



THE JOHNS HOPKINS UNIVERSITY

Consolidated Financial Statements

June 30, 2018 and 2017

(With Independent Auditors' Report Thereon)



KPMG LLP
750 East Pratt Street, 18th Floor
Baltimore, MD 21202

Independent Auditors' Report

The Board of Trustees
The Johns Hopkins University:

We have audited the accompanying consolidated financial statements of The Johns Hopkins University (the University), which comprise the consolidated balance sheets as of June 30, 2018 and 2017, the related consolidated statements of activities and cash flows for the years then ended, and the related notes to the consolidated financial statements.

Management's Responsibility for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of these consolidated financial statements in accordance with U.S. generally accepted accounting principles; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of 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 these 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 the auditors' 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, the auditor considers internal control relevant to the entity'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 entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the 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 Johns Hopkins University as of June 30, 2018 and 2017, and the changes in its net assets and its cash flows for the years then ended, in accordance with U.S. generally accepted accounting principles.



Emphasis of Matter

As discussed in note 1(u) to the consolidated financial statements, in 2018, the University adopted Accounting Standards Update (ASU) No. 2016-14, *Not-for-Profit Entities (Topic 958): Presentation of Financial Statements of Not-for-Profit Entities*. Our opinion is not modified with respect to this matter.

KPMG LLP

Baltimore, Maryland
October 11, 2018

THE JOHNS HOPKINS UNIVERSITY

Consolidated Balance Sheets

June 30, 2018 and 2017

(In thousands)

Assets	2018	2017
Cash and cash equivalents	\$ 262,356	345,367
Operating investments	1,217,481	1,178,338
Cash, cash equivalents and operating investments	1,479,837	1,523,705
Sponsored research accounts receivable, net	456,291	404,544
Accounts receivable, net	186,888	202,045
Contributions receivable, net	500,150	470,350
Prepaid expenses and deferred charges	63,150	68,911
Student loans receivable, net	30,834	34,673
Investments	5,144,881	4,651,545
Property and equipment, net	2,126,913	2,093,090
Investment in and loans to affiliates	300,579	258,248
Other assets	242,347	232,233
Interests in trusts and endowment funds held by others	116,098	114,085
Total assets	\$ <u>10,647,968</u>	<u>10,053,429</u>
Liabilities and Net Assets		
Accounts payable and accrued expenses	\$ 636,682	586,881
Sponsored research deferred revenues	353,265	371,769
Other deferred revenues	124,435	153,113
Debt	1,246,992	1,298,530
Other long-term liabilities	306,567	311,739
Pension and postretirement obligations	100,717	192,972
Liabilities under split-interest agreements	78,085	80,155
Endowment and similar funds held for others	621,769	584,218
Total liabilities	<u>3,468,512</u>	<u>3,579,377</u>
Net assets:		
Without donor restrictions	2,989,309	2,766,530
With donor restrictions	4,190,147	3,707,522
Total net assets	<u>7,179,456</u>	<u>6,474,052</u>
Total liabilities and net assets	\$ <u>10,647,968</u>	<u>10,053,429</u>

See accompanying notes to consolidated financial statements.

THE JOHNS HOPKINS UNIVERSITY

Consolidated Statements of Activities

Years ended June 30, 2018 and 2017

(In thousands)

	<u>2018</u>	<u>2017</u>
Changes in net assets without donor restrictions:		
Operating revenues:		
Tuition and fees	\$ 991,240	918,804
Less financial aid	<u>(333,558)</u>	<u>(307,319)</u>
Tuition and fees, net of financial aid	<u>657,682</u>	<u>611,485</u>
Grants, contracts, and similar agreements	1,506,621	1,456,693
Facilities and administrative cost recoveries	360,106	350,910
Applied Physics Laboratory contract revenues	<u>1,504,224</u>	<u>1,430,126</u>
Sponsored research revenues	<u>3,370,951</u>	<u>3,237,729</u>
Contributions	135,812	118,015
Net assets released from restrictions	<u>94,317</u>	<u>101,041</u>
Contributions and donor support	230,129	219,056
Clinical services	708,693	674,433
Reimbursements from affiliated institutions	570,649	553,636
Other revenues	143,611	120,321
Endowment payout used to support operations	183,486	175,223
Auxiliary enterprises	104,056	102,314
Maryland State aid	22,857	21,535
Investment return	<u>28,862</u>	<u>20,826</u>
Total operating revenues	<u>6,020,976</u>	<u>5,736,558</u>
Operating expenses:		
Compensation	2,738,093	2,600,865
Benefits	<u>865,426</u>	<u>813,529</u>
Compensation and benefits	3,603,519	3,414,394
Subcontractors and subrecipients	474,121	458,370
Contractual services	781,861	743,268
Supplies, materials, and other	603,358	592,169
Depreciation	211,193	214,240
Travel	153,604	150,749
Interest	<u>47,583</u>	<u>51,052</u>
Total operating expenses	<u>5,875,239</u>	<u>5,624,242</u>
Excess of operating revenues over operating expenses	<u>145,737</u>	<u>112,316</u>

THE JOHNS HOPKINS UNIVERSITY

Consolidated Statements of Activities

Years ended June 30, 2018 and 2017

(In thousands)

	<u>2018</u>	<u>2017</u>
Other changes in net assets without donor restrictions:		
Investment return in excess of endowment payout	\$ 38,360	72,460
Change in benefits plan funded status, excluding benefits cost	83,572	145,082
Other net periodic benefit cost	(321)	(12,884)
Change in fair value on interest rate swap agreements	5,978	11,667
Net assets reclassified	(110,892)	—
Other, net	21,125	5,000
Net assets released from restrictions	39,220	9,383
	<u>77,042</u>	<u>230,708</u>
Other changes in net assets without donor restrictions		
Total changes in net assets without donor restrictions	<u>222,779</u>	<u>343,024</u>
Changes in net assets with donor restrictions:		
Contributions	383,068	472,009
Investment return in excess of endowment payout	122,202	169,081
Net assets reclassified	110,892	—
Net assets released from restrictions	(133,537)	(110,424)
	<u>482,625</u>	<u>530,666</u>
Total changes in net assets with donor restrictions		
Total change in net assets	705,404	873,690
Net assets at beginning of year	<u>6,474,052</u>	<u>5,600,362</u>
Net assets at end of year	\$ <u>7,179,456</u>	\$ <u>6,474,052</u>

See accompanying notes to consolidated financial statements.

THE JOHNS HOPKINS UNIVERSITY
Consolidated Statements of Cash Flows
Years ended June 30, 2018 and 2017
(In thousands)

	<u>2018</u>	<u>2017</u>
Cash flows from operating activities:		
Changes in net assets	\$ 705,404	873,690
Adjustments to reconcile changes in net assets to net cash provided by operating activities:		
Depreciation, amortization, and loss on asset disposals	208,311	214,169
Contributions restricted for long-term investment	(289,935)	(201,792)
Net realized and unrealized gains from investments	(305,888)	(377,189)
Net unrealized gains from swaps	(5,978)	(11,667)
Earnings from joint ventures	(17,041)	(24,334)
Change in benefit plans funded status	(92,255)	(141,984)
Changes in operating assets and liabilities:		
Sponsored research and accounts receivable, net	(36,590)	(68,234)
Contributions receivable, net	(29,800)	(203,224)
Prepaid expenses and deferred charges	5,761	(11,346)
Other assets	1,336	296
Accounts payable and accrued expenses	40,868	14,043
Sponsored research and other deferred revenues and other long-term liabilities	(57,826)	44,328
Interests and liabilities related to trusts and split-interest agreements	6,442	8,038
Net cash provided by operating activities	<u>132,809</u>	<u>114,794</u>
Cash flows from investing activities:		
Purchases of investments	(4,351,587)	(3,602,665)
Proceeds from sales and maturities of investments	4,164,667	3,543,249
Purchases of property and equipment	(237,888)	(279,064)
Repayments of student loans, net of disbursements	3,839	3,233
Loans to affiliates	(39,895)	(775)
Repayments of loans to affiliates	41,956	23,424
Capital contributions to joint ventures, net of dividends	(27,351)	(6,338)
Change in endowment and similar funds held for others	(12,645)	(11,171)
Net cash used in investing activities	<u>(458,904)</u>	<u>(330,107)</u>
Cash flows from financing activities:		
Contributions restricted for long-term investment	289,935	201,792
Proceeds from borrowings	145,000	65,000
Early retirement and refinancings of debt	(134,880)	(90,945)
Scheduled debt payments	(56,971)	(12,250)
Net cash provided by financing activities	<u>243,084</u>	<u>163,597</u>
Net decrease in cash and cash equivalents	(83,011)	(51,716)
Cash and cash equivalents at beginning of year	<u>345,367</u>	<u>397,083</u>
Cash and cash equivalents at end of year	<u>\$ 262,356</u>	<u>345,367</u>

See accompanying notes to consolidated financial statements.

THE JOHNS HOPKINS UNIVERSITY
Notes to Consolidated Financial Statements
June 30, 2018 and 2017
(Dollars in thousands)

(1) Basis of Presentation and Summary of Significant Accounting Policies

(a) General

The Johns Hopkins University (the University) is a premier, privately endowed institution that provides education and related services to students and others, research and related services to sponsoring organizations, and professional medical services to patients. The University is based in Baltimore, Maryland, but also maintains facilities and operates education programs elsewhere in Maryland, in Washington, D.C. and in certain foreign locations. The University is internationally recognized as a leader in research, teaching, and medical care.

Education and related services (e.g., room, board, etc.) are provided to approximately 25,000 students, including 14,200 full-time students and 10,800 part-time students, and on a net basis provided approximately 11% of the University's operating revenues in fiscal 2018 and 2017. Approximately 60% of the full-time students are graduate level (including postdoctoral) and 40% are undergraduate level. Students are drawn from a broad geographic area, including most of the states in the United States and numerous foreign countries. The majority of the part-time students are graduate level students from the Baltimore-Washington, D.C. area.

Research and related services (e.g., research training) are provided through approximately 2,100 government and private sponsors. Sponsored research revenues provided approximately 56% of the University's operating revenues in fiscal years 2018 and 2017. Approximately 86% and 87% of those revenues were from departments and agencies of the United States government in fiscal 2018 and 2017, respectively. Major government sponsors include the Department of Health and Human Services, the Department of Defense, the National Aeronautics and Space Administration, and the Agency for International Development.

Professional clinical services are provided by members of the University's faculty to patients at The Johns Hopkins Hospital (the Hospital) and other hospitals and outpatient care facilities in the Baltimore area and produced approximately 12% of the University's operating revenues in both fiscal 2018 and 2017. Services are predominantly provided to patients in the Baltimore area, other parts of Maryland, or surrounding states.

(b) Basis of Presentation and Use of Estimates

The consolidated financial statements include the accounts of the various academic and support divisions, the Applied Physics Laboratory (APL), Johns Hopkins University Press, and certain other controlled affiliated organizations, including Jhpiego Corporation and Peabody Institute of the City of Baltimore (collectively, the consolidated financial statements). All significant inter-entity activities and balances are eliminated for financial reporting purposes. Investments in organizations that the University does not control, including Dome Corporation, FSK Land Corporation, Johns Hopkins Healthcare LLC, Johns Hopkins Home Care Group, Inc., Johns Hopkins Medical Institutions Utilities LLC (JHMI Utilities LLC), Johns Hopkins Medicine International LLC, and other affiliated entities, are accounted for using the equity method.

THE JOHNS HOPKINS UNIVERSITY

Notes to Consolidated Financial Statements

June 30, 2018 and 2017

(Dollars in thousands)

The preparation of consolidated financial statements in conformity with U.S. generally accepted accounting principles requires management to make estimates and judgments that affect the reported amounts of assets and liabilities and disclosures of contingencies at the dates of the consolidated financial statements and revenues and expenses recognized during the reporting periods. Actual results could differ from those estimates.

Net assets, revenues, and gains and losses are classified based on the existence or absence of donor-imposed restrictions into two classes of net assets. Accordingly, net assets of the University are classified and reported as follows:

- *Without donor restrictions* – Net assets that are not subject to donor-imposed stipulations.
- *With donor restrictions* – Net assets subject to donor-imposed stipulations that are more specific than broad limits resulting from a not-for-profit's nature, environment in which it operates, and incorporating documents. Some donors impose restrictions that are temporary in nature, for example, stipulating that resources be used only after a specified date, for particular programs or services, or to acquire buildings or equipment. Other donors impose restrictions that are perpetual in nature, for example, donor-restricted endowment funds stipulating that resources be maintained in perpetuity. For such funds held by the University, the Maryland-enacted version of the Uniform Prudent Management of Investment Funds (UPMIFA) extends those restrictions to related investment returns and to other enhancements (diminishments) for general and specific purposes, primarily divisional and departmental support and student financial aid.

Revenues are reported as increases in net assets without donor restrictions unless their use is limited by donor-imposed restrictions. Expenses are reported as decreases in net assets without donor restrictions. Gains and losses on investments are reported as increases or decreases in net assets without donor restrictions unless their use is restricted by explicit donor stipulations or by law. Under Maryland law, appreciation on donor-restricted endowments is classified as net assets with donor restrictions until appropriated for expenditure. Expirations of temporary restrictions on net assets (i.e., the donor-stipulated purpose has been fulfilled and/or the stipulated time period has elapsed) are reported as net assets released from restrictions and reclassified from net assets with donor restrictions to net assets without donor restrictions. Temporary restrictions on gifts to acquire long-lived assets are considered met in the period in which the assets are placed in service.

(c) Cash, Cash Equivalents, and Operating Investments

The University utilizes cash, cash equivalents, and operating investments to fund daily cash needs. Investments with original maturities at the date of purchase of 90 days or less are classified as cash equivalents. Investments with longer maturities are classified as operating investments. Operating investments, which include U.S. Treasury securities and other highly liquid fixed income investments, are stated at fair value, generally based on quoted market prices, and are used for general operating purposes.

(d) Contributions

Contributions, including unconditional promises to give, are recognized at fair value in the appropriate category of net assets in the period received, except that contributions that impose restrictions met in

THE JOHNS HOPKINS UNIVERSITY
Notes to Consolidated Financial Statements
June 30, 2018 and 2017
(Dollars in thousands)

the same fiscal year are included in net assets without donor restrictions. Unconditional promises to give are recognized initially at fair value considering anticipated future cash receipts and discounting such amounts at a risk-adjusted rate. These inputs to the fair value estimate are considered Level 3 in the fair value hierarchy (see note 1(f)). Amortization of the discount is included in contributions revenue. Conditional promises to give are not recognized until the conditions on which they depend are substantially met. Contributions of assets are recorded at their estimated fair value at the date of gift, except that contributions of works of art, historical treasures, and similar assets held as part of collections are not recognized or capitalized. Allowance is made for uncollectible contributions receivable based upon management's judgment and analysis of the creditworthiness of the donors, past collection experience, and other relevant factors.

(e) Investments and Investment Return

Investments in United States government and agency obligations, debt securities, and directly held United States and certain international equities in common collective trust funds (CCTFs) are stated at fair value, which are determined primarily based on quoted market prices. Fair values of CCTFs, similar to mutual funds that are deemed to have a readily determinable fair value (RDFV) are based on published net asset values (NAV). Investments in private equity and venture capital, certain real estate, natural resources, certain international equities in CCTFs and marketable alternatives, (collectively, alternative investments) are stated at estimated fair value based on the funds' net asset values, or their equivalents (collectively NAV) as a practical expedient. If it is probable that alternative investments will be sold for an amount different than NAV, measurement of the alternative investments will be adjusted to fair value. As of June 30, 2018 and 2017, the University had no plans or intentions to sell investments at amounts different from NAV. The NAVs, which are estimated and reported by the general partners or investment managers, are reviewed and evaluated by the University's investment office. These estimated fair values may differ from the values that would have been used had a ready market existed for these investments, and the differences could be significant. Investments in certain real estate assets are recorded at fair value based upon independent third-party appraisals.

Investments are exposed to several risks, including interest rate, credit, liquidity, and overall market volatility. Due to the level of risk associated with certain investment securities, changes in the value of investment securities could occur in the near term, and these changes could materially affect the amounts reported in the accompanying consolidated financial statements. Liquidity risk represents the possibility that the University may not be able to rapidly adjust the size of its portfolio holdings in times of high volatility and financial stress at a reasonable price. If the University was forced to dispose of an illiquid investment at an inopportune time, it might be forced to do so at a substantial discount to fair value.

Investment return included in operating revenues consists of income and realized gains and losses on operating investments, including cash equivalents, and nonpooled endowment funds (except where restricted by donors). Endowment payout for pooled endowment and similar funds approved by the Board of Trustees is also recognized in operating revenues.

Unrealized gains and losses of operating investments and nonpooled endowment funds, any difference between the total return recognized and the payout for pooled endowment and similar funds, and income and realized gains restricted by donors are reported as nonoperating activities.

THE JOHNS HOPKINS UNIVERSITY
Notes to Consolidated Financial Statements
June 30, 2018 and 2017
(Dollars in thousands)

(f) Fair Value Measurements

Assets and liabilities that are reported at fair value on a recurring basis are categorized into a fair value hierarchy. As described further in the notes to the consolidated financial statements, such assets include investments, deferred compensation assets, and interests in trusts and endowment funds held by others, and such liabilities include interest rate swaps, obligations under deferred compensation arrangements, and endowment and similar funds held for others. Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The three levels of the fair value hierarchy are as follows:

- Level 1: Quoted prices in active markets for identical assets or liabilities.
- Level 2: Observable inputs other than Level 1 prices such as quoted prices for similar assets or liabilities; quoted prices in markets that are not active; or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.
- Level 3: Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the asset or liabilities.

When observable prices are not available, certain real asset investments are valued using one or more of the following valuation techniques: market approach – this approach uses prices and other relevant information generated by market transactions involving identical or comparable assets or liabilities; income approach – this approach determines a valuation by discounting future cash flows; or cost approach – this approach is based on the principle of substitution and the concept that a market participant would not pay more than the amount that would currently be required to replace the asset. These valuation techniques may include inputs such as price information, operating statistics, specific and broad credit data, recent transactions, earnings forecasts, discount rates, reserve reports, and other factors.

(g) Split-Interest Agreements and Interests in Trusts

The University's split-interest agreements with donors consist primarily of irrevocable charitable remainder trusts and charitable gift annuity agreements for which the University serves as trustee. Assets held under these arrangements are included in investments and are recorded at fair value. Contribution revenues are recognized at the date the trusts or agreements are established after recording liabilities for the present value of the estimated future payments to be made to the donors and/or other beneficiaries. The liabilities are adjusted during the terms of the trusts for changes in the values of the assets, accretion of the discounts, and other changes in estimates of future benefits.

The University is also the beneficiary of certain perpetual and remainder trusts held and administered by others. The fair values of the trusts are recognized as assets and contribution revenues at the dates the trusts are established. The assets held in these trusts are included in interests in trusts and endowment funds held by others and are adjusted for changes in the fair value of the trust assets through nonoperating investment return. Interests in trusts and endowments held by others have a fair value measurement of Level 3. The value of interests in trusts and endowments held by others as of June 30, 2018 and 2017 is \$116,098 and \$114,085, respectively.

THE JOHNS HOPKINS UNIVERSITY
Notes to Consolidated Financial Statements
June 30, 2018 and 2017
(Dollars in thousands)

(h) Property and Equipment

Property and equipment are stated at cost if purchased, or at estimated fair value at the date of gift if donated, less accumulated depreciation and amortization. Depreciation of buildings, equipment, and library collections and amortization of leasehold improvements are computed using the straight-line method over the estimated useful lives of the assets. Land and certain historic buildings are not subject to depreciation. Title to certain equipment purchased using funds provided by government sponsors is vested in the University and is included in property and equipment on the consolidated balance sheets. Certain equipment used by the APL in connection with its performance under agreements with the United States government is owned by the government. These facilities and equipment are not included in the consolidated balance sheets; however, the University is accountable to the government for them. Repairs and maintenance costs are expensed as incurred.

Costs of purchased software are capitalized along with internal and external costs incurred during the application development stage (i.e., from the time the software is selected until it is ready for use). Capitalized costs are amortized on a straight-line basis over the expected life of the software. Computer and software maintenance costs are expensed as incurred.

Costs relating to retirement, disposal, or abandonment of assets for which the University has a legal obligation to perform certain activities are accrued using either site-specific surveys or square foot estimates, as appropriate.

(i) Tuition and Fees Revenue and Student Financial Aid

Student tuition and fees are recorded as revenue during the year the related academic services are rendered. Tuition and fees received in advance of services are recorded as other deferred revenues. The University provides financial aid to eligible students, generally in an "aid package" that includes loans, compensation under work-study programs, and/or grant and scholarship awards. The loans are provided primarily through programs of the United States government (including direct and guaranteed loan programs) under which the University is responsible only for certain administrative duties. The grants and scholarships include awards provided from gifts and grants from private donors, income earned on endowment funds restricted for student aid, and University funds.

(j) Sponsored Research Activities

Revenues under grants, contracts, and similar agreements with sponsors are recognized as expenditures are incurred. These revenues include recoveries of facilities and administrative costs, which are generally determined as a negotiated or agreed-upon percentage of direct costs, with certain exclusions. Funds received from sponsors in advance of expenditures incurred are reported as sponsored research deferred revenues.

Approximately 76% and 69% of receivables related to reimbursement of costs incurred under grants and contracts as of June 30, 2018 and 2017, respectively, were from agencies or departments of the United States government. There is no assurance that sponsored research activities can and will continue to be made at current levels.

THE JOHNS HOPKINS UNIVERSITY
Notes to Consolidated Financial Statements
June 30, 2018 and 2017
(Dollars in thousands)

(k) Clinical Services

Clinical services revenues are recognized in the period in which services are rendered and are reported at the estimated net realizable amounts from patients, third-party payors, and others. Allowance is made for uncollectible accounts based primarily on past collection experience and analyses of outstanding receivables. Contractual allowances are estimated based on actual claims paid by third-party payors.

(l) Affiliated Institutions

The University has separate administrative agreements for the exchange of services with the Hospital and other medical and educational institutions. Costs incurred by the University in providing services to these institutions and the related reimbursements are reported as operating expenses and revenues, respectively, in the appropriate classifications.

The University holds several endowment and similar funds, which are designated for purposes or activities that are carried out by the Hospital and The Johns Hopkins Hospital Endowment Fund Incorporated (JHHEFI). The assets of these funds are included in investments. The carrying values of the funds are adjusted for earnings from and changes in the fair values of the investments and reduced for any distributions paid and are classified as liabilities on the consolidated balance sheets as endowment and similar funds held for others.

(m) Auxiliary Enterprises

Auxiliary enterprises, including residence halls, food service, parking, the press, and telecommunications, provide services to students, faculty, and staff. Fees for such services are recognized as revenue as the services are provided.

(n) Insurance and Self Insurance

The University, together with other institutions, has formed captive insurance companies that arrange and provide professional liability, general liability, and property damage insurance for their shareholders. Defined portions of claims paid by these companies are self-insured. The University's claims liabilities are recognized as claims are incurred using actuarial studies based upon historical claims data, cost trends, and other actuarial estimates. Insurance expenses are recognized as operating expenses as incurred. In addition, the University is self-insured for certain other risks, primarily health and workers' compensation. Professional insurance liabilities associated with providing clinical services are reflected as gross claims on the consolidated balance sheets. In addition, medical malpractice insurance recoveries of \$53,832 and \$55,845 as of June 30, 2018 and 2017, respectively, are reported on the consolidated balance sheets as other assets. Accrued self-insurance liabilities, including medical malpractice insurance, aggregated \$75,645 and \$76,760 as of June 30, 2018 and 2017, respectively.

(o) Refundable Advances from the United States Government

Funds provided by the United States government under the Federal Perkins, Nursing and Health Professions Student Loan programs are loaned to qualified students, administered by the University, and may be reloaned after collections. These funds are ultimately refundable to the government and

THE JOHNS HOPKINS UNIVERSITY
Notes to Consolidated Financial Statements
June 30, 2018 and 2017
(Dollars in thousands)

are included in other long-term liabilities. These advances totaled \$22,682 and \$29,937 as of June 30, 2018 and 2017, respectively.

(p) Income Taxes

The University is qualified as a not-for-profit organization under Section 501(c)(3) of the Internal Revenue Code, as amended. Accordingly, it is not subject to income taxes except to the extent it has taxable income from activities that are not related to its exempt purpose. The University annually reviews its tax positions and has determined that there are no material uncertain tax positions that require recognition in the consolidated financial statements.

(q) Leases

The University conducts certain operations in leased facilities, which have minimum lease obligations under noncancelable operating leases. Certain leases contain rent escalations, renewal options, and require payments for taxes, insurance, and maintenance. Rent expense is recognized in operations as incurred, except for escalating rents, which are recognized on a straight-line basis over the life of the lease.

The University also enters into lease agreements that are classified as capital leases. Buildings and equipment under capital leases are initially recorded at the lower of the net present value of the minimum lease payments or the value of the leased asset at the inception of the lease. Depreciation expense related to capital leases totaled \$5,624 in both fiscal 2018 and 2017.

(r) Derivative Financial Instruments

The University and its external investment managers are authorized to use specified derivative financial instruments in managing the assets under their control, subject to restrictions and limitations adopted by the Board of Trustees. The University uses interest rate swap agreements to manage interest rate risk associated with certain variable rate debt or to adjust its debt structure. Derivative financial instruments are measured at fair value and recognized in the consolidated balance sheets as assets or liabilities, with changes in fair value recognized in the consolidated statements of activities.

(s) Deferred Compensation Plans

The University maintains deferred compensation plans for certain employees. As of June 30, 2018 and 2017, other investments, included in other assets on the consolidated balance sheets, represent investments held by the University under these deferred compensation agreements. Such amounts approximate the University's related liability to the employees and are included in other long-term liabilities. The assets and liabilities of the deferred compensation plans have a fair value measurement of Level 1. The value of the deferred compensation plans' assets as of June 30, 2018 and 2017 is \$130,232 and \$118,782, respectively.

(t) Statement of Cash Flows Supplemental Information

Property and equipment additions included in accounts payable and accrued expenses increased \$8,933 and \$3,299 as of June 30, 2018 and 2017, respectively.

THE JOHNS HOPKINS UNIVERSITY
Notes to Consolidated Financial Statements
June 30, 2018 and 2017
(Dollars in thousands)

(u) New Accounting Standard

In August 2016, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) 2016-14, *Presentation of Financial Statements of Not-for-Profit Entities*. The University early adopted ASU 2016-14 in fiscal year 2018. The standard is intended principally to improve the net asset classification requirements and the information presented in the consolidated financial statements and notes about liquidity and financial performance. The primary changes affecting the University include: presentation of two classes of net assets versus the previously required three; recognition of underwater endowment funds as a reduction in net assets with donor restrictions versus unrestricted net assets as previously required; enhanced disclosures for board designated amounts, composition of net assets without donor restrictions, and liquidity; and disclosure of expenses by both their natural and functional classification in a matrix format. As a result of adopting this standard, certain prior year amounts have been reclassified.

Net asset reclassifications as of July 1, 2016 driven by the adoption of ASU 2016-14 in 2018 are as follows:

<u>Net assets classifications</u>	<u>ASU 2016-14 Classifications</u>		
	<u>Without donor restrictions</u>	<u>With donor restrictions</u>	<u>Total net assets</u>
As previously presented:			
Unrestricted	\$ 2,402,328	—	2,402,328
Temporarily Restricted	—	1,183,475	1,183,475
Permanently Restricted	—	2,014,559	2,014,559
	2,402,328	3,198,034	5,600,362
Reclassifications to implement ASU 2016-14:			
Underwater endowments	21,178	(21,178)	—
Net assets, as reclassified	<u>\$ 2,423,506</u>	<u>3,176,856</u>	<u>5,600,362</u>

(v) Recent Accounting Pronouncements

In August 2016, the FASB issued ASU 2016-15, *Statement of Cash Flows (Topic 230), Classification of Certain Receipts and Cash Payments* (a consensus of the Emerging Issues Task Force). This update attempts to reduce diversity in practice by providing guidance on the classification of certain cash receipts and payments in the statement of cash flows. The new standard is effective for the University for fiscal years beginning after December 15, 2017. Early adoption is permitted. The University is evaluating the expected impact of this standard on its consolidated financial statements.

In February 2016, the FASB issued 2016-02, *Leases (Topic 842)*. Under the new provisions, all lessees will report on the balance sheet a right-of-use asset and a liability for the obligation to make payments with the exception of those leases with a term of 12 months or less. The new provisions will be effective for fiscal years beginning after December 15, 2018. Early adoption is permitted. The University is evaluating the expected impact of this standard on its consolidated financial statements.

THE JOHNS HOPKINS UNIVERSITY
Notes to Consolidated Financial Statements
June 30, 2018 and 2017
(Dollars in thousands)

In May 2014, the FASB amended Accounting Standards Codification (ASC) (Topic 605), Revenue Recognition and created ASC (Topic 606) *Revenue from Contracts with Customers*, as amended. The ASU implements a single framework for revenue recognition ensuring that revenue is recognized in a manner that reflects the consideration to which the entity expects to be entitled for goods and services. The new requirements may be implemented either retrospectively for all periods presented (i.e., the full retrospective approach), or retrospectively with a cumulative-effect adjustment at the date of the initial application (i.e., the modified retrospective approach). In June 2018, the FASB issued ASU 2018-08, *Not-for-Profit Entities (Topic 958), Clarifying the Scope and Accounting Guidance for Contributions Received and Contributions Made*. ASU 2018-08 assists entities in evaluating whether transactions should be accounted for as contributions (nonreciprocal transactions) within the scope of Topic 958, *Not-for-Profit Entities*, or as exchange (reciprocal) transactions subject to other guidance and in determining whether a contribution is conditional. This ASU should be applied on a modified prospective basis with retrospective application permitted. The guidance will be applicable in fiscal years beginning after June 15, 2018. The University is evaluating the expected impact of the aforementioned standards and related emerging guidance on its consolidated financial statements.

(w) Reclassifications

Certain 2017 amounts have been reclassified in order to conform to the 2018 financial statement presentation.

(2) Applied Physics Laboratory

The Applied Physics Laboratory (APL), located in Howard County, Maryland, was established during World War II with funding from the United States government. APL functions as a research facility and conducts research and development primarily in national defense and space sciences. The University owns and operates the facility and conducts research under a multiple task order contract with the United States Navy (the Navy Contract) and separate contracts with other government agencies. APL is organized as a Limited Liability Company (LLC), wholly owned by the University, and operates as a division of the University.

In accordance with an agreement between the United States government and the University, APL has been designated a national resource. Under the agreement, if the University determines that it can no longer sponsor APL or the Secretary of the Navy determines that the Navy can no longer contract with the University with respect to APL on mutually satisfactory terms, the University is required to establish a charitable trust to provide for the continued availability of the APL. The trust would be administered by five trustees and the corpus would consist of the University's interest in the APL facilities, including land to the extent necessary, and the balances in the University's APL stabilization, contingency, and research fund on the date the trust is established, less certain costs. Upon termination of the trust, the corpus, in whole or in part, as determined by the trustees, would be returned to and held and used by the University for such educational or research purposes and in such manner as the trustees and University agree.

The University works under an omnibus contract with the U.S. Navy. The most recent contract provides for a five-year initial term ending in September 2017, plus a five-year renewal option, which was exercised in February 2017 and establishes an aggregate purchase limit of \$4,766,558 over the ten-year contract period ending September 2022, although the ordering ceiling is expected to be consumed in March 2020.

THE JOHNS HOPKINS UNIVERSITY
Notes to Consolidated Financial Statements
June 30, 2018 and 2017
(Dollars in thousands)

Approximately 73% and 18% of APL's revenues in fiscal 2018 were from the Department of Defense (primarily under the Navy Contract) and the National Aeronautics and Space Administration, respectively. In fiscal 2017, those percentages were 75% and 17%, respectively. Contract work includes evaluation and design of various types of missile systems and command, control, and communication systems, assessment of submarine technologies, design of space systems for precision tracking, location and navigation, and conduct of space experiments. The contracts define costs for which reimbursements may be received and provide a management fee to the University. The Navy Contract requires that a portion of the fees earned under the Navy Contract be retained and used for various purposes, including, among other things, working capital, capital projects, and reserves.

(3) Accounts Receivable

Accounts receivable, net are summarized as follows as of June 30, 2018 and 2017:

	<u>2018</u>	<u>2017</u>
Affiliated institutions, primarily the Hospital (note 11)	\$ 37,445	47,353
Students	19,959	21,702
Others	<u>45,495</u>	<u>44,201</u>
Total, net of allowances of \$8,656 in 2018 and \$7,476 in 2017	102,899	113,256
Receivables for clinical professional fees, net of contractual and bad debt allowances of \$153,484 in 2018 and \$166,108 in 2017	<u>83,989</u>	<u>88,789</u>
	<u>\$ 186,888</u>	<u>202,045</u>

The mix of gross accounts receivable for clinical professional fees from patients and third-party payors consisted of the following as of June 30, 2018 and 2017: commercial third parties 44% and 45%, respectively; Medicare 21% for both years; Medicaid 15% and 14%, respectively; Blue Cross/Blue Shield 6% and 5%, respectively; and patients 14% and 15%, respectively.

THE JOHNS HOPKINS UNIVERSITY
Notes to Consolidated Financial Statements
June 30, 2018 and 2017
(Dollars in thousands)

(4) Contributions Receivable

Contributions receivable, net are summarized as follows as of June 30, 2018 and 2017:

	<u>2018</u>	<u>2017</u>
Unconditional promises scheduled to be collected in:		
Less than one year	\$ 136,160	138,198
One year to five years	401,188	357,718
Over five years	<u>13,825</u>	<u>11,182</u>
	551,173	507,098
Less unamortized discount (interest rates ranging from 0.7% to 5.1%) and allowances for uncollectible contributions	<u>51,023</u>	<u>36,748</u>
	<u>\$ 500,150</u>	<u>470,350</u>

As of June 30, 2018 and 2017, 68% and 70%, respectively, of the gross contributions receivable were due from ten donors. Approximately 52% and 66% of contribution revenues for fiscal 2018 and 2017, respectively, were from ten donors. As of June 30, 2018, the University had also been informed of bequest intentions and conditional promises to give aggregating in excess of \$600,000, which have not been recognized as assets or revenues. If received, these gifts will generally be restricted for specific purposes stipulated by the donors, primarily endowments for faculty support, scholarships, or general operating support of a particular department or division of the University.

(5) Investments and Investment Return

The overall investment objective of the University is to invest its assets in a prudent manner that will achieve a long-term rate of return sufficient to fund a portion of its annual operating activities and increase investment value after inflation. The University diversifies its investments among various asset classes incorporating multiple strategies and managers. The Committee on Investments of the Board of Trustees oversees the University's investment program in accordance with established guidelines, which cover asset allocation and performance objectives and impose various restrictions and limitations on the managers. These restrictions and limitations are specific to each asset classification and cover concentrations of market risk (at both the individual issuer and industry group levels), credit quality of fixed-income and short-term investments, use of derivatives, investments in foreign securities, and various other matters. The managers may make use of exchange-traded interest rate futures contracts, forward currency contracts, and other derivative instruments.

THE JOHNS HOPKINS UNIVERSITY
Notes to Consolidated Financial Statements
June 30, 2018 and 2017
(Dollars in thousands)

Investments are summarized as follows as of June 30, 2018 and 2017:

	<u>2018</u>	<u>2017</u>
Operating investments	\$ 1,217,481	1,178,338
Investments	<u>5,144,881</u>	<u>4,651,545</u>
	<u>\$ 6,362,362</u>	<u>5,829,883</u>
Cash and cash equivalents	\$ 2,354	72,893
United States government and agency obligations	1,469,911	1,577,483
Debt securities	361,565	352,922
United States equities	699,824	446,718
International equities	934,030	1,227,310
Private equity and venture capital	792,624	636,110
Real estate	451,520	432,987
Natural resources	300,104	289,898
Marketable alternatives	<u>1,350,430</u>	<u>793,562</u>
	<u>\$ 6,362,362</u>	<u>5,829,883</u>

The following table summarizes the University's investments as of June 30, 2018 and 2017 for which NAV was used as a practical expedient to estimate fair value:

	<u>Fair value determined using NAV</u>		<u>Unfunded commitments</u>		<u>Redemption frequency</u>	<u>Redemption notice period</u>
	<u>2018</u>	<u>2017</u>	<u>2018</u>	<u>2017</u>	<u>2018</u>	<u>2018</u>
International equities	\$ 629,794	829,774	—	—	71% Monthly 13% Quarterly 16% Annually	1 to 120 days
Private equity and venture capital	792,624	636,110	406,185	388,519	N/A	N/A
Real estate	308,334	295,425	298,039	248,436	N/A	N/A
Natural resources	292,566	283,473	117,350	109,947	N/A	N/A
Marketable alternatives	<u>1,350,430</u>	<u>793,562</u>	<u>129,472</u>	<u>98,463</u>	See chart below	20 to 90 days ⁽¹⁾
	<u>\$ 3,373,748</u>	<u>2,838,344</u>	<u>951,046</u>	<u>845,365</u>		

⁽¹⁾ Investments that are not redeemable total \$212,266 and \$176,685 as of June 30, 2018 and 2017, respectively

The commitments may be drawn down over the next several years upon request by the general partners and fund managers. The University expects to finance these commitments with available cash and expected proceeds from the sales of securities.

THE JOHNS HOPKINS UNIVERSITY
Notes to Consolidated Financial Statements
June 30, 2018 and 2017
(Dollars in thousands)

Marketable alternatives have the following redemption periods as of June 30, 2018 and 2017:

	<u>2018</u>	<u>2017</u>
Annual redemptions	\$ 223,213	274,541
Monthly to annual over 1 – to 3-year period	759,067	203,334
Rolling 3 – to 5-year redemption	155,884	139,002
Drawdown funds over 10-year period	<u>212,266</u>	<u>176,685</u>
	<u>\$ 1,350,430</u>	<u>793,562</u>

Information with respect to investee strategies and redemptions for those investments in funds whose fair value is estimated based upon reported NAVs follow:

(a) International Equities

This includes commingled funds that invest in publicly traded common stock of developed and emerging market companies. One fund offers annual liquidity while all other funds allow monthly or quarterly redemptions with various notice requirements ranging from 1 to 120 days.

(b) Private Equity and Venture Capital

This includes funds making investments in leveraged buyouts of both public and private companies, as well as investments in venture capital, growth-stage investing, and distressed debt. These are limited partnerships where distributions are made to investors through the liquidation of the underlying assets. It is expected to take up to 10 years to fully distribute these assets.

(c) Real Estate

This includes limited partnerships making investments in real estate. These investments make distributions to investors through the liquidation of underlying assets. It is expected to take up to 15 years to fully distribute these assets.

(d) Natural Resources

This includes limited partnerships making investments in oil and gas, timber, agriculture, minerals, and other commodities. These investments make distributions to investors through the liquidation of the underlying assets. It is expected to take up to 15 years to fully distribute these assets.

(e) Marketable Alternatives

This includes multi-strategy, credit and distressed debt, relative value, and event-driven funds in hedge fund and drawdown formats. Hedge funds have various redemption periods as summarized in the table above, with notice requirements ranging from 20 to 90 days. Drawdown funds are limited partnerships where distributions are made to investors through the liquidation of the underlying assets. It is expected to take up to 10 years to fully distribute these drawdown funds.

THE JOHNS HOPKINS UNIVERSITY
Notes to Consolidated Financial Statements
June 30, 2018 and 2017
(Dollars in thousands)

Investment return is classified in the consolidated statements of activities as follows for the years ended June 30, 2018 and 2017:

	<u>2018</u>	<u>2017</u>
Without Donor Restrictions:		
Operating, including endowment payout	\$ 212,348	196,049
Nonoperating	38,360	72,460
With Donor Restrictions	<u>122,202</u>	<u>169,081</u>
	<u>\$ 372,910</u>	<u>437,590</u>

(6) Fair Value Measurements

The following table presents investments that are measured at fair value on a recurring basis as of June 30, 2018:

	<u>Fair value as of June 30, 2018</u>	<u>Level 1</u>	<u>Level 2</u>	<u>Level 3</u>	<u>Funds at NAV</u>
Operating investments:					
United States government and agency obligations	\$ 874,372	874,372	—	—	—
Debt securities	<u>343,109</u>	<u>143,994</u>	<u>199,115</u>	—	—
Total operating investments	<u>1,217,481</u>	<u>1,018,366</u>	<u>199,115</u>	—	—
Investments, at fair value:					
Cash and cash equivalents	2,354	2,354	—	—	—
United States government and agency obligations	595,539	595,539	—	—	—
Debt securities	18,456	18,456	—	—	—
United States equities	699,824	699,824	—	—	—
International equities	934,030	304,236	—	—	629,794
Private equity and venture capital	792,624	—	—	—	792,624
Real estate	451,520	18,871	—	124,315	308,334
Natural resources	300,104	7,538	—	—	292,566
Marketable alternatives	<u>1,350,430</u>	—	—	—	<u>1,350,430</u>
Total investments, at fair value	<u>5,144,881</u>	<u>1,646,818</u>	—	<u>124,315</u>	<u>3,373,748</u>
Total investments	<u>\$ 6,362,362</u>	<u>2,665,184</u>	<u>199,115</u>	<u>124,315</u>	<u>3,373,748</u>

THE JOHNS HOPKINS UNIVERSITY
Notes to Consolidated Financial Statements
June 30, 2018 and 2017
(Dollars in thousands)

The following table presents investments that are measured at fair value on a recurring basis as of June 30, 2017:

	Fair value as of June 30, 2017	Level 1	Level 2	Level 3	Funds at NAV
Assets:					
Operating investments:					
United States government and agency obligations	\$ 845,447	845,447	—	—	—
Debt securities	332,891	129,166	203,725	—	—
Total operating investments	<u>1,178,338</u>	<u>974,613</u>	<u>203,725</u>	<u>—</u>	<u>—</u>
Investments, at fair value:					
Cash and cash equivalents	72,893	72,893	—	—	—
United States government and agency obligations	732,036	732,036	—	—	—
Debt securities	20,031	20,031	—	—	—
United States equities	446,718	446,718	—	—	—
International equities	1,227,310	397,536	—	—	829,774
Private equity and venture capital	636,110	—	—	—	636,110
Real estate	432,987	17,471	—	120,091	295,425
Natural resources	289,898	6,425	—	—	283,473
Marketable alternatives	793,562	—	—	—	793,562
Total investments at fair value	<u>4,651,545</u>	<u>1,693,110</u>	<u>—</u>	<u>120,091</u>	<u>2,838,344</u>
Total investments	<u>\$ 5,829,883</u>	<u>2,667,723</u>	<u>203,725</u>	<u>120,091</u>	<u>2,838,344</u>

The methods and assumptions used to estimate the fair value of investments are defined in note 1(f).

THE JOHNS HOPKINS UNIVERSITY
Notes to Consolidated Financial Statements
June 30, 2018 and 2017
(Dollars in thousands)

The following table presents the University's activity for Level 3 investments measured at fair value on a recurring basis for the years ended June 30, 2018 and 2017:

	<u>Real estate</u>	<u>Natural resources</u>
Balance as of June 30, 2016	\$ 132,211	45,733
Net realized and unrealized losses	(12,000)	(5)
Sales and distributions	<u>(120)</u>	<u>(45,728)</u>
Balance as of June 30, 2017	120,091	—
Net realized and unrealized gains	4,224	—
Sales and distributions	<u>—</u>	<u>—</u>
Balance as of June 30, 2018	<u>\$ 124,315</u>	<u>—</u>

For the years ended June 30, 2018 and 2017, the University did not have any transfers between fair value levels.

(7) Property and Equipment

Property and equipment, net, are summarized as follows as of June 30, 2018 and 2017:

	<u>2018</u>	<u>2017</u>	<u>Range of useful lives</u>
Land	\$ 115,815	110,035	N/A
Land improvements	112,192	111,260	15 years
Buildings and leasehold improvements	3,338,224	3,185,282	10–40 years
Equipment	1,008,385	963,179	7–15 years
Capitalized software costs	125,453	122,393	3–10 years
Library collections	330,602	314,359	25 years
Construction in progress	<u>144,753</u>	<u>158,333</u>	N/A
	5,175,424	4,964,841	
Less accumulated depreciation and amortization	<u>3,048,511</u>	<u>2,871,751</u>	
	<u>\$ 2,126,913</u>	<u>2,093,090</u>	

THE JOHNS HOPKINS UNIVERSITY
Notes to Consolidated Financial Statements
June 30, 2018 and 2017
(Dollars in thousands)

(8) Debt

Debt is summarized as follows as of June 30, 2018 and 2017:

	<u>2018</u>	<u>2017</u>
Bonds payable	\$ 896,438	1,031,005
Notes payable – taxable	214,799	96,839
Commercial paper revenue notes – tax-exempt	67,169	77,169
Commercial paper revenue notes – taxable	—	20,000
Capital lease obligations (note 15)	<u>68,586</u>	<u>73,517</u>
	<u>\$ 1,246,992</u>	<u>1,298,530</u>

(a) Bonds Payable

Bonds payable were 1) issued by the Maryland Health and Higher Educational Facilities Authority (MHHEFA) or 2) Taxable Bonds issued directly, and consist of the following as of June 30, 2018 and 2017:

	<u>2018</u>	<u>2017</u>
Revenue Bonds Series 2005A, variable effective rate (1.48%), due July 2036	\$ 69,265	69,265
Revenue Bonds Series 2008A, 5.00% to 5.25%, due July 2038	—	114,880
Taxable Bonds 2009 Series A, 5.25%, due July 2019	50,000	50,000
Revenue Bonds Series 2012A, 4.00% to 5.00%, due July 2041	153,150	153,150
Taxable Bonds 2013 Series A, 4.08%, due July 2053	355,000	355,000
Revenue Bonds Series 2013B, 4.25% to 5.00%, due July 2041	99,625	99,625
Taxable Bonds 2015 Series A, 1.48% and 3.75%, due July 2045	<u>150,000</u>	<u>165,000</u>
Subtotal	877,040	1,006,920
Premium and discount, net	24,116	29,614
Debt issuance cost, net	<u>(4,718)</u>	<u>(5,529)</u>
	<u>\$ 896,438</u>	<u>1,031,005</u>

The bonds payable outstanding as of June 30, 2018 and 2017 are unsecured general obligations of the University. The loan agreements generally provide for semiannual payments of interest.

THE JOHNS HOPKINS UNIVERSITY
Notes to Consolidated Financial Statements
June 30, 2018 and 2017
(Dollars in thousands)

(b) Notes Payable – taxable

Notes payable – taxable consist of the following as of June 30, 2018 and 2017:

	2018	2017
Note due December 2019	\$ 15,169	21,839
Note due April 2020	50,000	50,000
Note due November 2023	25,000	25,000
Note due November 2024	25,000	—
Note due November 2024	24,630	—
Note due November 2027	25,000	—
Notes due May 2048	50,000	—
	\$ 214,799	96,839

The note due December 2019 is secured by certain of the University’s property and bears interest at a fixed rate of 8.88%. The note is due in annual installments.

The note due April 2020, in the principal amount of \$50,000, is an unsecured general obligation of the University and bears interest at a variable rate, 2.42% and 1.49% as of June 30, 2018 and 2017, respectively.

The note due November 2023, in the principal amount of \$25,000, is an unsecured general obligation of the University and bears interest at a fixed rate of 2.74%.

The note due November 2024, in the principal amount of \$25,000, is an unsecured general obligation of the University and bears interest at a fixed rate of 2.89%.

The note due November 2024, in the principal amount of \$24,630, is an unsecured general obligation of the University and bears interest at a fixed rate of 2.90%.

The note due November 2027, in the principal amount of \$25,000, is an unsecured general obligation of the University and bears interest at a fixed rate of 2.94%.

The notes due May 2048, in the principal amount of \$50,000, are unsecured general obligations of the University and bear interest at a fixed rate of 4.16%.

(c) Commercial Paper

Under the commercial paper program, the University may have commercial paper outstanding of up to \$400,000. The notes are unsecured, bear interest at rates that are fixed at the date of issue and may have maturities up to 270 days from the date of issue. The notes outstanding as of June 30, 2018 bear interest at a weighted average rate of 1.34%.

THE JOHNS HOPKINS UNIVERSITY
Notes to Consolidated Financial Statements
June 30, 2018 and 2017
(Dollars in thousands)

The tax-exempt commercial paper revenue notes were issued by MHHEFA to finance and refinance the costs of qualified assets. It is anticipated that the University will continuously renew maturing notes for a period of up to 120% of the estimated useful lives of the related assets.

(d) Interest Costs

Total interest costs incurred and paid were \$53,519 in 2018 and \$54,248 in 2017, of which \$3,074 in 2018 and \$1,857 in 2017 were capitalized.

(e) Other Credit Agreements

The University maintains standby liquidity and line of credit agreements with several commercial banks as follows:

	<u>Amount</u>	<u>Maturity</u>	<u>Purpose</u>
\$	100,000	March 2019	Revolving line of credit
	40,000	September 2018	Standby liquidity agreement
	100,000	November 2020	Standby liquidity agreement
	50,000	December 2020	Standby liquidity agreement
	150,000	March 2020	Lines of credit
	50,000	July 2020	Line of credit

To support liquidity under the bond and commercial paper revenue notes programs, the University has three standby liquidity agreements with commercial banks. These agreements are intended to enable the University to fund the purchase of variable rate demand bonds, which are tendered and not remarketed, and to pay the maturing principal of and interest on commercial paper notes in the event they cannot be remarketed. Advances under these agreements are unsecured, bear interest at a rate that varies based on certain market indices, and are due by the stated expiration date unless extended by a term loan. There were no borrowings under any of the University's credit facilities during fiscal 2018 and 2017.

The University may borrow up to \$100,000 under a revolving line of credit designated for working capital purposes at APL. Advances under the revolving line of credit are unsecured, due on demand, and bear interest at a rate that varies based on certain market indices. There were no borrowings outstanding on the revolving line of credit as of June 30, 2018 and 2017.

(f) Interest Rate Swap Agreements

Under interest rate swap agreements, the University and the counterparties agree to exchange the difference between fixed rate and variable rate interest amounts calculated by reference to specified notional principal amounts during the agreement period. Notional principal amounts are used to express the volume of these transactions, but the cash requirements and amounts subject to credit risk are substantially less.

THE JOHNS HOPKINS UNIVERSITY
Notes to Consolidated Financial Statements
June 30, 2018 and 2017
(Dollars in thousands)

The following table summarizes the general terms of the University's fixed payor swap agreements as of June 30, 2018:

<u>Effective date</u>	<u>Notional amount</u>	<u>Termination date</u>	<u>Interest rate paid</u>	<u>Interest rate received</u>
June 2005	\$ 69,265	July 2036	3.87 %	SIFMA, 1.51% as of June 30, 2018
July 2007	7,900	July 2027	3.45	67.0% of 1-month LIBOR, 1.41% as of June 30, 2018
July 2008	<u>40,350</u>	July 2020	3.43	67.0% of 1-month LIBOR, 1.41% as of June 30, 2018
Total	\$ <u><u>117,515</u></u>			LIBOR, 1.41% as of June 30, 2018

Parties to interest rate swap agreements are subject to market risk for changes in interest rates and risk of credit loss in the event of nonperformance by the counterparty.

The fair value of each swap is the estimated amount the University would receive or pay to terminate the swap agreement at the reporting date considering current interest rates and creditworthiness of the swap counterparties. The aggregate fair value of the University's interest rate swap agreements as of June 30, 2018 and 2017 was a liability of \$16,139 and \$22,117, respectively, excluding accrued interest, and is reported as other long-term liabilities. Changes in the fair value of the interest rate swap agreements are reported as nonoperating activities. The change in fair value was a gain of \$5,978 and \$11,667 in fiscal 2018 and 2017, respectively.

The University is required to post collateral under these agreements when certain thresholds are exceeded. As of June 30, 2018 and 2017, these thresholds were met and the required collateral was \$0.

THE JOHNS HOPKINS UNIVERSITY
Notes to Consolidated Financial Statements
June 30, 2018 and 2017
(Dollars in thousands)

(g) Annual Principal Payments

The following table summarizes the aggregate annual maturities of bonds payable, notes payable, and the maturities of specific tax-exempt commercial paper revenue note tranches, for the five fiscal years subsequent to June 30, 2018:

<u>Fiscal year</u>	<u>Bonds payable</u>	<u>Notes payable</u>	<u>Commercial paper notes</u>	<u>Total</u>
2019	\$ 50,000	8,876	—	58,876
2020	8,595	59,630	—	68,225
2021	8,590	1,774	—	10,364
2022	8,595	1,821	—	10,416
2023	16,655	2,753	-	19,408
Thereafter	<u>784,605</u>	<u>139,945</u>	<u>67,169</u>	<u>991,719</u>
	<u>\$ 877,040</u>	<u>214,799</u>	<u>67,169</u>	<u>1,159,008</u>

Due to requirements to pay the trustee in advance of the payment due date, scheduled maturities in the table above are reflected in the fiscal year that they will be paid to the trustee.

(9) Net Assets

Net assets without donor restrictions consists of the following as of June 30, 2018 and 2017:

	<u>2018</u>	<u>2017</u>
Net investment in plant	\$ 879,921	794,560
Board designated endowment funds	958,270	1,002,871
Undesignated	<u>1,151,118</u>	<u>969,099</u>
	<u>\$ 2,989,309</u>	<u>2,766,530</u>

THE JOHNS HOPKINS UNIVERSITY
Notes to Consolidated Financial Statements
June 30, 2018 and 2017
(Dollars in thousands)

Net assets with donor restrictions consists of the following as of June 30, 2018 and 2017:

	<u>2018</u>	<u>2017</u>
Donor-restricted endowment funds	\$ 3,232,250	2,741,880
Contributions receivable for endowment	222,940	267,629
Contributions receivable for operating	197,910	186,557
Contributions restricted for facilities	96,232	74,399
Land subject to time and purpose restrictions	71,000	71,000
Perpetual trusts for scholarship and program support	60,322	57,713
Other contributions, including annuities and other trusts	309,493	308,344
	<u>\$ 4,190,147</u>	<u>3,707,522</u>

Other contributions, including annuities and other trusts are restricted for faculty support, research and program support.

(10) University Endowment

The University's endowment consists of approximately 4,100 individual funds established for a variety of purposes and includes both donor-restricted endowment funds and funds designated by the Board of Trustees to function as endowments. Net assets associated with endowment funds are classified and reported based on the existence or absence of donor-imposed restrictions.

The Board of Trustees of the University has interpreted the Maryland enacted version of Uniform Prudent Management of Institutional Funds Act (UPMIFA) as allowing the University to appropriate for expenditure or accumulate so much of an endowment fund as the University determines is prudent for the uses, benefits, purposes, and duration for which the endowment fund is established, subject to the intent of the donor as expressed in the gift instrument.

The Board of Trustees of the University manages and invests the individual endowment funds in the exercise of ordinary business care and prudence under facts and circumstances and considering the purposes, factors, and other requirements of UPMIFA. The University classifies as net assets with donor restrictions (a) the original value of gifts donated, which are donated to the endowment, (b) the original value of subsequent gifts to the endowment, and (c) accumulations to the endowment, which are not expendable on a current basis in accordance with the directions of the applicable donor gift instrument at the time the accumulation is added to the fund. At times, the fair value of individual donor restricted endowment funds may be in an underwater position (fall below historical book value) and are reported in net assets with donor restrictions. With respect to underwater endowments the spending occurs only to the extent that the fair value of the endowment fund is 75% of historical book value.

The University has adopted investment policies for its endowment, including board-designated funds, which attempt to provide a predictable stream of funding in support of the operating budget, while seeking to preserve the real value of the endowment assets over time. The University relies on a total return strategy under which investment returns are achieved through both appreciation (realized and unrealized) and yield

THE JOHNS HOPKINS UNIVERSITY
Notes to Consolidated Financial Statements
June 30, 2018 and 2017
(Dollars in thousands)

(interest and dividends). Investments are diversified by asset class, as well as by investment manager and style, with a focus on achieving long-term return objectives within prudent risk constraints.

Subject to the intent of the donor, the Board of Trustees appropriates for expenditure or accumulates funds in the endowments in the exercise of ordinary business care and prudence under the facts and circumstances and considering the purposes, factors, and other requirements of UPMIFA. The annual appropriation is determined in the context of the University's spending rate policy. The current policy, which is based on a long-term investment return assumption as well as an estimated inflation factor, targets the appropriation to be in a range of 4.5% to 5.5% of the prior three years' average value of the endowment.

Endowment net assets consist of the following as of June 30, 2018:

	<u>Without donor restrictions</u>	<u>With donor restrictions</u>	<u>Total</u>
Investments by type of fund			
Donor-restricted endowments			
Historical gift value	\$ —	2,405,921	2,405,921
Appreciation	—	826,329	826,329
Board-designated endowments	<u>958,270</u>	<u>—</u>	<u>958,270</u>
Total endowment net assets	<u>\$ 958,270</u>	<u>3,232,250</u>	<u>4,190,520</u>

Endowment net assets consist of the following as of June 30, 2017:

	<u>Without donor restrictions</u>	<u>With donor restrictions</u>	<u>Total</u>
Investments by type of fund			
Donor-restricted endowments			
Historical gift value	\$ —	2,041,644	2,041,644
Appreciation	—	700,236	700,236
Board-designated endowments	<u>1,002,871</u>	<u>—</u>	<u>1,002,871</u>
Total endowment net assets	<u>\$ 1,002,871</u>	<u>2,741,880</u>	<u>3,744,751</u>

As of June 30, 2018 and 2017, donor-restricted endowments with an original gift value of \$93,454 and \$59,692 were underwater by \$239 and \$1,077, respectively. These deficits resulted from unfavorable market fluctuations that occurred shortly after the investment of newly established endowments and authorized appropriation that was deemed prudent.

THE JOHNS HOPKINS UNIVERSITY
Notes to Consolidated Financial Statements
June 30, 2018 and 2017
(Dollars in thousands)

Changes in endowment net assets for the years ended June 30, 2018 and 2017 are as follows:

	<u>Without donor restrictions</u>	<u>With donor restrictions</u>	<u>Total</u>
Endowment net assets, June 30, 2016	\$ 915,141	2,391,846	3,306,987
Investment return	135,344	270,198	405,542
Contributions and designations	20,603	209,842	230,445
Withdrawals	(23,000)	—	(23,000)
Appropriation for expenditure	<u>(45,217)</u>	<u>(130,006)</u>	<u>(175,223)</u>
Endowment net assets, June 30, 2017	1,002,871	2,741,880	3,744,751
Investment return	77,609	253,356	330,965
Contributions and designations	30,642	267,648	298,290
Appropriation for expenditure	(41,960)	(141,526)	(183,486)
Endowment reclass	<u>(110,892)</u>	<u>110,892</u>	<u>—</u>
Endowment net assets, June 30, 2018	<u>\$ 958,270</u>	<u>3,232,250</u>	<u>4,190,520</u>

The Board of Trustees authorized withdrawals for the purchase of land and other capital activities for the APL in fiscal 2017.

As a result of the adoption of ASU 2016-14, *Presentation of Financial Statements of Not-for-Profit Entities*, the University conducted a review of endowments classified as without donor restrictions and determined some endowments were misclassified due to a policy change. This resulted in an endowment reclass of \$110,892 from without donor restrictions to with donor restrictions.

Endowments are to be utilized for the following purposes as of June 30, 2018:

	<u>Without donor restrictions</u>	<u>With donor restrictions</u>	<u>Total</u>
Faculty Support	\$ 282,530	1,567,012	1,849,542
Scholarship Support	165,977	733,415	899,392
Program Support	392,343	439,108	831,451
Research	<u>117,420</u>	<u>492,715</u>	<u>610,135</u>
	<u>\$ 958,270</u>	<u>3,232,250</u>	<u>4,190,520</u>

THE JOHNS HOPKINS UNIVERSITY
Notes to Consolidated Financial Statements
June 30, 2018 and 2017
(Dollars in thousands)

Endowments are to be utilized for the following purposes as of June 30, 2017:

	<u>Without donor restrictions</u>	<u>With donor restrictions</u>	<u>Total</u>
Faculty Support	\$ 312,606	1,309,231	1,621,837
Scholarship Support	185,573	592,764	778,337
Program Support	390,329	389,828	780,157
Research	114,363	450,057	564,420
	<u>\$ 1,002,871</u>	<u>2,741,880</u>	<u>3,744,751</u>

(11) Affiliated Institutions

Reimbursements from affiliated institutions consist of the following for the years ended June 30, 2018 and 2017:

	<u>2018</u>	<u>2017</u>
Johns Hopkins Health System	\$ 50,588	52,378
Johns Hopkins Hospital	293,478	292,097
Johns Hopkins Bayview Medical Center	77,689	73,222
Other Johns Hopkins entities	122,899	113,087
Other affiliated medical institutions	25,995	22,852
	<u>\$ 570,649</u>	<u>553,636</u>

(a) The Johns Hopkins Health System (JHHS)

JHHS is incorporated and governed separately from the University and is the parent entity of an academically based health system, which includes the Hospital, Johns Hopkins Bayview Medical Center, Howard County General Hospital, Suburban Hospital, Sibley Memorial Hospital, All Children's Hospital, and other related organizations. The University and JHHS have established a Board of Johns Hopkins Medicine (JHM) to direct, integrate, and coordinate the clinical activities of the two organizations. JHM does not have the authority to incur debt or issue guarantees and its annual budgets require the approval of the Boards of Trustees of both the University and JHHS.

Reimbursements from JHHS relate primarily to space and purchased services for clinical and nonclinical operations.

(b) The Hospital

The Hospital is a member of JHHS and serves as the primary teaching facility of the University's School of Medicine. Because of the closely related nature of their operations, the University and the Hospital share facilities and provide services to each other to fulfill their purposes more effectively. The sharing of facilities and services is negotiated annually and set forth in a Joint Administrative

THE JOHNS HOPKINS UNIVERSITY
Notes to Consolidated Financial Statements
June 30, 2018 and 2017
(Dollars in thousands)

Agreement (JAA). Costs charged to the Hospital under the JAA, related primarily to the provision of professional medical services from the University, aggregated \$224,230 in fiscal 2018 and \$212,965 in fiscal 2017. Costs charged to the University under the JAA, related primarily to rental of space in Hospital facilities under a renewable one-year lease, aggregated \$47,089 in fiscal 2018 and \$47,594 in fiscal 2017, and are included in operating expenses in the consolidated statements of activities.

(c) Johns Hopkins Bayview Medical Center (JHBMC)

JHBMC is a community-based teaching hospital and long-term care facility. The University and JHBMC also share facilities and provide services to each other and negotiate the costs annually under a JAA. Costs charged to JHBMC under the JAA, related primarily to the provision of professional medical services from the University, aggregated \$73,200 in fiscal 2018 and \$70,083 in fiscal 2017.

(d) The Johns Hopkins Hospital Endowment Fund Incorporated (JHHEFI)

In July 2007, the University and JHHEFI entered into an agreement whereby JHHEFI transferred approximately \$381,000 to the University to invest in the University's EIP and have the University manage these assets on JHHEFI's behalf. The funds were invested with other University assets in the University's name and title, and in accordance with the University's EIP investment policies and objectives. JHHEFI receives payouts as determined by their Board of Trustees and may terminate the agreement upon 180 days' written notice with liquidations to be made over a three-year period as specified in the agreement. The assets are included in investments in the consolidated balance sheets, and a corresponding liability of \$501,217 and \$467,880 is included in endowment and similar funds held for others as of June 30, 2018 and 2017, respectively. The corresponding liability has a fair value measurement of Level 3. JHHEFI's assets represent approximately 10.3% of total funds invested of \$4,860,160 as of June 30, 2018.

(e) Jointly Owned Entities

As of June 30, 2018 and 2017, the University and JHHS and its affiliates jointly own several entities that are accounted for on the equity method. The University's aggregate investments in and advances to these joint ventures was approximately \$294,320 and \$252,786 as of June 30, 2018 and 2017, respectively. Equity in operating earnings of affiliates aggregated approximately \$19,589 in fiscal 2018 and \$23,036 in fiscal 2017.

In 2005, one of these entities, JHMI Utilities LLC, was formed to provide utility services for the East Baltimore campus. The University and Hospital, each owning 50% of JHMI Utilities LLC, provide all of its funding, including debt service, through payments for services received. Utility and telecommunications services provided to the University in fiscal 2018 and 2017 were approximately \$32,136 and \$32,909, respectively. JHMI Utilities LLC entered into an agreement with the University to finance a portion of the costs of installation of an enterprise information technology system that will provide integrated patient care information and service across JHM. The majority of the project has been successfully implemented with the total project costs of approximately \$260,800 as of June 30, 2018. The total approved capital cost of the overall project inclusive of phases that are in the process of being implemented is \$270,200. The cost of implementing the enterprise information technology strategy was financed through a combination of loans from, or guarantees by, the University and JHHS. The University has committed to funding up to \$36,800 of the project. As of June 30, 2018

THE JOHNS HOPKINS UNIVERSITY
Notes to Consolidated Financial Statements
June 30, 2018 and 2017
(Dollars in thousands)

and 2017, \$20,952 and \$21,577, respectively, was outstanding on the loan. In addition, the University has agreed to guarantee a pooled loan of up to \$19,400.

Although the University's ownership interest in each of the jointly owned entities is generally 50%, the University and JHHS have entered into separate agreements whereby certain activities or lines of business within these entities are not shared equally.

The following table summarizes the aggregate condensed financial information of the jointly owned entities and the University's proportionate share of the entities as of and for the years ended June 30, 2018 and 2017, respectively:

	2018		2017	
	Total	University interest	Total	University interest
Assets	\$ 1,264,217	583,303	1,189,737	524,108
Liabilities	812,429	376,808	795,543	361,207
Operating revenues	2,672,243	1,153,492	2,479,653	1,094,260
Operating expenses	2,614,578	1,133,902	2,404,067	1,071,224

(12) Pension and Postretirement Benefit Plans

The University has several benefit plans that are available to substantially all full-time employees. Most of these plans are defined contribution plans for which the University's policy is to fund benefit costs as earned. The University also has a defined benefit pension plan covering bargaining unit employees and those classified as support staff. Benefit plan expenses were \$242,787 in fiscal 2018 and \$238,499 in fiscal 2017, including \$215,957 and \$203,586, respectively, related to defined contribution plans. Of the total benefit expense, APL's defined contribution plan accounted for \$75,487 in fiscal 2018 and \$69,981 in fiscal 2017.

Effective July 1, 2011, the University closed the support staff pension plan to new participants other than bargaining unit employees. In addition, the University offered a choice to current participants between the current support staff pension plan and its 403(b) plan. The University has retiree benefits plans that provide postretirement medical benefits to employees, including those at APL, who meet specified minimum age and service requirements at the time they retire. The University pays a portion of the cost of participants' medical insurance coverage. The University's portion of the cost for an individual participant depends on various factors, including the age, years of service, and time of retirement or retirement eligibility of the participant. The University has established a trust fund for its retiree benefits plans and intends to make contributions to the fund approximately equal to the annual net postretirement benefit cost.

In 2010, the Patient Protection and Affordable Care Act and the Health Care and Education Reconciliation Act (collectively, the Health Care Acts) were signed into law. The Health Care Acts include several provisions that may affect the University's postretirement benefit plans, and have been considered in the measurement of the postretirement benefit obligation.

THE JOHNS HOPKINS UNIVERSITY
Notes to Consolidated Financial Statements
June 30, 2018 and 2017
(Dollars in thousands)

The University uses a June 30 measurement date for its defined benefit pension plan and retiree benefit plans. Information relating to the benefit obligation, assets, and funded status of the defined benefit pension plan and the postretirement benefit plans as of and for the years ended June 30, 2018 and 2017 is summarized as follows:

	<u>Pension plan</u>		<u>Postretirement plans</u>	
	<u>2018</u>	<u>2017</u>	<u>2018</u>	<u>2017</u>
Change in benefit obligation:				
Benefit obligation at beginning of year	\$ 697,585	700,782	277,368	321,476
Service cost	15,664	17,148	7,824	10,082
Interest cost	26,915	25,117	9,674	10,633
Participant contributions	—	—	10,840	10,603
Actuarial gain	(27,655)	(25,418)	(40,798)	(54,172)
Benefits paid	(21,241)	(20,044)	(21,025)	(22,162)
Medicare subsidies received	—	—	1,131	908
Benefit obligation at end of year	<u>691,268</u>	<u>697,585</u>	<u>245,014</u>	<u>277,368</u>
Change in plan assets:				
Fair value of plan assets at beginning of year	495,292	425,982	286,689	261,320
Actual return on plan assets	30,944	54,441	20,446	33,923
University contributions	26,830	34,913	5,659	2,097
Participant contributions	—	—	10,840	10,603
Benefits paid	(21,241)	(20,044)	(21,025)	(22,162)
Medicare subsidies received	—	—	1,131	908
Fair value of plan assets at end of year	<u>531,825</u>	<u>495,292</u>	<u>303,740</u>	<u>286,689</u>
Funded status recognized as pension and postretirement obligations, net	<u>\$ (159,443)</u>	<u>(202,293)</u>	<u>58,726</u>	<u>9,321</u>

The accumulated benefit obligation for the pension plan was \$668,452 and \$673,161 as of June 30, 2018 and 2017, respectively.

THE JOHNS HOPKINS UNIVERSITY
Notes to Consolidated Financial Statements
June 30, 2018 and 2017
(Dollars in thousands)

The table below reflects the net pension and postretirement benefit cost reported in operating as benefits expense and nonoperating as other net periodic benefit cost for the years ended June 30, 2018 and 2017:

	<u>Pension plan</u>		<u>Postretirement plans</u>	
	<u>2018</u>	<u>2017</u>	<u>2018</u>	<u>2017</u>
Operating:				
Service cost	\$ 15,664	17,148	7,824	10,082
Total operating, included in benefits	15,664	17,148	7,824	10,082
Nonoperating:				
Interest cost on accumulated benefit obligation	26,915	25,117	9,674	10,633
Amortization of prior service cost	(167)	(167)	(788)	(788)
Expected return on plan assets	(29,379)	(28,905)	(19,796)	(17,974)
Amortization of actuarial loss	13,797	21,720	65	3,248
Total nonoperating	11,166	17,765	(10,845)	(4,881)
Total net pension and postretirement benefit cost (credit)	\$ <u>26,830</u>	<u>34,913</u>	<u>(3,021)</u>	<u>5,201</u>

The table below reflects the changes in plan assets and benefits obligations recognized as nonoperating items for the years ended June 30, 2018 and 2017:

	<u>Pension plan</u>		<u>Postretirement plans</u>	
	<u>2018</u>	<u>2017</u>	<u>2018</u>	<u>2017</u>
Net gain for the year	\$ (29,221)	(50,953)	(41,444)	(70,116)
Amortization of prior service cost	167	167	788	788
Amortization of net loss	(13,797)	(21,720)	(65)	(3,248)
Net gain recognized in nonoperating activities	\$ <u>(42,851)</u>	<u>(72,506)</u>	<u>(40,721)</u>	<u>(72,576)</u>

THE JOHNS HOPKINS UNIVERSITY
Notes to Consolidated Financial Statements
June 30, 2018 and 2017
(Dollars in thousands)

The table below reflects the amortization of amounts expected to be recognized as components of net periodic benefit expense in nonoperating activities during fiscal 2019:

	<u>Pension plan</u>	<u>Postretirement plans</u>
Net (loss) gain	\$ (8,736)	63
Prior service cost amortization	167	788
	<u>\$ (8,569)</u>	<u>851</u>

The weighted average assumptions used to determine benefit obligations and net periodic benefit costs are as follows:

	<u>Pension plan</u>		<u>Postretirement plans</u>	
	<u>2018</u>	<u>2017</u>	<u>2018</u>	<u>2017</u>
Weighted average assumptions used to determine benefit obligations at June 30:				
Discount rate	4.18 %	3.90 %	4.14%-4.21%	3.80%–3.94%
Average rate of compensation increase	2.90	2.90	N/A	N/A
Rate of increase in healthcare costs for next year	N/A	N/A	6.60	6.90
Weighted average assumptions used to determine net periodic benefit cost:				
Discount rate	3.90	3.65	3.80-3.94	3.55–3.75
Expected rate of return on plan assets	6.75	6.75	7.00	7.00
Rate of compensation increase	2.90	2.90	N/A	N/A
Rate of increase in healthcare costs	N/A	N/A	6.90	7.20

The expected long-term rate of return for the assets of the plans is based on historical and expected long-term future asset class returns. The rate is reviewed annually and adjusted as appropriate to reflect changes in projected market performance or in the targeted asset allocations.

THE JOHNS HOPKINS UNIVERSITY
Notes to Consolidated Financial Statements
June 30, 2018 and 2017
(Dollars in thousands)

The rate of increase in healthcare costs was assumed to begin with an initial rate of 6.9% in 2018 and decrease to 4.5% in 2036 and to remain at that level thereafter. Assumed healthcare cost trend rates have a significant effect on the reported postretirement benefit cost and obligation. A one-percentage-point change in the assumed rates used at June 30, 2018 would have the following effects:

	Increase	Decrease
Total service and interest cost components	\$ 306	(268)
Postretirement benefit obligation	6,752	(5,836)

(a) Plans' Assets

The purpose of the pension and postretirement plans is to meet the retirement benefit obligations of eligible University employees. The plans' assets are invested with the objective of meeting these obligations under the rules stipulated by the Employee Retirement Income Security Act.

An asset allocation has been established, which endeavors to adequately cover the liability stream posed by the beneficiaries of the plans and minimize the frequency and amount of the plans' contributions by the University. The intended benefits of this diversification are reduced risk and improved investment returns.

(b) Pension Plan

The following table presents the fair value and categorization within the fair value hierarchy of the assets of the defined benefit pension plan as of June 30, 2018 and 2017:

	2018			2017		
	Total	Level 1	Funds at NAV	Total	Level 1	Funds at NAV
Cash and cash equivalents \$	445	445	—	13,538	13,538	—
Fixed income securities	172,219	164,159	8,060	93,461	84,108	9,353
United States equities and international equities	259,486	259,486	—	322,989	254,270	68,719
Real assets	20,737	—	20,737	19,283	—	19,283
Marketable alternatives	78,938	—	78,938	46,021	—	46,021
Total	\$ 531,825	424,090	107,735	495,292	351,916	143,376

THE JOHNS HOPKINS UNIVERSITY
Notes to Consolidated Financial Statements
June 30, 2018 and 2017
(Dollars in thousands)

(c) Postretirement Plans

The following table presents the fair value and categorization within the fair value hierarchy of the assets of the postretirement plans as of June 30, 2018 and 2017:

	2018			2017		
	Total	Level 1	Funds at NAV	Total	Level 1	Funds at NAV
Cash and cash equivalents \$	3,532	3,532	—	1,315	1,315	—
Fixed income securities	87,609	87,609	—	75,261	75,261	—
United States equities and international equities	170,162	170,162	—	188,878	136,487	52,391
Marketable alternatives	42,437	—	42,437	21,235	—	21,235
Total	\$ 303,740	261,303	42,437	286,689	213,063	73,626

The Plans have no unfunded commitments to fund managers as of June 30, 2018 and 2017.

The University's target asset allocations for the pension plan and the postretirement plans as of June 30, 2018 and 2017:

	Pension plan		Postretirement plan	
	2018	2017	2018	2017
Fixed income securities	30 %	30 %	35 %	30 %
United States equities and international equities	55	55	55	60
Real estate	5	5	—	—
Marketable alternatives	10	10	10	10
Total	100 %	100 %	100 %	100 %

(d) Cash Flows

The University expects to contribute \$21,700 to the pension plan and \$4,101 to its postretirement benefit plans in fiscal 2018.

THE JOHNS HOPKINS UNIVERSITY
Notes to Consolidated Financial Statements
June 30, 2018 and 2017
(Dollars in thousands)

The benefits expected to be paid and Medicare subsidies to be received in the five years subsequent to June 30, 2018 and in aggregate for the five fiscal years thereafter are as follows:

Fiscal year	Pension plan	Postretirement plans	Medicare subsidies
2019	\$ 25,521	12,169	1,897
2020	27,320	12,916	2,000
2021	29,009	13,638	734
2022	30,850	14,327	769
2023	32,607	14,976	806
2024–2028	187,552	82,915	4,549

(13) Functional Expense Information

Operating expenses by nature and function are summarized as follows for the year ended June 30, 2018:

	2018 Programs						Institutional support	Total expenses
	Instruction, research and clinical practice	APL	Student services	Auxiliaries	Libraries	Total programs		
Compensation	\$ 1,734,475	688,533	56,853	17,143	16,069	2,513,073	225,020	2,738,093
Benefits	447,689	325,010	16,686	4,237	4,332	797,954	67,472	865,426
Subcontractors & subrecipients	323,009	151,112	—	—	—	474,121	—	474,121
Contractual services	539,504	65,480	37,517	36,233	7,002	685,736	96,125	781,861
Supplies, materials & other	360,814	129,251	11,132	29,012	8,739	538,948	64,410	603,358
Depreciation & amortization	92,458	58,445	4,517	7,897	15,107	178,424	32,769	211,193
Travel	114,692	26,364	3,983	454	426	145,919	7,685	153,604
Interest	31,186	1,397	1,312	2,889	840	37,624	9,959	47,583
Total	<u>\$ 3,643,827</u>	<u>1,445,592</u>	<u>132,000</u>	<u>97,865</u>	<u>52,515</u>	<u>5,371,799</u>	<u>503,440</u>	<u>5,875,239</u>

Operating expenses by nature and function are summarized as follows for the year ended June 30, 2017:

	2017 Programs						Institutional support	Total expenses
	Instruction, research and clinical practice	APL	Student services	Auxiliaries	Libraries	Total programs		
Compensation	\$ 1,655,539	647,196	53,158	16,900	14,948	2,387,741	213,124	2,600,865
Benefits	430,678	294,845	15,747	4,276	4,067	749,613	63,916	813,529
Subcontractors & subrecipients	306,529	151,841	—	—	—	458,370	—	458,370
Contractual services	504,502	64,185	28,004	35,737	7,147	639,575	103,693	743,268
Supplies, materials & other	348,719	132,690	9,233	28,329	8,382	527,353	64,816	592,169
Depreciation & amortization	92,546	61,141	4,439	7,961	14,444	180,531	33,709	214,240
Travel	113,004	25,000	3,329	532	430	142,295	8,454	150,749
Interest	32,702	2,531	1,351	3,124	850	40,558	10,494	51,052
Total	<u>\$ 3,484,219</u>	<u>1,379,429</u>	<u>115,261</u>	<u>96,859</u>	<u>50,268</u>	<u>5,126,036</u>	<u>498,206</u>	<u>5,624,242</u>

THE JOHNS HOPKINS UNIVERSITY
Notes to Consolidated Financial Statements
June 30, 2018 and 2017
(Dollars in thousands)

Costs related to the operation and maintenance of property, including depreciation of property and equipment and interest on related debt, are allocated to program and supporting activities based upon periodic inventories of facilities. Other net periodic benefit costs recorded in nonoperating expense was \$321 and \$12,884 for the years ended June 30, 2018 and 2017, respectively.

(14) Liquidity and Availability

The University regularly monitors liquidity required to meet its operating needs and other contractual commitments, while also striving to maximize the investment of its available funds.

As of June 30, 2018 the following assets could readily be available within one year to meet general expenditures:

	2018
Cash and cash equivalents	\$ 262,356
Operating investments	1,027,478
Sponsored research accounts receivable, net	456,291
Accounts receivable, net	186,888
Contributions receivable, net	51,742
Approved endowment payout fiscal 2019	204,797
Investments in and loans to affiliates	7,569
Payout from interests in trusts and endowment funds held by others	4,336
Financial assets available to meet general expenditures over the next year	\$ 2,201,457

The University has various sources of liquidity at its disposal, including cash and cash equivalents, marketable debt securities, a line of credit for working capital purposes, and a commercial paper facility.

The University's cash flows have seasonal variations during the year attributable to tuition billings, patient service billings and concentration of contributions received at calendar and fiscal year-ends. Operating investments have been reduced for an estimate of expenditures that will occur on grants and gifts beyond one year, as well as, cash received for capital contributions. Principal and interest on student loans are not included as those amounts are used solely to make new loans and are, therefore, not available to meet current operating needs. Based on historical experience, only the portion of contributions receivable for operations expected to be received within one year is considered liquid. Investments in and loans to affiliates includes only the loan principal payments due from affiliates in the next year.

(15) Lease Commitments

The University leases certain facilities from the Hospital under a renewable one-year lease, which provides for a rent equal to the cost to the Hospital of providing and maintaining the facilities. This lease has been renewed for the year ending June 30, 2019.

THE JOHNS HOPKINS UNIVERSITY
Notes to Consolidated Financial Statements
June 30, 2018 and 2017
(Dollars in thousands)

The University leases other facilities used in its academic and research operations under long-term operating leases expiring at various dates to 2032, subject to renewal options in certain cases. Certain of these facilities are leased from affiliated entities.

The aggregate annual minimum guaranteed rents to be paid to the expiration of the initial terms of these leases, excluding the rentals to the Hospital under the JAA, are as follows as of June 30, 2018:

	<u>Affiliates</u>	<u>Others</u>	<u>Total</u>
2019	\$ 10,353	31,030	41,383
2020	9,968	28,895	38,863
2021	9,000	23,458	32,458
2022	7,968	17,115	25,083
2023	4,334	14,110	18,444
After 2023	11,117	22,352	33,469
	<u>\$ 52,740</u>	<u>136,960</u>	<u>189,700</u>

Rental expense for the long-term operating leases was \$48,517 in fiscal year 2018 and \$49,946 in fiscal year 2017.

The University also leases building and leasehold improvements and certain equipment under capital leases. The following is a summary of minimum lease payments for these leases as of June 30, 2018:

2019	\$ 9,569
2020	7,987
2021	8,050
2022	8,283
2023	8,524
After 2023	<u>51,587</u>
Minimum lease payments	94,000
Less imputed interest (at rates from 3.24% to 8.41%)	<u>25,414</u>
Present value of minimum lease payments	<u>\$ 68,586</u>

As of June 30, 2018, the gross amount of assets and accumulated depreciation thereon accounted for as capital leases amounted to \$95,149 and \$45,419, respectively.

THE JOHNS HOPKINS UNIVERSITY
Notes to Consolidated Financial Statements
June 30, 2018 and 2017
(Dollars in thousands)

(16) Other Commitments and Contingencies

(a) Guarantees

The University and the Hospital have also provided guarantees of principal and interest payments related to loans granted to JHMI Utilities LLC under the MHHEFA Pooled Loan Program. As of June 30, 2018, the University's guarantee amounted to \$19,400 and continues until maturity of the loans occurring through 2029.

(b) Regulatory and Legal Matters

Amounts received and expended by the University under various federal and state programs are subject to audit by governmental agencies. In the opinion of management, audit adjustments, if any, will not have a material adverse effect on the financial position of the University.

The University is subject to various claims, litigation, tax, and other assessments in connection with its domestic and foreign operations. In the opinion of management, adequate provision has been made for losses on these matters, where material, including insurance for malpractice and general liability claims, and their ultimate resolution will not have a material adverse effect on the financial position of the University.

(i) Specific Matters

On April 1, 2015, a complaint was filed against The Johns Hopkins University, its Bloomberg School of Public Health and its School of Medicine, The Johns Hopkins Health System Corporation and The Johns Hopkins Hospital (collectively, the Johns Hopkins Defendants), as well as another institution and a pharmaceutical company. The claims arise from human experiments conducted in Guatemala between 1946 and 1948 (the Study) under the auspices of the United States Public Health Service, the Guatemala government, and the Pan American Sanitary Bureau. The plaintiffs' third amended complaint alleges that physicians and scientists employed by defendants "approved, encouraged, and directed nonconsensual and nontherapeutic human experiments in Guatemala" in which research subjects were intentionally exposed to and infected with venereal diseases without informed consent, and that the individuals were not told about the consequences of the experiments or given follow up care, treatment, or education. The third amended complaint alleges claims under both the Guatemala civil code and the federal Alien Tort Statute (the ATS), and seeks compensatory damages in excess of \$75,000 and punitive damages of \$1 billion. The Johns Hopkins Defendants dispute both the factual allegations and legal claims in the complaint. The Johns Hopkins Defendants did not initiate, pay for, direct, or conduct the Study. In 2010, the United States government accepted responsibility for the Study and apologized to all who were affected by it. A prior lawsuit against officials of the United States government for the same injuries alleged in the suit against the Johns Hopkins Defendants was dismissed by the U.S. District Court for the District of Columbia.

THE JOHNS HOPKINS UNIVERSITY
Notes to Consolidated Financial Statements
June 30, 2018 and 2017
(Dollars in thousands)

On August 30, 2017, the Court issued a memorandum decision dismissing all of plaintiffs' Guatemala law claims, but denying defendants' motion to dismiss the third amended complaint with respect to the ATS claims. On May 16, 2018, defendants filed a motion for judgment on the pleadings based upon the Supreme Court's decision in *Jesner v. Arab Bank, PLC*, 138 S. Ct. 1386 (2018), which holds that the ATS does not authorize federal courts to create federal common law causes of action against foreign corporations, as doing so would usurp Congress's role and violate the separation of powers. Defendants argue that although the Supreme Court's formal holding applied to foreign corporations—the only type of corporation that was a party to the case—the Supreme Court's reasoning should apply to domestic corporations as well. Although a hearing was originally set for July 26, 2018, the judge assigned to the case retired suddenly, and the case was reassigned to a new judge. The hearing has not yet been rescheduled. In the meantime, discovery is underway. The Johns Hopkins Defendants intend to vigorously defend this lawsuit.

In another matter, on August 11, 2016, a group of participants and beneficiaries in The Johns Hopkins University 403(b) Plan (the Plan) filed a complaint against the University in federal court in Maryland, alleging that the University violated the Employee Retirement Income Security Act (ERISA) by causing the Plan to pay excessive fees for recordkeeping and other administrative services, and by selecting investment options for the Plan that allegedly underperformed their benchmarks and charged excessive fees. On October 7, 2016, the University moved to dismiss Plaintiffs' complaint; on December 2, 2016, Plaintiffs filed an Amended Complaint; on January 6, 2017, the University moved to dismiss the Amended Complaint; on September 28, 2017, the trial court granted in part and denied in part the University's motion. The University subsequently filed a motion for interlocutory appeal, which was granted by the trial court in August 2018 and by the U.S. Court of Appeals for the Fourth Circuit in September 2018. The parties are currently preparing to file briefs in the appeal. The case is stayed at the trial court level pending the resolution of the appeal.

(17) Subsequent Events

The University evaluated subsequent events through October 11, 2018, which is the date the consolidated financial statements were issued. There were no matters that required adjustment to or disclosure in the consolidated financial statements.