KPMG

THE JOHNS HOPKINS UNIVERSITY

Consolidated Financial Statements

June 30, 2017 and 2016

(With Independent Auditors’ Report Thereon)

KPMG LLP
1 East Pratt Street
Baltimore, MD 21202-1128

Independent Auditors' Report

The Board of Trustees
The Johns Hopkins University:

We have audited the accompanying consolidated financial statements of The Johns Hopkins University, which comprise the consolidated balance sheets as of June 30, 2017 and 2016, 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, 2017 and 2016, 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.

KPMG LLP

October 5, 2017

THE JOHNS HOPKINS UNIVERSITY

Consolidated Balance Sheets

June 30, 2017 and 2016

(In thousands)

Assets		**2017**	**2016**
Cash and cash equivalents	$	345,367	397,083
Operating investments		1,178,338	1,178,323
Cash, cash equivalents and operating investments		1,523,705	1,575,406
Sponsored research accounts receivable, net		404,544	354,338
Accounts receivable, net		202,045	184,017
Contributions receivable, net		470,350	267,125
Prepaid expenses and deferred charges		68,911	57,565
Student loans receivable, net		34,673	37,906
Investments		4,651,545	4,164,628
Property and equipment, net		2,093,090	2,026,615
Investment in and loans to affiliates		258,248	250,225
Other assets		232,233	201,905
Interests in trusts and endowment funds held by others		114,085	108,499
Total assets	$	10,053,429	9,228,229
Liabilities and Net Assets			
Accounts payable and accrued expenses	$	586,881	569,539
Sponsored research deferred revenues		371,769	338,929
Other deferred revenues		153,113	144,010
Debt		1,298,530	1,338,443
Other long-term liabilities		311,739	290,397
Pension and postretirement obligations		192,972	334,956
Liabilities under split-interest agreements		80,155	80,846
Endowment and similar funds held for others		584,218	530,747
Total liabilities		3,579,377	3,627,867
Net assets:			
Unrestricted		2,765,453	2,402,328
Temporarily restricted		1,328,880	1,183,475
Permanently restricted		2,379,719	2,014,559
Total net assets		6,474,052	5,600,362
Total liabilities and net assets	$	10,053,429	9,228,229

See accompanying notes to consolidated financial statements.

THE JOHNS HOPKINS UNIVERSITY

Consolidated Statements of Activities

Years ended June 30, 2017 and 2016

(In thousands)

	2017	2016
Changes in unrestricted net assets from operating activities:		
Operating revenues:		
Tuition and fees	$ 918,804	866,235
Less financial aid	(307,319)	(290,499)
Tuition and fees, net of financial aid	611,485	575,736
Grants, contracts, and similar agreements	1,456,693	1,343,951
Facilities and administrative cost recoveries	350,910	328,422
Applied Physics Laboratory contract revenues	1,430,126	1,351,141
Sponsored research revenues	3,237,729	3,023,514
Contributions	118,015	127,334
Net assets released from restrictions	101,041	80,007
Contributions and donor support	219,056	207,341
Clinical services	674,433	653,921
Reimbursements from affiliated institutions	553,636	517,152
Other revenues	120,321	153,364
Endowment payout used to support operations	175,223	158,267
Auxiliary enterprises	102,314	96,166
Maryland State aid	21,535	19,326
Investment return	20,826	25,753
Total operating revenues	5,736,558	5,430,540
Operating expenses:		
Compensation	2,600,865	2,419,056
Benefits	813,529	756,563
Compensation and benefits	3,414,394	3,175,619
Subcontractors and subrecipients	467,856	493,370
Contractual services	679,083	644,508
Supplies, materials, and other	646,868	626,026
Depreciation and amortization	214,240	209,972
Travel	150,749	131,694
Interest	51,052	51,733
Total operating expenses	5,624,242	5,332,922
Excess of operating revenues over operating expenses	112,316	97,618

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THE JOHNS HOPKINS UNIVERSITY

Consolidated Statements of Activities

Years ended June 30, 2017 and 2016

(In thousands)

		2017	2016
Changes in unrestricted net assets from nonoperating activities:			
Investment return in excess of (less than) endowment payout	$	92,561	(68,543)
Change in benefits plan funded status, excluding benefits cost		145,082	(154,441)
Other net periodic benefit cost		(12,884)	637
Change in fair value on interest rate swap agreements		11,667	(10,935)
Other, net		5,000	26,425
Net assets released from restrictions		9,383	7,255
Change in unrestricted net assets from nonoperating activities		250,809	(199,602)
Total change in unrestricted net assets		363,125	(101,984)
Changes in temporarily restricted net assets:			
Contributions		117,510	124,773
Investment return in excess of (less than) endowment payout		138,319	(104,428)
Net assets released from restrictions		(110,424)	(87,262)
Total change in temporarily restricted net assets		145,405	(66,917)
Changes in permanently restricted net assets:			
Contributions		354,499	157,149
Investment return		10,661	(3,176)
Total change in permanently restricted net assets		365,160	153,973
Total change in net assets		873,690	(14,928)
Net assets at beginning of year		5,600,362	5,615,290
Net assets at end of year	$	6,474,052	5,600,362

See accompanying notes to consolidated financial statements.

THE JOHNS HOPKINS UNIVERSITY

Consolidated Statements of Cash Flows

Years ended June 30, 2017 and 2016

(In thousands)

		2017	2016
Cash flows from operating activities:			
Changes in net assets	$	873,690	(14,928)
Adjustments to reconcile changes in net assets to net cash provided by operating activities:			
Depreciation, amortization, and loss on asset disposals		214,169	210,744
Contributions restricted for long-term investment		(365,039)	(207,375)
Net realized and unrealized (gains) losses from investments		(377,189)	36,514
Net unrealized (gains) losses from swaps		(11,667)	10,935
Earnings from joint ventures		(24,334)	(7,594)
Change in pension and postretirement benefit obligations		(141,984)	149,503
Changes in operating assets and liabilities:			
Sponsored research and accounts receivable, net		(68,234)	(14,383)
Contributions receivable, net		(39,977)	(32,855)
Prepaid expenses and deferred charges		(11,346)	(7,868)
Other assets		296	(15,090)
Accounts payable and accrued expenses		14,043	55,906
Sponsored research and other deferred revenues and other long-term liabilities		44,328	84,462
Interests and liabilities related to trusts and split-interest agreements		8,038	10,570
Net cash provided by operating activities		114,794	258,541
Cash flows from investing activities:			
Purchases of investments		(3,602,665)	(2,845,139)
Proceeds from sales and maturities of investments		3,543,249	2,679,390
Purchases of property and equipment		(279,064)	(149,143)
Disbursements for student loans		(3,016)	(7,150)
Repayments of student loans		6,249	6,316
Advances to affiliates, net of repayments		22,649	(9,835)
Joint venture dividends, net of capital contributions		(6,338)	1,153
Change in endowments and similar funds held for others		(11,171)	(24,921)
Net cash used in investing activities		(330,107)	(349,329)
Cash flows from financing activities:			
Contributions restricted for long-term investment		201,792	212,601
Proceeds from borrowings		65,000	50,000
Early retirement and refinancings of debt		(90,945)	(107,683)
Scheduled debt payments		(12,250)	(10,609)
Net cash provided by financing activities		163,597	144,309
Net (decrease) increase in cash and cash equivalents		(51,716)	53,521
Cash and cash equivalents at beginning of year		397,083	343,562
Cash and cash equivalents at end of year	$	345,367	397,083

See accompanying notes to consolidated financial statements.

(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 24,000 students, including 14,000 full-time students and 10,000 part-time students, and on a net basis provided approximately 11% of the University's operating revenues in fiscal years 2017 and 2016. 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 both fiscal years 2017 and 2016. Approximately 87% of those revenues were from departments and agencies of the United States government in both fiscal 2017 and 2016. 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 2017 and 2016. 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 affiliated organizations, all of which are controlled by the University, 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 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.

The most significant estimates and judgments affecting the University's consolidated financial statements relate to fair values of investments, allowances for uncollectible accounts and contributions receivable, provisions for self-insured liabilities and property damage claims, and the actuarial assumptions used to determine obligations under defined benefit pension and postretirement plans.

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

- *Unrestricted* – Net assets that are not subject to donor-imposed stipulations.
- *Temporarily restricted* – Net assets subject to donor-imposed stipulations that will be met by actions of the University and/or the passage of time.
- *Permanently restricted* – Net assets subject to donor-imposed stipulations that they be maintained permanently by the University. Generally, the donors of these assets permit the University to use all or part of the income earned on related investments for general or specific purposes, primarily divisional and departmental support and student financial aid.

Revenues are reported as increases in unrestricted net assets unless their use is limited by donor-imposed restrictions. Expenses are reported as decreases in unrestricted net assets. Gains and losses on investments are reported as increases or decreases in unrestricted net assets unless their use is restricted by explicit donor stipulations or by law. Under Maryland law, appreciation on donor-restricted endowments is classified as temporarily restricted 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 temporarily restricted net assets to unrestricted net assets. 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.

Investments purchased with funds held in trusts by others, with split-interest agreements or by external endowment investment managers, are classified with the respective assets.

(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 contributions that impose restrictions met in the same fiscal year are included in unrestricted revenues. 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, 2017, the University had no plans or intentions to sell investments at amounts different from NAV. At June 30, 2016, certain assets were held for sale at amounts different than NAV and are included in Level 3 in the fair level hierarchy. 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.

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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.

(f) Fair Value Measurements

Assets and liabilities that are reported at fair value on a recurring basis (note 6) are categorized into a fair value hierarchy. 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.

Investments measured at NAV as a practical expedient to estimate fair value are not categorized in the fair value hierarchy.

(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. Assets and liabilities under the University's charitable gift annuity agreements were $61,256 and

$59,510 classified in investments and $34,476 and $37,486 classified in liabilities under split-interest agreements, respectively, as of June 30, 2017 and 2016.

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.

(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.

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(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 69% and 72% of receivables related to reimbursement of costs incurred under grants and contracts as of June 30, 2017 and 2016, 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.

(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

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

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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 $55,845 and $56,439 as of June 30, 2017 and 2016, respectively, are reported on the consolidated balance sheets as other assets. Accrued self-insurance liabilities, including medical malpractice insurance, aggregated $76,760 and $71,536 as of June 30, 2017 and 2016, 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 are included in other long-term liabilities. These advances totaled $29,937 and $29,964 as of June 30, 2017 and 2016, 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 and $4,324 in fiscal 2017 and 2016, respectively.

(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 Plan

The University maintains a deferred compensation plan for certain employees. As of June 30, 2017 and 2016, 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.

(t) Statement of Cash Flows Supplemental Information

Property and equipment additions included in accounts payable and accrued expenses as of June 30, 2017 and 2016 were $10,714 and $7,415, respectively. The University acquired property through capital lease obligations of $0 and $19,503 during fiscal 2017 and 2016, respectively.

(u) Recent Accounting Pronouncements

In March 2017, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) 2017-07, *Compensation – Retirement Benefits (Topic 715).* The ASU attempts to improve the presentation of net periodic pension and postretirement benefit costs. The ASU does not prescribe where the amount of net benefit cost should be presented in an employer's statement of activities, but it does require that the service cost component be presented in the same line item(s) as other employee compensation costs and that the remaining components be presented separately from those line items and outside of operations. It also stipulates that only the service cost component is eligible for capitalization in assets, as applicable. The new standard is effective for fiscal years beginning after December 15, 2018. Early adoption is permitted. In fiscal 2017, the University retrospectively adopted the standard, which resulted in the reclassification of ($637) of net periodic benefit cost from operating to nonoperating activities for the year ended June 30, 2016.

In August 2016, the FASB issued ASU 2016-14, *Presentation of Financial Statements for Not-for-Profit Entities*. The primary changes, which will affect the look and feel of most not-for-profit financial statements, include revisions to simplify and enhance the presentation of net assets, a requirement to present functional and natural expenses in a single location, and expanded disclosures regarding liquidity and availability of resources. The ASU is effective for fiscal years beginning after December 15, 2017. Early adoption is permitted. The University is evaluating the impact of the new standard on its consolidated financial statements.

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 ASU 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.

In May 2014, the FASB amended Accounting Standards Codification (ASC) (Topic 605) *Revenue Recognition* and created ASC (Topic 606) *Revenue from Contracts with Customers*. 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. During 2016, the FASB issued additional implementation guidance and practical expedients in ASU 2016-08, *Revenue from Contracts with Customers* (Topic 606), Principal versus Agent Considerations (Reporting revenue gross versus net), ASU 2016-10, (*Revenue from Contracts with Customers* (Topic 606), *Identifying Performance Obligations and Licensing*, ASU 2016-12, *Revenue from Contracts with Customers* (Topic 606) *Narrow Scope Improvements and Practical Expedients*, and ASU 2016-20, *Technical Corrections and Improvements to Topic 606*, *Revenue from Contracts with Customers*, to improve the guidance. 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 August 2017, the FASB issued a proposed ASU, *Clarifying the Scope and the Accounting Guidance for Contributions Received and Contributions Made*, which would, among other things, clarify that many grants and contracts are nonexchange transactions excluded from the scope of Topic 606 and whose revenue recognition would continue to be expenditure-driven. The ASC is effective for fiscal years beginning after December 15, 2017. The University is evaluating the expected impact of the standard and related emerging guidance on its consolidated financial statements.

(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.

(Dollars in thousands)

The University works under an omnibus contract with the U.S. Navy. The most recent contract, which was signed in February 2013, 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 February 2022.

Approximately 75% and 17% of APL's revenues in fiscal 2017 were from the Department of Defense (primarily under the Navy Contract) and the National Aeronautics and Space Administration, respectively. In fiscal 2016, those percentages were 74% and 18%, 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, 2017 and 2016:

		2017	2016
Affiliated institutions, primarily the Hospital (note 11)	$	47,353	33,986
Students		21,702	18,141
Others		44,201	37,847
Total, net of allowances of $7,476 in 2017 and $15,183 in 2016		113,256	89,974
Receivables for clinical professional fees, net of contractual and bad debt allowances of $166,108 in 2017 and $193,399 in 2016		88,789	94,043
	$	202,045	184,017

The mix of gross accounts receivable for clinical professional fees from patients and third-party payors consisted of the following as of June 30, 2017 and 2016: commercial third parties 45% and 44%, respectively; Medicare 21% and 20%, respectively; Medicaid 14% and 14%, respectively; Blue Cross/Blue Shield 5% and 6%, respectively; and patients 15% and 16%, respectively.

(Dollars in thousands)

(4) Contributions Receivable

Contributions receivable, net, are summarized as follows as of June 30, 2017 and 2016:

		2017	2016
Unconditional promises scheduled to be collected in:			
Less than one year	$	138,198	75,584
One year to five years		357,718	201,057
Over five years		11,182	9,218
		507,098	285,859
Less unamortized discount (interest ranging from 0.7% to 5.1%) and allowances for uncollectible contributions		36,748	18,734
	$	470,350	267,125

As of June 30, 2017 and 2016, 70% and 48%, respectively, of the gross contributions receivable were due from ten donors. Approximately 66% and 46% of contribution revenues for fiscal 2017 and 2016, respectively were from ten donors. As of June 30, 2017, 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.

(Dollars in thousands)

Investments are summarized as follows as of June 30, 2017 and 2016:

		2017	2016
Operating investments	$	1,178,338	1,178,323
Investments		4,651,545	4,164,628
	$	5,829,883	5,342,951
Cash and cash equivalents	$	72,893	206,642
United States government and agency obligations		1,577,483	1,339,810
Debt securities		352,922	299,259
United States equities		446,718	329,836
International equities		1,227,310	1,060,443
Private equity and venture capital		636,110	600,301
Real estate		432,987	422,295
Natural resources		289,898	315,016
Marketable alternatives		793,562	769,349
	$	5,829,883	5,342,951

The following table summarizes the University's investments as of June 30, 2017 and 2016 for which NAV was used as a practical expedient to estimate fair value:

		Fair value determined using NAV		Unfunded commitments		Redemption frequency	Redemption notice period
		2017	2016	2017	2016	2017	2017
International equities	$	829,774	882,304	—	—	70% Monthly 18% Quarterly 12% Annually	1 to 120 days
Private equity and venture capital		636,110	600,301	388,519	461,635	N/A	N/A
Real estate		295,425	273,081	248,436	261,655	N/A	N/A
Natural resources		283,473	262,964	109,947	143,293	N/A	N/A
Marketable alternatives		793,562	769,349	98,463	134,526	See chart below	30 to 90 days (1)
	$	2,838,344	2,787,999	845,365	1,001,109		

(1) Investments that are not redeemable total $176,685 and $180,489 as of June 30, 2017 and 2016, 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.

(Dollars in thousands)

Marketable alternatives have the following redemption periods as of June 30, 2017 and 2016:

		2017	2016
Annual redemptions	$	274,541	251,930
Quarterly or annual over 1 – to 3-year period		203,334	219,486
Rolling 3 – to 5-year redemption		139,002	117,444
Drawdown funds over 10-year period		176,685	180,489
	$	793,562	769,349

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 30 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.

(Continued)

(Dollars in thousands)

Investment return is summarized as follows for the years ended June 30, 2017 and 2016:

		2017	2016
Dividend and interest income	$	86,831	74,199
Net realized and unrealized gains (losses)		373,366	(32,533)
Investment management fees and expenses		(26,430)	(29,812)
Change in value of interests in trusts and endowment funds held by others		3,823	(3,981)
	$	437,590	7,873

Investment return is classified in the consolidated statements of activities as follows for the years ended June 30, 2017 and 2016:

		2017	2016
Unrestricted net assets:			
Operating, including endowment payout	$	196,049	184,020
Nonoperating		92,561	(68,543)
Temporarily restricted net assets		138,319	(104,428)
Permanently restricted net assets		10,661	(3,176)
	$	437,590	7,873

(Continued)

(Dollars in thousands)

(6) Fair Value Measurements

The following table presents assets and liabilities 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	1,178,338	974,613	203,725	—	—
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	4,651,545	1,693,110	—	120,091	2,838,344
Other assets:					
Deferred compensation assets	118,782	118,782	—	—	—
Interests in trusts and endowment funds held by others	114,085	—	—	114,085	—
Total assets	$ 6,062,750	2,786,505	203,725	234,176	2,838,344
Liabilities:					
Interest rate swaps	$ 22,117	—	22,117	—	—
Obligations under deferred compensation agreements	117,217	—	117,217	—	—
Endowment and similar funds held for others	584,218	—	—	584,218	—
Total liabilities	$ 723,552	—	139,334	584,218	—

(Dollars in thousands)

The following table presents assets and liabilities that are measured at fair value on a recurring basis as of June 30, 2016:

		Fair value as of June 30, 2016	Level 1	Level 2	Level 3	Funds at NAV
Assets:						
Operating investments:						
United States government and agency obligations	$	897,824	897,824	—	—	—
Debt securities		280,499	112,441	168,058	—	—
Total operating investments		1,178,323	1,010,265	168,058	—	—
Investments, at fair value:						
Cash and cash equivalents		206,642	206,642	—	—	—
United States government and agency obligations		441,986	441,986	—	—	—
Debt securities		18,760	18,760	—	—	—
United States equities		329,836	329,836	—	—	—
International equities		1,060,443	178,139	—	—	882,304
Private equity and venture capital		600,301	—	—	—	600,301
Real estate		422,295	17,003	—	132,211	273,081
Natural resources		315,016	6,319	—	45,733	262,964
Marketable alternatives		769,349	—	—	—	769,349
Total investments		4,164,628	1,198,685	—	177,944	2,787,999
Other assets:						
Deferred compensation assets		88,158	88,158	—	—	—
Interests in trusts and endowment funds held by others		108,499	—	—	108,499	—
Total assets	$	5,539,608	2,297,108	168,058	286,443	2,787,999
Liabilities:						
Interest rate swaps	$	33,784	—	33,784	—	—
Obligations under deferred compensation agreements		86,892	—	86,892	—	—
Endowment and similar funds held for others		530,747	—	—	530,747	—
Total liabilities	$	651,423	—	120,676	530,747	—

(Dollars in thousands)

The methods and assumptions used to estimate the fair value of investments are defined in note 1(f). The methods and assumptions used to estimate the fair value of interest rate swap liabilities are defined in note 8(f). The fair value of the obligations under deferred compensation agreements approximates the fair value of the other investment assets, which are determined using quoted market prices. These assets are comprised of mutual funds and US equities securities. The fair value of the endowment and similar funds held by others is determined using the estimated per share price of the Endowment Investment Pool (EIP) at the reporting date multiplied by the number of shares in the EIP held by others.

The following table presents the University's activity for Level 3 assets and liabilities measured at fair value on a recurring basis for the years ended June 30, 2017 and 2016:

		Real estate	Natural resources	Interests in trusts and endowments held by others	Endowment and similar funds held for others
Balance as of June 30, 2015	$	128,479	—	113,877	560,334
Transfers from NAV to Level 3		—	45,733	—	—
Net realized and unrealized gains (losses)		3,732	—	(5,378)	(4,666)
Sales and distributions		—	—	—	(24,921)
Balance as of June 30, 2016		132,211	45,733	108,499	530,747
Net realized and unrealized gains (losses)		(12,000)	(5)	5,586	64,641
Sales and distributions		(120)	(45,728)	—	(11,170)
Balance as of June 30, 2017	$	120,091	—	114,085	584,218

For the years ended June 30, 2017 and 2016, the University did not have any transfers between fair value Levels.

(Dollars in thousands)

(7) Property and Equipment

Property and equipment, net, are summarized as follows as of June 30, 2017 and 2016:

		2017	2016	Range of useful lives
Land	$	110,035	101,826	N/A
Land improvements		111,260	100,687	15 years
Buildings and leasehold improvements		3,185,282	3,111,969	10–40 years
Equipment		963,179	905,170	7–15 years
Capitalized software costs		122,393	121,304	3–10 years
Library collections		314,359	298,747	25 years
Construction in progress		158,333	76,228	N/A
		4,964,841	4,715,931	
Less accumulated depreciation and amortization		2,871,751	2,689,316	
	$	2,093,090	2,026,615	

(8) Debt

Debt is summarized as follows as of June 30, 2017 and 2016:

		2017	2016
Bonds payable	$	1,031,005	1,032,723
Notes payable		96,839	90,615
Commercial paper revenue notes – tax-exempt		77,169	137,169
Commercial paper revenue notes – taxable		20,000	—
Capital lease obligations (note 14)		73,517	77,936
	$	1,298,530	1,338,443

(Dollars in thousands)

(a) Bonds Payable

Bonds payable were issued by the Maryland Health and Higher Educational Facilities Authority (MHHEFA), except for the Taxable Bonds issued directly, and consist of the following as of June 30, 2017 and 2016:

	2017	2016
Revenue Bonds Series 2005A, variable effective rate (0.88%), due July 2036	$ 69,265	69,265
Revenue Bonds Series 2008A, 5.00% to 5.25%, due July 2038	114,880	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	165,000	165,000
Subtotal	1,006,920	1,006,920
Premium and discount, net	29,614	31,560
Debt issuance cost, net	(5,529)	(5,757)
	$ 1,031,005	1,032,723

The bonds payable outstanding as of June 30, 2017 and 2016 are unsecured general obligations of the University. The loan agreements generally provide for semiannual payments of interest.

(b) Notes Payable

Notes payable consist of the following as of June 30, 2017 and 2016:

	2017	2016
MHHEFA note due November 2020	$ —	6,230
MHHEFA note due February 2025	—	2,343
MHHEFA note due July 2026	—	4,078
Note due December 2019	21,839	27,964
Note due April 2020	50,000	50,000
Note due November 2023	25,000	—
	$ 96,839	90,615

(Continued)

(Dollars in thousands)

The MHHEFA notes were part of a pooled loan program and were unsecured general obligations of the University and bore interest at a variable rate of 0.92% as of June 30, 2016 in monthly installments.

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 with interest payable monthly.

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, 1.49% and 0.90% as of June 30, 2017 and 2016, 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%.

(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, 2017 bear interest at a weighted average rate of 0.93%.

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 $54,248 in 2017 and $53,942 in 2016, of which $1,857 in 2017 and $796 in 2016 were capitalized. There was no interest income in 2017 or 2016 earned from the investment of the unexpended proceeds of tax-exempt borrowings.

(e) Other Credit Agreements

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

	Amount	Maturity	Purpose
$	100,000	March 2018	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

(Dollars in thousands)

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 2017 and 2016.

The University may borrow up to $100,000 under a revolving line of credit for APL working capital purposes. 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, 2017 and 2016.

(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 following table summarizes the general terms of the University's fixed payor swap agreements as of June 30, 2017:

Effective date	Notional amount	Termination date	Interest rate paid	Interest rate received
June 2005	$ 69,265	July 2036	3.87 %	SIFMA 0.87% as of June 30, 2017
July 2007	8,475	July 2027	3.45	67.0% of 1-month LIBOR 0.82% as of June 30, 2017
July 2008	52,500	July 2020	3.43	67.0% of 1-month LIBOR 0.82% as of June 30, 2017

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, 2017 and 2016 was a liability of $22,117 and $33,784, 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 $11,667 in fiscal 2017 and a loss of $10,935 in fiscal 2016.

(Dollars in thousands)

The University is required to post collateral under these agreements when certain thresholds are exceeded. As of June 30, 2017, these thresholds were met and the required collateral was $0. As of June 30, 2016, the required collateral was $10,300, which is included in cash and cash equivalents.

(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, 2017:

Fiscal year		Bonds payable	Notes payable	Commercial paper notes	Total
2018	$	45,000	6,670	—	51,670
2019		50,000	7,262	—	57,262
2020		8,595	57,907	—	66,502
2021		8,590	—	—	8,590
2022		8,595	—	—	8,595
Thereafter		886,140	25,000	97,169	1,008,309
	$	1,006,920	96,839	97,169	1,200,928

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

Temporarily restricted net assets consist of the following as of June 30, 2017 and 2016:

		2017	2016
Contributions, including annuities and other trusts	$	402,975	377,900
Endowment return restricted for departments, divisions, and student aid		746,022	607,839
Contributions restricted for facilities		74,399	87,904
Split-interest agreements designated for departmental and divisional support		34,484	31,832
Land subject to time and purpose restrictions		71,000	78,000
	$	1,328,880	1,183,475

(Dollars in thousands)

Permanently restricted net assets consist of the following as of June 30, 2017 and 2016:

		2017	2016
Contributions, including annuities and other trusts	$	57,442	60,320
Donor restricted endowment funds		1,996,935	1,784,007
Perpetual trusts		57,713	55,015
Contributions receivable		267,629	115,217
	$	2,379,719	2,014,559

Income is available from these permanently restricted net assets for departmental and divisional support ($1,994,965 in 2017 and $1,667,365 in 2016) and student aid ($384,754 in 2017 and $347,194 in 2016).

(10) University Endowment

The University's endowment consists of approximately 4,000 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 permanently restricted net assets (a) the original value of gifts donated, which are donated to the permanent endowment, (b) the original value of subsequent gifts to the permanent endowment, and (c) accumulations to the permanent 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. The remaining portion of the donor-restricted endowment fund that is not classified in permanently restricted net assets is classified as temporarily restricted net assets until those amounts are appropriated for expenditure by the Board of Trustees, or, if in an underwater position (fair value below historical cost), as unrestricted net assets. Subsequent gains that restore the fair value of underwater endowments to the required level will be classified as an increase in unrestricted net assets.

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 (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.

(Dollars in thousands)

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, 2017:

		Unrestricted	Temporarily restricted	Permanently restricted	Total
Donor-restricted endowment funds	$	(1,077)	746,022	1,996,935	2,741,880
Board-designated endowment funds		1,002,871	—	—	1,002,871
	$	1,001,794	746,022	1,996,935	3,744,751

Endowment net assets consist of the following as of June 30, 2016:

		Unrestricted	Temporarily restricted	Permanently restricted	Total
Donor-restricted endowment funds	$	(21,178)	607,839	1,784,007	2,370,668
Board-designated endowment funds		936,319	—	—	936,319
	$	915,141	607,839	1,784,007	3,306,987

(Continued)

(Dollars in thousands)

Changes in endowment net assets for the years ended June 30, 2017 and 2016 are as follows:

	Unrestricted	Temporarily restricted	Permanently restricted	Total
Endowment net assets, June 30, 2015	$ 978,854	719,269	1,628,809	3,326,932
Investment return	(12,034)	(6,163)	994	(17,203)
Contributions and designations	2,423	(160)	153,262	155,525
Appropriation for expenditure	(54,102)	(104,165)	—	(158,267)
Appropriation reinvested	—	(942)	942	—
Endowment net assets, June 30, 2016	915,141	607,839	1,784,007	3,306,987
Investment return	134,267	270,496	779	405,542
Contributions and designations	20,603	(234)	210,076	230,445
Withdrawals	(23,000)	—	—	(23,000)
Appropriation for expenditure	(45,217)	(130,006)	—	(175,223)
Appropriation reinvested	—	(2,073)	2,073	—
Endowment net assets, June 30, 2017	$ 1,001,794	746,022	1,996,935	3,744,751

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

(11) Affiliated Institutions

Reimbursements from affiliated institutions consist of the following for the years ended June 30, 2017 and 2016:

	2017	2016
Johns Hopkins Health System	$ 52,378	42,571
Johns Hopkins Hospital	292,097	279,032
Johns Hopkins Bayview Medical Center	73,222	69,389
Other Johns Hopkins entities	113,087	100,283
Other affiliated medical institutions	22,852	25,877
	$ 553,636	517,152

(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, The 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 Agreement (JAA). Costs charged to the Hospital under the JAA, related primarily to the provision of professional medical services from the University, aggregated $212,965 in fiscal 2017 and $203,692 in fiscal 2016. Costs charged to the University under the JAA, related primarily to rental of space in Hospital facilities under a renewable one-year lease, aggregated $47,594 in fiscal 2017 and $47,818 in fiscal 2016, 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 $70,083 in fiscal 2017 and $66,709 in fiscal 2016.

(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 $467,880 and $426,772 is included in endowment and similar funds held for others as of June 30, 2017 and 2016, respectively. JHHEFI's assets represent approximately 10.70% of total funds invested of $4,373,048 as of June 30, 2017.

(Dollars in thousands)

(e) Jointly Owned Entities

As of June 30, 2017 and 2016, 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 $252,786 and $245,041 as of June 30, 2017 and 2016, respectively. Equity in operating earnings of affiliates aggregated approximately $23,036 in fiscal 2017 and $7,594 in fiscal 2016.

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 2017 and 2016 were approximately $32,909 and $33,184, 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 $254,100 as of June 30, 2017. 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 $34,423 of the project. As of June 30, 2017 and 2016, $21,577 and $23,334, respectively, was outstanding on the loan. In addition, the University has agreed to guarantee a pooled loan of up to $46,300.

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, 2017 and 2016, respectively:

		2017		2016	
		Total	**University interest**	**Total**	**University interest**
Assets	$	1,189,737	524,108	963,039	431,897
Liabilities		795,543	361,207	664,747	300,312
Operating revenues		2,479,653	1,094,260	2,177,195	868,370
Operating expenses		2,404,067	1,071,224	2,110,668	860,776

(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 $238,499 in fiscal 2017 and $213,401 in fiscal

2016, including $203,586 and $190,242, respectively, related to defined contribution plans. Benefit expense recorded in nonoperating activities was $17,769 and $7,394 for fiscal 2017 and fiscal 2016, respectively. Of the total benefit expense, APL's defined contribution plan accounted for $69,981 in fiscal 2017 and $64,768 in fiscal 2016.

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.

During fiscal 2016, APL adopted an amendment to the postretirement medical plan for employees hired before January 1, 2012 and retired after December 31, 2012. In 2011, APL announced that for those employees, the percentage of premium paid by APL would become a fixed dollar amount beginning in 2017. This fixed dollar amount would be based on the premiums of 2016. The plan amendment changed the effective date of a fixed dollar subsidy from 2017 to 2019. Beginning in 2019, the subsidy will become a fixed dollar amount based on the 2018 premium levels. The plan change increased the accumulated postretirement benefit obligation by $9,590 for the year ended June 30, 2016.

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.

(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, 2017 and 2016 is summarized as follows:

	Pension plan		Postretirement plans	
	2017	**2016**	**2017**	**2016**
Change in benefit obligation:				
Benefit obligation at beginning of year	$ 700,782	654,892	321,476	273,674
Service cost	17,148	15,765	10,082	8,464
Interest cost	25,117	28,601	10,633	11,497
Participant contributions	—	—	10,603	10,007
Plan amendments	—	—	—	9,590
Actuarial (gain) loss	(25,418)	62,821	(54,172)	28,715
Benefits paid	(20,044)	(61,297)	(22,162)	(21,714)
Medicare subsidies received	—	—	908	1,243
Benefit obligation at end of year	697,585	700,782	277,368	321,476
Change in plan assets:				
Fair value of plan assets at beginning of year	425,982	476,387	261,320	266,726
Actual return on plan assets	54,441	(12,267)	33,923	(311)
University contributions	34,913	23,159	2,097	5,369
Participant contributions	—	—	10,603	10,007
Benefits paid	(20,044)	(61,297)	(22,162)	(21,714)
Medicare subsidies received	—	—	908	1,243
Fair value of plan assets at end of year	495,292	425,982	286,689	261,320
Funded status recognized as pension and postretirement obligations, net	$ (202,293)	(274,800)	9,321	(60,156)

The accumulated benefit obligation for the pension plan was $673,161 as of June 30, 2017 and $674,941 as of June 30, 2016.

(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, 2017 and 2016:

	Pension plan		Postretirement plans	
	2017	**2016**	**2017**	**2016**
Operating:				
Service cost	$ 17,148	15,765	10,082	8,464
Total operating, included in benefits	17,148	15,765	10,082	8,464
Nonoperating:				
Interest cost on accumulated benefit obligation	25,117	28,601	10,633	11,497
Amortization of prior service cost	(167)	(167)	(788)	(1,736)
Expected return on plan assets	(28,905)	(32,262)	(17,974)	(19,074)
Amortization of actuarial loss	21,720	11,222	3,248	1,282
Total nonoperating	17,765	7,394	(4,881)	(8,031)
Total net pension and postretirement benefit cost	$ 34,913	23,159	5,201	433

The table below reflects the changes in plan assets and benefits obligations recognized as nonoperating items for the years ended June 30, 2017 and 2016:

	Pension plan		Postretirement plans	
	2017	**2016**	**2017**	2016
Net loss (gain) for the year	$ (50,953)	107,351	(70,116)	48,101
Plan amendment	—	—	—	9,590
Amortization of prior service cost	167	167	788	1,736
Amortization of net loss	(21,720)	(11,222)	(3,248)	(1,282)
Net loss (gain) recognized in nonoperating activities	$ (72,506)	96,296	(72,576)	58,145

(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 2018:

		Pension plan	Postretirement plans
Net loss	$	(13,165)	(64)
Prior service cost amortization		167	788
	$	(12,998)	724

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

	Pension plan		Postretirement plans	
	2017	**2016**	**2017**	**2016**
Weighted average assumptions used to determine benefit obligations at June 30:				
Discount rate	3.90 %	3.65 %	3.80%–3.94%	3.55%–3.75%
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	6.90	7.20
Weighted average assumptions used to determine net periodic benefit cost:				
Discount rate	3.65	4.45	3.55–3.75	4.45
Expected rate of return on plan assets	6.75	6.75	7.00	7.25
Rate of compensation increase	2.90	2.90	N/A	N/A
Rate of increase in healthcare costs	N/A	N/A	7.20	7.00

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.

(Dollars in thousands)

The rate of increase in healthcare costs was assumed to begin with an initial rate of 7.2% in 2017 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, 2017 would have the following effects:

		Increase	Decrease
Total service and interest cost components	$	406	(360)
Postretirement benefit obligation		9,182	(7,945)

(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, 2017 and 2016:

		2017			2016		
		Total	Level 1	Funds at NAV	Total	Level 1	Funds at NAV
Cash and cash equivalents	$	13,538	13,538	—	1,847	1,847	—
Fixed income securities		93,461	84,108	9,353	88,514	84,542	3,972
United States equities and international equities		322,989	254,270	68,719	274,984	165,996	108,988
Real assets		19,283	—	19,283	18,072	—	18,072
Marketable alternatives		46,021	—	46,021	42,565	—	42,565
Total	$	495,292	351,916	143,376	425,982	252,385	173,597

(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, 2017 and 2016:

	2017			2016		
	Total	**Level 1**	**Funds at NAV**	**Total**	**Level 1**	**Funds at NAV**
Cash and cash equivalents	$ 1,315	1,315	—	4,949	4,949	—
Fixed income securities	75,261	75,261	—	73,778	73,778	—
United States equities and international equities	188,878	136,487	52,391	163,809	95,083	68,726
Marketable alternatives	21,235	—	21,235	18,784	—	18,784
Total	$ 286,689	213,063	73,626	261,320	173,810	87,510

The Plans have no unfunded commitments to fund managers as of June 30, 2017 and 2016.

Information with respect to investee strategies for those investments in funds whose fair value is estimated based upon reported NAV follows:

(i) 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.

(ii) Real Estate

This includes a commingled fund making investments in real estate. This investment makes income distributions to investors. Redemptions are permitted quarterly with a 90 day notice period.

(iii) Marketable Alternatives

This includes multistrategy, credit and distressed debt, relative value, and event-driven funds in hedge fund. Hedge funds have various redemption periods with notice requirements up to 90 days.

(Dollars in thousands)

The University's target asset allocations for the pension plan and the postretirement plans as of June 30, 2017 and 2016:

	Pension plan		Postretirement plan	
	2017	**2016**	**2017**	**2016**
Fixed income securities	30 %	35 %	30 %	35 %
United States equities and international equities	55	65	60	65
Real estate	5	—	—	—
Marketable alternatives	10	—	10	—
Total	100 %	100 %	100 %	100 %

(d) Cash Flows

The University expects to contribute $22,900 to the pension plan in 2018 and $4,381 to its postretirement benefit plans in 2018.

The benefits expected to be paid and Medicare subsidies to be received in the five years subsequent to June 30, 2017 and in aggregate for the five fiscal years thereafter are as follows:

Fiscal year	Pension plan	Postretirement plans	Medicare subsidies
2018	$ 23,632	12,472	1,859
2019	25,216	13,590	2,034
2020	26,967	14,431	2,145
2021	28,719	15,303	962
2022	30,548	16,146	1,007
2023–2027	177,755	90,641	5,775

(Dollars in thousands)

(13) Functional Expense Information

Operating expenses by function are summarized as follows for the years ended June 30, 2017 and 2016:

		2017	2016
Instruction, research, and clinical practice:			
Academic and support divisions	$	3,486,423	3,299,177
APL contracts		1,375,735	1,291,884
Student services		115,394	104,040
Libraries		50,362	47,103
General services and administration		499,187	496,482
Auxiliary enterprises		97,141	94,236
	$	5,624,242	5,332,922

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.

(14) 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, 2018.

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, 2017:

		Affiliates	Others	Total
2018	$	12,514	32,512	45,026
2019		9,674	30,409	40,083
2020		9,409	26,813	36,222
2021		8,488	21,453	29,941
2022		7,473	15,199	22,672
After 2022		13,212	29,398	42,610
	$	60,770	155,784	216,554

Rental expense for the long-term operating leases was $49,946 in fiscal year 2017 and $46,540 in fiscal year 2016.

(Continued)

(Dollars in thousands)

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, 2017:

2018	$	9,303
2019		9,569
2020		7,987
2021		8,050
2022		8,283
After 2022		60,111
Minimum lease payments		103,303
Less imputed interest (at rates from 3.24% to 8.41%)		29,786
Present value of minimum lease payments	$	73,517

As of June 30, 2017, the gross amount of assets and accumulated depreciation thereon accounted for as capital leases amounted to $95,149 and $39,795, respectively.

(15) Other Commitments and Contingencies

(a) Guarantees

The University has guaranteed payment of principal and interest on the Series 2005B Bonds issued by MHHEFA for JHMI Utilities LLC. JHMI Utilities LLC is equally owned by the Hospital and the University. The proceeds of the 2005B Bonds ($24,300) and the Hospital guaranteed 2015A Bonds ($19,505) financed the construction, renovation, and equipping of a central power plant serving primarily the facilities of the Hospital and University in East Baltimore. The University's guarantee continues until maturity of the bonds in 2035.

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, 2017, the University's guarantee amounted to $22,012 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.

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. Management and legal counsel for the University believe the claims asserted are not supported by the facts or the law. 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, 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. The motion to dismiss is fully briefed and awaiting a decision by the Court.

(16) Subsequent Events

The University evaluated subsequent events through October 5, 2017, which is the date the consolidated financial statements were issued.

On August 15, 2017, the University issued taxable commercial paper in the amount of $20,000.

There were no other matters that required adjustment to or disclosure in the consolidated financial statements.