets. Some of the funds are subject to lock-ups.

(b) Marketable Alternatives

Marketable alternatives consist of investments in a broad array of securities and strategies aimed to reduce volatility and enhance returns. Smithsonian's marketable alternatives are broadly defined as long/short equity, credit and distressed, multi-strategy, and global macro funds. Long/short equity funds invest in long equity positions that are expected to increase in value and short equity positions in stocks that are expected to decrease in value. Credit and distressed funds generally invest in corporate fixed income and debt securities of companies that are experiencing financial or operational difficulties. Multi-strategy funds invest across different strategies to diversify risks and reduce volatility. Global macro funds invest in strategies to profit from macroeconomic events that may include changes in interest rates, currency movements and stock market performance. Some of the funds are subject to soft and hard lock-ups and other funds are not eligible for redemption.

(c) Private Equity and Venture Capital

Private equity consists of limited partnerships that are organized to invest primarily in shares of operating companies that are not listed on a publicly traded stock exchange. Private equity strategies include investments in leveraged buyouts, growth capital and distressed investments. Venture capital strategies invest in start-ups and small businesses with perceived long-term growth potential. Distributions to limited partners are made as soon as feasible and, in accordance with the limited partnership agreement, when realizations (sales of portfolio companies) are made, or when interest payments, dividends, or recapitalizations are received.

(d) Real Assets

Real assets include real estate and energy and natural resources investments that are made mostly in private limited partnerships as well as publicly traded securities funds. Distributions to limited partners are made as soon as feasible and, in accordance with the limited partnership agreement, when realizations (sales of portfolio companies) are made, or when interest payments, dividends, or recapitalizations are received.

(e) Fixed Income

Fixed income includes funds that invest in U.S. government, agency and municipal bonds, and other interest bearing products.

The Smithsonian is obligated under the terms of certain limited partnership agreements to remit additional funding periodically as capital calls are exercised. As of September 30, 2018, the Smithsonian had uncalled commitments totaling approximately $331.6. Such commitments are callable over the fund investment period, generally the first five years of the funds. The standard life of Smithsonian's investments in these private partnerships are between 8 to 10 years with possible one to two one-year extension periods and/or other termination clauses.

Activity for charitable trusts measured at fair value on a recurring basis using significant unobservable inputs (Level 3) for fiscal year 2018: beginning balance $19.1; distribution $0.4; net gains $0.6; and ending balance $19.3. There are no transfers and reclassifications of assets between levels during fiscal year 2018.

Investment return consisted of the following for fiscal year 2018:

Dividend and interest income	$	23.7
Net investment gains		155.2
Investment management fees		(1.9)
	$	177.0

Investment return is classified in the statement of activities as follows for fiscal year 2018:

Short-term investment income	$	4.0
Endowment payout		76.5
Nonoperating investment gain		96.5
Investment return	$	177.0

(6) Endowment Funds

The Smithsonian endowment consists of over 600 individual funds established for a variety of purposes. The endowment includes both donor-restricted endowment funds and funds designated by the Board to function as endowments (board designated). Net assets associated with endowment funds are classified and reported based on the existence or absence of donor-imposed restrictions.

The Smithsonian's management and investment of donor-restricted endowment funds follows the provisions of the Uniform Prudent Management of Institutional Funds Act (UPMIFA). Based on the Smithsonian's interpretation of the provisions of UPMIFA, the organization is required to act prudently when making decisions to spend or accumulate donor-restricted endowment assets and in doing so to consider a number of factors including the duration and preservation of its donor restricted endowment funds. As a result of this interpretation, the Smithsonian classifies as permanently restricted net assets, the original value of gifts donated to the permanent endowment. The remaining portion of the endowment fund is classified as temporarily restricted net assets until those amounts are appropriated for expenditure by the organization in a manner consistent with the standard of prudence prescribed by UPMIFA.

The Smithsonian manages and invests the individual endowment funds considering UPMIFA standards. Substantially all of the investments of the endowment are pooled, with individual funds buying or disposing of units on the basis of the per unit market value at the beginning of the month in which the transaction takes place. As of September 30, 2018, the per unit market value of the pool, in whole dollars, was $950.58.

Each fund participating in the investment pool receives an annual appropriation based on the number of units owned. The annual appropriation is determined in light of UPMIFA standards and the investment policy of the institution, which targets a long-term investment return assumption, an estimated inflation factor, and the investment policy of the institution that targets an appropriation to be 5% of the prior five years' average value of the endowment. The per unit payout for fiscal year 2018, in whole dollars, was $41.12 or 5% of the average per unit market value of the endowment over the prior five years. An additional payout per eligible unit of $6.31 (in whole dollars) was authorized and made to support the fund-raising campaign.

From time to time, the fair value of assets associated with individual donor-restricted endowment funds may fall below the original value of gifts donated to the permanent endowment. Deficiencies of this nature are reported in unrestricted net assets. Such deficiencies are generally the result of unfavorable market fluctuations and continuing the appropriations for various programs is generally deemed prudent by the Board. There were no such deficiencies at September 30, 2018.

Endowment net assets, excluding contributions receivable, consist of the following as of September 30, 2018:

	Unrestricted	Temporarily restricted	Permanently restricted	Total
Donor restricted	$ —	409.4	511.0	920.4
Board designated	707.7	17.2	—	724.9
Total endowment net assets	$ 707.7	426.6	511.0	1,645.3
Uninvested cash and receivables				(2.9)
Total endowment assets under management				$ 1,642.4

Activity in endowment net assets is as follows for the year ended September 30, 2018:

	Unrestricted	Temporarily restricted	Permanently restricted	Total
Balance, September 30, 2017	$ 657.9	359.1	485.2	1,502.2
Investment return:				
Investment income	6.2	7.9	—	14.1
Realized and unrealized gains, net	67.8	85.4	—	153.2
Total investment return	74.0	93.3	—	167.3
Contributions, including board designated transfers	18.4	8.1	25.8	52.3
Appropriated for expenditure	(42.6)	(33.9)	—	(76.5)
Balance, September 30, 2018	$ 707.7	426.6	511.0	1,645.3

(7) Property and Equipment

Property and equipment consists of the following as of September 30, 2018:

		Trust	Federal	Total
Land	$	12.6	—	12.6
Buildings and capital improvements		1,017.0	3,071.7	4,088.7
Equipment and software		178.0	242.5	420.5
Leasehold improvements		105.6	35.0	140.6
		1,313.2	3,349.2	4,662.4
Accumulated depreciation		(567.0)	(1,748.3)	(2,315.3)
Total property and equipment	$	746.2	1,600.9	2,347.1

Buildings and capital improvements include $65.6 and $368.8 of construction in progress within trust and federal funds, respectively. Depreciation expense totaled $53.3 in trust funds and $109.8 in federal funds.

The Smithsonian has an unfunded environmental remediation obligation that is estimated based on third-party studies, contractor bids and internal estimates derived from recently completed remediation projects for similar Smithsonian facilities and other information for similar projects. The present value of the obligation is calculated using an inflation rate of 2.4% and a discount rate of 2.0%. Each period the obligation is accreted to its present value. Because the related properties are fully depreciated, changes in the estimated obligation are expensed. Any difference between the estimated obligation and the actual cost of remediation is also expensed. Fiscal year 2018 activity in the unfunded environmental remediation obligation follows:

Beginning balance, September 30, 2017	$	49.9
Accretion		0.9
Liabilities incurred		0.2
Liabilities settled		(0.2)
Change in estimate		(1.0)
Ending balance, September 30, 2018	$	49.8

In fiscal year 2006, the Smithsonian sold an office building in Washington, DC, and entered into short-term and long-term leases for approximately 32% of the building. As a result of the leaseback, the full gain of $62.9 was deferred at the date of sale and is being recognized over the term of the leases. In fiscal year 2018, $3.9 of the deferred gain was recognized.

(8) Accounts Payable and Accrued Expenses

Accounts payable and accrued expenses consists of the following:

		Trust	Federal	Total
Accounts payable and other liabilities	$	28.8	68.7	97.5
Accrued salaries and benefits		39.7	96.3	136.0
Deferred rent liability		18.4	—	18.4
Gift annuity liabilities		14.1	—	14.1
Other liabilities		23.2	—	23.2
Total accounts payable and accrued expenses	$	124.2	165.0	289.2

Accrued salaries and benefits include estimated FECA liabilities of $2.4 for trust employees and $43.5 for federal employees.

(9) Long-term Debt

The Smithsonian's long-term debt are unsecured obligations and funded solely through unrestricted trust funds. Long-term debt is comprised of the following:

Series 2013 Taxable Bonds, Series A:		
Interest rate 3.434%, due September 1, 2023	$	50.0
Series 2010 Revenue Bonds, serial, principal amounts ranging from $1.3 to $1.7, interest rates 3.00% to 5.25%, due February 1, 2016 through 2021		4.9
Series 2010 Revenue Bonds, term, principal amounts ranging from $1.8 to $2.4, interest rate 5.25%, due February 1, 2022 through 2028		14.6
Series 2003 Revenue Bonds, Series A:		
Variable interest rate, due December 1, 2033		52.5
Series 2003 Revenue Bonds, Series B:		
Variable interest rate, due December 1, 2033		25.0
		147.0
Less unamortized bond issue cost		(0.1)
Plus unamortized bond premium		1.1
Total long-term debt	$	148.0

(a) Series 2013 A and B Taxable Bonds

The Series 2013 A and B taxable bonds were issued in November 2013 to finance capital and other projects. Interest on the Series A bonds is payable semiannually every March 1 and September 1 while interest on the Series B bonds was payable monthly at a variable interest rate determined in accordance with the Indenture. Series B bonds matured on September 1, 2018. Series A bonds have the final maturity date of September 1, 2023 (see note 14).

(b) Series 2010 Revenue Bonds

The tax-exempt Series 2010 Revenue Bonds were issued by the District of Columbia on behalf of the Smithsonian to finance capital and other projects. Interest is payable semiannually every August 1 and February 1.

The serial bonds mature annually through February 1, 2021, with principal repayments ranging from $1.6 to $1.7 per year. The term bonds maturing on February 1, 2028 are subject to mandatory redemption by sinking fund installments, which begin on February 1, 2022 and range from $1.8 to $2.4 per year through the maturity date.

(c) Series 2003 Revenue Bonds

The tax-exempt Series 2003 Revenue Bonds were issued by the Fairfax County Economic Development Authority (Virginia) on behalf of the Smithsonian to finance a portion of the Steven F. Udvar-Hazy Center, an extension of the National Air and Space Museum. The bonds are subject to early redemption at the option of the Smithsonian. Interest is payable monthly at a variable interest rate determined in accordance with the Indenture. Interest rates for Series A and Series B were 1.6%, as of September 30, 2018.

The bonds are supported by a standby bond purchase agreement for both the Series A and Series B (collectively, the 2003 Liquidity Facility) with Wells Fargo (Trustee) and Northern Trust Company (Liquidity Facility provider). The 2003 Liquidity Facility provides liquidity support when the bonds are bearing interest at a daily or weekly rate and expires September 10, 2019.

Interest expense was $4.2 in fiscal year 2018.

Future annual maturities of long-term debt are as follows:

2019	$	1.6
2020		1.6
2021		1.7
2022		1.8
2023		51.9
Thereafter		88.4
	$	147.0

(10) Net Assets

Unrestricted net assets include $707.7 of funds functioning as endowments as of September 30, 2018.

Temporarily restricted net assets are available for the following purposes as of September 30, 2018:

Museums and general support	$	210.9
Education, public programs and exhibitions		261.5
Research		105.8
Acquisitions and collections		84.0
Facilities		110.4
	$	772.6

Net assets released from donor restrictions due to the passage of time, assets placed in service, or by incurring expenses satisfying the restricted purpose specified by the donors were as follows for fiscal 2018:

Museums and general support	$	28.8
Education, public programs and exhibitions		61.2
Research		16.3
Acquisitions and collections		9.4
Facilities		28.7
	$	144.4

Permanently restricted net assets are restricted for the following purposes as of September 30, 2018:

Museums and general support	$	140.4
Education, public programs and exhibitions		264.0
Research		88.4
Acquisitions and collections		51.9
Facilities		1.5
	$	546.2

(11) Employee Benefit Plans

Federal employees of the Smithsonian are covered by either the Civil Service Retirement System (CSRS) or the Federal Employee Retirement System (FERS). The terms of these plans are defined in federal regulations. Under both systems, a specified percentage is withheld from each federal employee's salary. The Smithsonian also contributes specified percentages of employees' salaries. The fiscal year 2018 expense for these plans was $40.2. Additional imputed costs associated with these plans are borne by the US government. The Smithsonian recognizes its share of such costs ($71.3 for fiscal year 2018) as imputed benefit revenue and expense in the financial statements. The Smithsonian is not responsible for and does not report CSRS or FERS assets, accumulated plan benefits, or liabilities applicable to its employees. The Office of Personnel Management (OPM) administers these plans and is responsible for the reporting of these amounts.

Employees covered by CSRS and FERS are eligible to contribute to the U.S. government's Thrift Savings Plan (TSP), which is administered by the Federal Retirement Thrift Investment Board. A TSP account is automatically established for FERS-covered employees and the Smithsonian makes mandatory and matching contributions of specified percentages of the basic pay for FERS-covered employees. The Smithsonian makes no matching contributions for CSRS-covered employees.

Most federal employees are entitled to participate in the Federal Employees Group Life Insurance (FEGLI) Program. Participating employees can obtain basic term life insurance, with the employee paying two-thirds of the cost and the Smithsonian paying one-third. Additional coverage is optional, to be paid fully by the employee. The basic life coverage may be continued into retirement if certain requirements are met. OPM administers this program and is responsible for the reporting of liabilities.

Trust fund employees are covered by a separate defined-contribution retirement plan for trust fund employees in which substantially all such employees are eligible to participate. Under the plan, the Smithsonian contributes specified percentages of employees' salaries that are used to purchase individual annuities, the rights to which are immediately vested with the employees. Employees can make voluntary contributions, subject to certain limitations. The Smithsonian's expense for this plan for fiscal year 2018 was $20.4.

In addition to the retirement plans, certain health care and life insurance benefits are made available to active and retired trust fund employees. The plan is contributory for retirees and requires payment of premiums and deductibles. Retiree contributions for premiums are established by an insurance carrier based on the average per capita cost of benefit coverage for all participants. As of September 30, 2018, the accrued benefit obligation under this plan was $14.1 and is included in accounts payable and accrued expenses in the statement of financial position.

Most federal employees are eligible to enroll in the Federal Employees Health Benefit (FEHB) Program, which provides post-retirement health benefits if certain conditions are met. OPM administers this plan and Smithsonian is not obligated under this plan.

(12) Business Activities

A summary of business activities is as follows for fiscal year 2018:

		Revenues	Expenses	Net
Smithsonian business enterprises	$	159.6	(127.1)	32.5
Unit auxiliary activities		23.6	(30.2)	(6.6)
Total business activities	$	183.2	(157.3)	25.9

(13) Commitments and Contingencies

(a) Leasing Activities

The Smithsonian leases office and warehouse space under long-term operating leases expiring at various dates to 2032. These leases generally provide for rent escalations based on increases in the Consumer Price Index or changes in property taxes or operating expenses attributable to the leased

properties. The Smithsonian has the authority to enter into leases for up to 30 years using federal funds.

Annual minimum lease payments due under operating leases in effect as of September 30, 2018 are as follows:

2019	$	46.5
2020		46.5
2021		29.5
2022		15.8
2023		13.2
Thereafter		9.7
	$	161.2

Rent expense under operating leases, including executory costs such as maintenance, insurance, and taxes, totaled $60.1 for fiscal year 2018, which includes $7.6 in office space received in-kind.

(b) Government Awards

The Smithsonian receives significant amounts of federal funding in the form of appropriations, grants, and contracts. These awards are subject to audit by federal agencies. Management is of the opinion that no material disallowances of costs or expenses are likely.

(c) Construction

As of September 30, 2018, the Smithsonian has commitments approximating $115.0 related to construction in process at a number of its locations. The most significant of these relate to projects at the National Air and Space Museum ($38.3), the National Zoological Park ($20.1), and the National Museum of Natural History ($38.4).

(d) Litigation

The Smithsonian is a party to various litigation arising out of the normal conduct of its operations. In the opinion of the Smithsonian's general counsel, the ultimate resolution of these matters will not have a significant effect on the Smithsonian's financial position or future results of operations.

(14) Subsequent Events

Management has evaluated subsequent events from September 30, 2018 through January 8, 2019, which is the date that the financial statements are available to be issued, and determined that there are no adjustments to or other items to disclose, except as follows:

- Subsequent to September 30, 2018, the Smithsonian committed capital of $22.5 to 4 funds.
- On October 25, 2018, the Smithsonian redeemed the remaining of its outstanding Series 2013 Taxable Bonds, Series A for $50.8, including accrued interest of $0.3.
- In October 2018, the Smithsonian established a $50.0 line of credit.

SMITHSONIAN INSTITUTION

Summary Schedule of Expenditures of Federal Awards

Year ended September 30, 2018

Federal Agency Sponsor	Research and Development: Washington, DC (Mall-based) Awards	Research and Development: Smithsonian Astrophysical Observatory Awards	Total Research and Development	National Postal Museum	Other (Mall-based) Programs	Grand Total	Amounts Provided to Subrecipients (Research and Development Program)	Amounts Provided to Subrecipients (Other Programs)
U.S. Agency for International Development	$ 1,300,816	—	1,300,816	—	404,475	1,705,291	169,162	—
U.S. Department of Agriculture	118,062	—	118,062	—	—	118,062	—	—
U.S. Department of Commerce	261,794	—	261,794	—	—	261,794	—	—
U.S. Department of Defense	(1,000)	381,238	380,238	—	—	380,238	20,000	—
U.S. Department of Education	212,177	—	212,177	—	209,411	421,589	—	58,430
U.S. Department of Energy	929,420	358,034	1,287,454	—	—	1,287,454	232,549	—
U.S. Department of Health and Human Services	601,758	—	601,758	—	83,154	684,911	48,136	—
U.S. Department of the Interior	216,126	—	216,126	—	49,616	265,742	7,365	—
U.S. Department of State	137,170	—	137,170	—	120,118	257,288	—	—
U.S. Department of Transportation	44,658	—	44,658	—	—	44,658	—	—
National Aeronautics and Space Administration	997,783	91,649,786	92,647,569	—	52,115	92,699,684	17,536,983	—
National Science Foundation	3,798,505	5,155,086	8,953,591	—	261,659	9,215,250	1,477,581	—
Environmental Protection Agency	32,927	—	32,927	—	4,805	37,732	—	—
U.S. Postal Service	—	—	—	3,011,712	—	3,011,712	—	—
Other Agencies	—	116,685	116,685	—	—	116,685	—	—
Total expenditures of federal awards	$ 8,650,195	97,660,829	106,311,024	3,011,712	1,185,353	110,508,089	19,491,776	58,430

See accompanying independent auditors' report and notes to schedules of expenditures of federal awards.

SMITHSONIAN INSTITUTION

Detail Schedule of Expenditures of Federal Awards

Year ended September 30, 2018

Smithsonian designated code	Federal grantor (PASS-THROUGH GRANTOR)	Agency or pass-through award number	CFDA	Total expenditures	Amounts provided to subrecipients
Research and Development: Mall-based					
	U.S. Agency for International Development:				
792056	Development Alternatives, Inc.	1002328IQC-13S-22612-00, Task Ord 1	98.001	$ 242,117	—
692340	University of California-Davis	201403200-05	98.001	1,014,047	169,162
692337	Wildteam	AID-338-A-14-0001	98.001	44,653	—
	Total U.S. Agency for International Development			1,300,816	169,162
	U.S. Department of Agriculture:				
660037	U.S. Department of Agriculture	58-1245-3-334	10.001	112,920	—
660038	U.S. Department of Agriculture	58-1245-4-075	10.001	5,142	—
	Total U.S. Department of Agriculture			118,062	—
	U.S. Department of Commerce:				
654084	Commerce/NOAA	NA15NMF4690391	11.469	2	—
	Subtotal Congressionally Identified Awards and Projects (CFDA 11.469)			2	—
654082	Commerce/NOAA	NA14NMF4570279	11.457	84,157	—
654085	Commerce/NOAA	NA17NMF4570157	11.457	25,050	—
692348	Maryland Sea Grant College	PO #31890 SA #75281450-P	11.417	34,226	—
655020	North Pacific Research Board	1621 (NA15NMF4720173)	11.472	81,937	—
655021	University of Maryland	SA07525796 PO52560	11.000	15,000	—
655022	Rare Inc.	NFWF subaward	11.482	21,422	—
	Total U.S. Department of Commerce			261,794	—
	U.S. Department of Defense:				
623008	University of Maryland	SA07525784 PO 43162	12.300	(1,000)	—
	Total U.S. Department of Defense			(1,000)	—
	U.S. Department of Education:				
692354	University of Memphis	PO 203136	84.365	212,177	—
	Total U.S. Department of Education			212,177	—
	U.S. Department of Energy:				
682023	U.S. Department of Energy	DE-SC0014413	81.049	483,408	214,537
792045	Lawrence Berkeley National Laboratory	7200512	81.000	446,012	—
	Total U.S. Department of Energy			929,420	214,537
	U.S. Department of Health and Human Services:				
692361	University of Washington	7UA6MC31609-01-00	93.110	87,150	—
692363	University of Washington	UWSC10383	93.110	6,795	—
	Subtotal Maternal and Child Health Federal Consolidated Programs (CFDA 93.110)			93,945	—
651014	Texas Biomedical Research Institute	16-04583-004	93.351	43,147	—
658006	U.S. Department of Health and Human Services	R01OD023139	93.351	251,642	48,136
	Subtotal Research Infrastructure Programs (CFDA 93.351)			294,789	48,136
651008	Conservation, Research and Education	N/A	93.307	3,533	—
651011	University of Florida	UFDSP00010318	93.395	98,003	—
651013	University of Maryland, Baltimore County	0000015350	93.143	19,064	—
658005	U.S. Department of Health and Human Services	R56OD018304	93.310	92,424	—
	Total U.S. Department of Health and Human Services			601,758	48,136
	U.S. Department of the Interior:				
635004	Bureau of Land Management	L11AC20325	15.231	4,625	7,365
635005	Bureau of Land Management	L11AC20325	15.231	—	—
	Subtotal Fish, Wildlife, and Plant Conservation Resource Management (CFDA 15.231)			4,625	7,365
633050	U.S. Fish and Wildlife Service	F17AP00559	15.657	3,466	—
637006	Commonwealth of the Northern Mariana Islands	N/A	15.657	42,984	—
	Subtotal Endangered Species Conservation - Recovery Implementation Funds (CFDA 15.657)			46,450	—
633049	U.S. Fish and Wildlife Service	F16AP00338	15.621	22,493	—
633047	U.S. Fish and Wildlife Service	F15AP00885	15.608	1,456	—
637005	National Fish and Wildlife Foundation	0104.15.050023	15.663	70,955	—
737007	Al Department of Conservation & Natural Resources	N/A	15.615	4,629	—
637007	Commonwealth of Virginia	Contract #301-18-043	15.615	6,125	—
633051	U.S. Fish and Wildlife Service	F17AP00748	15.608	47,120	—
634054	U.S. Department of the Interior:	P16AC01330	15.944	12,273	—
	Total U.S. Department of the Interior			216,126	7,365

SMITHSONIAN INSTITUTION

Detail Schedule of Expenditures of Federal Awards

Year ended September 30, 2018

Smithsonian designated code	Federal grantor (PASS-THROUGH GRANTOR)	Agency or pass-through award number	CFDA	Total expenditures	Amounts provided to subrecipients
	U.S. Department of State:				
668012	U.S. Department of State	STX-100690-12-GR-088	19.000	$ 54,987	—
668022	U.S. Department of State/U.S. Embassy	SMY30017GR0033	19.040	2,393	—
668023	U.S. Department of State	S-INLEC-17-GR-1004	19.705	77,486	—
668024	U.S. Department of State	STX10017GR0025	19.040	2,304	—
	Total U.S. Department of State			137,170	—
	U.S. Department of Transportation:				
692359	University of Maryland	SA0725776 PO 54121	20.819	7,540	—
692334	West Virginia Department of Transportation	X142-H/38.99 07	20.000	37,118	—
	Total U.S. Department of Transportation			44,658	—
	National Aeronautics and Space Administration (NASA):				
717539	Arizona State University	12-875	43.RD	26,163	—
717559	Arizona State University	17-255	43.RD	2,830	—
717428	Jet Propulsion Laboratory	1442524	43.RD	8,486	—
717441	Jet Propulsion Laboratory	1456630	43.RD	25,103	—
717522	Jet Propulsion Laboratory	1535002	43.RD	(218)	—
717531	Jet Propulsion Laboratory	1545613	43.RD	(1,865)	—
717533	Jet Propulsion Laboratory	1546619	43.RD	385	16,803
717558	Jet Propulsion Laboratory	1585735	43.RD	15,022	—
717540	Johns Hopkins Applied Physics Laboratory	137679	43.RD	11,911	—
717164	University of Arizona	Y432801	43.RD	79,714	—
717431	University of Arizona	Y603259	43.RD	34,575	—
717545	University of Texas at Austin	UTA16-001086	43.RD	17,872	—
	Subtotal National Aeronautics and Space Administration - RD (CFDA 43.RD)			219,979	16,803
610203	NASA	NNX11AP19G	43.000	(697)	—
610204	NASA	NNX11A094G	43.000	59,470	—
610223	NASA	NNX13AJ85G	43.000	11,659	—
	Subtotal National Aeronautics and Space Administration - Science (CFDA 43.000)			70,432	—
617900	Massachusetts Institute of Technology	5710003370	43.001	33,098	—
619099	Planetary Science Institute	1523	43.001	256	—
717473	Planetary Science Institute	1282 / NNX13AM81G	43.001	(0)	—
717543	Planetary Science Institute	1506	43.001	3,100	—
619118	University of Hawaii at Manoa	MA1305	43.001	23,047	—
619067	University of Virginia	GP10188 154023	43.001	61,340	—
619112	Yale University	GR102115 (CON-80001156)	43.001	15,197	—
610213	NASA	NNX12AJ38G	43.001	20,067	—
610227	NASA	NNX14AN32G	43.001	20,171	—
610228	NASA	NNX14AJ88G	43.001	5,934	—
610234	NASA	NNX15AD96G	43.001	15,103	—
610235	NASA	NNX15AH686	43.001	23,911	—
610236	NASA	NNX16AJ44G	43.001	54,063	—
610237	NASA	NNX16AI05G	43.001	61,672	—
610238	NASA	NNX16AL09G	43.001	4,089	4,118
610239	NASA	NNX17AI14G	43.001	149,624	18,706
610240	NASA - Shared Services Center	80NSSC17K0256	43.001	8,604	—
610241	NASA - Shared Services Center	80NSSC17K0216	43.001	25,769	—
610242	NASA - Shared Services Center	80NSSC17K0454	43.001	99,565	—
610243	NASA - Shared Services Center	80NSSC17K0533	43.001	34,871	—
610244	NASA - Shared Services Center	80NSSC18K1625	43.001	3,146	—
611121	NASA	NNX17AK45G	43.001	15,136	5,436
613732	NASA	NNX07AR60G	43.001	4,650	—
613849	NASA	NNX14AN216	43.001	5,867	—
	Subtotal National Aeronautics and Space Admistration - Science (CFDA 43.001)			688,278	28,260
617974	U.S. Geological Survey	G15AC00007	15.808	19,094	—
	Total National Aeronautics and Space Administration			997,783	45,063
	National Science Foundation:				
640244	National Science Foundation	1038990	47.050	2,774	—
640300	National Science Foundation	1424932	47.050	5,581	—
640301	National Science Foundation	1433212	47.050	42,165	—
640303	National Science Foundation	1360391	47.050	113,704	11,214
640307	National Science Foundation	EAR-1347248	47.050	27,070	—
640309	National Science Foundation	EAR-1424906	47.050	462	—
640351	National Science Foundation	EAR1725315	47.050	90,207	—
640364	National Science Foundation	EAR-1805228	47.050	12,128	—
640365	National Science Foundation	EAR 1805228	47.050	26,179	—
640368	National Science Foundation	EAR-1829299	47.050	1,000	—
642128	University of Wyoming	1002466A-STRI/EAR-1360384	47.050	9,200	—
642146	Columbia University	79-GG009393/NSF OCE1450528	47.050	5,129	—
	Subtotal National Science Foundation - Geosciences (CFDA 47.050)			335,599	11,214

SMITHSONIAN INSTITUTION

Detail Schedule of Expenditures of Federal Awards

Year ended September 30, 2018

Smithsonian designated code	Federal grantor (PASS-THROUGH GRANTOR)	Agency or pass-through award number	CFDA	Total expenditures	Amounts provided to subrecipients
642115	Amherst College	NSF-SI-DEB-1353783	47.074	$ 5,240	—
642116	Bryn Mawr College	2-46905	47.074	1,048	—
642130	Cornell University	75822-10652	47.074	19,699	—
642132	Iowa State University	420-71-40A \ DEB 1556853	47.074	30,507	—
642131	The City College of New York	40F60-A	47.074	91,227	—
642135	Arizona State University	17-185	47.074	21,730	—
642140	Arizona State University	18-299	47.074	26,679	—
642144	University of Florida	UFDSP00012121	47.074	21,742	—
642108	University of Delaware	DEB 1257526_#32500	47.074	5,261	—
642138	University of Louisville	ULRF-17-01-2701/DEB 165346	47.074	14,325	—
642105	University of Montana	PG13-66086-01	47.074	(52)	—
642139	University of Texas	Subaward 12610062661	47.074	102,119	—
642100	University of Texas at Austin	IOS-1120031 (UTA12-000801)	47.074	18	—
642147	University of Notre Dame	203171SMITH	47.074	211	—
642118	Yale University	C15D12026(D02104)/DEB-1464389	47.074	61,650	—
642119	Yale University	C15D12035(D02105)/DEB-1464886	47.074	7,103	—
640261	National Science Foundation	EF-1137366	47.074	145,779	—
640262	National Science Foundation	DEB-1136626	47.074	688,883	371,947
640272	National Science Foundation	DEB-1242566	47.074	30,092	—
640273	National Science Foundation	DEB1242584	47.074	17,020	—
640278	National Science Foundation	1250895	47.074	6,395	—
640280	National Science Foundation	DEB-1257625	47.074	78,537	—
640286	National Science Foundation	DEB-1352217	47.074	42,414	—
640294	National Science Foundation	DEB-1405181	47.074	4,562	—
640302	National Science Foundation	IOS-1353085	47.074	101,787	4,275
640304	National Science Foundation	DEB-1354143	47.074	11,837	—
640313	National Science Foundation	CCF-1442731	47.074	63,898	—
640316	National Science Foundation	DEB 1456674	47.074	28,364	—
640326	National Science Foundation	DEB-1541552	47.074	161,850	—
640327	National Science Foundation	DEB1545761	47.074	7,070	—
640329	National Science Foundation	OCE 1558868	47.074	27,202	—
640333	National Science Foundation	DEB-1557009	47.074	74,921	—
640344	National Science Foundation	DEB 1624707	47.074	97,966	—
640345	National Science Foundation	EF-1638490	47.074	92,320	—
640346	National Science Foundation	DBI-1659668	47.074	106,823	—
640347	National Science Foundation	DEB-1655622	47.074	92,291	—
640349	National Science Foundation	IOS-1728002	47.074	56,322	39,043
640355	National Science Foundation	DEB:1717498	47.074	92,082	—
640359	National Science Foundation	OCE-1737247	47.074	258,559	—
	Subtotal National Science Foundation - Biological Sciences (CFDA 47.074)			2,695,481	415,265
640311	National Science Foundation	1424029	47.075	81,282	—
640339	National Science Foundation	BCS-1627066	47.075	99,954	—
640360	National Science Foundation	1743406	47.075	37,035	—
640367	National Science Foundation	BCS-1821816	47.075	9,748	—
642122	Gettysburg College	Prime Award No. BCS-1401178/SI-1	47.075	60,572	—
642134	Miami University	602755	47.075	10	—
	Subtotal National Science Foundation - Social, Behavioral, and Economic Sciences (CFDA 47.075)			288,601	—
640341	National Science Foundation	IIS-1636859	47.070	83,817	9,234
642143	North Carolina Museum of Natural Science	N/A	47.070	30,000	—
	Subtotal National Science Foundation - Computer and Information Science and Engineering (CFDA 47.070)			113,816	9,234
642129	Oregon State University	S1799A-A	47.000	6,042	—
640343	National Science Foundation	DRL1621194	47.076	212,643	—
640268	National Science Foundation	ARC-1203417	47.078	11,269	—
642107	San Diego State University Research	SA0000202 A8	47.079	135,053	—
	Total National Science Foundation			3,798,505	435,713
	Environmental Protection Agency:				
692360	University of Florida	UFDSP00012060	66.461	29,855	—
676011	Environmental Protection Agency	UW-96327701-1	66.440	3,072	—
	Total Environmental Protection Agency			32,927	—
		Total Research and Development: Mall-based		**$ 8,650,195**	**919,976**

SMITHSONIAN INSTITUTION

Detail Schedule of Expenditures of Federal Awards

Year ended September 30, 2018

Smithsonian designated code	Federal grantor (PASS-THROUGH GRANTOR)	Agency or pass-through award number	CFDA	Total expenditures	Amounts provided to subrecipients
Research and Development: Smithsonian Astrophysical Observatory					
	U.S. Department of Defense:				
792062	Harvard University	134062-5100373	12.431	$ 179,407	—
692338	Naval Research Laboratory	N00173-14-1-G908	12.300	39,266	—
725012	U.S. Department of Air Force - MIT	5710003827	12.800	612	20,000
725011	U.S. Department of Air Force - UCAR	Z15-12504	12.800	161,953	—
	Total U.S. Department of Defense			381,238	20,000
	U.S. Department of Energy:				
682006	U.S. Department of Energy	DE-FG02-91ER40635	81.049	40,416	18,012
792051	Dawn Research Inc.	5/6/2015	81.049	(4,878)	—
792067	Electroformed Nickel, Inc.	SAO Subaward under DoE DE-SC0017098	81.049	38,252	—
	Subtotal Office of Science Financial Assistance Program (CFDA 81.049)			73,791	18,012
682024	U.S. Department of Energy	DE-SC0016363	81.000	61,672	—
792068	Lawrence Livermore National Laboratory	B622799	81.000	(6,337)	—
792072	Lawrence Livermore National Laboratory	B626800	81.000	228,909	—
	Total U.S. Department of Energy			358,034	18,012
	National Aeronautics and Space Administration (NASA):				
611108	NASA - Headquarters	NNX16AG47G	43.000	80,013	—
611110	NASA - Headquarters	NNX16AG51G	43.000	230,596	—
611113	NASA - Headquarters	NNX17AE24G	43.000	28,002	26,699
611114	NASA - Headquarters	NNX17AG87G	43.000	71,868	—
611116	NASA - Headquarters	NNX17AH47G	43.000	269,672	—
611117	NASA - Headquarters	NNX17AI82G	43.000	132,464	14,249
611122	NASA - Headquarters	80NSSC17K0475	43.000	79,019	—
611125	NASA - Headquarters	80NSSC18K0396	43.000	44,232	—
611128	NASA - Headquarters	80NSSC18K0691	43.000	36,839	—
613781	NASA - Goddard Space Flight Center	NNX11AO98G	43.000	44,596	—
613810	NASA - Goddard Space Flight Center	NNX13AB94A	43.000	159,942	—
613813	NASA - Goddard Space Flight Center	NNX13AF16G	43.000	2,072	8,820
613842	NASA - Goddard Space Flight Center	NNX14AG55G	43.000	49,117	—
613886	NASA - Goddard Space Flight Center	NNX17AI78G	43.000	242,454	—
615004	NASA - Langley Research Center	NNX17AE09G	43.000	43,574	—
619046	NASA - Goddard Space Flight Center	NNX16AT12G	43.000	103,338	—
717541	Massachusetts Institute of Technology	5710004197	43.000	79,438	—
717542	University of Maryland	46039-Z6110001	43.000	1,207,701	—
717564	Jet Propulsion Laboratory	1598313	43.000	38,286	—
717492	California Institute of Technology	S394030 (was 2-1094580)	43.000	134,214	—
617954	Smithsonian Astrophysical Observatory	GO3-14011X	43.000	39,034	—
617869	Smithsonian Astrophysical Observatory	GO2-13005X	43.000	10,181	—
617873	Smithsonian Astrophysical Observatory	GO3-14131X	43.000	23,420	—
617880	Smithsonian Astrophysical Observatory	GO3-14051X	43.000	12,020	—
617893	Smithsonian Astrophysical Observatory	GO3-14129X	43.000	913	—
617896	Smithsonian Astrophysical Observatory	GO3-14003B	43.000	2,197	—
617911	Smithsonian Astrophysical Observatory	GO3-14133X	43.000	85,745	—
617915	Smithsonian Astrophysical Observatory	GO3-14130B	43.000	26,719	—
617926	Smithsonian Astrophysical Observatory	GO3-14013X	43.000	636	—
617970	Smithsonian Astrophysical Observatory	GO4-15127X	43.000	1,503	—
	Subtotal National Aeronautics and Space Administration - Science (CFDA 43.000)			3,279,804	49,768
610110	NASA - Goddard Space Flight Center	NNX09AF59G	43.001	(74)	—
610233	NASA	NNX15AE56G	43.001	71,791	—
610234	NASA Shared Services Center	NNX15AD96G	43.001	7,144	—
611101	NASA - Headquarters	NNX15AL65G	43.001	47,438	—
611103	NASA - Headquarters	NNX16AC11G	43.001	118,362	97,026
611104	NASA - Headquarters	NNX16AB79G	43.001	156,422	20,010
611105	NASA - Headquarters	NNX16AD69G	43.001	16,001	2,509
611106	NASA - Headquarters	NNX16AC86A	43.001	2,928,715	—
611107	NASA - Headquarters	NNX16AF37G	43.001	182,817	—
611109	NASA - Headquarters	NNX16AH87G	43.001	99,157	—
611111	NASA - Headquarters	NNX17AB59G	43.001	14,484	—
611112	NASA - Headquarters	NNX17AB72G	43.001	60,489	—
611115	NASA - Headquarters	NNX17AH80G	43.001	121,251	12,093
611118	NASA - Headquarters	NNX17AI27G	43.001	117,964	17,686
611119	NASA - Headquarters	NNX17AG77G	43.001	301,769	70,126
611120	NASA - Headquarters	NNX17AK29G	43.001	91,824	76,181
611123	NASA - Headquarters	80NSSC18K0438	43.001	8,556	—
611124	NASA - Headquarters	80NSSC18K0413	43.001	43,820	—
611126	NASA - Headquarters	80NSSC18K0409	43.001	75,272	—
611127	NASA - Headquarters	80NSSC18K0566	43.001	13,455	—
611129	NASA - Headquarters	80NSSC18K0416	43.001	20,743	—
611130	NASA - Headquarters	80NSSC18K0915	43.001	189	—
611131	NASA - Headquarters	80NSSC18K1124	43.001	4,367	—
612170	NASA - Ames Research Center	NNX17AJ50A	43.001	62,410	—

SMITHSONIAN INSTITUTION

Detail Schedule of Expenditures of Federal Awards

Year ended September 30, 2018

Smithsonian designated code	Federal grantor (PASS-THROUGH GRANTOR)	Agency or pass-through award number	CFDA	Total expenditures	Amounts provided to subrecipients
613801	NASA - Goddard Space Flight Center	NNX12AI55G	43.001	$ 7,411	—
613823	NASA - Goddard Space Flight Center	NNX13AI43G	43.001	133,187	—
613825	NASA - Goddard Space Flight Center	NNX13AI83A	43.001	305,900	3,196
613828	NASA - Goddard Space Flight Center	NNX13AK80G	43.001	9,797	10,468
613833	NASA - Goddard Space Flight Center	NNX14AB83G	43.001	3,994	—
613835	NASA - Goddard Space Flight Center	NNX14AE10A	43.001	73,657	—
613836	NASA - Goddard Space Flight Center	NNX14AF56G	43.001	104,199	—
613838	NASA - Goddard Space Flight Center	NNX14AF16G	43.001	61,270	23,040
613839	NASA - Goddard Space Flight Center	NNX14AF72G	43.001	107,904	—
613844	NASA - Goddard Space Flight Center	NNX14AF78G	43.001	53,201	—
613845	NASA - Goddard Space Flight Center	NNX14AG96G	43.001	99,985	18,453
613846	NASA - Goddard Space Flight Center	NNX14AJ61G	43.001	168,751	—
613847	NASA - Goddard Space Flight Center	NNX14AI55G	43.001	32,379	—
613848	NASA - Goddard Space Flight Center	NNX14AL70G	43.001	32,337	—
613852	NASA - Goddard Space Flight Center	NNX14AT26G	43.001	17,945	—
613853	NASA - Goddard Space Flight Center	NNX14AQ52G	43.001	66,898	—
613854	NASA - Goddard Space Flight Center	NNX15AC44G	43.001	14,224	6,881
613855	NASA - Goddard Space Flight Center	NNX15AE16G	43.001	36,179	—
613856	NASA - Goddard Space Flight Center	NNX15AF23G	43.001	97,510	—
613857	NASA - Goddard Space Flight Center	NNX15AF43G	43.001	153,500	—
613858	NASA - Goddard Space Flight Center	NNX15AG36G	43.001	16,323	—
613860	NASA - Goddard Space Flight Center	NNX15AI60G	43.001	81,495	—
613864	NASA - Goddard Space Flight Center	NNX16AC46G	43.001	1,497	—
613865	NASA - Goddard Space Flight Center	NNX16AH95G	43.001	247,093	43,385
613866	NASA - Goddard Space Flight Center	NNX16AH21G	43.001	4,479	—
613867	NASA - Goddard Space Flight Center	NNX16AH68G	43.001	33,961	—
613868	NASA - Goddard Space Flight Center	NNX16AH31G	43.001	12,014	—
613869	NASA - Goddard Space Flight Center	NNX16AL62A	43.001	245,745	—
613870	NASA - Goddard Space Flight Center	NNX16AH18G	43.001	3,838	—
613871	NASA - Goddard Space Flight Center	NNX17AB39G	43.001	32,722	—
613872	NASA - Goddard Space Flight Center	NNX17AC32G	43.001	34,403	—
613873	NASA - Goddard Space Flight Center	NNX17AC23G	43.001	1,418	—
613874	NASA - Goddard Space Flight Center	NNX17AC98G	43.001	31,473	—
613875	NASA - Goddard Space Flight Center	NNX17AD74G	43.001	16,887	—
613876	NASA - Goddard Space Flight Center	NNX17AD78G	43.001	27,106	—
613877	NASA - Goddard Space Flight Center	NNX17AD77G	43.001	1,127	—
613878	NASA - Goddard Space Flight Center	NNX17AD61G	43.001	475,129	166,508
613879	NASA - Goddard Space Flight Center	NNX17AD76G	43.001	17,781	—
613880	NASA - Goddard Space Flight Center	NNX17AC71G	43.001	543,641	—
613881	NASA - Goddard Space Flight Center	NNX17AD88G	43.001	22,434	—
613883	NASA - Goddard Space Flight Center	NNX17AD83G	43.001	20,266	—
613884	NASA - Goddard Space Flight Center	NNX17AF67G	43.001	91,411	—
613885	NASA - Goddard Space Flight Center	NNX17AJ20G	43.001	36,607	—
613887	NASA - Goddard Space Flight Center	80NSSC17K0332	43.001	3,089	—
613889	NASA - Goddard Space Flight Center	80NSSC17K0626	43.001	5,791	—
613890	NASA - Goddard Space Flight Center	80NSSC17K0637	43.001	1,917	—
613891	NASA - Goddard Space Flight Center	80NSSC17K0746	43.001	8,091	—
613892	NASA - Goddard Space Flight Center	80NSSC18K0197	43.001	213,073	43,854
613893	NASA - Goddard Space Flight Center	80NSSC18K0220	43.001	245,873	—
613894	NASA - Goddard Space Flight Center	80NSSC18K0234	43.001	58,901	44,908
613901	NASA - Goddard Space Flight Center	80NSSC18K0283	43.001	31,383	—
613903	NASA - Goddard Space Flight Center	80NSSC18K0988	43.001	2,106	—
617992	NASA - Goddard Space Flight Center	NNX15AF50G	43.001	90,873	—
712005	NASA - Ames Research Center	80ARC018C0002	43.001	1,077,861	289,867
715004	NASA - Langley Research Center	NNL13AA09C	43.001	1,901,008	245,791
716015	NASA - Marshall Space Flight Center	NAS8-03060	43.001	63,521,922	13,423,789
716016	Marshall Space Flight Center	NNM07AB07C	43.001	2,001,351	219,256
716022	NASA - Marshall Space Flight Center	NNM15AA13C	43.001	129,194	—
716024	NASA - Marshall Space Flight Center	NNM15AA15C	43.001	243,328	72,202
717131	Lockheed Martin Shared Services	SP02H1701R	43.001	152,415	—
717375	Lockheed Martin Shared Services	8100002705	43.001	649,545	—
717395	Johns Hopkins University	975569	43.001	4,279,957	2,147,365
717424	University of New Hampshire	11-108	43.001	15,941	—
717491	Massachusetts Institute of Technology	5710003554	43.001	747,894	90,227
717501	University of New Hampshire	14-054	43.001	20,819	—
717509	Harvard University	131414-5084550	43.001	3,973	—
717510	Rice University	R53541	43.001	55,632	—
717514	George Mason University	E2034761	43.001	29,984	—
717515	Northern Arizona University	10026901-01	43.001	4,442	—
717517	Lockheed Martin Shared Services	4101946323	43.001	38,837	—
717521	The Pennsylvania State University	5238-SAO-NASA-C46G	43.001	52,022	—
717523	University of Alabama	2015-065	43.001	64,985	—
717527	University of Arizona	292962	43.001	28,889	—
717534	Jet Propulsion Laboratory	JPL Subcontract No. 1551704	43.001	47,998	—
717536	Harvard University	131443-5099614	43.001	39,763	—
717537	Harvard University	131457-5097592	43.001	191,833	—
717544	California Institute of Technology	S376256 (44A-1097631)	43.001	61,340	—
717546	The Pennsylvania State University	5585-SAO-NASA-B07G	43.001	99,283	—
717547	University of New Hampshire	UNH 16-073	43.001	15,712	—

SMITHSONIAN INSTITUTION

Detail Schedule of Expenditures of Federal Awards

Year ended September 30, 2018

Smithsonian designated code	Federal grantor (PASS-THROUGH GRANTOR)	Agency or pass-through award number	CFDA	Total expenditures	Amounts provided to subrecipients
717548	New Jersey Institute of Technology	P1710176 & P1710177	43.001	$ 45,363	—
717549	University of Arkansas	SA1707141	43.001	10,322	—
717553	The Pennsylvania State University	5438-SAO-NASA-G29G	43.001	(5,350)	—
717556	University of Michigan	3004519489	43.001	31,060	—
717557	University of Delaware	Subaward 46622	43.001	18,053	—
717560	New Jersey Institute of Technology	996790	43.001	27,508	—
717566	Jet Propulsion Laboratory	1601013	43.001	20,000	—
717567	Jet Propulsion Laboratory	1602576	43.001	33,747	—
792060	Princeton University	S014981-F	43.001	28,144	—
792069	Johns Hopkins University Applied Physics Laboratory	JHU/APL 141773	43.001	53,157	—
617000	Smithsonian Astrophysical Observatory	GO5-16090X	43.001	9,430	—
617397	Smithsonian Astrophysical Observatory	PF5-160141	43.001	81,368	—
617697	Smithsonian Astrophysical Observatory	GO0-11040X	43.001	38	—
617906	Smithsonian Astrophysical Observatory	GO3-14141X	43.001	53,573	—
617918	Smithsonian Astrophysical Observatory	GO4-15000X	43.001	14,617	—
617931	Smithsonian Astrophysical Observatory	AR4-15016X	43.001	569	—
617934	Smithsonian Astrophysical Observatory	AR4-15005X	43.001	11,741	—
617936	Smithsonian Astrophysical Observatory	AR4-15003X	43.001	1,421	—
617937	Smithsonian Astrophysical Observatory	AR4-15000X	43.001	43,622	—
617940	Smithsonian Astrophysical Observatory	GO4-15116B	43.001	1,139	—
617941	Smithsonian Astrophysical Observatory	GO4-15081X	43.001	163	—
617942	Smithsonian Astrophysical Observatory	GO4-15011X	43.001	(1,724)	—
617943	Smithsonian Astrophysical Observatory	GO4-15025X	43.001	3,303	—
617951	Smithsonian Astrophysical Observatory	GO4-15023B	43.001	8,721	—
617952	Smithsonian Astrophysical Observatory	DD4-15071X	43.001	3,144	—
617953	Smithsonian Astrophysical Observatory	GO4-15096X	43.001	3,117	—
617955	Smithsonian Astrophysical Observatory	GO4-15097X	43.001	2,877	—
617963	Smithsonian Astrophysical Observatory	GO4-15102X	43.001	8,494	—
617964	Smithsonian Astrophysical Observatory	GO4-15129X	43.001	26,048	—
617965	Smithsonian Astrophysical Observatory	GO4-15070A	43.001	3,452	—
617966	Smithsonian Astrophysical Observatory	GO4-15020X	43.001	32,231	—
617973	Smithsonian Astrophysical Observatory	GO4-15109X	43.001	18,711	—
617976	Smithsonian Astrophysical Observatory	GO5-16021X	43.001	110,697	—
617977	Smithsonian Astrophysical Observatory	GO5-16004X	43.001	37,887	—
617978	Smithsonian Astrophysical Observatory	GO5-16010X	43.001	(1,031)	—
617981	Smithsonian Astrophysical Observatory	GO5-16130X	43.001	5,770	—
617983	Smithsonian Astrophysical Observatory	GO5-16117A	43.001	18,238	—
617985	Smithsonian Astrophysical Observatory	GO4-15024X	43.001	15,701	—
617986	Smithsonian Astrophysical Observatory	GO5-16133X	43.001	4,503	—
617988	Smithsonian Astrophysical Observatory	AR5-16007X	43.001	11,116	—
617990	Smithsonian Astrophysical Observatory	GO5-16138A	43.001	6,987	—
617993	Smithsonian Astrophysical Observatory	GO4-15005X	43.001	6,924	—
617994	Smithsonian Astrophysical Observatory	GO5-16147A	43.001	116,562	—
617996	Smithsonian Astrophysical Observatory	GO5-16140X	43.001	1,242	—
617997	Smithsonian Astrophysical Observatory	GO5-16108X	43.001	22,756	—
617999	Smithsonian Astrophysical Observatory	GO5-16135X	43.001	55,100	—
619000	Smithsonian Astrophysical Observatory	GO5-16123X	43.001	16,190	—
619002	Smithsonian Astrophysical Observatory	GO5-16109X	43.001	477	—
619007	Smithsonian Astrophysical Observatory	GO5-16113X	43.001	12,126	—
619008	Smithsonian Astrophysical Observatory	GO5-16056X	43.001	4,797	—
619009	Smithsonian Astrophysical Observatory	GO5-16153X	43.001	38,012	—
619012	Smithsonian Astrophysical Observatory	GO5-16023X	43.001	39,902	—
619018	Smithsonian Astrophysical Observatory	GO6-17121X	43.001	20,240	—
619019	Smithsonian Astrophysical Observatory	GO5-16137X	43.001	32,708	—
619020	Smithsonian Astrophysical Observatory	GO6-17014X	43.001	3,348	—
619022	Smithsonian Astrophysical Observatory	AR6-17001X	43.001	256	—
619023	Smithsonian Astrophysical Observatory	AR6-17003X	43.001	42,942	—
619024	Smithsonian Astrophysical Observatory	AR6-17012X	43.001	29,059	—
619025	Smithsonian Astrophysical Observatory	TM6-17009X	43.001	30,363	—
619026	Smithsonian Astrophysical Observatory	TM6-17001A	43.001	4,114	—
619028	Smithsonian Astrophysical Observatory	TM6-17003X	43.001	7,671	—
619031	Smithsonian Astrophysical Observatory	GO6-17098X	43.001	41,494	—
619032	Smithsonian Astrophysical Observatory	GO6-17110A	43.001	29,088	—
619035	Smithsonian Astrophysical Observatory	GO6-17087X	43.001	8,036	—
619036	Smithsonian Astrophysical Observatory	GO6-17081X	43.001	5,042	—
619037	Smithsonian Astrophysical Observatory	GO5-16101X	43.001	14,628	—
619043	Smithsonian Astrophysical Observatory	GO6-17113X	43.001	68,599	—
619044	Smithsonian Astrophysical Observatory	GO6-17136B	43.001	8,670	—
619050	Smithsonian Astrophysical Observatory	GO6-17095X	43.001	2,785	—
619052	Smithsonian Astrophysical Observatory	GO6-17125X	43.001	35,116	—
619054	Smithsonian Astrophysical Observatory	GO6-17061X	43.001	17,121	—
619055	Smithsonian Astrophysical Observatory	GO6-17084X	43.001	9,698	—
619056	Smithsonian Astrophysical Observatory	TM7-18004X	43.001	21,526	—
619057	Smithsonian Astrophysical Observatory	AR7-18013X	43.001	20,364	—
619058	Smithsonian Astrophysical Observatory	AR7-18009X	43.001	28,041	—
619068	Smithsonian Astrophysical Observatory	DD6-17086X	43.001	8,288	—
619069	Smithsonian Astrophysical Observatory	GO6-17008X	43.001	2,915	—
619070	Smithsonian Astrophysical Observatory	GO6-17122X	43.001	11,181	—
619071	Smithsonian Astrophysical Observatory	GO7-18011X	43.001	1,875	—
619072	Smithsonian Astrophysical Observatory	GO7-18090X	43.001	35,102	—

SMITHSONIAN INSTITUTION

Detail Schedule of Expenditures of Federal Awards

Year ended September 30, 2018

Smithsonian designated code	Federal grantor (PASS-THROUGH GRANTOR)	Agency or pass-through award number	CFDA	Total expenditures	Amounts provided to subrecipients
619074	Smithsonian Astrophysical Observatory	GO7-18050X	43.001	$ 11,132	—
619075	Smithsonian Astrophysical Observatory	PF6-170169	43.001	91,342	—
619076	Smithsonian Astrophysical Observatory	PF7-180163	43.001	83,445	—
619077	Smithsonian Astrophysical Observatory	GO7-18113X	43.001	1,170	—
619078	Smithsonian Astrophysical Observatory	GO7-18013X	43.001	15,670	—
619080	Smithsonian Astrophysical Observatory	GO7-18126X	43.001	13,463	—
619082	Smithsonian Astrophysical Observatory	GO7-18135B	43.001	19,686	—
619083	Smithsonian Astrophysical Observatory	GO7-18128X	43.001	27,193	—
619084	Smithsonian Astrophysical Observatory	GO7-18104X	43.001	14,743	—
619086	Smithsonian Astrophysical Observatory	DD7-18090X	43.001	14,224	—
619088	Smithsonian Astrophysical Observatory	GO7-18075X	43.001	43,293	—
619092	Smithsonian Astrophysical Observatory	GO8-19081X	43.001	1,997	—
619094	Smithsonian Astrophysical Observatory	AR8-19004X	43.001	5,448	—
619098	Smithsonian Astrophysical Observatory	AR8-19023A	43.001	1,506	—
619102	Smithsonian Astrophysical Observatory	GO8-19109A	43.001	12,057	—
619103	Smithsonian Astrophysical Observatory	AR8-19022X	43.001	4,223	—
619105	Smithsonian Astrophysical Observatory	GO8-19077X	43.001	3,771	—
619106	Smithsonian Astrophysical Observatory	GO8-19099X	43.001	3,388	—
619115	Smithsonian Astrophysical Observatory	SP8-19002X	43.001	11,361	—
617901	NASA - Space Telescope Science Institute	GO-12899.01-A	43.001	23,618	—
617920	NASA - Space Telescope Science Institute	GO-13368.01-A	43.001	2,214	—
617922	NASA - Space Telescope Science Institute	GO-13436.01-A	43.001	8,696	—
617971	NASA - Space Telescope Science Institute	GO-13841.002-A	43.001	2,974	—
617991	NASA - Space Telescope Science Institute	GO-13741.002-A	43.001	12,974	—
617998	NASA - Space Telescope Science Institute	GO-13947.001-A	43.001	5,512	—
619010	NASA - Space Telescope Science Institute	HST-GO-14162.002-A	43.001	8,147	—
619014	NASA - Space Telescope Science Institute	HST-GO-14271.009-A	43.001	18,980	—
619016	NASA - Space Telescope Science Institute	HST-GO-13330.26-A	43.001	4,493	—
619021	NASA - Space Telescope Science Institute	HST-GO-14272.011-A	43.001	42,501	—
619030	NASA - Space Telescope Science Institute	HST-GO-14360.001-A	43.001	998	—
619038	NASA - Space Telescope Science Institute	HST-AR-13240.009-A	43.001	14,996	—
619062	NASA - Space Telescope Science Institute	HST-GO-14888.004-A	43.001	2,210	—
619063	NASA - Space Telescope Science Institute	HST-GO-14767.002-A	43.001	31,288	—
619066	NASA - Space Telescope Science Institute	HST-GO-14758.003-A	43.001	2,210	—
619081	Universities Space Research Association	SOF 05-0067	43.001	34,452	—
619087	NASA - Space Telescope Science Institute	HST-GO-14847.001-A	43.001	2,583	—
619091	NASA - Space Telescope Science Institute	HST-GO-15350.001-A	43.001	16,170	—
717565	University of Arizona	438111	43.001	9,296	—
742095	Harvard University	134076-5101408	43.001	93	—
640366	National Science Foundation	AGS-1822314	43.001	79,683	—
	Subtotal National Aeronautics and Space Admistration - Science (CFDA 43.001)			86,635,955	17,144,819
717532	NASA - Space Telescope Science Institute	STScI-509913	43.008	1,301,305	297,334
	Subtotal National Aeronautics and Space Administration - Education (CFDA 43.008)			1,301,305	297,334
619029	NASA - Space Telescope Science Institute	HST-GO-14161.003-A	43.009	18,644	—
619040	NASA - Space Telescope Science Institute	HST-GO-14228.001-A	43.009	2,478	—
	Subtotal National Aeronautics and Space Admistration - Cross Agency Support (CFDA 43.009)			21,123	—
717518	Boston Childrens Museum	NNX14AQ83G SAO Sub	43.UNK	21,188	—
619001	NASA - Space Telescope Science Institute	HST-HF2-51356.001-A	43.UNK	90,366	—
619042	NASA - Space Telescope Science Institute	HST-GO-14464.001-A	43.UNK	10,000	—
619045	NASA - Space Telescope Science Institute	HST-HF2-51381.001-A	43.UNK	81,348	—
619051	NASA - Space Telescope Science Institute	HST-GO-14757.004-A	43.UNK	2,210	—
619064	NASA - Space Telescope Science Institute	HST-GO-14615.003-A	43.UNK	1,326	—
619079	NASA - Space Telescope Science Institute	HST-HF2-51402.001-A	43.UNK	90,159	—
619107	NASA - Space Telescope Science Institute	HST-GO-15179.003-A	43.UNK	13,672	—
619127	NASA - Space Telescope Science Institute	HST-HF2-51413.001-A	43.UNK	16,642	—
619100	Smithsonian Astrophysical Observatory	TM8-19001X	43.UNK	80,061	—
792059	Ohio State University	OSU 6005418 - JPL Prime 1526224	43.UNK	4,627	—
	Subtotal National Aeronautics and Space Administration (CFDA 43.UNK)			411,599	—
	Total National Aeronautics and Space Admistration			91,649,786	17,491,921
	National Science Foundation:				
717555	Aura	PSA N83893C-N	47.049	5,630	—
640136	National Science Foundation	AST-0234268	47.049	(3,850)	—
640282	National Science Foundation	AST-1262851	47.049	2,500	—
640289	National Science Foundation	AST-1312882	47.049	95,004	—
640290	National Science Foundation	PHY-1205389	47.049	5,398	23,063
640308	National Science Foundation	AST-1405606	47.049	224,752	—
640314	National Science Foundation	AST-1440254	47.049	1,913,474	1,004,304
640324	National Science Foundation	AGS-1531549	47.049	2,912	—
640325	National Science Foundation	AST-1509375	47.049	172,120	—
640334	National Science Foundation	AGS-1560313	47.049	137,805	—
640336	National Science Foundation	AST-1615847	47.049	138,967	—
640338	National Science Foundation	CHE-1566266	47.049	100,553	—
640340	National Science Foundation	PHY-1607128	47.049	746,050	14,501
640348	National Science Foundation	AST-1659473	47.049	182,797	—
640352	National Science Foundation	AST-1715763	47.049	35,692	—

SMITHSONIAN INSTITUTION

Detail Schedule of Expenditures of Federal Awards

Year ended September 30, 2018

Smithsonian designated code	Federal grantor (PASS-THROUGH GRANTOR)	Agency or pass-through award number	CFDA	Total expenditures	Amounts provided to subrecipients
640353	National Science Foundation	AGS-1723425	47.049	$ 38,336	—
640354	National Science Foundation	AST-1726637	47.049	1,105	—
640358	National Science Foundation	AST-1745460	47.049	41,680	—
640373	National Science Foundation	AST-1814719	47.049	10,177	—
742087	National Radio Astronomy Observatory	346987	47.049	6,883	—
742089	Harvard University	131433-5091001	47.049	371,068	—
742091	National Radio Astronomy Observatory	352403	47.049	14,653	—
742094	Harvard University	131455-5097556	47.049	87,725	—
742096	National Radio Astronomy Observatory	352730	47.049	30,547	—
742098	National Radio Astronomy Observatory	352738 SOSPA3-003	47.049	14,178	—
742099	National Radio Astronomy Observatory	352720 SOSPA3-009	47.049	19,747	—
742103	University of California-Santa Barbara	UCSB KK1873	47.049	6,309	—
	Subtotal National Science Foundation - Mathematical and Physical Sciences (CFDA 47.049)			4,402,214	1,041,868
640299	National Science Foundation	AGS-1358342	47.050	(13,147)	—
640323	National Science Foundation	AGS-1460165	47.050	44,035	—
640332	National Science Foundation	AGS-1531312	47.050	38,880	—
640356	National Science Foundation	AGS-1723313	47.050	163,959	—
742084	Georgia State University	SP00011663-01	47.050	29,659	—
	Subtotal National Science Foundation - Geosciences (CFDA 47.050)			263,385	—
640306	National Science Foundation	DRL-1433345	47.076	193,040	—
640319	National Science Foundation	DRL-1502798	47.076	23,923	—
640342	National Science Foundation	DRL-1611985	47.076	20,667	—
640362	National Science Foundation	DRL-1814077	47.076	685	—
742085	Harvard University	131407-5091340	47.076	74,001	—
742086	Harvard University	131403-5094253	47.076	76,862	—
	Subtotal National Science Foundation - Educational and Human Resources (CFDA 47.076)			389,178	—
742076	University of California - Los Angeles	1000 G QB252	47.UNK	21,597	—
742090	Ohio State University	60054183 PO#RF01429282	47.UNK	56,459	—
742101	George Mason University	E2035861	47.UNK	15,159	—
742104	University of Michigan - Dearborn	SubK00009876	47.UNK	7,094	—
	Total National Science Foundation			5,155,086	1,041,868
	Other Agencies:				
656005	National Institute of Standards & Technology	60NANB18D205	11.609	6,275	—
656004	National Institute of Standards & Technology	60NANB17D270	11.618	57,189	—
654086	National Oceanic and Atmospheric Administration	NA18OAR4310108	11.431	36,248	—
792047	Quantum Diamond Technologies, Inc.	QS1001	43.001	16,988	—
792061	Lawrence Livermore National Laboratory	B617466	43.009	(15)	—
	Total Other Agencies			116,685	—
	Total Research and Development: Smithsonian Astrophysical Observatory			**97,660,829**	**18,571,800**
		Total Research and Development		**106,311,024**	**19,491,776**
	U.S. Postal Service:				
692351	U.S. Postal Service	2017 NPM-SI Ops General Agreement	99.000	189,497	—
692357	U.S. Postal Service	N/A	99.000	2,822,215	—
	Total U.S. Postal Service			3,011,712	—
	Other (Mall-based) Programs:				
	U.S. Agency for International Development:				
692341	The Bridge Fund	AID-486-A14-0000	98.001	404,475	—
	Total U.S. Agency for International Development			404,475	—
	U.S. Department of Education:				
692342	Albemarle County Public Schools	N/A	84.411	71,919	—
680009	U.S. Department of Education	U396B100097-10A	84.396	137,492	58,430
	Total U.S. Department of Education			209,411	58,430
	U.S. Department of Health and Human Services				
692362	University of Maryland	57820-Q0063201	93.575	30,593	—
650057	U.S. Department of Health and Human Services	1F32HD090854-01A1	93.865	52,561	—
	Total U.S. Department of Health and Human Services			83,154	—
	U.S. Department of the Interior:				
634055	U.S. Department of the Interior	P17AP00051	15.904	49,616	—
	Total U.S. Department of the Interior			49,616	—

SMITHSONIAN INSTITUTION

Detail Schedule of Expenditures of Federal Awards

Year ended September 30, 2018

Smithsonian designated code	Federal grantor (PASS-THROUGH GRANTOR)	Agency or pass-through award number	CFDA	Total expenditures	Amounts provided to subrecipients
	U.S. Department of State:				
668025	U.S. Department of State	SLMAQM17CA2055	19.040	$ 7,883	—
668028	U.S. Department of State	SAR20018GR0024	19.040	2,385	—
	Subtotal Public Diplomacy Programs (CFDA 19.040)			10,268	—
668019	U.S. Department of State	S-LMAQM-14-GR-018	19.700	87,142	—
668026	World Learning	S500-S-ECAGD-16-CA-1106	00.000	22,708	—
	Total U.S. Department of State			120,118	—
	National Aeronautics and Space Administration:				
717532	Space Telescope Science Institute	STScI-509913	43.008	18,918	—
610230	NASA	NNX4AQ78G	43.008	33,197	—
	Total National Aeronautics and Space Administration			52,115	—
	National Science Foundation:				
642136	The University of Rhode Island	0005471/102216	47.076	25,747	—
642145	Twin Cities Public Television, Inc.	TPTSA-21395-01	47.076	34,726	—
640321	National Science Foundation	DRL-1511155	47.076	8,330	—
	Subtotal National Science Foundation - Education and Human Resources (CFDA 47.076)			68,803	—
640337	National Science Foundation	1560088	47.050	20,132	—
640331	National Science Foundation	OCE-1560088	47.050	172,725	—
	Subtotal National Science Foundation - Geosciences (CFDA 47.050)			192,856	—
	Total National Science Foundation			261,659	—
	Environmental Protection Agency:				
676012	Stroud Water Research Center	83675001	66.951	4,805	—
	Total Environmental Protection Agency			4,805	—
		Total Other (Mall-based) Programs		**1,185,353**	**58,430**
		Total expenditures of federal awards		**$ 110,508,089**	**19,550,206**

See accompanying independent auditors' report and notes to schedules of expenditures of federal awards.

SMITHSONIAN INSTITUTION

Notes to Schedules of Expenditures of Federal Awards

Year ended September 30, 2018

(1) Basis of Presentation and Description of Major Program

The accompanying schedules of expenditures of federal awards (the schedules) were prepared in accordance with Title 2 U.S. Code of Federal Regulations Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (Uniform Guidance). The purpose of these schedules is to present information relating to expenditures of the Smithsonian Institution (Smithsonian) under programs of the federal government for the year ended September 30, 2018. The schedules present only a selected portion of the operations of Smithsonian, and are not intended to, and do not, present the financial position, changes in net assets, or cash flows of the Smithsonian. The summary schedule on page 26 presents total expenditures by both federal agency and principal Smithsonian research location. The schedule on pages 27-35 provides more detailed award information supporting the summary schedule. The designated code column on the detailed schedule includes additional identifying information utilized by the Smithsonian to internally track and monitor federal awards.

The Smithsonian's federal awards are received either directly from the federal government or indirectly through "pass-through" organizations. Most awards received by the Smithsonian are classified within the cluster of "research and development" in the accompanying schedules of expenditures of federal awards.

The schedules do not include expenditures funded by the Smithsonian's federal appropriation, which is not subject to the Uniform Guidance.

(2) Basis of Accounting

The accompanying schedules of expenditures of federal awards were prepared using the accrual method of accounting. Such expenditures are recognized as incurred using the cost accounting principles contained in the Uniform Guidance. Under the guidance, certain types of expenditures are not allowable or are limited as to reimbursement. Expenditures include costs that can be identified with specific projects (e.g., salaries and fringe benefits, travel, and materials) plus allocations of the applicable indirect costs (e.g., grant and contract administration, general administration, operating overhead, material burden, and engineering services).

(3) Indirect Cost

The indirect cost rates applied are negotiated percentages of direct expenses. The indirect cost rate allocation bases exclude capital expenditures and other items. Indirect cost rates applied to awards for the fiscal year ended September 30, 2018 were negotiated with the cognizant federal rate agency, the Office of Naval Research. Because the Smithsonian has received a negotiated indirect cost rate, it is not eligible for and has not elected to use the 10-percent de minimus indirect cost rate under the Uniform Guidance.

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Independent Auditors' Report on Internal Control Over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance With *Government Auditing Standards*

The Office of the Inspector General, Audit and Review Committee
of the Board of Regents, and Secretary Skorton
Smithsonian Institution:

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States, the financial statements of Smithsonian Institution (Smithsonian), which comprise the statement of financial position as of September 30, 2018, and the related statements of activities and cash flows for the year then ended, and the related notes to the financial statements, and have issued our report thereon dated January 8, 2019.

Internal Control Over Financial Reporting

In planning and performing our audit of the financial statements, we considered Smithsonian'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 Smithsonian's internal control. Accordingly, we do not express an opinion on the effectiveness of Smithsonian's internal control.

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 a 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 of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. 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.

Compliance and Other Matters

As part of obtaining reasonable assurance about whether Smithsonian's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and 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*.

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Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the Smithsonian's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Smithsonian's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

KPMG LLP

Washington, District of Columbia
January 8, 2019

KPMG LLP
Suite 12000
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Washington, DC 20006

Independent Auditors' Report on Compliance for Each Major Federal Program; Report on Internal Control Over Compliance; and Report on Schedule of Expenditures of Federal Awards Required by the Uniform Guidance

The Office of the Inspector General, Audit and Review Committee of
the Board of Regents, and Secretary Skorton
Smithsonian Institution:

Report on Compliance for Each Major Federal Program

We have audited the Smithsonian Institution's (Smithsonian) compliance with the types of compliance requirements described in the *OMB Compliance Supplement* that could have a direct and material effect on each of Smithsonian's major federal programs for the year ended September 30, 2018. Smithsonian's major federal programs are identified in the summary of auditors' results section of the accompanying schedule of findings and questioned costs.

Management's Responsibility

Management is responsible for compliance with federal statutes, regulations, and the terms and conditions of its federal awards applicable to its federal programs.

Auditors' Responsibility

Our responsibility is to express an opinion on compliance for each of Smithsonian's major federal programs based on our audit of the types of compliance requirements referred to above. We conducted our audit of compliance 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 the audit requirements of Title 2 U.S. Code of Federal Regulations Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards (Uniform Guidance*). Those standards and the Uniform Guidance require that we plan and perform the audit to obtain reasonable assurance about whether noncompliance with the types of compliance requirements referred to above that could have a direct and material effect on a major federal program occurred. An audit includes examining, on a test basis, evidence about Smithsonian's compliance with those requirements and performing such other procedures as we considered necessary in the circumstances.

We believe that our audit provides a reasonable basis for our opinion on compliance for each major federal program. However, our audit does not provide a legal determination of Smithsonian's compliance.

Opinion on Each Major Federal Program

In our opinion, Smithsonian complied, in all material respects, with the types of compliance requirements referred to above that could have a direct and material effect on each of its major federal programs for the year ended September 30, 2018.

Report on Internal Control Over Compliance

Management of Smithsonian is responsible for establishing and maintaining effective internal control over compliance with the types of compliance requirements referred to above. In planning and performing our audit of compliance, we considered Smithsonian's internal control over compliance with the types of requirements that could have a direct and material effect on each major federal program to determine the auditing

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procedures that are appropriate in the circumstances for the purpose of expressing an opinion on compliance for each major federal program and to test and report on internal control over compliance in accordance with the Uniform Guidance, but not for the purpose of expressing an opinion on the effectiveness of internal control over compliance. Accordingly, we do not express an opinion on the effectiveness of Smithsonian's internal control over compliance.

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

Our consideration of internal control over compliance was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control over compliance that might be material weaknesses or significant deficiencies. We did not identify any deficiencies in internal control over compliance that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

The purpose of this report on internal control over compliance is solely to describe the scope of our testing of internal control over compliance and the results of that testing based on the requirements of the Uniform Guidance. Accordingly, this report is not suitable for any other purpose.

Report on Schedule of Expenditures of Federal Awards Required by the Uniform Guidance

We have audited the financial statements of the Smithsonian Institution as of and for the year ended September 30, 2018, and have issued our report thereon dated January 8, 2019, which contained an unmodified opinion on those financial statements. Our audit was conducted for the purpose of forming an opinion on the financial statements as a whole. The accompanying schedule of expenditures of federal awards is presented for purposes of additional analysis as required by the Uniform Guidance and is not a required part of the financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the financial statements. The information has been subjected to the auditing procedures applied in the audit of the financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the financial statements or to the financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the schedule of expenditures of federal awards is fairly stated in all material respects in relation to the financial statements as a whole.

KPMG LLP

Washington, D.C.
May 9, 2019

SMITHSONIAN INSTITUTION

Schedule of Findings and Questioned Costs

Year ended September 30, 2018

(1) Summary of Auditor's Results

A. The type of report issued on whether the financial statements were prepared in accordance with generally accepted accounting principles:	Unmodified
B. Internal control deficiencies over financial reporting disclosed by the audit of the financial statements:	
• Material weaknesses:	No
• Significant deficiencies:	None reported
C. Noncompliance which is material to the financial statements:	No
D. Internal control deficiencies over major program disclosed by the audit:	
• Material weaknesses:	No
• Significant deficiencies:	None reported
E. Type of report issued on compliance for major programs:	Unmodified
F. Any audit findings that are required to be reported in accordance with 2 CFR 200.516(a):	No
G. Major programs:	Research and Development Cluster - various CFDA numbers U.S. Postal Service – CFDA # 99.000
H. Dollar threshold used to distinguish between Type A and Type B programs:	$3,000,000
I. Auditee qualified as a low-risk auditee:	Yes

(2) Findings Relating to the Financial Statements Reported in Accordance with *Government Auditing Standards*

None

(3) Findings and Questioned Costs Relating to Federal Awards

None