

**The Trustees of
Columbia University
in the City of New York**
Consolidated Financial Statements
June 30, 2018 and 2017



Report of Independent Auditors

To The Trustees of Columbia University in the City of New York

We have audited the accompanying consolidated financial statements of The Trustees of Columbia University in the City of New York (the "University"), which comprise the consolidated balance sheets as of June 30, 2018 and 2017 and the related consolidated statements of activities for the year ended June 30, 2018 and of cash flows for the years ended June 30, 2018 and 2017.

Management's Responsibility for the Consolidated Financial Statements

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

Auditors' Responsibility

Our responsibility is to express an opinion on the consolidated 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 consolidated financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on our judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, we consider internal control relevant to the University's preparation and fair presentation of the consolidated 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 University'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 consolidated 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 consolidated financial statements referred to above present fairly, in all material respects, the financial position of The Trustees of Columbia University in the City of New York as of June 30, 2018 and 2017, and the changes in their net assets for the year ended June 30, 2018 and their cash flows for the years ended June 30, 2018 and 2017 in accordance with accounting principles generally accepted in the United States of America.

Other Matter

We previously audited the consolidated balance sheet as of June 30, 2017, and the related consolidated statements of activities and of cash flows for the year then ended (not presented herein), and in our report dated November 8, 2017, we expressed an unmodified opinion on those consolidated financial statements. In our opinion, the information set forth in the accompanying summarized financial information as of June 30, 2017 and for the year then ended is consistent, in all material respects, with the audited consolidated financial statements from which it has been derived.

PricewaterhouseCoopers LLP

October 9, 2018

PricewaterhouseCoopers LLP, 300 Madison Avenue, New York, New York 10017

The Trustees of Columbia University in the City of New York
Consolidated Balance Sheets
At June 30, 2018 and 2017
(in thousands of dollars)

	June 2018	June 2017
Assets		
Cash and cash equivalents	\$1,006,998	\$1,145,566
Accounts receivable, net:		
Government agencies	124,545	143,855
Patient receivables	111,550	115,246
Other	321,735	320,389
Investment income receivable, net	5,384	4,029
Receivable for securities sold	112,837	8,249
Cash and securities held in trust by others	112,071	87,050
Pledges receivable, net	727,213	848,687
Student loans receivable, net	94,129	99,667
Investments, at fair value	11,194,432	10,038,376
Institutional real estate	888,559	894,395
Land, buildings, and equipment, net	4,475,642	4,345,547
Other assets	314,008	306,863
Net assets held by CPMC Fund, Inc.	34,921	35,051
Interest in perpetual trusts held by others	190,911	172,208
Total assets	\$19,714,935	\$18,565,178
Liabilities		
Accounts payable and accrued expenses	\$329,030	\$353,994
Liabilities for securities purchased	26,010	65,375
Prepaid tuition and other deferred credits	115,305	111,142
Deferred revenue	47,415	45,975
Refundable advances	111,879	101,948
Capital lease obligations	121,283	122,904
Conditional asset retirement obligations	119,249	116,272
Accrued employee benefit liabilities	342,731	325,743
Federal student loan funds	78,720	84,190
Actuarial liability for split-interest agreements	62,717	59,955
Bonds and notes payable (including bond premium and issuance costs of \$250,334 and \$199,125) (see Note 16)	2,084,285	1,955,923
Other long-term liabilities	480,967	483,215
Total liabilities	3,919,591	3,826,636
Net assets		
Unrestricted	7,192,615	6,908,365
Temporarily restricted	4,815,877	4,436,575
Permanently restricted	3,786,852	3,393,602
Total net assets	15,795,344	14,738,542
Total liabilities and net assets	\$19,714,935	\$18,565,178

See accompanying notes to the consolidated financial statements.

The Trustees of Columbia University in the City of New York
Consolidated Statements of Activities
For the Year Ended June 30, 2018, with Summarized Comparative 2017 Totals
(in thousands of dollars)

	Unrestricted	Temporarily Restricted	Permanently Restricted	June 2018	June 2017
Operating activities					
Revenues and support					
Tuition and fees	\$1,582,550			\$1,582,550	\$1,480,468
Less financial aid grants	<u>(432,690)</u>			<u>(\$432,690)</u>	<u>(395,016)</u>
Net tuition and fees	1,149,860			1,149,860	1,085,452
Government grants and contracts:					
Direct	701,731			701,731	683,176
Indirect	230,733			230,733	217,881
Private gifts, grants and contracts:					
Direct	279,280	\$341,288		620,568	555,294
Indirect	30,213			30,213	27,734
Revenue from other educational and research activities	228,462			228,462	230,608
Patient care revenue	1,235,032			1,235,032	1,199,364
Investment income and gains utilized	437,489	202,294		639,783	616,712
Sales and services of auxiliary enterprises	183,651			183,651	175,747
Other sources	342			342	286
Net assets released from restrictions	345,748	(345,748)			
Total operating revenues and support	4,822,541	197,834		5,020,375	4,792,254
Expenses					
Instruction and educational administration	1,792,465			1,792,465	1,693,396
Research	603,648			603,648	575,548
Patient care expense	1,025,611			1,025,611	969,856
Library	69,577			69,577	68,831
Operation and maintenance of plant	269,529			269,529	260,529
Institutional support	310,346			310,346	320,153
Auxiliary enterprises	157,564			157,564	143,724
Depreciation expense	278,897			278,897	271,379
Interest expense	54,878			54,878	60,838
Other	34,384			34,384	20,660
Total expenses	4,596,899			4,596,899	4,384,914
Change in net assets from operating activities	225,642	197,834		423,476	407,340
Nonoperating activities					
Endowment gifts			\$331,954	331,954	354,909
Current year realized and unrealized capital gains (losses)	274,786	506,693	(71)	781,408	1,109,569
Endowment appreciation utilized	(172,216)	(338,006)		(510,222)	(483,592)
Change in net assets held by CPMC Fund, Inc.	(148)	(41)	59	(130)	(17,118)
Change in funds held by others in perpetuity			18,703	18,703	2,762
Present value adjustment to split-interest agreements	1,048	(9,028)	892	(7,088)	8,797
Changes in pension and post retirement obligations	21,852			21,852	56,211
Other	(4,501)	1,141	209	(3,151)	18,904
Reclassification	(62,213)	20,709	41,504		
Change in net assets from nonoperating activities	58,608	181,468	393,250	633,326	1,050,442
Change in net assets	284,250	379,302	393,250	1,056,802	1,457,782
Net assets at beginning of year	6,908,365	4,436,575	3,393,602	14,738,542	13,280,760
Net assets at end of year	\$7,192,615	\$4,815,877	\$3,786,852	\$15,795,344	\$14,738,542

See accompanying notes to the consolidated financial statements.

The Trustees of Columbia University in the City of New York
Consolidated Statements of Cash Flows
For the Years Ended June 30, 2018 and 2017
(in thousands of dollars)

	June 2018	June 2017
Cash flows from operating activities		
(Includes adjustments to reconcile change in net assets to net cash provided by operating activities):		
Change in net assets	\$1,056,802	\$1,457,782
Depreciation expense	278,897	271,379
Interest on capital lease obligations and CARO	11,640	11,829
Institutional real estate depreciation	28,919	29,037
Realized and unrealized (gains) losses	(781,408)	(1,109,569)
Partnership distributions	506,183	512,261
Contributions restricted for permanent investment, plant, and split-interest agreements	(496,606)	(266,327)
Contributions other than cash	(3,461)	(52)
Present value adjustments and actuarial liability for split-interest agreements	7,088	(8,797)
Accreted interest on bonds	551	580
Change in unamortized bond premium and issuance costs	51,210	32,013
Change in fair value of net assets held by CPMC Fund, Inc.	130	17,118
Change in fair value of interest in perpetual trusts held by others	(18,703)	(2,762)
Change in operating assets and liabilities:		
Accounts receivable, net	21,660	(44,805)
Investment income receivable, net	(1,355)	(2,023)
Pledges receivable, net	121,474	(221,428)
Other assets	(8,632)	(52,125)
Accounts payable and accrued expenses	24,906	(22,940)
Prepaid tuition and other deferred credits	4,163	14,097
Deferred revenue and Refundable advances	11,371	(1,657)
Accrued employee benefit liabilities	16,988	115,617
CARO and other long-term liabilities	11,833	(12,045)
Net cash provided by operating activities	843,650	717,183
Cash flows from investing activities		
Proceeds from sales of investments	2,377,218	2,307,747
Purchases of investments	(3,420,997)	(2,679,246)
Collections from student notes	15,295	17,023
Student notes issued	(9,757)	(12,459)
Proceeds from / (Investment in) cash and securities held in trust by others	(25,021)	13,694
Purchases of institutional real estate	(24,307)	(29,632)
Purchases of plant and equipment	(450,597)	(469,793)
Net cash used by investing activities	(1,538,166)	(852,666)
Cash flows from financing activities		
Proceeds from contributions for:		
Investment in endowment	418,164	186,362
Investment in plant	51,990	73,175
Investment in split-interest agreements	26,452	6,790
Investment income on split-interest agreements	3,377	3,218
Payments on split-interest agreements	(5,347)	(4,897)
Payments on capital lease obligations	(9,819)	(10,670)
Repayment of bonds and notes payable	(248,584)	(64,049)
Proceeds from bond issuance	325,185	190,475
Net change in federal student loan funds	(5,470)	(849)
Net cash provided by financing activities	555,948	379,555
Net change in cash and cash equivalents	(138,568)	244,072
Cash and cash equivalents at beginning of year	1,145,566	901,494
Cash and cash equivalents at end of year	\$1,006,998	\$1,145,566
Supplemental disclosure of cash flow information:		
Equipment and space acquired through capital leases	\$2,768	\$5,217
Cash paid during the year for interest	\$82,481	\$78,987

See accompanying notes to the consolidated financial statements.

The Trustees of Columbia University in the City of New York
Notes to the Consolidated Financial Statements
For the Years Ended June 30, 2018 and 2017
(in thousands of dollars)

1. Organization

The Trustees of Columbia University in the City of New York (the “University”) is a private, nonsectarian, nonprofit institution of higher education whose activities are concentrated at two locations in New York City and extend around the globe. The University provides instruction through sixteen undergraduate, graduate, and professional schools. It operates a variety of research institutes and a library system to support its teaching, learning, and research activities. The University performs research, training, and other services under grants and contracts with agencies of the federal government and other sponsoring organizations. The University enrolls approximately 32,429 full-time and part-time students and employs approximately 17,196 full-time employees, including 6,223 full-time faculty members and research staff. Of these, 1,556 hold positions in the arts and sciences, 3,668 hold health science positions, and the remainder hold positions in the other professional schools.

The University is a New York nonprofit corporation recognized as tax exempt under Section 501(c)(3) of the Internal Revenue Code.

2. Columbia University Irving Medical Center

Columbia University Irving Medical Center (“CUIMC”), a division of the University, located in the Washington Heights section of northern Manhattan, is one of the largest academic medical centers in the United States. It is composed of four schools: Vagelos College of Physicians and Surgeons, Mailman School of Public Health, College of Dental Medicine, and School of Nursing.

CUIMC has three primary areas of focus: patient care, scientific research, and education. CUIMC offers a wide variety of degrees, certifications, and continuing education in health sciences. Faculty patient care services, sponsored research, tuition, endowment income, patent royalties, and gifts provide the majority of CUIMC’s revenues. Approximately 4,347 students are enrolled at CUIMC with a full-time faculty of 2,473, of whom approximately 309 are tenured. Additionally, CUIMC’s staff includes 2,726 part-time faculty instructors, 1,140 full-time and 241 part-time researchers, 190 post-doctoral research trainees, and 1,165 post-doctoral clinical trainees. Approximately 64 percent of the full-time faculty and 23 percent of the part-time faculty hold clinical appointments and have admitting privileges at New York-Presbyterian (“NYP”)/CUIMC Campus.

Patient care activities include patient visits performed by Columbia full-time faculty through its medical faculty practice plan, as well as clinical, educational and administration services provided to hospitals and other health care institutions through contractual agreements for services.

CUIMC maintains several clinical and education affiliation agreements with other organizations. The most significant affiliation agreements are with NYP, Lawrence Hospital, and Harlem Hospital. Certain faculty physicians also provide patient care and supervision of residents at NYP network hospitals and other affiliates. In addition, through interinstitutional professional service agreements and medical service agreements, CUIMC faculty provide patient care in specialty and subspecialty areas at hospitals in the tristate area and occasionally in other parts of the country and the world.

The Trustees of Columbia University in the City of New York

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(in thousands of dollars)

In fiscal 2018, the clinical faculty handled approximately 2.2 million outpatient and emergency room visits and participated in instruction and supervision of 664 University medical students and 969 residents and fellows at NYP. CUIMC physicians generated approximately 63,000 NYP hospital admissions during the year.

Payments for patient care services provided by the full-time faculty in both institutional and private office settings are derived mainly from third-party payers, including managed care companies (52 percent), Medicare (17 percent), Medicaid (15 percent), commercial insurance (6 percent), and other (1 percent). Direct patient payments comprise 9 percent of total payments.

3. Summary of Significant Accounting Policies

The significant accounting policies of the University are as follows:

Basis of Consolidation

The accompanying consolidated financial statements of the University include the accounts of all academic and administrative departments of the University. Additionally, the consolidated financial statements include the net assets and activities of the following entities, for which the University maintains managerial and financial control:

- Columbia Investment Management Company, LLC—Columbia Investment Management Company, LLC is a New York limited liability company formed by the University to manage the University's investment assets under the supervision of a Board appointed by the Trustees of the University and subject to the oversight of the Committee on Finance of the Trustees.
- Reid Hall, Inc.—Reid Hall, located in Paris, France, was donated to the University in 1964. Reid Hall, Inc., a corporation organized under New York membership corporation law as an educational and charitable organization, operates Reid Hall to promote, facilitate, and aid the educational, cultural, and social interests of students studying in France.
- The University holds a number of other limited liability companies, not-for-profit corporations, and international organizations, which are established to facilitate various program and research objectives.

The University provides investment custodial services and manages all of the assets of Columbia Presbyterian Medical Center Fund, Inc. ("CPMC Fund, Inc."), a not-for-profit corporation that was created to hold and receive gifts for the University and NYP. The consolidated financial statements reflect the University's interest in the net assets of CPMC Fund, Inc. as well as the assets and amounts due to NYP.

The University is also the sole corporate member of a not-for-profit practice entity, Columbia University Healthcare, Inc., and two professional corporations, Columbia Doctors of New Jersey, P.C. and Columbia Doctors of Bergen County, P.C. and as such, consolidates these entities into the University's consolidated financial statements.

All significant intercompany accounts have been eliminated in consolidation.

Accrual Basis

The consolidated financial statements of the University have, in all material respects, been prepared on an accrual basis.

The Trustees of Columbia University in the City of New York
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For the Years Ended June 30, 2018 and 2017
(in thousands of dollars)

Basis of Presentation

The University maintains its accounts in accordance with the principles of fund accounting. Under this method of accounting, resources for various purposes are classified into funds that are consistent with activities or objectives specified by donors. Separate accounts are maintained for each fund.

For reporting purposes, the University prepares its consolidated financial statements in accordance with accounting principles generally accepted in the United States of America (“GAAP”) that requires resources be classified for reporting purposes based on the existence or absence of donor-imposed restrictions. This is accomplished by classification of fund balances into three categories of net assets – unrestricted, temporarily restricted, and permanently restricted. Periodically, donor redesignations may result in reclassifications of net assets. Descriptions of the three net asset categories and the type of transactions affecting each category follow.

Unrestricted—Net assets that are not subject to donor-imposed restrictions. This category includes unrestricted gifts, certain endowment income balances, certain board-designated endowment principal balances, including capital appreciation on such balances, certain plant funds, University-designated loan funds, and other unrestricted designated and undesignated current funds.

Temporarily restricted—Net assets that are subject to legal or donor-imposed stipulations that will be satisfied either by actions of the University, the passage of time, or both. These net assets include gifts donated for a particular purpose, certain other balances with donor-imposed restrictions, amounts subject to time restrictions such as funds pledged for future payment, or amounts subject to legal restrictions, such as the portion of a donor-restricted permanent endowment fund that is not classified as permanently restricted net assets, as required by the New York Prudent Management of Institutional Funds Act (“NYPMIFA”). Once the time and purpose restriction are satisfied, or have been deemed to have been satisfied, those temporarily restricted net assets are released from restrictions.

Permanently restricted—Net assets that are subject to donor-imposed stipulations that will be invested to provide a perpetual source of income to the University. Donors of these assets require the University to maintain an endowment fund in perpetuity. The University classifies as permanently restricted net assets (a) the original value of gifts donated to the permanent endowment, (b) the original value of subsequent gifts to the permanent endowment, and (c) realized and unrealized gains and losses to the permanent endowment when stipulated by the donor gift instrument.

Revenues and Expenses

Revenues are reported as increases in unrestricted net assets unless the use of those assets is limited by donor-imposed restrictions. 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 stipulation or by law.

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Notes to the Consolidated Financial Statements
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(in thousands of dollars)

Tuition and Fees and Financial Aid

Tuition and fees are derived from degree programs as well as executive and continuing education programs. Tuition and fee revenue is recognized as operating income in the period in which it is earned. Tuition and fee receipts received in advance are recorded as deferred revenue. Net tuition and fees are computed after deducting certain scholarships and fellowships awarded to students. In order to assist students in meeting tuition and other costs of attendance, the University administers a variety of federal, state, institutional, and private aid programs. Financial aid packages to students may include direct grants, loans, and employment.

Contributions and Pledges Receivable

Contributions for University operations and plant, including unconditional promises to give (“pledges”), are recognized as operating revenue in the period earned. Contributions to endowment are recognized as nonoperating revenue in the period earned. Pledges are recorded net of an allowance for uncollectable pledges. Amounts expected to be collected in future years are recorded at the present value of estimated future cash flows, net of an allowance for uncollectable pledges. The discounts on those pledges are computed using an interest rate for the year in which the promise was received and considers market and credit risk as applicable. Subsequent years’ accretion of the discount is included in contribution revenue. Conditional promises to give are not recognized as revenue until such time as the conditions are substantially met.

Patient Care Revenue and Expense

Patient care activities relate to three distinct areas: medical faculty practice plans, affiliation agreements, and medical and professional service agreements.

Patient care expenses include direct expenses associated with providing patient care services, as well as administrative functions within the University’s faculty practice organization. Patient care expense does not include rent or utilities in clinical space, as those costs are aggregated with all University space costs within “Operations and maintenance of plant”.

The University provides medical care to patients via its faculty practice through CUIMC, primarily under agreements with third-party payors. Agreements with third-party payors, including health maintenance organizations, provide payment for medical services at amounts different from rates established by the University. Medical faculty practice plan revenue is reported net of two items: (a) contractual allowances from third-party payors for services rendered and (b) estimates of uncollectible amounts. Included within the faculty practice revenues and expenses are financial arrangements associated with two physician professional corporations.

The University maintains several clinical and education affiliation agreements with other organizations. The University provides medical, professional, and supervisory staff as well as other technical assistance. Revenues and expenses from these agreements are accounted for in patient care and education categories of the operating activity in the Consolidated Statements of Activities.

Grant and Contract Income

The University receives grant and contract income from governmental and private sources. The University recognizes revenue associated with the direct costs of sponsored programs as the related costs are incurred. Recovery of facilities and administrative costs of federally sponsored programs are at reimbursement rates negotiated with the University’s cognizant agency, the Department of Health and Human Services. The University and the federal government operated under a provisional agreement that provided for facilities and administrative (F&A) cost rates under federal

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(in thousands of dollars)

grants and contracts through October 24, 2017. The provisional rates were based on the agreement that was in place through June 30, 2014. In the fall 2017, the University entered into a new agreement with the federal government which defines the rate at which the University can be reimbursed for F&A costs applicable to federal on-campus research. This agreement will remain in place until such time a new agreement is reached.

Research and Development

The University engages in numerous research and development projects, which are partially or fully sponsored by governmental and private funds. These costs are charged to operating expense as incurred. The University periodically funds and develops patents for certain technologies, then licenses the usage of these patents to companies for a specified period of time. The revenue, net of payments due to third parties, is recorded in "Revenue from other educational and research activities" in the Consolidated Statements of Activities. Costs incurred with developing and maintaining these patents are expensed as incurred.

Institutional Support

Institutional support expense includes central administrative functions and expenses that support the management of the University. This category also includes any net operating surplus or deficit of the University's benefit pool, as recoveries from units across the University may be less than or greater than benefits paid in a given year.

Cash and Cash Equivalents

Cash and cash equivalents are recorded at fair value and include several depository accounts, checking accounts, institutional money market funds, and similar temporary investments with maturities of three months or less at the date of purchase.

Investments

The University's investments, consisting primarily of publicly traded fixed income and equity securities, alternative investments, and cash held for reinvestment, are stated at fair value as of June 30, 2018 and 2017. Alternative investments include investments in absolute return strategy funds, private equity funds, and real asset funds. The management of each respective fund provides the fair value of the investment. The University reflects its share of the partnerships or corporations in the consolidated financial statements.

Fair value is defined as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. The University believes that the net asset value of its alternative investments is a reasonable estimate of fair value as of June 30, 2018 and 2017. Because alternative investment funds are not marketable, the estimated value is subject to uncertainty and, therefore, may differ from the value that would have been used had a ready market for the investment existed. Such differences could be material. The amount of gain or loss associated with these investments is reflected in the accompanying consolidated financial statements based on the University's proportionate share in the net assets of these investments.

The University's presentation in the Consolidated Statements of Cash Flows for limited liability partnerships, limited liability corporations, and other similarly structured investments is consistent with the accounting for equity method investments as it represents the underlying nature of these investments in which the University has a capital account.

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(in thousands of dollars)

The University records purchases and sales of securities on a trade-date basis. Realized gains and losses are determined on the basis of average cost of securities sold and are reflected in the Consolidated Statements of Activities. Dividend income is recorded on the ex-dividend date, and interest income is recorded on an accrual basis.

Split-Interest Agreements

The University's split-interest agreements with donors consist primarily of charitable gift annuities, pooled income funds, and irrevocable charitable remainder trusts for which the University serves as custodian and trustee. Assets are invested and payments are made to donors and/or other beneficiaries in accordance with the respective agreements. In the case of irrevocable split-interest agreements whose assets are held in trusts not administered by the University (third-party charitable trusts), the University will recognize its beneficial interest when it receives sufficient reliable information and documentation that establishes the trust's existence, the University's beneficial interest, and the value of that interest.

Contribution revenues for split-interest agreements are recognized at the dates the agreements are established net of the present value of the estimated future payments to be made to the beneficiaries, if applicable, under these agreements. The discounts on those agreements are computed using an interest rate for the year in which the contribution was received and considers market and credit risk as applicable. Assets related to these agreements are recorded in "Investments, at fair value". The liability for the present value of the estimated future payments to be made to the beneficiaries is recorded in "Actuarial liability for split-interest agreements". Adjustments to the fair value of these agreements are recorded in the Consolidated Statements of Activities under "Present value adjustment to split-interest agreements".

Institutional Real Estate

Institutional real estate consists primarily of properties proximate to the University's Morningside and Washington Heights campuses, the primary purpose of which is to house faculty, staff, and graduate students. The income earned on this investment is used primarily to finance operating expenditures. The properties are valued at cost and depreciated over useful lives ranging from twelve and one half to fifty years.

Land, Buildings, and Equipment

Land, buildings, and equipment are stated at cost net of accumulated depreciation. Depreciation is calculated on a straight-line basis over useful lives ranging from ten to one hundred years for buildings and improvements and three to twenty years for equipment, consistent with the method used for government cost reimbursement purposes. Capitalized software costs are amortized over seven years. Upon disposal of assets, the costs and accumulated depreciation are removed from the accounts, and the resulting gain or loss is included in operations.

Collections

Collections at the University include works of art, literary works, historical treasures, and artifacts that are maintained in the University's galleries, libraries, and buildings. These collections are protected and preserved for public exhibition, education, research, and the furtherance of public service and, therefore, are not recognized as assets on the Consolidated Balance Sheets. Costs associated with purchasing additions to and maintaining these collections are recorded as operating expenses in the period in which the items are acquired.

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Interest in Perpetual Trusts Held by Others

The University is the beneficiary of certain perpetual trusts administered by others. These trusts are recognized as permanently restricted contributions upon receipt of documentation evidencing that the trust has been established and a statement of its assets, and adjusted to fair value each year. The fair value of the interest in the perpetual trust is based on the University's share of the income generated by the trust, ascribed to the fair value of assets reported by the trust. Gains and losses resulting from the change in fair value of trust assets are reported as "Change in funds held by others in perpetuity" in nonoperating activity in the Consolidated Statements of Activities.

Capital Lease Obligations

Capital lease obligations are recognized for equipment and space where substantially all of the risks of ownership have been transferred to the University. The obligations extend up to seven years for equipment and up to fifty years for space.

Conditional Asset Retirement Obligations

Conditional asset retirement obligations ("CARO") are recognized for remediation or disposal of asbestos, underground storage tanks, soil, and radioactive sources and equipment as required by law. The fair value of the liability for a conditional asset retirement obligation is recognized in the period in which it occurred, provided that it can be reasonably estimated.

Other Long Term Liabilities

Other long term liabilities are obligations that extend beyond one year, or operating cycle, whichever is longer. The obligations for the medical malpractice liabilities, self-insurance reserves, the fixed payor swap agreement, and other commitments are categorized in other long term liabilities.

Use of Estimates

The preparation of consolidated financial statements in conformity with GAAP 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 consolidated 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 include valuation of investments without readily determinable public markets, estimated useful life of land, buildings and equipment, actuarially determined costs associated with split-interest agreements, pension, postemployment and postretirement benefits, contractual allowances for patient receivables, allowances for doubtful accounts, insurance obligations and conditional asset retirement obligations.

2017 Presentation

While comparative information is not required under GAAP, the University believes that this information is useful and has included comparative financial information from the consolidated financial statements for 2017. Within the Consolidated Statements of Activities, prior year presentation of restricted asset categorization has been condensed for comparative purposes. There has been no change in total by net asset class. This summarized information is not intended to be a full presentation in conformity with GAAP, which would require certain additional information. Accordingly, such information should be read in conjunction with the University's audited consolidated financial statements for the year ended June 30, 2017.

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New Authoritative Pronouncements

In May 2014, the Financial Accounting Standards Board (“FASB”) issued Accounting Standards Update (“ASU”) No. 2014-09, Revenue from Contracts with Customers (Topic 606) and Other Assets and Deferred Costs - Contracts with Customers (Subtopic 340-40). This ASU implements a single framework for revenue recognition ensuring that revenue is recognized in a manner which reflects the consideration to which the entity expects to be entitled to in exchange for goods and services. The ASU is effective for fiscal years beginning after December 15, 2017. The ASU permits two methods of adoption: retrospectively to each prior reporting period presented (full retrospective method) or retrospectively with the cumulative effect of initially applying the guidance recognized at the date of initial application (modified retrospective method). The University is evaluating method of adoption as well as the impact of the new standard on the University consolidated financial statements.

In February 2016, the FASB issued ASU No. 2017-02, Leases (Topic 842). The new ASU establishes a right-of-use (“ROU”) model that requires a lessee to record a ROU asset and a lease liability on the balance sheet for all leases with terms longer than 12 months. The ASU is effective for fiscal years beginning after December 15, 2018 with early adoption permissible. The University is evaluating the impact of the new standard on the University consolidated financial statements.

In August 2016, the FASB issued ASU 2017-14, Presentation of Financial Statements for Not-for-Profit Entities. The ASU amends the financial reporting requirements in Topic 958, Not-for-Profit Entities. Changes include revisions to the classification of net assets and expanded liquidity disclosures. The ASU is effective for fiscal years beginning after December 15, 2017 with early adoption permissible. The University is evaluating the impact of the new standard on the University consolidated financial statements.

In August 2016, the FASB issued ASU 2017-15, Classification of Certain Cash Receipts and Cash Payments. The ASU amends the financial reporting requirements in Topic 230, Statement of Cash Flows. Changes include revisions to the presentation of cash flows related to the settlement of debt instruments with coupon rates that are insignificant in relation to the effective interest rate of the borrowing and distributions received from equity method investees. The ASU is effective for fiscal years beginning after December 15, 2017 with early adoption permissible. The University is evaluating the impact of the new standard on the University consolidated financial statements.

In March 2017, the FASB issued ASU 2018-07, Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost. The ASU requires that in instances where an operating measure is included in the Consolidated Statement of Activities, the service cost component of the net periodic cost be included as a component of the operating measure and other components of net periodic costs be presented separately in the nonoperating section of the Consolidated Statement of Activities. The ASU is effective for fiscal years beginning after December 15, 2017 with early adoption permissible. The University is evaluating the impact of the new standard on the University consolidated financial statements.

In June 2018, the FASB issued ASU No. 2018-08, Not-for-Profit Entities (Topic 958), Clarifying the Scope and the Accounting Guidance for Contributions Received and Contributions Made. The ASU provides additional guidance for evaluating whether transactions should be accounted for as contributions (nonreciprocal transactions) or as exchange (reciprocal) transactions subject to other guidance and for determining whether a contribution is conditional or unconditional. The ASU is

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effective for fiscal years beginning after December 15, 2017. The University is evaluating the impact of the new standard on the University consolidated financial statements.

4. Operating Measurement

The University divides its Consolidated Statements of Activities into operating and nonoperating activities. The operating activities of the University include all income and expenses related to carrying out its educational and research mission. Operating revenues include investment income and endowment appreciation utilized to fund current operations, the largest portion of which is the distribution of funds budgeted in accordance with the endowment spending rule.

Nonoperating activities include current year realized and unrealized gains and losses on investments, including realized gain distributions from fund investments, less amounts withdrawn from endowment appreciation to fund operations. Nonoperating activities also include new gifts to permanently restricted endowments, changes in net assets held by CPMC Fund, Inc., changes in funds held by others in perpetuity, present value adjustments to split-interest agreements, changes in pension and postretirement obligations, other items, and reclassifications.

5. Patient Care Revenue

The University's affiliation agreements with area hospitals generated \$349.7 million and \$337.2 million of revenue for the years ended June 30, 2018 and 2017, respectively. As of June 30, 2018 and 2017, Accounts receivable, net - other includes \$91.4 million and \$96.0 million, respectively, relating to these agreements.

Medical faculty practice revenue is reported at the estimated net realizable amounts from patients, third-party payors, and others for services rendered. Medical faculty practice revenues are \$795.6 million and \$797.4 million for the years ended June 30, 2018 and 2017, respectively. As of June 30, 2018 and 2017, patient accounts receivable amounts to \$111.6 million and \$115.2 million, respectively. Medical service agreements generated \$25.5 million and \$22.3 million of revenue for the years ended June 30, 2018 and 2017, respectively and other patient care activities generated \$64.2 million and \$42.5 million of revenue for the years ended June 30, 2018 and 2017, respectively.

6. Long-Term Investments and Fair Value

The University values its investments in accordance with GAAP and consistent with the FASB official pronouncement on *Fair Value Measurements* for financial assets and liabilities. The pronouncement defines fair value as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. GAAP establishes a hierarchy of valuation inputs based on the extent to which the inputs are observable in the marketplace. Observable inputs reflect market data obtained from sources independent of the reporting entity. Unobservable inputs reflect the entities own assumptions about how market participants would value an asset or liability based on the best information available. Valuation techniques used to measure fair value utilize relevant observable inputs and minimize the use of unobservable inputs.

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The University follows a fair value hierarchy based on three levels of inputs, described below:

Fair value for Level 1 is based on quoted prices in active markets that the University has the ability to access for identical assets and liabilities. Market price data is generally obtained from exchange or dealer markets. The University does not adjust the quoted price for such assets and liabilities.

Fair value for Level 2 is based on quoted prices for similar instruments in active markets, quoted prices for identical or similar instruments in markets that are not active, or inputs other than quoted prices that are observable.

Fair value for Level 3 is based on valuation techniques that use significant inputs that are unobservable as they are not actively traded.

A financial instrument's categorization within the valuation hierarchy is based upon the lowest level of input that is significant to the fair value measurement. In determining the categorization of the University's investments within the fair value hierarchy, the University has considered market information including observable net asset values and the length of time until the investment will become redeemable. Investments for which fair value is measured using net asset values (NAV) as a practical expedient are excluded from the hierarchy and have been reported separately within the table below. The categorization of a financial instrument within the hierarchy is based upon the pricing transparency of that instrument and does not necessarily correspond to the University's perceived risk of that instrument.

From time to time, the University may hold direct real estate investments. These investments are categorized as Level 3 within the fair value hierarchy. Valuation for material directly held real estate investments is determined from periodic valuations prepared by independent appraisers or broker opinions.

The University holds certain investments for which fair value is determined by using the unadjusted net asset value per share (NAV) as provided by the fund management as a practical expedient. Investments categorized as NAV include the University's ownership in funds that invest in alternative assets (i.e. absolute return strategy funds, private equity funds, and real asset funds) and funds that invest in equity and fixed income strategies for which observable net asset values are not available. The value of the University's investments in these funds represents the University's ownership interest in the net asset value of the respective fund. Items classified as NAV do not have a quoted price in an active market place. As a practical expedient, the University is permitted under GAAP to estimate the fair value of an investment at the measurement date using the NAV reported by the fund manager without further adjustment, provided the NAV has been calculated in accordance with or in a manner consistent with GAAP, and provided further that the University does not expect to sell the investment at a value other than NAV. The University has various processes and controls in place to ensure investment fair value is reasonable and performs various due diligence procedures of its investments including an assessment of applicable accounting policies, a review of the valuation procedures employed, and consideration of redemption features and price transparency.

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The following tables present assets and liabilities measured at fair value and NAV at June 30, 2018 and June 30, 2017.

Assets	2018				Total
	Level 1	Level 2	Level 3	NAV	
Investments:					
Cash and cash equivalents	\$ 554,073	\$ 328,231			\$ 882,304
Global equities	1,400,143	81,788	\$ 1,520	\$ 876,462	2,359,913
Fixed income	3,203	1,078	11	287,343	291,635
Absolute return strategies	60,447	7,314		3,494,651	3,562,412
Private equity	1,340		86,055	1,972,357	2,059,752
Real assets	5,004	2,684	27,697	2,003,031	2,038,416
Investments, at fair value	<u>2,024,210</u>	<u>421,095</u>	<u>115,283</u>	<u>8,633,844</u>	<u>11,194,432</u>
Interest in perpetual trusts held by others			178,956	11,955	190,911
Total assets at fair value	<u>\$ 2,024,210</u>	<u>\$ 421,095</u>	<u>\$ 294,239</u>	<u>\$ 8,645,799</u>	<u>\$ 11,385,343</u>
Liabilities					
Swaps payable		\$ 57,107			\$ 57,107
Total liabilities at fair value		<u>\$ 57,107</u>			<u>\$ 57,107</u>

Assets	2017				Total
	Level 1	Level 2	Level 3	NAV	
Investments:					
Cash and cash equivalents	\$ 77,731	\$ 586,932			\$ 664,663
Global equities	932,083	65,023	\$ 1,726	\$ 940,126	1,938,958
Fixed income	22,677	36	30	287,639	310,382
Absolute return strategies	102,247	16,028		3,039,484	3,157,759
Private equity	21,669		92,436	1,980,967	2,095,072
Real assets	98,303	2,122	13,008	1,758,109	1,871,542
Investments, at fair value	<u>1,254,710</u>	<u>670,141</u>	<u>107,200</u>	<u>8,006,325</u>	<u>10,038,376</u>
Interest in perpetual trusts held by others			160,732	11,476	172,208
Total assets at fair value	<u>\$ 1,254,710</u>	<u>\$ 670,141</u>	<u>\$ 267,932</u>	<u>\$ 8,017,801</u>	<u>\$ 10,210,584</u>
Liabilities					
Swaps payable		\$ 71,962			\$ 71,962
Total liabilities at fair value		<u>\$ 71,962</u>			<u>\$ 71,962</u>

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Cash and cash equivalents

Cash and cash equivalents includes government securities and money market instruments and are valued at amortized cost, which approximates fair value.

Global Equities and Fixed Income

Global equities and fixed income consist of investments in publicly traded U.S. and foreign common and preferred equities, funds that invest in equity and fixed income based strategies, and cash held in separate accounts committed to these strategies. The fair value of these investments is based on quoted market prices. Investments that are listed on an exchange are valued, in general, at the last reported sale price (or, if there is no sales price, at the last reported bid price, or, in the absence of reported bid prices, at the mean between the last reported bid and asked prices thereof). Fund investments in equity and fixed income based strategies are valued in accordance with NAV provided by the investment managers of the underlying funds. If the University has valued the investment based on NAV as a practical expedient, the investment has been excluded from the fair value hierarchy and will be categorized as NAV. If the valuation does not meet the practical expedient criteria and the University has the ability to redeem from a fund up to 180 days beyond the measurement date, the investment is categorized as Level 2. If the redemption period extends beyond 180 days, the investment is categorized as Level 3.

Alternative Investments

Alternative investments include interests in absolute return strategy funds, private equity funds, and real asset funds. Private equity funds include large market, leveraged buyout, and venture capital based strategies. The University values these investments in accordance with valuations provided by the investment managers of the underlying funds. These funds may make investments in securities that are publicly traded, which are generally valued based on observable market prices, unless a restriction exists. In addition, interests in a private equity fund may be publicly traded and valued based on observable market prices.

As a general rule, managers of funds invested in alternative investments value those investments based upon the best information available for a given circumstance and may incorporate assumptions that are the investment manager's best estimates after consideration of a variety of internal and external factors. If no public market exists for the investments, the fair value is determined by the investment manager taking into consideration, among other things, the cost of the investment, prices of recent significant placements of similar investments of the same issuer, and subsequent developments concerning the companies to which the investments relate. The University's management may consider other factors in assessing the fair value of these investments. If the University has valued these alternative investments based on NAV as a practical expedient, the investment is excluded from the fair value hierarchy and will be categorized as NAV. For absolute return funds, if the valuation does not meet the practical expedient criteria and the University has the ability to redeem from an absolute return strategy fund up to 180 days beyond the measurement date, the investment is categorized as Level 2. If the redemption period extends beyond 180 days, the investment is categorized as Level 3. For private equity funds and real asset funds, if the valuation does not meet the practical expedient criteria the investments are categorized as Level 3 given that the University does not have discretion for timing of withdrawal.

The fair value of the alternative investment funds in the table above represents the amount the University would expect to receive at June 30, 2018 and 2017, if it had liquidated its investments in the funds on these dates. The University has performed due diligence around these investments and believes that the NAV of its alternative investments is a reasonable estimate of fair value as of June

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30, 2018 and 2017. Alternative investments may allocate a high percentage of their assets in specific sectors of the market in order to achieve a potentially greater investment return. As a result, the investments may be susceptible to economic, political, and regulatory developments in a particular sector of the market, positive or negative, and may experience increased volatility in net asset values.

Absolute return strategies also include separate accounts with direct investments in fixed income (which include mortgage back securities, collateralized mortgage obligations, and convertible bonds) and cash committed to these strategies. The fair value of these investments is based on the last reported bid price obtained from pricing sources or broker quotes and is categorized as Level 2.

Perpetual Trusts

The fair value of interest in perpetual trusts held by others is based on the University's share of the income generated by the trust, ascribed to the fair value of the assets reported by the trust.

Derivatives

Investment fund managers may invest in derivatives, and the value of these positions is reflected in the NAV of the respective funds. Separately, the University employs derivatives primarily to hedge its risks and to rebalance its market exposures. Derivatives used may include futures, swaps, options, and forward contracts and are reflected at fair value following the definition of Level 1 and Level 2 assets as described above. Certain derivative positions held within the endowment portfolio are subject to master netting agreements included within an International Swap and Derivatives Association, Inc. ("ISDA") master agreement with each of the counterparties.

The following positions are reflected on a net basis within Investments, at fair value on the Consolidated Balance Sheets and are summarized below.

Derivative Instruments	Notional Exposure		Gross		Net Fair Value	Collateral Posted
	Long	Short	Asset	Liability		
June 30, 2018						
Equity	\$ 284,922		\$ 15,907	\$ (7,015)	\$ 8,892	\$ 8,180
Currency*			4,580	(28,034)	(23,454)	
June 30, 2017						
Equity	\$ 478,462	\$ (21,737)	\$ 49,897	\$ (4,506)	\$ 45,391	
Commodity		(307,458)	89,301		89,301	
Currency*			3,830	(30,849)	(27,019)	

*The University held currency derivative contracts with an aggregate notional amount of \$721.6 million and \$1,620.4 million as of June 30, 2018 and 2017, respectively.

Outside of the endowment portfolio, the University entered into a fixed payor interest rate swap as described in Note 16. The estimated fair value of the agreement were liabilities of \$57.1 million and \$72.0 million at June 30, 2018 and 2017, respectively, and is included in "Swaps payable" in the preceding tables. The derivatives are reflected as a receivable or payable, as appropriate, on the Consolidated Balance Sheets. Unrealized gain or loss from derivative investments is a component of the current year realized and unrealized capital gains (losses) in the Consolidated Statements of Activities.

The methods described above may produce a fair value calculation that may not be indicative of net realizable value or reflective of future fair values. Furthermore, while the University believes its

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valuation methods are appropriate and consistent with other market participants, the use of different methodologies or assumptions to determine the fair value of certain financial instruments could result in a different estimate of fair value at the reporting date.

The following table is a rollforward of the amounts reported in the Consolidated Balance Sheets for financial instruments classified by the University within Level 3 of the fair value hierarchy defined above at June 30, 2018 and 2017.

	June 30, 2017	Transfers In/Out	Purchases	Sales	Realized gain/loss	Unrealized gain/loss	June 30, 2018
Global equities	\$ 1,726		\$ 3			\$ (209)	\$ 1,520
Fixed income	30		1	(20)			11
Private equity	92,436		25,941	(27,364)	15,213	(20,171)	86,055
Real assets	13,008	(141)	12,281	(1,474)		4,023	27,697
Total level 3 investments	\$ 107,200	\$ (141)	\$ 38,226	\$ (28,858)	\$ 15,213	\$ (16,357)	\$ 115,283

	June 30, 2017	Transfers In/Out	Disburse- ments	Realized/ Unrealized gain/loss, net	June 30, 2018
Interest in perpetual trusts held by others	\$ 160,732	\$ (199)	\$ (7,101)	\$ 25,524	\$ 178,956

	June 30, 2016	Transfers In/Out	Purchases	Sales	Realized gain/loss	Unrealized gain/loss	June 30, 2017
Global equities	\$ 1,047	\$ 2	\$ 700			\$ (23)	\$ 1,726
Fixed income	51			(21)			30
Private equity	79,311		2,875	(5,291)	1,219	14,322	92,436
Real assets	13,462		1,474	(2,148)	(8,762)	8,982	13,008
Total level 3 investments	\$ 93,871	\$ 2	\$ 5,049	\$ (7,460)	\$ (7,543)	\$ 23,281	\$ 107,200

	June 30, 2016	Transfers In/Out	Disburse- ments	Realized/ Unrealized gain/loss, net	June 30, 2017
Interest in perpetual trusts held by others	\$ 158,704	\$ (7,206)	\$ (7,021)	\$ 16,255	\$ 160,732

All net realized and unrealized gains (losses) in the tables above are reflected in the Consolidated Statements of Activities. Net unrealized gains (losses) relate to those financial instruments held by the University at June 30, 2018 and 2017. The University's policy is to recognize transfers in and transfers out as of the end of the period. Transfers between Level 3 and Level 1, Level 3 and Level 2 as well as between Level 3 and NAV are reported at gross, due to the criteria described above. There were no significant transfers between Level 1 and Level 2 for the years ended June 30, 2018 and 2017.

Certain investments in global equities and alternative investments may be subject to restrictions that i) limit the University's ability to withdraw capital after such investment and ii) limit the amount that may be withdrawn as of a given redemption date. The redemption terms of the University's

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investments in absolute return strategy funds vary from daily to triennial, with a portion of these investments designated as “illiquid” in “sidepockets” and that portion may not be available for withdrawal until liquidated by the investing fund and redemption notice periods range from 0 days to 180 days. Generally, as noted above, the University has no discretion as to withdrawal of its investment in private equity and real asset funds; distributions are made when sales of assets are made within the funds. The remaining life of these private equity and real asset funds is up to 12 years.

The University is obligated under certain investment fund agreements to advance additional funding up to specified levels over a period of several years. These commitments have fixed expiration dates and other termination clauses. At June 30, 2018, the University had unfunded commitments of approximately \$2.3 billion as displayed in the table below.

Asset class (\$ in millions)	Remaining life of fund	Unfunded commitments	Timing to draw commitments
Global equities	N/A	\$ 37	1 to 8 years
Absolute return strategies	N/A	186	1 to 5 years
Private equity	1 to 12 years	970	1 to 12 years
Real assets	1 to 12 years	1,121	1 to 12 years
Total		<u>\$ 2,314</u>	

The University’s estimate of the lives of the funds could vary significantly depending on the investment decisions of the external fund managers, changes in the University’s portfolio, and other circumstances. Furthermore, the University’s obligation to fund the commitments noted above may be waived by the fund manager for a variety of reasons including market conditions and/or changes in investment strategy.

The University has various sources of internal liquidity at its disposal, including cash, cash equivalents, marketable debt and equity securities, and lines of credit, which are available to fund the committed drawdowns.

Investment Return

Investment income and gains utilized on the Consolidated Statements of Activities contains interest and dividend income net of fees, institutional real estate revenue net of operating expenses and depreciation, other investment income, and endowment appreciation utilized to fund the spending rule. Endowment appreciation utilized was \$510.2 million and \$483.6 million during 2018 and 2017, respectively. The nonoperating section of the Consolidated Statements of Activities contains realized and unrealized gains reduced by endowment appreciation utilized to fund the spending rule.

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7. Endowment Funds

The University's endowment consists of approximately 5,500 separate funds established over many years for a wide variety of purposes. The endowment includes permanent endowments, term endowments, and funds designated by the Board of Trustees to function as endowments. As required by GAAP, net assets associated with endowment funds, including funds designated by the Board of Trustees to function as endowments, are classified and reported based on the existence or absence of donor-imposed restrictions.

The University employs a market value unit method of accounting for pooled general investments. Each participating fund enters and withdraws from the pooled investment account based on monthly unit market values. Changes in the market value of investments are distributed proportionately to each fund that participates in the investment pool. Net investment income distributed during the year is allocated on a per unit basis to each participating fund.

Relevant Law

Under NYPMIFA, the University may appropriate so much of an endowment fund as it deems prudent, considering the specific factors set forth in NYPMIFA and subject to the intent of the donor as expressed in the gift instrument. Unless stated otherwise in the gift instrument, the earnings in an endowment fund are donor-restricted assets until appropriated.

The University continues to classify as permanently restricted net assets (a) the original value of gifts donated to the permanent endowment, (b) the original value of subsequent gifts to the permanent endowment, and (c) realized and unrealized gains and losses to the permanent endowment when stipulated by the donor gift instrument. In accordance with NYPMIFA and authoritative guidance, the remaining portion of the donor-restricted endowment funds not classified in permanently restricted net assets is classified as temporarily restricted net assets.

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The composition and changes in the University's endowment net assets as of June 30, 2018 and 2017, are as follows:

Changes in University endowment net assets	Unrestricted	Temporarily	Permanently	Total
	Net Assets	Restricted	Restricted	
Opening balance - June 30, 2017	\$ 3,428,651	\$ 3,679,663	\$ 2,888,282	\$ 9,996,596
Investment return:				
Investment income	65,933	1,649		67,582
Net appreciation / (depreciation)	227,763	507,792	18,900	754,455
Total investment return	293,696	509,441	18,900	822,037
New gifts	27,380	70,583	416,445	514,408
Appropriation for expenditure	(254,728)	(334,702)		(589,430)
Other Changes:				
Transfers to create endowments	104,144	20,845	646	125,635
Other / Reclassifications	(51,602)	10,097	41,504	(1)
	52,542	30,942	42,150	125,634
Closing balance - June 30, 2018	\$ 3,547,541	\$ 3,955,927	\$ 3,365,777	\$ 10,869,245
University endowment composition				
Endowment funds		\$ 3,590,103	\$ 3,156,470	\$ 6,746,573
Funds functioning as endowment:				
Departmental funds	\$ 1,423,926	349,299		1,773,225
University funds	1,524,762			1,524,762
Institutional real estate, net	598,853			598,853
CPMC Fund, Inc.		16,525	18,396	34,921
Interests in perpetual trusts held by others			190,911	190,911
University's endowment value	\$ 3,547,541	\$ 3,955,927	\$ 3,365,777	\$ 10,869,245

Note: The tables above do not include split-interest agreements, net of \$106,460 and pledges receivable, net of \$378,919.

Reconciliation to Investments, at fair value

Investments, at fair value		\$ 11,194,432
Add:		
Interests in perpetual trusts held by others	190,911	
CPMC Fund, Inc.	34,921	
Institutional real estate, net	598,853	
Investment receivables and payables	118,279	942,964
Subtract:		
Other long-term investments	(1,000,797)	
Split-interest agreements	(169,177)	
Funds held on behalf of others	(98,177)	(1,268,151)
University's endowment value		\$ 10,869,245

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	2017			Total
	Unrestricted Net Assets	Temporarily Restricted Net Assets	Permanently Restricted Net Assets	
Changes in University endowment net assets				
Opening balance - June 30, 2016	\$ 3,060,780	\$ 3,273,674	\$ 2,706,573	\$ 9,041,027
Investment return:				
Investment income	65,909	1,497		67,406
Net appreciation / (depreciation)	333,274	695,635	3,172	1,032,081
Total investment return	399,183	697,132	3,172	1,099,487
New gifts	1,483	26,807	164,017	192,307
Appropriation for expenditure	(228,660)	(327,116)		(555,776)
Other Changes:				
Transfers to create endowments	207,115	13,120	2,436	222,671
Other / Reclassifications	(11,250)	(3,954)	12,084	(3,120)
	195,865	9,166	14,520	219,551
Closing balance - June 30, 2017	<u>\$ 3,428,651</u>	<u>\$ 3,679,663</u>	<u>\$ 2,888,282</u>	<u>\$ 9,996,596</u>
University endowment composition				
Endowment funds		\$ 3,396,369	\$ 2,697,737	\$ 6,094,106
Funds functioning as endowment:				
Departmental funds	\$ 1,352,893	266,580		1,619,473
University funds	1,488,658			1,488,658
Institutional real estate, net	587,100			587,100
CPMC Fund, Inc.		16,714	18,337	35,051
Interests in perpetual trusts held by others			172,208	172,208
University's endowment value	<u>\$ 3,428,651</u>	<u>\$ 3,679,663</u>	<u>\$ 2,888,282</u>	<u>\$ 9,996,596</u>

Note: The tables above do not include split-interest agreements, net of \$91,289 and pledges receivable, net of \$468,280.

Reconciliation to Investments, at fair value

Investments, at fair value	\$ 10,038,376
Add:	
Interests in perpetual trusts held by others	172,208
CPMC Fund, Inc.	35,051
Institutional real estate, net	587,100
Investment receivables and payables	(47,238)
Subtract:	
Other long-term investments	(555,416)
Split-interest agreements	(151,511)
Funds held on behalf of others	(81,974)
University's endowment value	<u>\$ 9,996,596</u>

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Return Objectives and Risk Parameters

Endowment assets include those assets of donor-restricted funds that the University must hold in perpetuity or for a donor-specified period(s) as well as Board-designated funds. Under the University's investment policies, as approved by the Board of Trustees, the endowment assets are invested in a manner that is intended to produce performance which exceeds that of relevant indices for each asset class while assuming a moderate level of investment risk.

Strategies Employed for Achieving Objectives

The University 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). The University targets a diversified asset allocation to achieve its long-term return objectives within prudent risk constraints.

Endowment Spending Rule

The endowment spending rule utilized by the University is designed to be directly responsive to both investment returns and the current level of price inflation. Its long-term objectives are:

- To protect the corpus of the endowment by spending no more than the real investment return;
- To cushion spending against market volatility; and
- To provide specific spending instructions and multiyear spending projections based on explicit future investment return assumptions.

The current endowment spending rule is based on two factors: first, the market value multiplied by a target spending rate that may range from 4.5 to 5 percent, which provides a response to investment market conditions; and second, the prior year's spending plus inflation, which ties spending increases to operating needs and cushions spending against market volatility. This allows the University to maintain the purchasing power of the endowment assets held in perpetuity or for a specified term as well as to provide additional real growth through new gifts and investment return.

As a general policy, each fiscal year's distribution is calculated by adding together the following:

- a. The market value of the endowment at a point twelve months prior to the beginning of the given fiscal year, multiplied by the target spending rate, multiplied by a 40 percent weighting; and
- b. Endowment spending in the year immediately preceding the given fiscal year, grown or reduced by an inflation factor, which is defined as the Higher Education Price Index ("HEPI"), multiplied by a 60 percent weighting.

The Trustees conduct a special review in any year in which either projected endowment distributions are 0.5 percent higher or lower than the target spending rate, or if the increase in endowment distributions over the previous year is more than 3 percentage points higher or lower than HEPI. Additionally, from time to time, management may recommend, and the Trustees may approve, a temporary override of the spending rule to ensure the University's ability to sustain the permanent nature of the endowment.

In addition to the base spending rate described above, two additional payout components were approved as temporary measures by the Trustees in 2008. The first is an increase in annual

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spending of up to 1.75 percent of the prior year beginning market value of endowments that are designated for undergraduate financial aid support. This increase began in fiscal 2009 and will be phased out as new endowments substitute for this funding source. The amount of the incremental payout for the coming year is approved annually by the Trustees' Committee on Finance as part of the budget process. The second component is 0.70 percent of the prior year beginning market value for certain endowments in categories key to the University's current development efforts, primarily unrestricted endowment and endowments for financial aid and faculty support. This second component is reviewed by the Trustees regularly and has currently been extended through the end of fiscal year 2019.

8. Accounts Receivable

Accounts receivable, net, consists of the following as of June 30:

	2018	2017
Patient receivables, net of contractual allowances	\$ 171,926	\$ 186,073
Government agencies	134,573	153,774
NewYork-Presbyterian Hospital	107,131	114,283
Patent and licensing	9,379	8,459
Student receivables	68,174	64,308
Other receivables, gross	<u>152,215</u>	<u>148,347</u>
	643,398	675,244
Less: Allowance for doubtful accounts	<u>(85,568)</u>	<u>(95,754)</u>
Accounts receivable, net	<u>\$ 557,830</u>	<u>\$ 579,490</u>

Patient receivables for medical services are net of an allowance for contractual reserves in the amount of \$192.0 million and \$195.9 million at June 30, 2018 and 2017, respectively.

9. Student Loans Receivable and Financial Aid

The University participates in various federal loan programs, in addition to administering institutional loan programs. Loans receivable from students as of June 30 are as follows:

	2018	2017
Government revolving loans	\$ 65,583	\$ 72,485
Institutional loans	<u>31,225</u>	<u>29,726</u>
Gross student loans	96,808	102,211
Less: Allowance for doubtful collections	<u>(2,679)</u>	<u>(2,544)</u>
Student loans receivable, net	<u>\$ 94,129</u>	<u>\$ 99,667</u>

Government revolving loans are funded principally with federal advances to the University under the Perkins Loan Program and certain other programs. Advances under the Perkins Loan Program totaled \$64.8 million and \$70.1 million and advances under the other federally sponsored loan programs are \$13.9 million and \$14.0 million as of June 30, 2018 and 2017, respectively. These advances are classified as liabilities on the Consolidated Balance Sheets. Interest earned on the revolving and institutional loan programs is reinvested to support additional loans. The repayment and interest rate terms of the institutional loans vary considerably.

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Management regularly assesses the adequacy of the allowance for credit losses by performing ongoing evaluation of the student loan and student accounts receivable portfolios. Loans receivable under federally guaranteed student loan programs are subject to significant restrictions.

In addition to the loans identified above, the University processes and authorizes loans to students through the William D. Ford Federal Direct Loan Program. The amounts due under this loan program are not recorded in the University's consolidated financial statements since the University does not guarantee any federal loan funds related to this program. The amount of loans issued under this program was \$306.1 million and \$312.5 million for the years ended June 30, 2018 and 2017, respectively.

Undergraduate financial aid represents packages for all or part of a student's tuition, fees, room, and board. Graduate financial aid represents packages for all or part of a student's tuition and fees. Funding from external sources is obtained through government and private grants and contracts as well as private gifts and payout from certain endowment funds.

	2018			2017		
	University Sources	External Sources	Total Financial Aid	University Sources	External Sources	Total Financial Aid
Undergraduate	\$ 131,207	\$ 55,025	\$ 186,232	\$ 114,716	\$ 53,779	\$ 168,495
Graduate	166,722	79,736	246,458	152,979	73,542	226,521
Total financial aid grants	<u>\$ 297,929</u>	<u>\$ 134,761</u>	<u>\$ 432,690</u>	<u>\$ 267,695</u>	<u>\$ 127,321</u>	<u>\$ 395,016</u>

Agency activities such as tuition aid grants and federal Pell grant program are not included in the University's consolidated financial statements. Both receipts and disbursements for these agency transactions were \$11.5 million and \$10.9 million in fiscal years 2018 and 2017, respectively.

10. Pledges Receivable

Unconditional promises to give appear as pledges receivable and revenue of the appropriate net asset category. Pledges are recorded net of an allowance for uncollectible contributions and a discount to reflect the net present value based on projected cash flows. Periodically unconditional promises to give are reviewed for collectability. As a result, the allowance for uncollectible contributions may be adjusted and some contributions may be adjusted or cancelled. Such changes will be reflected in the consolidated financial statements.

The June 30 balances of unconditional promises to give are:

Unconditional promises to give expected to be collected in:	2018	2017
Less than one year	\$ 207,717	\$ 244,432
One to five years	488,678	563,018
More than five years	171,850	200,719
Total unconditional promises	<u>868,245</u>	<u>1,008,169</u>
Less: Allowance for doubtful contributions	(30,414)	(37,235)
Less: Net present-value discount	(110,618)	(122,247)
Net pledges receivable	<u>\$ 727,213</u>	<u>\$ 848,687</u>

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New pledges recorded in 2018 and 2017 were discounted at an average annual rate of 3.22 percent and 2.41 percent, respectively, using a rate that considers market and credit risk. Credit risk is also considered in the allowance for doubtful contributions.

Pledges receivable are intended for the following purposes:

	2018	2017
Endowment for educational and general purposes	\$ 378,919	\$ 468,280
New construction and modernization of plant	158,583	201,247
Support of University operations	189,711	179,160
Net pledges receivable	<u>\$ 727,213</u>	<u>\$ 848,687</u>

The University also has other outstanding pledges of \$247.6 million as of June 30, 2018. These pledges represent either conditional gifts for which the probability of meeting the conditions is uncertain, verbal pledges, or other pledges that have not met the requirements for recognition.

11. Land, Buildings, and Equipment

Investments in land, buildings, and equipment, net, consisted of the following at June 30:

	2018			2017		
	Total Assets	Accumulated Depreciation	Net Assets	Total Assets	Accumulated Depreciation	Net Assets
Land	\$ 459,919		\$ 459,919	\$ 459,366		\$ 459,366
Building and building improvements	6,130,428	\$ 2,811,457	3,318,971	5,889,827	\$ 2,587,274	3,302,553
Construction in progress	488,606		488,606	372,060		372,060
Equipment	533,389	325,243	208,146	499,225	287,657	211,568
	<u>\$ 7,612,342</u>	<u>\$ 3,136,700</u>	<u>\$ 4,475,642</u>	<u>\$ 7,220,478</u>	<u>\$ 2,874,931</u>	<u>\$ 4,345,547</u>

The University uses componentized depreciation to calculate depreciation expense for buildings and building improvements for research facilities included in operations. The costs of research facilities are separated into the building shell, building service systems, and fixed equipment, and each component is separately depreciated.

Equipment includes physical assets owned by the University as well as capitalized software costs and moveable equipment acquired through capitalized leases.

Building and building improvements include physical assets owned by the University as well as leasehold improvements, capitalized space leases, and construction in progress. Capitalized space leases at June 30, 2018 and 2017 were \$73.3 million and \$75.8 million, respectively.

12. Accrued Employee Benefit Liabilities

Accrued employee benefit liabilities arise from employment at the University. These include liabilities for pension, postretirement benefits, postemployment benefits, unused vacation, and deferred compensation.

Postemployment benefits relating to workers' compensation, short-term disability, and continuation of medical benefits for those on long-term disability are provided to former or inactive employees after employment but before retirement. The University records the costs of such benefits on an

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accrual basis if the employee has provided the services from which those benefits are derived. In 2018 and 2017, the University recognized actuarially computed liabilities of \$56.4 million and \$54.2 million, respectively.

13. Pension and Other Postretirement Benefit Costs

Pension Plan Benefits

The University has five non-contributory pension plans (the “pension plans”) for supporting staff employees. Four of the pension plans are subject to collective bargaining agreements. The fifth pension plan covers former employees of the Arden Conference Center, which closed in 2005. Three of the plans include defined benefits for past service, and in the case of two plans, defined benefits for past and future service. Two of the pension plans provide defined benefits for service prior to 1976 (January 1 and July 1, 1976, respectively). For these two pension plans, future benefits are provided by defined contribution plans. Charges to expenditures for the defined contribution segments of the plans amounted to \$5.4 million and \$5.6 million for the years ended June 30, 2018 and 2017, respectively.

In addition, the University provides retirement benefits for full-time faculty, officers, and certain other employees under a separate defined contribution plan (the “officer plan”). University contributions for the officer plan reported in operating expenses were \$137.3 million and \$129.6 million for the years ended June 30, 2018 and 2017, respectively.

Postretirement Health Care and Life Insurance Benefits

The University provides postretirement health care and life insurance benefits for certain employees. The University accrues the estimated cost of these benefits over the years that eligible employees render service.

Obligations and Funded Status

The University follows authoritative guidance, which requires recognition on the Consolidated Balance Sheets of the difference between benefit obligations and any plan assets of the University’s defined benefit and other postretirement benefit plans. In addition, the authoritative guidance requires unamortized amounts (e.g., net actuarial gains or losses and prior service cost or credits) to be recognized as changes to unrestricted net assets and that those amounts be adjusted as they are subsequently recognized as components of net periodic pension cost.

Amounts recognized in unrestricted net assets are as follows:

	Pension Plan Benefits		Other Postretirement Benefits	
	2018	2017	2018	2017
Net actuarial (gain) / loss	\$ 45,398	\$ 56,635	\$ (34,094)	\$ (23,545)
Prior service (credit) / cost	311	377		
Total amount recognized	<u>\$ 45,709</u>	<u>\$ 57,012</u>	<u>\$ (34,094)</u>	<u>\$ (23,545)</u>

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The components of accrued benefit costs for pension benefits and other postretirement benefits are as follows:

	Pension Plan Benefits		Other Postretirement Benefits	
	2018	2017	2018	2017
Change in benefit obligation:				
Benefit obligation, beginning of year	\$ 210,284	\$ 213,770	\$ 146,708	\$ 165,449
Service cost	8,220	7,924	6,713	6,990
Interest cost	8,514	8,131	5,724	5,830
Plan participants' contributions			6,050	5,510
Actuarial (gain) / loss	(10,877)	(12,826)	(8,421)	(25,619)
Federal subsidy			200	233
Net disbursements and transfers	(7,095)	(6,715)	(11,822)	(11,685)
Benefit obligation, end of year	<u>\$ 209,046</u>	<u>\$ 210,284</u>	<u>\$ 145,152</u>	<u>\$ 146,708</u>
Change in plan assets:				
Fair value of assets, beginning of year	\$ 165,710	\$ 151,593	\$ 192,340	\$ 171,619
Actual return on plan assets	6,571	11,624	14,237	22,489
Employer contributions	11,720	9,208		4,407
Plan participants' contributions			6,050	5,510
Net disbursements and transfers	(7,095)	(6,715)	(11,822)	(11,685)
Fair value of assets, end of year	<u>\$ 176,906</u>	<u>\$ 165,710</u>	<u>\$ 200,805</u>	<u>\$ 192,340</u>
Net amount recognized	<u>\$ (32,140)</u>	<u>\$ (44,574)</u>	<u>\$ 55,653</u>	<u>\$ 45,632</u>

Weighted-average assumptions used to determine end of year benefit obligation

	2018	2017
Discount rate	3.95% to 4.25%	3.35% to 3.95%
Rate of compensation increase	3.25%	3.00% to 3.25%

The accumulated benefit obligations for the two underfunded pension plans at June 30, 2018 and 2017 were \$182.4 and \$182.7 million, respectively.

At the end of 2018 and 2017, the projected benefit obligation exceeded the pension plan assets for three of the five plans. The projected benefit obligation for the pension plans with a benefit obligation in excess of plan assets were as follows:

End of year	2018	2017
Projected benefit obligation	\$ 202,488	\$ 202,767
Fair value of plan assets	166,497	154,512

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The accumulated postretirement benefit obligation for the other postretirement benefit plan and the fair value of plan assets with plan assets in excess of the accumulated postretirement benefit obligation was as follows:

End of year	2018	2017
Accumulated postretirement benefit obligation	\$ 145,152	\$ 146,708
Fair value of plan assets	200,805	192,340

A 6.5 percent annual rate of increase in the per capita cost of covered health care benefits for the other postretirement benefit plan was assumed for 2018. The rate was assumed to decrease gradually to 5 percent for FY2025 and remain at that level thereafter. Assumed health care cost trend rates have a significant effect on the amounts reported for the health care plans. A one-percentage-point change in assumed health care cost trend rates would have the following effect:

	1-%-point increase	1-%-point decrease
Effect on accumulated postretirement benefit obligation	\$ 17,930	\$ (14,490)

The asset allocation for the two defined benefit plans for both past and future service at June 30, 2018 and 2017, and the target allocation for 2019, by asset category, follows:

Asset category	Target allocation	Percentage of plan assets at year end	
	2019	2018	2017
U.S. large cap equity and global equity funds	24%	18%	22%
International equities (non-U.S.)	14%	21%	18%
High yield fixed income securities	10%	10%	15%
U.S. core fixed income	50%	51%	45%
Other assets	2%		
	<u>100%</u>	<u>100%</u>	<u>100%</u>

The asset allocation for the two defined benefit plans for prior service only at June 30, 2018 and 2017, and the target allocation for 2019, by asset category, follows:

Asset category	Target allocation	Percentage of plan assets at year end	
	2019	2018	2017
U.S. large cap equity	10%	4%	4%
International equities (non-U.S.)	5%	9%	8%
High yield fixed income securities	5%	11%	11%
U.S. core fixed income	80%	76%	77%
	<u>100%</u>	<u>100%</u>	<u>100%</u>

The retirement plan for the employees of Arden Conference Center was invested in equity securities, including mutual funds, 35 percent, and debt securities, 65 percent as of June 30, 2018.

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The following presents investments of the pension plans as of June 30, 2018. The Plans' investments in mutual funds are included as Level 1 because fair value is based on quoted prices. The Plans' investments in common collective trusts are valued at NAV as a practical expedient and are therefore excluded from the fair value hierarchy and are reported as NAV. Level 3 assets represent fixed income related investment contracts with a major life insurance company.

	<u>Level 1</u>	<u>Level 2</u>	<u>Level 3</u>	<u>NAV</u>	<u>Total</u>
Common collective trust funds					
Global equity				\$ 64,406	\$ 64,406
Fixed income				109,229	109,229
Mutual funds	\$ 1,158				1,158
Fixed income investment contracts			\$ 2,113		2,113
Investments, at fair value	<u>\$ 1,158</u>	<u></u>	<u>\$ 2,113</u>	<u>\$ 173,635</u>	<u>\$ 176,906</u>

The following table is a roll forward of the amounts for investments classified within Level 3 as described above.

	June 30, 2017	Purchases (Gross)	Sales (Gross)	Investment gain/(loss)	June 30, 2018
Investment contracts	\$ 2,158	\$ 46	\$ (154)	\$ 63	\$ 2,113
Total level 3 investments	<u>\$ 2,158</u>	<u>\$ 46</u>	<u>\$ (154)</u>	<u>\$ 63</u>	<u>\$ 2,113</u>

The following presents investments of the pension plans as of June 30, 2017.

	<u>Level 1</u>	<u>Level 2</u>	<u>Level 3</u>	<u>NAV</u>	<u>Total</u>
Common collective trust funds					
Global equity				\$ 61,787	\$ 61,787
Fixed income				100,715	100,715
Mutual funds	\$ 1,050				1,050
Fixed income investment contracts			\$ 2,158		2,158
Investments, at fair value	<u>\$ 1,050</u>	<u></u>	<u>\$ 2,158</u>	<u>\$ 162,502</u>	<u>\$ 165,710</u>

The following table is a roll forward of the amounts for investments classified within Level 3 as described above.

	June 30, 2016	Purchases (Gross)	Sales (Gross)	Investment gain/(loss)	June 30, 2017
Investment contracts	\$ 2,187	\$ 46	\$ (141)	\$ 66	\$ 2,158
Total level 3 investments	<u>\$ 2,187</u>	<u>\$ 46</u>	<u>\$ (141)</u>	<u>\$ 66</u>	<u>\$ 2,158</u>

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The asset allocation for the other postretirement benefit plan at June 30, 2018 and 2017, and the target allocation for 2019, by asset category, follows:

Asset category	Target allocation	Percentage of plan assets at year's end	
	2019	2018	2017
U.S. large cap equity and global equity funds	52%	49%	59%
International equities (non-U.S.)	16%	19%	16%
U.S. fixed income	32%	32%	25%
	<u>100%</u>	<u>100%</u>	<u>100%</u>

The following presents investments of the other postretirement benefit plan as of June 30, 2018. The Plans' investments in common collective trusts are valued at NAV as a practical expedient and are therefore excluded from the fair value hierarchy and reported as NAV.

	Level 1	Level 2	Level 3	NAV	Total
Common collective trust funds					
Global equity				\$ 136,370	\$ 136,370
Fixed income				64,435	64,435
Investments, at fair value				<u>\$ 200,805</u>	<u>\$ 200,805</u>

The following presents investments of the other postretirement benefit plan as of June 30, 2017.

	Level 1	Level 2	Level 3	NAV	Total
Common collective trust funds					
Global equity				\$ 144,418	\$ 144,418
Fixed income				47,922	47,922
Investments, at fair value				<u>\$ 192,340</u>	<u>\$ 192,340</u>

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Net Periodic Benefit Cost

The components of net periodic benefit cost for pension benefits and other postretirement benefits are as follows:

	Pension Plan Benefits		Other Postretirement Benefits	
	2018	2017	2018	2017
Components of net periodic benefit cost				
Service cost	\$ 8,220	\$ 7,924	\$ 6,713	\$ 6,990
Interest cost on projected benefit obligation	8,514	8,131	5,724	5,829
Expected return on assets	(9,357)	(8,561)	(11,816)	(10,646)
Amortization of prior service cost/(credit)	65	65		(1,911)
Amortization of unrecognized net losses/(gain)	3,145	4,500	(459)	
Net periodic benefit cost	<u>10,587</u>	<u>12,059</u>	<u>162</u>	<u>262</u>
Other changes in plan assets and benefit obligations recognized in the Consolidated Statements of Activities				
Current year actuarial (gain)/loss	(8,092)	(15,889)	(11,009)	(37,668)
Amortization of actuarial gain/(loss)	(3,145)	(4,500)	459	
Amortization of prior service credit/(cost)	(65)	(65)		1,911
Total recognized in nonoperating	<u>(11,302)</u>	<u>(20,454)</u>	<u>(10,550)</u>	<u>(35,757)</u>
Total recognized in net periodic benefit cost and nonoperating	<u>\$ (715)</u>	<u>\$ (8,395)</u>	<u>\$ (10,388)</u>	<u>\$ (35,495)</u>

Amounts in net unrestricted assets expected to be recognized in net periodic benefit cost in fiscal 2019 are as follows:

	Pension Plan Benefits	Other Postretirement Benefits
Actuarial (gain)/loss	\$ 1,833	\$ 1,072
Prior service (credit)/cost	65	
	<u>\$ 1,898</u>	<u>\$ 1,072</u>

Weighted-average assumptions used to determine net periodic pension cost

	2018	2017
Discount rate	3.35% to 3.95%	2.95% to 3.75%
Expected return on plan assets	3.75% to 6.50%	3.75% to 6.50%
Rate of compensation increase	3.25%	3.00% to 3.25%

To arrive at assumptions for expected long term rates of return on assets in the pension plans and the postretirement benefit plan, the University considered historical returns and future expectations for returns in each asset class in the asset allocation for the previously described pension and postretirement benefit portfolios.

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Assumed health care cost trend rates have a significant effect on the amounts reported for the other postretirement benefit plan. A one-percentage-point change in the assumed health care cost trend rates would have had the following effect:

	1-% -point increase	1-% -point decrease
Effect on total service and interest cost	\$ 2,378	\$ (1,826)

Expected Cash Flows

Information about the expected cash flows for the plans is as follows:

	Pension Plan Benefits	Other Postretirement Benefits
Expected University contributions		
2019	\$ 10,562	
Expected benefit payments		
2019	7,077	\$ 6,733
2020	7,510	6,740
2021	7,990	6,978
2022	8,509	7,200
2023	9,068	7,403
2024-2028	50,014	39,287
Total	<u>\$ 90,168</u>	<u>\$ 74,341</u>

Total benefits expected to be paid include both the University's share of the benefit cost net of Medicare subsidies and the participants' share of the cost, which is funded by participant contributions to the other postretirement benefit plan. The University receives a Medicare Part D subsidy from the federal government as reimbursement for certain retiree health benefits paid to plan participants, which was approximately \$0.4 million in fiscal 2018.

14. Lease Obligations

The University is the lessee of various equipment and space under noncancelable operating and capital leases. Capital lease obligations at June 30, 2018 and 2017 were \$121.3 million and \$122.9 million, respectively. Operating lease rental expense for the years ended June 30, 2018 and 2017 was \$40.4 million and \$42.4 million, respectively. Space leases contain customary escalation clauses, which are included in annual aggregate minimum rentals.

Future aggregate minimum rental payments under operating and capital leases are as follows:

	Operating	Capital
Future minimum rental payments:		
2019	\$ 43,807	\$ 9,022
2020	33,552	7,695
2021	29,504	7,177
2022	27,733	6,699
2023	23,716	6,002
Thereafter	248,838	222,271
Less: Interest at 1.45 percent to 5.31 percent		(137,583)
Capital lease obligations at June 30, 2018		<u>\$ 121,283</u>

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15. Conditional Asset Retirement Obligations

Conditional asset retirement obligations are a legal obligation to perform an asset retirement activity in which the timing and/or method of settlement are conditioned on a future event that may or may not be within the control of the University. GAAP requires that the fair value of a liability be recognized in the period in which it occurred if a reasonable estimate of fair value can be made. Uncertainty with respect to the timing and/or method of settlement of the asset retirement obligation does not defer recognition of a liability.

Conditional asset retirement obligations related to remediation or disposal of asbestos, underground storage tanks, soil, radioactive sources, equipment, and miscellaneous other items were \$119.2 million and \$116.3 million at June 30, 2018 and 2017, respectively.

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16. Bonds and Notes Payable

Bonds and notes payable outstanding at June 30, 2018 and 2017 are as follows:

	2018	2017
Dormitory Authority of the State of New York, tax exempt revenue bonds, Columbia University issues		
Series 2018 A, 2.45% to 3.41%, maturing FY2029 to FY2049	\$ 150,000	
Series 2018 B, 2.98%, maturing FY2039	175,185	
Series 2017 A, 2.40% to 3.49%, maturing FY2028 to FY2048	150,000	\$ 150,000
Series 2017 B, 1.96% to 2.61%, maturing FY2025 to FY2030	40,475	40,475
Series 2016 A-1, 1.67%, maturing FY2027	50,000	50,000
Series 2016 A-2, 1.35% to 2.89%, maturing FY2024 to FY2047	130,000	130,000
Series 2016 B, 0.66% to 2.04%, maturing FY2018 to FY2032	189,715	209,705
Series 2015 A, 1.95% to 3.00%, maturing FY2026 to FY2046	92,535	92,535
Series 2015 B, 0.93% to 1.88%, maturing FY2018 to FY2025	37,930	42,930
Series 2012 A, 1.07% to 1.92%, maturing FY2019 to FY2023	137,935	137,935
Series 2011 A, 2.67% to 4.88%, maturing FY2018 to FY2042	285,000	300,000
Series 2009 A, variable rate, 1.20%, maturing FY2039	117,000	117,000
Series 2008 A, 4.72%, maturing FY2038		200,000
Series 2003 B, variable rate, 1.20%, maturing FY2028	30,000	30,000
Series 2002 C, variable rate, 1.60%, maturing FY2027	23,300	23,300
Taxable Series 2015, 3.46%, maturing FY2046	75,000	75,000
Taxable Series 2012, 3.83%, maturing FY2043	100,000	100,000
New Jersey Economic Development Corporation, tax exempt		
Series 2002, variable rate, 1.50%, maturing FY2028	5,110	5,545
Medium-Term Notes, Taxable Series C 6.53% to 7.36%, maturing FY2021 to FY2022	20,567	27,826
Empire State Development Corporation issues		
9.00%, maturing FY2029	6,099	6,447
Interest-free, maturing FY2020	8,100	8,100
Economic Development Corporation		
Interest-free, maturing FY2020	10,000	10,000
Subtotal, principal payments	<u>1,833,951</u>	<u>1,756,798</u>
Unamortized bond premium	255,863	204,718
Unamortized cost of issuance	(5,529)	(5,593)
Subtotal, bond premium and cost of issuance	<u>250,334</u>	<u>199,125</u>
Total bonds and notes payable	<u>\$ 2,084,285</u>	<u>\$ 1,955,923</u>

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Estimated principal payments on bonds and notes payable are summarized below:

Fiscal Year	Principal
2019	\$ 60,829
2020	81,933
2021	73,326
2022	78,347
2023	81,692
Thereafter (through 2049)	1,457,824
Total	<u>\$ 1,833,951</u>

The University issues most of its tax-exempt debt through the Dormitory Authority of the State of New York (“DASNY”). On May 16, 2018, the University issued \$150 million of Series 2018A and \$175.2 million of Series 2018B, all tax-exempt fixed rate bonds. Series 2018A was issued at a premium of \$41.5 million which will be amortized over 10 and 30 years based on the maturity of the underlying bonds. Series 2018B was issued at a premium of \$30.1 million which will be amortized over 10 years based on the optional redemption date. The proceeds from Series 2018A will be used to finance various construction and renovation projects. The proceeds from Series 2018B were used to redeem outstanding Series 2008A Bonds. The redeemed bonds were legally defeased and, as such, are not reflected in “Bonds and notes payable” at June 30, 2018.

On March 1, 2017, the University issued \$150 million of Series 2017A and \$40.5 million of Series 2017B, all tax-exempt fixed rate bonds. Series 2017A was issued at a premium of \$41.3 million which will be amortized over 10 and 30 years based on the maturity of the underlying bonds. Series 2017B was issued at a premium of \$9.1 million which will be amortized between 7 and 10 years based on the maturities and optional redemption date. The proceeds from Series 2017A will be used to finance various construction and renovation projects. The proceeds from Series 2017B were used to redeem outstanding Series 2004C Bonds. The redeemed bonds were legally defeased and, as such, are not reflected in “Bonds and notes payable” at June 30, 2017.

The University recorded amortization of bond premium and issuance costs, net, of \$19.3 million and \$17.6 million for the fiscal years ended June 30, 2018 and 2017, respectively, as a reduction to interest expense.

The University has a \$150 million taxable commercial paper program. As of June 30, 2018 and 2017 there was no commercial paper outstanding under this program.

As of June 30, 2018, the University had a \$200 million operating line of credit, which expires in October, 2019, as well as \$100 million operating line of credit, which expires in November, 2020. Additionally, as of June 30, 2018, the University had two \$100 million standby lines of credit supporting self-liquidity for variable rate debt outstanding, one that expires in January, 2019 and a second that expires in January, 2020. Each of the lines is with a different lending institution and, as of June 30, 2018, no balances were outstanding on the lines of credit.

The University has administrative covenants on its tax-exempt debts and lines of credit, with which it was in compliance as of June 30, 2018 and 2017.

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On October 1, 2008, the University entered into a \$200 million notional value fixed payor interest rate swap agreement to protect against the risk of interest rate changes. The estimated fair value of the swap liability was \$57.1 million and \$72.0 million at June 30, 2018 and 2017, respectively. The fair value of the swap is obtained by taking the present value of all future cash flows on the swap implied by the forward curve.

17. Insurance

In connection with managing financial risks through various third-party insurance programs, the University is self-insured in certain areas. Funded self-insurance liabilities primarily cover deductibles on general liability and property insurance claims. Self-insurance liabilities are actuarially calculated on an annual basis. The University's core liability coverage is purchased through Pinnacle RRG, a Vermont-based risk retention group with sixteen other universities.

The University obtains medical malpractice insurance through MCIC and MLMIC. MCIC is a group-captive insurance company owned by the University, The Johns Hopkins Hospital, The Johns Hopkins University, University of Rochester Medical Center, Weill Cornell Medical College, Yale New Haven Health, Yale University School of Medicine, and NYP. MLMIC is a mutual company where policyholders are owners with full voting rights to elect the company's Board of Directors, thereby having direct input into vital areas of operation. The governing Board is comprised primarily of practicing physicians, dentists, and hospital administrators. More than 1,847 of the University's faculty physicians and dentists are enrolled in MCIC or MLMIC. The University has recorded self-insurance and medical malpractice liabilities of approximately \$289.0 million and \$285.1 million as of June 30, 2018 and 2017, respectively. The medical malpractice liabilities of approximately \$176.2 million and \$177.2 million as of June 30, 2018 and 2017, respectively, are reported gross with an offsetting receivable for anticipated recoveries of \$119.5 million and \$120.6 million, respectively, recorded in Other assets.

18. Related Party Transactions

The University maintains several clinical and education affiliation agreements with other organizations. Revenues and expenses from these agreements are accounted for in the operating activities segment of the Consolidated Statements of Activities. The most significant affiliation agreement is with NYP.

The University has an alliance dating back to 1921 with Presbyterian Hospital, which merged with New York Hospital effective January 1, 1998, and formed the new corporate entity now called New York-Presbyterian. The University receives reimbursement from NYP for the provision of medical, professional, and supervisory staff services as well as other technical assistance. NYP provides funding to clinical departments for specific purposes, including administration, supervision, and teaching of the NYP resident staff and salary support for faculty and staff providing services to NYP. In addition, NYP provides funding for clinical programs that the University and NYP would like to see developed or expanded. NYP also provides the departments with certain facilities and services (outpatient faculty practice offices, nursing, telecommunications, etc.) for which the University is invoiced on a monthly basis. Finally, the University and NYP collaborate and fund joint projects for which specific agreements are negotiated.

In addition, the University and NYP negotiate a joint budget, which forms the basis for the affiliation agreement. The fiscal year 2018 joint budget was approximately \$345.9 million. The

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payments to NYP for goods and services were \$86.7 million. The majority of revenues received pursuant to this agreement are reflected in the consolidated financial statements as a portion of “Patient care revenue” and the majority of the expenses related to this agreement are reflected in “Patient care expense”.

The University records both receivables from and payables to NYP on the Consolidated Balance Sheets. The University has no liability for obligations and debt incurred by NYP.

In fiscal 2018 and 2017, the University had a financial arrangement with a physician professional corporation (“PC”), whereby the University provides facilities and other services to the PC for a negotiated fee. This PC provides clinical services to patients and is owned and controlled by physicians who are also faculty members of the University. The non-controlled PC generated revenue of approximately \$40.3 million and \$42.1 million during fiscal year 2018 and 2017, respectively, which has not been consolidated into the University’s consolidated financial statements.

The University controls a not-for-profit practice entity and two professional corporations and as such, consolidates these entities into the University’s consolidated financial statements.

Pursuant to the consent of the Trustees of the CPMC Fund, Inc., during fiscal 2018 the CPMC Fund, Inc. transferred to the University six endowments previously held by CPMC Fund, Inc. for the University. The value of the endowments at the time of transfer was \$1.3 million, with \$0.2 million being permanently restricted.

19. Contingencies and Commitments

From time to time, various claims and suits generally incident to the conduct of normal business are pending or may arise against the University.

In the opinion of counsel and management of the University, after taking into account insurance coverage, losses, if any, from the resolution of pending litigation should not have a material effect on the University’s financial position or results of operations.

All funds expended in connection with government grants and contracts are subject to audit by government agencies. While the ultimate liability, if any, from audits of government grants and contracts by government agencies, claims, and suits is presently not determinable, it should not, in the opinion of counsel and management, have a material effect on the University’s financial position or results of activities.

The University is subject to laws and regulations concerning environmental remediation and will, from time to time, establish reserves for potential obligations that management considers probable and for which reasonable estimates can be made. As of June 30, 2018, the University has recorded \$119.2 million for conditional asset retirement obligations. These estimates may change depending upon the nature and extent of contamination, appropriate remediation technologies, and regulatory approvals. The University is not aware of any existing conditions that it currently believes are likely to have a material adverse effect on the University’s financial position, changes in net assets, or cash flows.

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The University's capital improvement program and related commitments includes projects that address the major strategic objectives of the University. As part of the capital improvement program, the University has entered into contracts to purchase properties with an aggregate value of \$3.3 million. As of June 30, 2018 approximately \$1.7 million is still outstanding.

The University has made commitments related to its expansion in Manhattanville, certain of which are based upon events in the future which would result in cash and in-kind payments from the University. Those that are estimatable have been recorded as liabilities.

The University has performed an evaluation of subsequent events through October 9, 2018, which is the date the consolidated financial statements were issued.

20. Expense Allocation by Program

Expenses are reported for the University's primary program activities. The consolidated financial statements also report certain categories of expenditures that support more than one major program of the University. These expenses include operation and maintenance of plant, depreciation expense, and interest expense.

These costs are allocated to the applicable program activities as indicated in the following chart:

	2018			2017		
	Expenses per Statement of Activities	Allocation	Final Allocated Expenses	Expenses per Statement of Activities	Allocation	Final Allocated Expenses
Instruction and educational administration	\$ 1,792,465	\$ 217,519	\$ 2,009,984	\$ 1,693,396	\$ 220,122	\$ 1,913,518
Research	603,648	114,794	718,442	575,548	93,174	668,722
Patient care expense	1,025,611	101,235	1,126,846	969,856	103,823	1,073,679
Library	69,577	48,448	118,025	68,831	53,007	121,838
Operation and maintenance of plant	269,529	(269,529)		260,529	(260,529)	
Institutional support	310,346	24,966	335,312	320,153	25,144	345,297
Auxiliary enterprise	157,564	96,342	253,906	143,724	97,476	241,200
Depreciation expense	278,897	(278,897)		271,379	(271,379)	
Interest expense	54,878	(54,878)		60,838	(60,838)	
Other	34,384		34,384	20,660		20,660
	<u>\$ 4,596,899</u>		<u>\$ 4,596,899</u>	<u>\$ 4,384,914</u>		<u>\$ 4,384,914</u>

The allocation of operation and maintenance of plant is based on square footage occupancy with the exception of certain rent costs directly attributable to patient care expense. Depreciation expense includes depreciation of buildings, building improvements, and equipment. The allocation of depreciation on buildings and building improvements is based on square footage occupancy. Depreciation on equipment is allocated to the programs for which the equipment was purchased. Interest expense is allocated according to the same methodologies used for building depreciation.