CARNEGIE INSTITUTION FOR SCIENCE

Financial Statements and Schedule

June 30, 2018 and 2017

(With Independent Auditors' Report Thereon)

KPMG LLP
Suite 12000
1801 K Street, NW
Washington, DC 20006

Independent Auditors' Report

The Audit Committee
Carnegie Institution of Washington:

We have audited the accompanying financial statements of the Carnegie Institution of Washington (d/b/a Carnegie Institution for Science), which comprise the statements of financial position as of June 30, 2018 and 2017, and the related statements of activities and cash flows for the years 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 audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of 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 entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we 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 Carnegie Institution of Washington as of June 30, 2018 and 2017, and the changes in its net assets and cash flows for the years 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 Matters

Our audit was conducted for the purpose of forming an opinion on the financial statements as a whole. The supplementary information included in the accompanying schedules of expenses 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 information is fairly stated in all material respects in relation to the basic financial statements as a whole.

KPMG LLP

Washington, District of Columbia
November 12, 2018

CARNEGIE INSTITUTION FOR SCIENCE

Statements of Financial Position

June 30, 2018 and 2017

(Dollars in 000's)

Assets		**2018**	**2017**
Cash and cash equivalents	$	18,761	34,465
Contributions receivable, net (note 2)		3,848	5,040
Accounts receivable and other assets, net		7,307	6,308
Bond proceeds (note 7)		21,306	20,319
Investments (notes 3 and 14)		996,497	947,231
Property and equipment, net (notes 4 and 5)		132,309	133,422
Long term deferred asset (note 6)		59,324	58,188
Total assets	$	1,239,352	1,204,973
Liabilities and Net Assets			
Liabilities:			
Accounts payable and accrued expenses (notes 7 and 8)	$	13,706	17,671
Deferred revenue (note 5)		27,504	27,685
Bonds payable (note 7)		115,038	115,045
Accrued postretirement benefits (note 9)		24,281	25,375
Total liabilities		180,529	185,776
Net assets (notes 10 and 11):			
Unrestricted		322,559	308,316
Temporarily restricted		680,887	655,711
Permanently restricted		55,377	55,170
Total net assets		1,058,823	1,019,197
Commitments and contingencies (notes 3, 7, 9, 12, and 13)			
Total liabilities and net assets	$	1,239,352	1,204,973

See accompanying notes to financial statements.

CARNEGIE INSTITUTION FOR SCIENCE

Statements of Activities

Years ended June 30, 2018 and 2017

(Dollars in 000's)

	2018				2017			
	Unrestricted	**Temporarily restricted**	**Permanently restricted**	**Total**	**Unrestricted**	**Temporarily restricted**	**Permanently restricted**	**Total**
Revenue and support:								
External revenue:								
Grants and contracts	$ 26,907	—	—	26,907	30,378	—	—	30,378
Contributions and gifts (note 14)	1,640	5,834	207	7,681	1,273	7,560	14	8,847
Other income (note 8)	4,222	10	—	4,232	1,700	—	—	1,700
External revenue	32,769	5,844	207	38,820	33,351	7,560	14	40,925
Investment income, net (note 3)	26,285	69,380		95,665	33,834	86,638	—	120,472
Net assets released from restrictions (note 10)	50,048	(50,048)		—	50,591	(50,591)	—	—
Total revenue and support	109,102	25,176	207	134,485	117,776	43,607	14	161,397
Expenses:								
Program expenses:								
Terrestrial magnetism	9,882	—	—	9,882	9,723	—	—	9,723
Observatories	22,886	—	—	22,886	20,183	—	—	20,183
Geophysical laboratory	19,711	—	—	19,711	20,587	—	—	20,587
Embryology	12,764	—	—	12,764	10,912	—	—	10,912
Plant biology	10,118	—	—	10,118	11,330	—	—	11,330
Global ecology	6,944	—	—	6,944	7,279	—	—	7,279
Other programs	849	—	—	849	648	—	—	648
Total program expenses	83,154	—	—	83,154	80,662	—	—	80,662
Administrative and general expenses	13,478	—	—	13,478	21,069	—	—	21,069
Total expenses	96,632	—	—	96,632	101,731	—	—	101,731
Change in net assets before pension-related changes other than net periodic postretirement benefit cost	12,470	25,176	207	37,853	16,045	43,607	14	59,666
Pension-related changes other than net periodic postretirement benefit cost (note 9)	1,773	—	—	1,773	3,345	—	—	3,345
Change in net assets	14,243	25,176	207	39,626	19,390	43,607	14	63,011
Net assets at beginning of year	308,316	655,711	55,170	1,019,197	288,926	612,104	55,156	956,186
Net assets at end of year	$ 322,559	680,887	55,377	1,058,823	308,316	655,711	55,170	1,019,197

See accompanying notes to financial statements.

CARNEGIE INSTITUTION FOR SCIENCE

Statements of Cash Flows

Years ended June 30, 2018 and 2017

(Dollars in 000's)

		2018	2017
Cash flows from operating activities:			
Change in net assets	$	39,626	63,011
Adjustments to reconcile change in net assets to net cash used in operating activities:			
Depreciation		9,908	10,174
Provision for allowance for uncollectible accounts		73	(420)
Net (gains) losses on investments and bond proceeds		(89,311)	(93,746)
Net losses (gains) on interest rate and commodity swaps		(120)	932
Net loss on disposal of property		97	1,577
Contributions of stock		(148)	(24)
Amortization of bond issuance costs, premium, and discount		(7)	(7)
Contributions and investment income restricted for long-term investment in endowment		(207)	(14)
Pension change other than net periodic benefit cost		1,773	3,345
(Increase) decrease in assets:			
Contributions and accounts receivable		132	1,324
Accrued investment income		(14)	(3)
Long-term deferred asset		(1,136)	(1,511)
Increase (decrease) in liabilities:			
Accounts payable and accrued expenses		(3,844)	8,534
Deferred revenue		(181)	(1,244)
Accrued postretirement benefits		(2,867)	(5,644)
Net cash used in operating activities		(46,226)	(13,716)
Cash flows from investing activities:			
Acquisition of property and equipment		(1,907)	(3,669)
Construction of facilities and equipment		(6,986)	(7,682)
Investments purchased		(403,835)	(621,137)
Proceeds from investments sold or matured		443,043	651,130
Net cash provided by investing activities		30,315	18,642
Cash flows from financing activity:			
Proceeds from contributions and investment income restricted for:			
Investment in endowment		207	14
Net increase in cash and cash equivalents		(15,704)	4,940
Cash and cash equivalents at beginning of year		34,465	29,525
Cash and cash equivalents at end of year	$	18,761	34,465
Supplementary cash flow information:			
Cash paid for interest	$	5,336	5,197

See accompanying notes to financial statements.

(1) Organization and Summary of Significant Accounting Policies

(a) Organization

The Carnegie Institution of Washington, doing business as Carnegie Institution for Science, (Carnegie) conducts advanced research and training in the sciences. Carnegie carries out its scientific work in six research centers located throughout the United States and at an observatory in Chile. The centers are the Departments of Embryology, Plant Biology, Global Ecology, Terrestrial Magnetism, the Geophysical Laboratory, and the Observatories.

For the years ended June 30, 2018 and 2017, Carnegie had investment income, including net unrealized and realized gains of $95.7 million and $120.5 million, respectively. Carnegie's other sources of income are primarily from gifts and federal grants and contracts.

(b) Basis of Accounting and Presentation

The financial statements are prepared on the accrual basis of accounting in accordance with U.S. general accepted accounting principles.

(c) Investments and Cash Equivalents

Carnegie's common stock and equity investments are reported at fair value based on quoted market prices, or with respect to commingled funds, real estate funds, certain natural resources funds, absolute return funds, and private equity funds, at estimated net asset values (NAV), as a practical expedient for fair value, provided by the general partners of limited partnerships or other external investment managers. These estimated values are reviewed and evaluated by Carnegie. Due to the inherent uncertainties of these estimates, these values may differ from the values that would have been reported had a ready market for such investments existed.

All investments are exposed to various risks, such as interest rate, market, and credit risks. Due to the level of risk associated with certain investment securities, it is at least reasonably possible that changes in the values of investment securities will occur in the near term and that such changes could materially affect the amounts reported in the financial statements. All changes in fair value are recognized in the statements of activities.

Carnegie considers all highly liquid debt instruments purchased with original maturities of 90 days or less to be cash equivalents. Money market and other highly liquid instruments held by investment managers are reported as investments and bond proceeds.

(d) Income Taxes

Carnegie has been recognized by the Internal Revenue Service as exempt from federal income tax under Section 501(c)(3) of the Internal Revenue Code (the Code) except for amounts from unrelated business income. Carnegie is also an educational institution within the meaning of Section 170(b)(1)(A)(ii) of the Code. The Internal Revenue Service has classified Carnegie as other than a private foundation, as defined in Section 509(a) of the Code.

Carnegie has analyzed the tax positions taken and has concluded that as of June 30, 2018 and 2017, there are no uncertain tax positions taken or expected to be taken that would require recognition or disclosure in the financial statements.

(Continued)

(e) Fair Value of Financial Instruments

The fair value of investments in common stock and equity securities is based on quoted market prices. The fair value of investments in bond funds, commingled funds, real estate, natural resources, absolute return funds, and private equity is estimated using net asset value or its equivalent, as discussed in note 1(c).

Carnegie uses interest rate and commodity swap agreements to mitigate the risk of changes in interest rates associated with fixed interest rate indebtedness and changes in the market. Carnegie recognizes derivative financial instruments at fair value.

Financial Accounting Standards Board (FASB) Accounting Standards Codification Topic 820, *Fair Value Measurement*, establishes, among other things, a hierarchical disclosure framework, which prioritizes and ranks the level of market price observability used in measuring financial instruments at fair value. The hierarchy gives the highest priority to unadjusted quoted market prices in active markets for identical assets or liabilities (Level 1) and the lowest priority to unobservable inputs (Level 3 measurements).

Fair value measurements are categorized in one of the following three categories:

Level 1 – Pricing inputs are unadjusted quoted prices available in active markets for identical assets or liabilities.

Level 2 – Pricing inputs are quoted prices for identical assets or liabilities in markets that are not active, or inputs that are observable either directly or indirectly, for substantially the full term of the asset or liability through corroboration with observable market data.

Level 3 – Pricing inputs are unobservable for the investment and include situations where there is little, if any, market activity for the investment. The inputs into the determination of fair value require significant management judgment or estimation.

The level of a value determined for a financial instrument within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement in its entirety. Determination of what constitutes "observable" input requires judgment by Carnegie. In general, Carnegie considers observable inputs to be market data that are readily available, regularly distributed or updated, reliable and verifiable, and provided by independent sources that are actively involved in the relevant market.

(f) 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. Actual results could differ from those estimates. Carnegie makes significant estimates in measurement and reporting including fair value of investments, useful lives of property and equipment, allowances for doubtful pledges, income tax uncertainties, and other contingencies.

(Continued)

(g) Property and Equipment

Carnegie capitalizes expenditures for land, buildings and leasehold improvements, telescopes, scientific and administrative equipment, and projects in progress. Routine replacement, maintenance, and repairs are charged to expense.

Depreciation is computed on a straight-line basis, generally over the following estimated useful lives:

Buildings and telescopes	50 Years
Scientific and administrative equipment	2–10 Years, based on scientific life of equipment

Long-lived assets, such as property and equipment, are reviewed for impairment whenever events or changes in circumstances indicate that the carrying value amount of an asset may not be recoverable. No impairments were recognized in 2018 or 2017.

(h) Contributions and Net Assets

Contributions are classified based on the existence or absence of donor-imposed restrictions. Contributions are classified in categories of net assets as follows:

Unrestricted – Includes all contributions received without donor-imposed restrictions on use or time

Temporarily restricted – Includes contributions with donor-imposed restrictions as to purpose of gift and/or time period expended

Permanently restricted – Generally includes endowment gifts in which donors stipulated that the corpus be invested in perpetuity. Only the investment income generated from endowments may be spent. Certain endowments require that a portion of the investment income be reinvested in perpetuity.

Contributions include unconditional promises to give. In instances where such promises are to be received after one year or more from the date of the gift, they are recorded at a discounted amount at an appropriate risk-adjusted rate commensurate with the expected collection period. Amortization of the discount is recorded as additional contribution revenue.

Expirations of temporary restrictions on net assets (i.e., the donor stipulated purpose has been fulfilled or the stipulated time period has elapsed) are reported as releases of restrictions in the statements of activities.

Gifts of long-lived assets, such as buildings or equipment, are considered unrestricted when placed in service unless restricted by the donor. Cash gifts restricted for investment in long-lived assets are released from restriction when the asset is acquired or as costs are incurred for asset construction.

(i) Grants

Carnegie records revenue on grants from federal agencies only to the extent that reimbursable expenses are incurred. This revenue is treated as receivables until the cash drawdown is completed at the end of each month. Funds received in excess of reimbursable expenses are recorded as deferred revenue, and expenses in excess of funds received are recorded as accounts receivable. Reimbursement of indirect costs may be based on provisional rates if final rates are not received. These provisional rates are subject to subsequent audit by Carnegie's federal cognizant agency, the Department of Energy.

(j) Retirement Benefits

Carnegie has a noncontributory, defined contribution, money-purchase retirement plan in which all U.S. personnel are eligible to participate. After one year of participation, an individual's benefits are fully vested. The plan has been funded through individually owned annuities issued by Teachers' Insurance and Annuity Association and College Retirement Equities Fund.

Carnegie also provides postretirement medical benefits to all eligible employees (retirees as of that date were grandfathered) who were age 50 or older and employed as of July 1, 2016, retire after age 55 and have at least 10 years of service. Employees under age 40 on July 1, 2016 and who meet the Rule of 75 (age plus years of service equal to at least 75) on or after age 55 may qualify for retiree health. Employees hired on or after July 1, 2016, must meet the Rule of 75 on or after age 60.

(k) Allocation of Costs

The costs of providing programs and supporting services have been summarized in the statements of activities. Most expenses are directly charged to the respective program or supporting activity. Certain costs have been allocated among the programs based upon management's estimate of each program's share of the allocated costs. Fundraising expenses of $2.7 million and $1.8 million for the years ended June 30, 2018 and 2017, respectively, have been included in administrative and general expenses in the accompanying statements of activities.

(l) New Accounting Standards

In May 2014, FASB issued ASU 2014-09, *Revenue from Contracts with Customers (Topic 606)* which requires an entity to recognize revenue when the entity transfers promised goods and services to the customer in an amount that reflects the consideration an entity expect to receive in exchange for the goods and services. The guidance will be effective for Carnegie in the year ending June 30, 2019.

In February 2016, FASB issued ASU 2016-02, *Leases*, which will impact recognition of leased assets and leased liabilities. The guidance will be effective for Carnegie in the year ending June 30, 2020.

In August 2016, FASB issued ASU 2016-14, *Presentation of Financial Statement of Not-for-Profit Entities*, which will impact presentation of the net asset classes on the statement of the financial position and the statement of activities and require enhanced disclosures related to the net assets and liquidity. The guidance will be effective for Carnegie in the year ending June 30, 2019.

In June 2018, FASB issued ASU 2018-08: *Clarifying the Scope and the Accounting Guidance for Contributions Received and Contributions Made*, which refined existing guidance to clarify the scope of contribution accounting. The guidance will be effective for Carnegie in the year ending June 30, 2019.

Carnegie is currently in the process of evaluating the impact of adoption of these recently issued accounting standards on its financial statements.

(2) Contributions Receivable

Contributions receivable are summarized as follows as of June 30, 2018 and 2017 (in thousands):

		2018	2017
Unconditional promises expected to be collected in:			
Less than one year	$	4,079	3,088
One to five years		363	2,483
		4,442	5,571
Less:			
Allowance for uncollectible amounts		(489)	(420)
Discount to present value		(105)	(111)
	$	3,848	5,040

Contributions receivable as of June 30, 2018 and 2017 were discounted based on the estimated risk-adjusted rate of return on the pledge date at rates ranging from 0.98% to 2.63%.

(3) Investments

Investments at fair value consisted of the following as of June 30, 2018 and 2017 (in thousands):

		2018	2017
Time deposits and money market funds	$	2,023	4,149
U.S. government bond fund		55,582	45,095
Common stock – domestic		104,447	113,225
Domestic equity commingled funds		114,875	112,793
International equity commingled funds		233,115	224,445
Real estate funds		99,469	99,128
Natural resources funds		77,881	71,163
Absolute return funds		259,074	227,453
Private equity funds		50,031	49,780
	$	996,497	947,231

Investment income, net consisted of the following for the years ended June 30, 2018 and 2017 (in thousands):

	2018	2017
Interest and dividends	$ 10,299	12,198
Net realized gains	42,568	95,642
Net unrealized gains	46,932	15,414
Investment management expenses	(4,134)	(2,782)
	$ 95,665	120,472

The following table represents investments that are measured at fair value on a recurring basis as of June 30, 2018 (in thousands):

	June 30 2018	Level 1	Level 2	Level 3	NAV (1)
Time deposits and money market funds	$ 2,023	2,023	—	—	—
U.S. government bond funds	55,582	5,752	49,830	—	—
Common stock – domestic	104,447	104,033	—	414	—
Domestic equity commingled funds	114,875	43,765	—	—	71,110
International equity commingled funds	233,115	—	—	—	233,115
Real estate funds	99,469	—	—	2,045	97,424
Natural resources funds	77,881	—	—	50,320	27,561
Absolute return funds	259,074	—	—	—	259,074
Private equity funds	50,031	—	—	—	50,031
	$ 996,497	155,573	49,830	52,779	738,315

The following table represents investments that are measured at fair value on a recurring basis as of June 30, 2017 (in thousands):

	June 30 2017	Level 1	Level 2	Level 3	NAV (1)
Time deposits and money market funds	$ 4,149	4,149	—	—	—
U.S. government bond funds	45,095	4,893	40,202	—	—
Common stock – domestic	113,225	112,811	—	414	—
Domestic equity commingled funds	112,793	48,975	—	—	63,818
International equity commingled funds	224,445	30,460	—	—	193,985
Real estate funds	99,128	—	—	7,756	91,372
Natural resources funds	71,163	—	—	49,238	21,925
Absolute return funds	227,453	—	—	—	227,453
Private equity funds	49,780	—	—	—	49,780
	$ 947,231	201,288	40,202	57,408	648,333

(1) Certain investments are measured at fair value using NAV as a practical expedient for fair value and have not been classified in the fair value hierarchy. The NAV amounts have been presented to permit reconciliation of the fair value hierarchy to the amounts presented in the statements of financial position.

The following table summarizes the nature and risk of Carnegie's investments in funds, which are valued based on NAV as a practical expedient for fair value as of June 30, 2018 and 2017 (in thousands):

		Fair value		2018 Unfunded	Redemption
		2018	2017	commitments	frequency
Domestic equity commingled fund (a)	$	71,110	63,818	15,027	Biennial
International equity commingled funds (b)		233,115	193,985	—	Monthly
Real estate funds (c)		97,424	91,372	44,136	Illiquid
Natural resources funds (d)		27,561	21,925	7,605	Illiquid
Absolute return funds (e)		259,074	227,453	12,750	Quarterly, annual, biennial
Private equity funds (f)		50,031	49,780	25,560	Illiquid
	$	738,315	648,333	105,078	

(a) This class comprises a single fund that invests in common stocks of biotechnology companies. This fund seeks to produce returns that mirror or exceed various benchmarks established for comparable portfolios. The notice period is 90 days and redemptions can me made once every two years at the end of the calendar year.

(b) This class comprises five international partnerships that invest in public equity markets internationally and one institutional mutual fund that mirrors an emerging markets index. These funds seek to produce returns that mirror or exceed various benchmarks established for comparable portfolios. The majority of Carnegie's capital in this category can be redeemed on a monthly basis or more frequently. The notice period is 30 days or less.

(c) This class includes several real estate funds that invest primarily in U.S. commercial real estate. One fund targets commercial, residential, and industrial real estate in Europe. Investments under this category cannot be redeemed. Instead, distributions are made from operating proceeds on a periodic basis, typically monthly or quarterly. Proceeds from assets sold are generally distributed immediately. It is estimated that the underlying assets of these funds will be liquidated over the next one to ten years.

(d) This class includes funds that invest primarily in timber and oil and gas assets. The investment strategy is to acquire, operate, develop, and improve oil and gas and timber producing assets. Investments under this category cannot be redeemed. Instead, distributions are made from operating proceeds on a periodic basis, typically quarterly. Proceeds from assets sold may be distributed immediately. It is

estimated that the underlying assets of these funds will be liquidated over the next two to fourteen years.

(e) This class comprises several separate funds, and include partnerships that invest in publicly traded equities, fixed income securities; distressed fixed income securities; value investments, credit investments, event-driven situations, real estate, and distressed credit investments; and distressed credit securities and event-driven situations. In general, these funds seek to produce positive absolute returns that do not necessarily correlate with the public markets. The majority of Carnegie's capital in this category can be redeemed on an annual basis; in some cases, redemptions can occur within a year, with a minimum of typically 90 days' notice. Less than one percent is invested in a partnership where, under the current terms, funds are in liquidation and cannot be withdrawn. The underlying assets are expected to be distributed over the next couple of years.

(f) This class comprises five separate managers and ten separate private equity funds that invest primarily in leveraged buyouts, venture capital, emerging growth companies, corporate finance, and various niche strategies. Private equity investment transactions may involve acquisitions, leveraged buyouts, reorganizations, privatizations, restructurings, and spin-offs. Investments under this category cannot be redeemed. Such distributions are made on a periodic basis, typically quarterly. It is estimated that the underlying assets of these various funds will be liquidated over the next one to twelve years.

Level 3 Investments

The following table presents Carnegie's activity for investments measured at fair value on a recurring basis using significant unobservable inputs (Level 3) for the years ended June 30, 2018 and 2017 (in thousands):

	Common stock domestic	Real estate funds	Natural resources funds	Total
Balance at June 30, 2016	$ 414	8,351	40,741	49,506
Total realized gains	—	592	4,405	4,997
Total unrealized losses	—	(288)	(440)	(728)
Purchases	—	—	10,522	10,522
Distributions	—	(899)	(5,990)	(6,889)
Balance at June 30, 2017	414	7,756	49,238	57,408
Total realized gains	—	—	785	785
Total unrealized (losses) gains	—	(160)	2,060	1,900
Transfers into NAV	—	(5,551)	—	(5,551)
Purchases	—	—	2,459	2,459
Distributions	—	—	(4,222)	(4,222)
Balance at June 30, 2018	$ 414	2,045	50,320	52,779

There was one fund that transferred out of Level 3 during the year ended June 30, 2018 and no funds transferred between levels during the year ending June 30, 2017.

Level 3 investments are valued by investment managers using common valuation techniques. Carnegie reviews these valuation methods and evaluates the appropriateness of these valuations each year. Real estate funds are valued by investment managers based on appraised value of the properties. Real estate investment managers can use estimated values in the absence of external appraisals. Natural resource funds are primarily oil and gas funds. The fair value of these funds has been estimated using an established forward pricing curve beyond the first two years of production. The inputs used in the forward pricing curve model include the following as of June 30, 2018 and 2017:

Input	2018 Range	2017 Range
Forward prices for oil/natural gas (NYMEX)	$71.87 / $2.96	$46.62/$3.10
	$56.81/ $2.90 *	$48.12-54.24/$2.89-3.08*
Discount rate	12%	12%

* Average of remaining years pricing

Carnegie has unfunded commitments related to these Level 3 investments of approximately $21.7 million as of June 30, 2018.

(4) Property and Equipment

Property and equipment consisted of the following as of June 30, 2018 and 2017 (in thousands):

	2018	2017
Buildings and improvements	$ 94,378	88,283
Scientific equipment	79,441	76,590
Telescopes	93,970	93,970
Construction in progress	3,980	7,062
Administrative equipment	5,662	5,007
Leased equipment	394	353
Land	817	817
Art	81	81
	278,723	272,163
Accumulated depreciation	(146,414)	(138,741)
	$ 132,309	133,422

Construction in progress consists of $2.6 million and $2.0 million of scientific equipment and $1.4 million and $5.0 million for building improvements as of June 30, 2018 and June 30, 2017, respectively.

As of June 30, 2018 and 2017, approximately $55.6 million and $57.8 million, respectively, of property and equipment, net of accumulated depreciation, was located in Las Campanas, Chile.

(5) Magellan Consortium

During the year ended June 30, 1998, Carnegie entered into an agreement (Magellan Agreement) with four universities establishing a consortium to build and operate the Magellan telescopes. The two Magellan telescopes are located on Manqui Peak, Las Campanas in Chile. The first telescope, with a cost of approximately $41.7 million, was placed in service during 2001. The other, with a cost of approximately $30.1 million, was placed in service in 2003.

The university members of the consortium, by contribution to the construction and operating costs of Magellan, acquire rights of access and oversight as described in the Magellan Agreement. Total contributions by the university members for construction, which amounted to $36.0 million, covered approximately 50% of the total construction costs. These monies were used by Carnegie to finance part of the Magellan Telescopes' construction costs. The contributions were recorded as deferred revenue and are being recognized ratably as income over the remaining estimated useful lives of the telescopes. As of June 30, 2018 and 2017, the deferred revenue for the consortium totaled $22.7 million and $23.4 million, respectively.

(6) Long term deferred asset

Carnegie is a founder and initial contributor to the Giant Magellan Telescope (GMT) project, which is managed by the Giant Magellan Telescope Organization Corporation (GMTO) that includes institutions from the United States, Australia, and Korea. The GMTO is a nonprofit organization incorporated in 2007 for the purpose of developing and building a state-of-the-art, next-generation, extremely large telescope. Contributors to the GMT project acquire rights of access to the telescope upon completion, as described in the Founders' Agreement dated March 20, 2009. Beginning in fiscal year 2010, Carnegie began to capitalize cash contributions to the GMTO, primarily received through fundraising efforts, as a deferred long term asset. The asset will be amortized over the expected 50 year life of the telescope beginning at the time it is placed into service. Carnegie's cash contributions to GMTO in fiscal years 2018 and 2017 were $1.1 million and $1.5 million, respectively. The deferred long term asset value was $59.3 million and $58.1 million at June 30, 2018 and 2017, respectively.

(7) Debt

(a) Bonds Payable

Bonds payable consisted of the following as of June 30, 2018 and 2017 (in thousands):

		June 30,	
		2018	2017
Maryland Health and Higher Education Facilities Authority (MHHEFA) 2010 Revenue Bonds	$	30,600	30,600
California Educational Facilities Authority (CEFA) 2010 Revenue Bonds		34,500	34,500
2014 Taxable bonds		50,000	50,000
Bond issue cost		(62)	(55)
	$	115,038	115,045

On February 4, 2010, MHHEFA issued unsecured $30.6 million of fixed rate, tax-exempt revenue bonds on behalf of Carnegie. The structure of the bonds is two term bonds, maturing in 2037 and 2040. The bond due July 1, 2037 bears interest at a fixed rate of 4.25% with sinking fund redemptions of $6,120,000 on July 1, 2036 and $6,115,000 on July 1, 2037. The bond due July 1, 2040 bears interest at a fixed rate of 4.50% with sinking fund redemptions of $6,115,000 on each of July 1, 2038, 2039, and 2040. The bonds are subject to redemption and purchase prior to maturity, beginning on July 1, 2020, at the option of MHHEFA upon the direction of Carnegie. There are no financial covenants or stand-by credit facilities associated with the bonds.

On March 24, 2010, CEFA issued unsecured fixed-rate, tax-exempt revenue bonds with a par value of $34.5 million on behalf of Carnegie. The structure of the 2010 CEFA bond is a single, fixed-rate bond, maturing in 2040, with a par value of $34.5 million. The bond bears interest at a fixed rate of 5.00% with sinking fund redemptions of $6,905,000 on each July 1, 2036 through 2040. The 2010 California bonds are subject to redemption and purchase prior to maturity, beginning on July 1, 2020, at the option of CEFA upon the direction of Carnegie. There are no financial covenants or stand-by credit facilities associated with the bonds.

On May 15, 2014, Carnegie issued unsecured 2014 Series fixed rate taxable bond with a par value of $50 million, maturing 2054. Proceeds were used to finance a portion of the GMT project (note 6), and other capital projects and operations in support of Carnegie's scientific mission. The bond bears interest at a fixed rate of 4.241% with sinking fund redemptions of $10,000,000 on each July 1, 2050 through 2054. The Series 2014 bonds are subject to redemption prior to maturity in whole or in part, on any date, at the option of the issuer. There are no financial covenants or stand-by credit facilities associated with the bonds.

The interest expense aggregated $5.2 million for the years ended June 30, 2018 and 2017.

(b) Line of Credit

In fiscal year 2017, Carnegie entered into an unsecured revolving credit facility with a maximum principal amount of $12 million from a commercial bank. The line expires on May 31, 2019 and is subject to covenants including a provision to reduce outstanding principal to zero for 30 consecutive days. Borrowings under the facility bear interest at a floating London Interbank Offered Rate (LIBOR) plus a credit spread of 0.59%. There were no amounts outstanding under the line of credit as of June 30, 2018 and $6 million was outstanding as of June 30, 2017.

(c) Note Payable

Carnegie entered into a secured, 3 year term loan for $4.0 million in February 2018 from a commercial bank. The interest rate on the loan is 3.42% and Carnegie pays monthly installments of $117,077. The remaining liability of the loan is $3.57 million as of June 30, 2018, which is included in accounts payable and accrued expenses.

(8) Interest Rate and Commodity Swap Agreements

The fair value of derivative instruments held as of June 30, 2018 and 2017 and the change in the fair value for 2018 and 2017 is summarized as follows (in thousands):

		June 30,		Gain (loss) in fair value	
		2018	2017	2018	2017
MHHEFA 2010 – interest rate swaps – liabilities	$	674	738	64	(428)
CEFA 2010 – interest rate swaps – liabilities		619	674	56	(504)
	$	1,293	1,412	120	(932)

Swap liabilites are included in accounts payable and accrued expenses. Gain (loss) in fair value is included in other income.

On February 11, 2010, Carnegie entered into a basis swap with Barclays Capital. Under this agreement, Barclays Capital pays Carnegie 68.08% of three-month LIBOR and Carnegie pays Barclays Capital the Securities Industry and Financial Markets Association Benchmark (SIFMA) minus 0.08% on a notional amount of $22.9 million, which matches the amortization structure of the 2010 MHHEFA bonds (note 7(a)). Carnegie may terminate and cash settle this transaction upon meeting a three business day notice requirement, with both parties obligated to pay any amounts owed on the termination date.

In addition to this basis swap, on February 26, 2010, Carnegie entered into a fixed to floating interest rate swap where Carnegie receives 3.69% and pays SIFMA on a notional amount of $7.6 million. Notional matches the amortization structure of the 2010 bonds (note 7(a)). Carnegie may terminate and cash settle the transaction upon meeting a three business day notice requirement and Barclays Capital owns the right to cancel the swap with Carnegie after ten years and upon meeting a 30-calendar day notice requirement.

On March 17, 2010, Carnegie entered into a basis swap with Barclays Capital. Under this agreement, Barclays Capital pays Carnegie 68.00% of three-month LIBOR and Carnegie pays Barclays Capital SIFMA minus 0.11% on a notional amount of $25.9 million, which matches the amortization structure of the 2010 bonds (note 7(b)). Carnegie may terminate and cash settle this transaction upon meeting a three business day notice requirement, with both parties obligated to pay any amounts owed on the termination date.

In addition to this basis swap, on March 17, 2010, Carnegie entered into a fixed to floating interest rate swap where Carnegie receives 3.74% and pays SIFMA on a notional amount of $8.6 million. This transaction matches the amortization structure of the 2010 bonds (note 7(b)). Carnegie may terminate and cash settle the transaction upon meeting a three business day notice requirement and Barclays Capital owns the right to cancel the swap with Carnegie after ten years and upon meeting a 30-calendar day notice requirement.

(9) Employee Benefit Plans

(a) Retirement Plan

Contributions made by Carnegie, described in note 1(j), totaled approximately $5.1 million for the years ended June 30, 2018 and 2017, respectively.

(b) Postretirement Benefits Plan

Cash payments made by Carnegie for the postretirement medical benefits, as detailed in note 1(k), totaled $1.3 million and $1.0 million for the years ended June 30, 2018 and 2017 respectively.

The expense for postretirement benefits for the years ended June 30, 2018 and 2017 consists of the following (in thousands):

		2018	2017
Service cost – benefits earned during the year	$	981	1,077
Interest cost on projected benefit obligation		1,021	1,024
Amortization of prior services costs		(18)	(18)
Unrecognized net (gain)		(25)	—
Postretirement benefit expense	$	1,959	2,083

The 2018 postretirement benefits expense was approximately $0.7 million more than the cash payments of $1.3 million and the 2017 postretirement benefit expense was approximately $1.1 million more than the cash payments of $1.0 million. The postretirement benefit expense was allocated among program and supporting services expenses in the accompanying statements of activities.

The reconciliation of the plan's funded status to amounts recognized in the financial statements as of June 30, 2018 and 2017 follows (in thousands):

		2018	2017
Change in benefit obligation:			
Benefit obligation at beginning of year	$	25,375	27,674
Service cost		981	1,077
Interest cost		1,021	1,024
Actuarial gain		(1,816)	(3,363)
Contributions (net of retiree contributions)		(1,280)	(1,037)
Benefit obligation at end of year		24,281	25,375
Change in plan assets:			
Fair value of plan assets at beginning of year		—	—
Contributions to the plan		1,402	1,252
Benefits paid		(1,402)	(1,252)
Funded status of the plan	$	(24,281)	(25,375)

Pension related changes other than net periodic postretirement benefit cost consisted of the following as of June 30, 2018 and 2017 (in thousands):

		2018	2017
Unrecognized net actuarial gain	$	1,816	3,363
Unrecognized prior service costs		(18)	(18)
Amortization of net (gain)		(25)	—
	$	1,773	3,345

The unrecognized net loss and prior service costs that have not been recognized as a component of net periodic postretirement benefit cost as of June 30, 2018 and 2017 are as follows (in thousands):

		2018	2017
Unrecognized net actuarial (loss)	$	(4,675)	(2,884)
Unrecognized prior service costs		(77)	(95)
	$	(4,752)	(2,979)

The present value of the benefit obligation as of June 30, 2018 and 2017 was determined using an assumed discount rate of 4.45% and 4.09%, respectively. The present value of the net periodic postretirement benefit cost for the years ended June 30, 2018 and 2017 was determined using an assumed discount rate of 4.09% and 3.75%, respectively. Carnegie's policy is to fund postretirement benefits as claims and administrative fees are paid.

For measurement purposes, a 7%, annual rate of increase in medical claims was assumed for 2018; the rate of increase was assumed to decrease at 0.34% per year, eventually reaching 5% in 2024. The healthcare cost trend rate assumption has a significant effect on the amounts reported. A one-percentage point change in assumed annual healthcare cost trend rate would have the following effects (in thousands):

		One-percentage point increase	One-percentage point decrease
Effect on total of service and interest cost components	$	497	(371)
Effect on postretirement benefit obligation		4,285	(3,379)

The measurement date used to determine postretirement benefit obligations is June 30.

Carnegie expects to contribute approximately $0.8 million to its postretirement benefit plan during the year ending June 30, 2019.

The following benefit payments (net of retiree contributions), which reflect expected future service, are expected to be paid in future years ending June 30 (in thousands):

2019	$	838
2020		888
2021		926
2022		963
2023–2028		6,778

The prescription drug benefits offered by Carnegie are determined to not be actuarially equivalent to Medicare Plan D, and the effects of the Medicare Prescription Drug Improvement and Modernization Act, excluding the subsidy, do not have a significant impact on the per capita claims cost.

(10) Net Assets

(a) Unrestricted Net Assets

Unrestricted net assets consisted of the following as of June 30, 2018 and 2017 (in thousands):

		2018	2017
Board-designated quasi-endowments	$	135,701	128,362
Undesignated		186,858	179,954
	$	322,559	308,316

(b) Temporarily Restricted Net Assets

Temporarily restricted net assets were available to support the following donor-restricted purposes as of June 30, 2018 and 2017 (in thousands):

		2018	2017
Endowment assets available for future appropriation	$	639,749	613,968
Specific research programs		29,830	28,371
Equipment acquisition and construction		826	860
Passage of time		10,482	12,512
	$	680,887	655,711

(Continued)

(c) Permanently Restricted Net Assets

Permanently restricted net assets consisted of endowed gifts, the income from which is available to support the following donor-restricted purposes as of June 30, 2018 and 2017 are as follows (in thousands):

		2018	2017
Specific research programs	$	15,496	15,289
Operation of Maxine Singer building		15,000	15,000
Equipment acquisition and construction		2,765	2,765
General support (Carnegie endowment)		22,116	22,116
	$	55,377	55,170

(d) Net Assets Released from Restrictions

During 2018 and 2017, Carnegie met donor-imposed requirements on certain gifts and, therefore, released temporarily restricted net assets as follows (in thousands):

		2018	2017
Appropriation of endowment assets	$	43,573	43,066
Specific research programs		6,441	7,510
Equipment acquisition and construction		34	15
	$	50,048	50,591

(11) Endowment

Carnegie's endowment consists of a number of individual funds established for a variety of purposes. Its endowment includes both donor-restricted endowment funds and funds designated by the Board of Trustees to function as endowments to support the purposes of Carnegie. Net assets associated with endowment funds are classified and reported based on the existence or absences of donor-imposed restrictions.

(a) Interpretation of Relevant Law

Effective January 23, 2008, the District of Columbia enacted the Uniform Management of Institutional Funds Act (UPMIFA), the provisions of which apply to endowment funds existing on or established after that date. Based on its interpretation of the provisions of UPMIFA, Carnegie is required to act prudently when making decisions to spend or accumulate donor-restricted endowment funds. As a result of this interpretation, Carnegie classifies as permanently restricted net assets the original value of gifts donated to the permanent endowment and subsequent gifts to the endowment. The remaining portion of the endowment fund that is not classified in permanently restricted net assets is classified as temporarily restricted net assets until those amounts are appropriated for expenditure by Carnegie in a manner consistent with the standard of prudence prescribed by UPMIFA.

In accordance with UPMIFA, Carnegie considers the following factors in making a determination to appropriate or accumulate donor-restricted endowment fund: the duration, preservation, and purposes of the fund; general economic conditions, including inflation; expected total return from investments; other resources; and investment and spending policies.

(b) Return Objectives and Risk Parameters

Carnegie's Board of Trustees has adopted an investment policy, including return objectives, for its endowment. This policy has identified an appropriate risk posture, stated expectations and objectives, asset allocation guidelines, and criteria to monitor and evaluate the performance results of the endowment fund's managers. Carnegie expects the endowment fund to provide a real rate of return of approximately 5% annually, while recognizing that performance in any given year may vary from this goal.

(c) Strategies Employed for Achieving Objectives

To satisfy its long-term rate of return objectives, Carnegie 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). Carnegie employs a diversified asset allocation strategy that allocates investments among four broad asset classes: common stock, alternative assets, fixed income, and cash. Common stock is subdivided into domestic and international categories. Alternative assets are subdivided into absolute return partnerships, natural resources, real estate, and private equity funds.

(d) Spending Policy and How the Investment Objectives Relate to Spending Policy

The current Board-approved spending rule requires that the amounts appropriated for spending from the endowment comprises a) 70% of the previous year's budget, adjusted for inflation and b) 30% of the most recent year-end endowment value, adjusted for debt, and then multiplied by the determined spending rate, currently 5%, and adjusted for inflation. The rule functions to smooth annual contributions from the endowment in support of the operating budget. In establishing this policy, Carnegie considered the long-term expected return on its funds. Carnegie expects the current spending and investment policies to grow its endowment to keep pace with inflation annually.

(e) Appropriation of Endowment Assets for Next Fiscal Year

For fiscal year 2019, Carnegie has appropriated $47.5 million of its endowment funds assets to be distributed for spending. In accordance with the endowment spending policy described above, this amount is calculated based upon an endowment spending rate of five percent (5%). Additional amounts required to fulfill debt obligations of Carnegie are also authorized for expenditure.

(f) Funds with Deficiencies

From time to time, the fair value of assets associated with individual donor-restricted endowment funds may fall below the level that the donor or UPMIFA requires Carnegie to retain as a fund of perpetual duration. No such deficiencies existed as of June 30, 2018 or June 30, 2017.

(g) Endowment Net Asset Classification

Net asset classification by type of endowment as of June 30, 2018 and 2017 is as follows (in thousands):

		Unrestricted	Temporarily restricted	Permanently restricted	Total
June 30, 2018:					
Donor-restricted endowment funds	$	—	639,749	55,377	695,126
Board-designated endowment funds		135,701	—	—	135,701
	$	135,701	639,749	55,377	830,827
June 30, 2017:					
Donor-restricted endowment funds	$	—	613,968	55,170	669,138
Board-designated endowment funds		128,362	—	—	128,362
	$	128,362	613,968	55,170	797,500

Changes in endowment net assets for the years ended June 30, 2018 and 2017 were as follows (in thousands):

		Unrestricted	Temporarily restricted	Permanently restricted	Total
Endowment net assets, June 30, 2016	$	118,593	570,405	55,156	744,154
Investment return:					
Investment income		1,293	6,813	—	8,106
Net gains		15,145	79,816	—	94,961
Total investment return		16,438	86,629	—	103,067
Contributions		2		14	16
Appropriation of assets for expenditures		(6,671)	(43,066)	—	(49,737)
Endowment net assets, June 30, 2017		128,362	613,968	55,170	797,500
Investment return:					
Investment income		833	4,340	—	5,173
Net gains		12,463	65,008	—	77,471
Total investment return		13,296	69,348	—	82,644
Contributions		5		207	212
Appropriation of assets for expenditures		(5,962)	(43,567)		(49,529)
Endowment net assets, June 30, 2018	$	135,701	639,749	55,377	830,827

(Continued)

(12) Lease Arrangements

Carnegie leases a portion of the land it owns in Las Campanas, Chile to other organizations. These organizations have built and operate telescopes on the land. Most of the lease arrangements are not specific and some are at no cost to the other organizations. The value of the no-cost leases could not be determined and is not considered significant, and accordingly, contributions have not been recorded in the financial statements.

Carnegie also leases a portion of one of its laboratories to another organization for an indefinite term. Rents to be received under the agreement are approximately $200,000 annually, adjusted for inflationary increases.

Carnegie leases land and buildings for various research departments. The monetary terms of the leases are considerably below fair value; however, these terms were developed considering other nonmonetary transactions between Carnegie and the related party lessors. Management believes the overall value of such agreements is immaterial.

(13) Contingencies

Costs charged to the federal government under cost-reimbursement grants and contracts are subject to government audit. Therefore, all such costs are subject to adjustment. Management believes that adjustments, if any, would not have a significant effect on the financial statements.

(14) Related Party Transactions

A trustee of Carnegie is also the chairman of an investment entity with which Carnegie has invested $45.7 million and $42.0 million in eight of its investment funds, as of June 30, 2018 and 2017, respectively. Carnegie paid approximately $1.1 million and $0.7 million in management and incentive fees and interest to these funds for the years ended June 30, 2018 and 2017, respectively.

(15) Subsequent Events

Carnegie has evaluated subsequent events through the date the financial statements were issued, November 12, 2018 and determined no adjustments or disclosures were required.

Schedule

CARNEGIE INSTITUTION FOR SCIENCE

Schedules of Expenses

Years ended June 30, 2018 and 2017

(Dollars in 000's)

	2018			2017		
	Carnegie funds	**Federal and private grants**	**Total expenses**	**Carnegie funds**	**Federal and private grants**	**Total expenses**
Personnel costs:						
Salaries	$ 28,598	10,211	38,809	26,307	11,203	37,510
Fringe benefits and payroll taxes	10,447	2,553	13,000	10,427	3,327	13,754
Total personnel costs	39,045	12,764	51,809	36,734	14,530	51,264
Fellowship grants and awards	2,292	1,925	4,217	3,168	2,158	5,326
Depreciation	9,908	—	9,908	10,174	—	10,174
General expenses:						
Educational and research supplies	2,861	1,508	4,369	2,266	1,632	3,898
Building maintenance and operation	3,479	723	4,202	4,016	1,746	5,762
Travel and meetings	1,784	1,364	3,148	1,763	1,550	3,313
Professional and contract services	3,127	1,464	4,591	2,665	1,346	4,011
Communications	477	61	538	387	69	456
Administrative and general	1,854	420	2,274	3,330	337	3,667
Interest	4,205	—	4,205	4,599	—	4,599
Subcontracts	—	3,548	3,548	—	5,303	5,303
Equipment	6,345	3,712	10,057	5,715	7,510	13,225
Fund-raising expense	2,632	26	2,658	1,728	41	1,769
Total general expenses	26,764	12,826	39,590	26,469	19,534	46,003
Total direct costs	78,009	27,515	105,524	76,545	36,222	112,767
Indirect costs:						
Grants and contracts	(9,201)	9,201	—	(10,048)	10,048	—
Total costs	68,808	36,716	105,524	66,497	46,270	112,767
Capitalized scientific equipment and facilities	(8,892)	—	(8,892)	(11,036)	—	(11,036)
Total expenses	$ 59,916	36,716	96,632	55,461	46,270	101,731

See accompanying independent auditors' report.