



**DUKE UNIVERSITY HEALTH SYSTEM, INC.
AND AFFILIATES**

Consolidated Financial Statements and Supplementary Schedules

June 30, 2018 and 2017

(With Independent Auditors' Report Thereon)

**DUKE UNIVERSITY HEALTH SYSTEM, INC.
AND AFFILIATES**

Table of Contents

	Page(s)
Independent Auditors' Report	1-2
Consolidated Balance Sheets	3
Consolidated Statements of Operations	4
Consolidated Statements of Changes in Net Assets	5
Consolidated Statements of Cash Flows	6-7
Notes to Consolidated Financial Statements	8-42
Supplementary Schedules	
Schedule 1 – Combining and Consolidating Balance Sheet Information, June 30, 2018	43
Schedule 2 – Combining and Consolidating Statement of Operations Information, Year ended June 30, 2018	44



KPMG LLP
Suite 1900
440 Monticello Avenue
Norfolk, VA 23510

Independent Auditors' Report

Board of Directors
Duke University Health System, Inc.:

We have audited the accompanying consolidated financial statements of Duke University Health System, Inc. and Affiliates (the Health System), which comprise the consolidated balance sheets as of June 30, 2018 and 2017, and the related consolidated statements of operations, changes in net assets, and cash flows for the years then ended, and the related notes to the consolidated financial statements.

Management's Responsibility for the 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 Health System'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 Health System'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 Duke University Health System, Inc. and Affiliates as of June 30, 2018 and 2017, and the results of their operations, their changes in net assets, and their cash flows for the years then ended, in accordance with U.S. generally accepted accounting principles.



Supplementary Information

Our audits were performed for the purpose of forming an opinion on the consolidated financial statements as a whole. The supplementary information in schedules 1 and 2 is presented for the purposes of additional analysis and is not a required part of the consolidated financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the consolidated financial statements. The information has been subjected to the auditing procedures applied in the audit of the consolidated financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the consolidated financial statements or to the consolidated financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the information is fairly stated, in all material respects, in relation to the consolidated financial statements as a whole.

KPMG LLP

September 28, 2018

**DUKE UNIVERSITY HEALTH SYSTEM, INC.
AND AFFILIATES**

Consolidated Balance Sheets

June 30, 2018 and 2017

(In thousands)

Assets	2018	2017
Current assets:		
Cash and cash equivalents	\$ 277,957	181,939
Patient accounts receivable, net	420,981	365,185
Other receivables	34,962	31,111
Due from the University, net	9,071	—
Inventories of drugs and supplies	93,294	86,462
Other assets	28,143	23,867
Short-term investments	385,129	484,649
Assets limited as to use	19,565	29,951
Total current assets	1,269,102	1,203,164
Assets limited as to use	81,263	80,243
Investments	3,229,495	2,828,977
Property and equipment, net	1,572,226	1,486,426
Due from the University	429	569
Derivative instruments	685	—
Other noncurrent assets	46,569	41,827
Total assets	\$ 6,199,769	5,641,206
Liabilities and Net Assets		
Current liabilities:		
Accounts payable	\$ 167,205	116,482
Due to the University, net	—	612
Other current liabilities	38,370	39,610
Accrued salaries, wages, and vacation payable	189,202	176,427
Estimated third-party payor settlements, net	1,846	13,522
Current portion of postretirement and postemployment benefit obligations	7,540	6,145
Current portion of indebtedness	23,760	23,340
Current portion of capital lease obligations	2,835	2,726
Current portion of estimated professional liability costs	16,611	16,276
Total current liabilities	447,369	395,140
Other noncurrent liabilities	39,931	37,955
Postretirement and postemployment benefit obligations, net of current portion	274,628	410,486
Indebtedness, net of current portion	1,604,035	1,632,891
Capital lease obligations, net of current portion	128,535	124,845
Derivative instruments	56,746	80,651
Estimated professional liability costs, net of current portion	28,797	29,022
Total liabilities	2,580,041	2,710,990
Net assets:		
Unrestricted	3,561,101	2,873,039
Temporarily restricted	44,593	43,472
Permanently restricted	14,034	13,705
Total net assets	3,619,728	2,930,216
Total liabilities and net assets	\$ 6,199,769	5,641,206

See accompanying notes to consolidated financial statements.

**DUKE UNIVERSITY HEALTH SYSTEM, INC.
AND AFFILIATES**

Consolidated Statements of Operations

Years ended June 30, 2018 and 2017

(In thousands)

	2018	2017
Unrestricted revenues, gains, and other support:		
Net patient service revenue (net of contractual allowances and discounts)	\$ 3,474,616	3,214,218
Provision for bad debts	(80,027)	(46,118)
Net patient service revenue less provision for bad debts	3,394,589	3,168,100
Other revenue	203,291	196,624
Total unrestricted revenues, gains, and other support	3,597,880	3,364,724
Expenses:		
Salaries, wages, and benefits	1,570,877	1,491,281
Medical supplies	846,451	771,616
Interest	58,824	37,251
Depreciation and amortization	160,763	155,112
Other operating expenses	675,610	634,133
Total expenses	3,312,525	3,089,393
Operating income	285,355	275,331
Nonoperating income:		
Investment income	341,109	295,591
Loss on extinguishment of debt	—	(18,328)
Other	1,053	(11)
Total nonoperating income	342,162	277,252
Excess of revenues over expenses	627,517	552,583
Change in funded status of defined benefit plans	155,112	91,092
Net assets released from restrictions for purchase of property and equipment	633	519
Transfers to the University, net	(95,200)	(108,231)
Increase in unrestricted net assets	\$ 688,062	535,963

See accompanying notes to consolidated financial statements.

**DUKE UNIVERSITY HEALTH SYSTEM, INC.
AND AFFILIATES**

Consolidated Statements of Changes in Net Assets

Years ended June 30, 2018 and 2017

(In thousands)

	2018	2017
Unrestricted net assets:		
Excess of revenues over expenses	\$ 627,517	552,583
Change in funded status of defined benefit plans	155,112	91,092
Net assets released from restrictions for purchase of property and equipment	633	519
Transfers to the University, net	(95,200)	(108,231)
Increase in unrestricted net assets	688,062	535,963
Temporarily restricted net assets:		
Contributions for restricted purposes	3,735	2,319
Transfers (to) from the University, net	(190)	74
Net assets released from restrictions used for operations	(3,861)	(4,317)
Net assets released from restrictions for purchase of property and equipment	(633)	(519)
Net realized and unrealized gains	2,070	1,799
Increase (decrease) in temporarily restricted net assets	1,121	(644)
Permanently restricted net assets:		
Contributions for endowment funds	146	(7)
Transfers from the University, net	200	—
Net realized and unrealized (losses) gains	(17)	12
Increase in permanently restricted net assets	329	5
Increase in net assets	689,512	535,324
Net assets, beginning of year	2,930,216	2,394,892
Net assets, end of year	\$ 3,619,728	2,930,216

See accompanying notes to consolidated financial statements.

**DUKE UNIVERSITY HEALTH SYSTEM, INC.
AND AFFILIATES**

Consolidated Statements of Cash Flows

Years ended June 30, 2018 and 2017

(In thousands)

	2018	2017
Cash flows from operating activities:		
Increase in net assets	\$ 689,512	535,324
Adjustments to reconcile increase in net assets to net cash provided by operating activities:		
Depreciation and amortization	160,763	155,112
Investment income	(343,179)	(297,390)
Loss on the extinguishment of debt	—	18,328
Net (gain) loss on other investments and disposals of property and equipment	(3,160)	882
Transfers to the University, net	95,190	108,157
Provision for bad debts	80,027	46,118
Restricted contributions received for long-term capital projects	(21)	(29)
Permanently restricted contributions and associated realized and unrealized gains	(129)	(5)
(Increase) decrease in:		
Patient accounts receivable	(135,823)	(43,844)
Other receivables	(4,355)	(2,189)
Inventories of drugs and supplies	(6,832)	(4,064)
Other assets	(7,066)	(7,315)
Increase (decrease) in:		
Accounts payable	13,739	(6,267)
Due to the University, net	(8,276)	(14,813)
Other current liabilities	(7,271)	(10,259)
Accrued salaries, wages, and vacation payable	12,775	18,593
Estimated third-party payor settlements, net	(11,676)	(5,722)
Postretirement and postemployment benefit obligations	(134,463)	(54,476)
Other noncurrent liabilities	1,976	(27,183)
Estimated professional liability costs	110	3,241
Net cash provided by operating activities	391,841	412,199
Cash flows from investing activities:		
Capital expenditures	(206,457)	(188,847)
Decrease in assets limited as to use	1,025	11,782
Sales of investments	2,819,539	1,635,032
Purchases of investments	(2,792,713)	(2,420,916)
Proceeds from sale of fixed assets	161	627
Decrease (increase) in other assets	2,458	(1,301)
Net cash used in investing activities	(175,987)	(963,623)

**DUKE UNIVERSITY HEALTH SYSTEM, INC.
AND AFFILIATES**

Consolidated Statements of Cash Flows

Years ended June 30, 2018 and 2017

(In thousands)

	2018	2017
Cash flows from financing activities:		
Payments on indebtedness and bank borrowings	\$ (23,340)	(160,134)
Proceeds from issuance of indebtedness	—	740,200
Bond issuance and rate hedge costs	(505)	(14,606)
Proceeds from restricted contributions and associated realized gains	731	676
Payments on capital lease obligations	(3,042)	(2,060)
Transfers to the University, net	(93,680)	(111,856)
Net cash (used in) provided by financing activities	(119,836)	452,220
Net increase (decrease) in cash and cash equivalents	96,018	(99,204)
Cash and cash equivalents, beginning of year	181,939	281,143
Cash and cash equivalents, end of year	\$ 277,957	181,939
Supplemental disclosure of cash flow information:		
Cash paid for interest, net of amount capitalized	\$ 64,378	41,468
Supplemental disclosures of noncash investing/financing activities:		
Change in fixed asset payables as of June 30	\$ 37,300	7,246
Transfer of investments to the University	—	501,417
Net transfers payable between the Health System and University	930	2,968
Net transfers to the University of property and equipment	3,549	3,359

See accompanying notes to consolidated financial statements.

**DUKE UNIVERSITY HEALTH SYSTEM, INC.
AND AFFILIATES**

Notes to Consolidated Financial Statements

June 30, 2018 and 2017

(In thousands)

(1) Description of Organization, Related Parties, and the Private Diagnostic Clinic

(a) Duke University Health System, Inc. (the Health System)

The Health System is a North Carolina nonprofit corporation organized and controlled by Duke University (the University or the Parent). The Health System includes three hospitals operated as divisions and several subsidiaries and controlled affiliates, the most significant of which follow:

- **Duke University Hospital (DUH)** – a quaternary care teaching hospital located on the campus of the University in Durham, North Carolina, licensed for 957 acute care and specialty beds, leased from the University, operated by the Health System and providing patient care and serving as a site for medical education provided by the Duke University School of Medicine (School of Medicine or SOM) and clinical research conducted by the School of Medicine.
- **Duke Regional Hospital (DRH)** – a full service community hospital located in Durham, North Carolina, licensed for 369 acute care beds and providing patient care; DRH is owned by Durham County, North Carolina and leased to the Durham County Hospital Corporation which has in turn subleased DRH to the Health System for the identical duration under a forty (40) year automatically renewing “evergreen” lease.
- **Duke Raleigh Hospital (DRaH)** – a community hospital located in Raleigh, North Carolina, licensed for 186 acute care beds, leased from the University, operated by the Health System and providing patient care.
- **Duke University Affiliated Physicians, Inc. (DUAP)** – a North Carolina nonprofit corporation, doing business as Duke Primary Care, consisting of twenty-six primary care physician practices located in Alamance, Chatham, Durham, Granville, Orange, Vance, and Wake Counties, North Carolina, seven urgent care centers located in Durham, Orange, and Wake Counties, and a pediatric practice with two locations in Durham County.
- **Durham Casualty Company, Ltd. (DCC)** – a wholly owned subsidiary of the Health System, domiciled in Bermuda, insuring a portion of the medical malpractice risks and patient general liability risks of Health System clinical providers and the Private Diagnostic Clinic (PDC).

The Health System also includes other separately incorporated affiliates and subsidiaries and unincorporated divisions not listed above whose accounts are included in the accompanying consolidated financial statements. All significant intercompany accounts and transactions are eliminated in consolidation. The Health System’s accounts are included in the consolidated financial statements of the University.

(b) The University

Pursuant to a lease and operating agreement between the University and the Health System, the Health System acquired, or has acquired the right to operate, all of the operating assets of the University’s health system and has assumed all of the University’s liabilities and obligations related to the transferred assets. Under the Health System’s current Master Trust Indenture, the owners of Health System bonds look solely to the Health System for repayment of those obligations. The operating agreement between the University and the Health System provides for certain common administrative

**DUKE UNIVERSITY HEALTH SYSTEM, INC.
AND AFFILIATES**

Notes to Consolidated Financial Statements

June 30, 2018 and 2017

(In thousands)

services, human resources policy and practice, fiduciary responsibility, investment policies, and support for the School of Medicine.

Certain shared administrative and general service expenses are incurred by the University for the benefit of the Health System. These are included within other operating expenses and amounted to approximately \$39,063 and \$37,385 in fiscal years 2018 and 2017, respectively.

(c) School of Medicine (SOM)

The SOM is organized and operated as part of the University and is not included in the Health System's consolidated financial statements. The Health System provides support to the SOM in the form of cash (and some noncash) equity transfers. Examples of transfers to the SOM include but are not limited to support of specific initiatives, specific departments, or general support for the Chancellor for Health Affairs or a departmental chair. For the years ended June 30, 2018 and 2017, net unrestricted transfers to the University are as follows:

	2018	2017
Transfers to the School of Medicine	\$ 85,851	99,187
Transfers to the University	7,801	6,470
Transfers from the University/School of Medicine	(2,000)	(785)
Total funded transfers, net	91,652	104,872
Fixed assets and other unfunded transfers, net	3,548	3,359
Unrestricted transfers to the University, net	\$ 95,200	108,231

On July 1, 2016, the Health System transferred \$510,000 consisting of \$501,417 of Long Term Pool (LTP) investments and \$8,583 in cash to the SOM to fund future academic activities. Of the \$510,000 transfer, \$310,000 is intended to cover, in advance, planned SOM support for the ten-year period beginning July 1, 2016; the remaining \$200,000 will be used to establish a quasi-endowment fund which, from 2017–2026, the SOM plans to leave intact with all income accumulated and added to the principal of the fund. The Health System plans to transfer \$94,000 in cash (and some noncash) equity transfers to the University in 2019.

(d) Private Diagnostic Clinic, PLLC (PDC)

The PDC is a professional limited liability company consisting of physicians practicing primarily within Health System facilities and PDC clinics. The purpose of the PDC is to provide a structure separate from the University and the Health System in which the members of the physician faculty of the School of Medicine may engage in the private practice of medicine and still serve as members of the faculty of the University conducting clinical teaching and medical research. The PDC, under agreements with the University and the Health System, occupies and utilizes certain of the Health System's facilities. PDC physicians are not employed by the Health System, and the PDC is not included in the Health System's or the University's consolidated financial statements.

**DUKE UNIVERSITY HEALTH SYSTEM, INC.
AND AFFILIATES**

Notes to Consolidated Financial Statements

June 30, 2018 and 2017

(In thousands)

The Health System has numerous agreements with the PDC. Many are for services related to clinical operations such as professional service agreements (PSA) for physician staffing of certain Health System facilities, medical directors, and lab services. The Health System, through its Patient Revenue Management Organization (PRMO), has contractual responsibility for the billing and accounts receivable operations of the PDC. DCC is the principal source of malpractice insurance for the PDC. The PDC subleases, at market rates, clinical and administrative space owned by the University and leased to the Health System, and space owned by the Health System. The Health System also subleases to the PDC, at full cost, leased space from nonaffiliated third parties. The following table summarizes the PDC-related revenue included in other operating revenue in the Health System's consolidated statements of operations:

	2018	2017
Billing and collection services	\$ 37,496	36,863
Revenue under service agreements	57,974	58,087
DCC malpractice insurance premiums	7,311	6,209
Rental income	10,822	11,106
Total	\$ 113,603	112,265

For the years ended June 30, 2018 and 2017, other operating expenses in the Health System's consolidated statements of operations include PDC-related expenses under service agreements of \$145,454 and \$131,707, respectively. The Health System has net payables to the PDC of \$7,599 and \$10,842 as of June 30, 2018 and 2017, respectively, related to various transactions.

(e) DUMAC, Inc. (DUMAC)

DUMAC, a separate nonprofit support corporation organized and controlled by the University, manages multiple investment pools on behalf of the Health System and the University including the Health System Pool (HSP) and the Long Term Pool (LTP). DUMAC also manages the investment assets of the Employee's Retirement Plan of the University (ERP).

(2) Summary of Significant Accounting Policies

Significant accounting policies of the Health System are as follows:

(a) Cash and Cash Equivalents

Cash and cash equivalents include assets invested in the University Short Term Account (STA), which the Health System utilizes to fund daily cash needs. The STA currently invests in short-term and highly liquid investments, which can be liquidated within thirty days.

Cash and cash equivalents that are invested in the HSP and LTP are reported within short-term and noncurrent investments as these funds are not typically used for current operating needs.

**DUKE UNIVERSITY HEALTH SYSTEM, INC.
AND AFFILIATES**

Notes to Consolidated Financial Statements

June 30, 2018 and 2017

(In thousands)

(b) Short-Term Investments

Short-term investments include debt securities and other instruments with maturities of one year or less from the balance sheet date and are not included in cash and cash equivalents.

(c) Investments

(i) Reporting

Investments are classified as trading securities. As such, investment income or loss (including realized and unrealized gains and losses on investments, interest, and dividends) is included in excess of revenues over expenses unless the income or loss is restricted by donor or law.

(ii) Valuation

Investments are recorded in the consolidated financial statements at estimated fair value. For investments made directly by the Health System whose values are based on quoted market prices in active markets, the market price of the investment is used to report fair value. For shares in mutual funds, fair values are based on share prices reported by the funds as of the last business day of the fiscal year. The Health System's interests in alternative investment funds such as fixed income, equities, hedged strategies, private capital, and real assets are generally reported at the net asset value (NAV) reported by the fund managers. Unless it is probable that all or a portion of the investment will be sold for an amount other than NAV, the Health System has concluded, as a practical expedient, that the NAV approximates fair value.

(iii) Derivatives

Derivatives are used by the Health System and external investment managers to manage market risks. The most common derivative strategies employed are total return swaps, futures contracts, and short sales. These derivative instruments are recorded at their respective fair values (note 8).

(d) Assets Limited as to Use

Assets limited as to use include funds on deposit with bond trustees, funds pledged as collateral under derivative swap agreements, externally restricted funds, and amounts required to settle estimated professional liability costs recorded in DCC.

(e) Property and Equipment

Property and equipment acquisitions are recorded at original cost or, where original cost data is not available, at estimates of original cost. Property and equipment under capital leases are initially valued and recorded based on the present value of minimum lease payments. Costs associated with the development and installation of internal-use software may be capitalized or expensed. These costs are expensed if they are incurred in the preliminary project or post-implementation/operation stages and capitalized if they are incurred in the application development stage and meet certain capitalization requirements. Depreciation and amortization is calculated on the straight-line basis over the estimated useful lives of the respective assets, except for leasehold improvements and property and equipment

**DUKE UNIVERSITY HEALTH SYSTEM, INC.
AND AFFILIATES**

Notes to Consolidated Financial Statements

June 30, 2018 and 2017

(In thousands)

held under capital leases, which are amortized over the shorter of the expected useful life of the asset or related lease term. The estimated useful lives by asset type are as follows:

Asset type	Useful life
Buildings and utilities	10–50 years
Furnishings and equipment	3–20 years
Computer software	5–10 years

Gains and losses from the disposal of property and equipment are included in operating income. The portion of interest on the DUHS 2017 taxable bonds associated with the funding of qualifying assets is capitalized during the construction period, and interest capitalization will continue over the life of the bonds while qualifying capital projects are ongoing. Total interest cost of \$3,100 and \$129 was capitalized in fiscal years 2018 and 2017, respectively.

(f) Asset Impairment

The Health System assesses the recoverability of long lived assets by determining whether the carrying value of these assets can be recovered through undiscounted future operating cash flows generated by these assets. The amount of impairment, if any, is measured by comparison of the fair value of the assets to their carrying value. Fair value is determined using market data, if available, or projected discounted future operating cash flows using a discount rate reflecting the Health System's weighted average cost of capital.

(g) Net Assets

Net assets and revenues, expenses, gains, and losses are classified based on the existence or absence of externally imposed restrictions. Accordingly, net assets of the Health System and changes therein are classified and reported as follows:

Unrestricted net assets – Net assets that are not subject to externally imposed stipulations.

Temporarily restricted net assets – Net assets subject to externally imposed stipulations that may or will be met either by actions of the Health System and/or the passage of time.

Temporarily restricted net assets are available for the following purposes at June 30:

	2018	2017
Health care services:		
Health education	\$ 4,572	4,777
Capital expenditures	18,494	19,212
Other	21,527	19,483
	\$ 44,593	43,472

**DUKE UNIVERSITY HEALTH SYSTEM, INC.
AND AFFILIATES**

Notes to Consolidated Financial Statements

June 30, 2018 and 2017

(In thousands)

Permanently restricted net assets – Net assets subject to externally imposed stipulations that they be maintained by the Health System in perpetuity.

Revenues are reported as increases in unrestricted net assets unless use of the related asset is limited by donor imposed restrictions. Expenses are reported as decreases in unrestricted net assets. Gains and losses are reported as increases or decreases in unrestricted net assets unless use of the related asset is limited by donor imposed restrictions or law. Expirations of temporary restrictions of net assets (i.e., the donor stipulated purpose has been fulfilled and/or the stipulated time period has elapsed) are reported in other revenue in the consolidated statements of operations. Contributions for acquisitions or construction of property and equipment are released from restrictions in the period in which the assets are placed into service excluded from excess of revenues over expenses in the consolidated statements of operations. Unrealized gains and losses on permanently restricted net assets are included in the change in temporarily restricted net assets unless the donor stipulates that such activity be restricted to endowment, in which case it is included in change in permanently restricted net assets.

(h) Excess of Revenues over Expenses

Changes in unrestricted net assets that are excluded from excess of revenues over expenses include certain nonperiodic defined benefit plan accounting adjustments, permanent transfers of assets to and from affiliates for other than goods and services, and assets acquired using contributions, which by donor imposed restriction, must be used for the purposes of acquiring long lived assets.

(i) Net Patient Service Revenue (Net of Contractual Allowances and Discounts)

The Health System recognizes revenues in the period in which services are rendered. The Health System has agreements with third-party payors that provide for payments to the Health System at amounts that are generally less than its established rates. Payment arrangements include prospectively determined rates per discharge, reimbursed costs, discounted charges, and per diem payments. Accordingly, net patient service revenue is reported at the estimated net realizable amounts from patients, third-party payors, and others, including estimated retroactive adjustments under reimbursement agreements with third-party payors. Adjustments are accrued on an estimated basis in the period the related services are rendered and retroactively adjusted in future periods as changes to estimates become known and tentative and final settlement adjustments are identified.

(j) Charity Care

The Health System provides care to patients who meet certain criteria under its financial assistance policy without charge or at amounts less than its established rates. Because the Health System does not pursue collection of amounts determined to qualify as charity care, they are not reported as revenue or included in patient accounts receivable.

(k) Derivative Financial Instruments

The Health System has elected not to use hedge accounting with respect to any of its debt derivative financial instruments. Derivative financial instruments are recognized as assets or liabilities in the consolidated balance sheets at fair value. Realized and unrealized gains and losses on derivatives are included in investment income in the consolidated statements of operations.

**DUKE UNIVERSITY HEALTH SYSTEM, INC.
AND AFFILIATES**

Notes to Consolidated Financial Statements

June 30, 2018 and 2017

(In thousands)

(l) Income Taxes

The Health System and substantially all of its affiliates are organizations described under Section 501(c)(3) of the Internal Revenue Code. Such organizations are not subject to federal and state income tax on income related to their exempt purpose. Accordingly, no provision for income taxes is made in the consolidated financial statements for these entities. As of June 30, 2018, there were no material uncertain tax positions.

(m) Use of Estimates

The preparation of financial statements in conformity with U.S. generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities as of the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Significant items subject to such estimates and assumptions include valuation allowances for receivables, third-party reimbursement settlements, self-insurance liabilities, retirement obligations, and the carrying amounts of property, equipment, investments, and derivative instruments. Actual results could differ from those estimates.

(n) Recently Issued Accounting Standards

The Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) No. 2014-09, *Revenue from Contracts with Customers (Topic 606)*, in May 2014 which outlines a single comprehensive model for recognizing revenue and supersedes most existing revenue recognition guidance, including guidance specific to the healthcare industry. This ASU establishes principles for reporting useful information to users of financial statements about the nature, amount, timing, and uncertainty of revenue and cash flows arising from the entity's contracts with customers. Particularly, that an entity recognizes revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. ASU 2014-09 is effective for fiscal year 2019. The Health System expects to record a decrease in net patient service revenue related to self-pay patients and a corresponding decrease in bad debt expense upon adoption of the standard.

The FASB issued ASU 2016-02, *Leases (Topic 842)*, in February 2016. This ASU requires the recognition of lease assets and lease liabilities by lessees for those leases classified as operating leases under previous GAAP which have terms of greater than 12 months. This ASU defines a lease as a contract, or part of a contract, that conveys the right to control the use of identified property, plant, or equipment (an identified asset) for a period of time in exchange for consideration. This ASU retains a distinction between finance leases and operating leases. The result of retaining a distinction between finance leases and operating leases in the statement of operations and the statement of cash flows is largely unchanged from existing GAAP. ASU 2016-02 is effective for fiscal year 2020. The Health System expects to record an increase in lease assets and lease liabilities presented in the consolidated balance sheets upon adoption of the standard.

**DUKE UNIVERSITY HEALTH SYSTEM, INC.
AND AFFILIATES**

Notes to Consolidated Financial Statements

June 30, 2018 and 2017

(In thousands)

The FASB issued ASU 2016-14, *Not-for-Profit Entities (Topic 958)*, in August 2016. This ASU reduces the classes of net assets from three to two (net assets without donor restrictions and net assets with donor restrictions), increases quantitative and qualitative disclosures regarding liquidity, and requires reporting expenses by both their natural classification and their functional classification. ASU 2016-14 is effective for fiscal year 2019. The Health System will make these changes in classification and additional disclosures in the financial statements and footnotes upon adoption of the standard.

The FASB issued ASU 2016-18, *Statement of Cash Flows (Topic 230) – Restricted Cash*, in November 2016. This ASU requires entities to include in total cash and cash equivalents on the statement of cash flows the cash and cash equivalents that have restrictions on withdrawal or use. It also requires additional disclosure of the nature of restrictions on its cash and cash equivalents. ASU 2016-18 is effective for fiscal year 2020. The Health System will make these changes in classification and additional disclosures in the financial statements and notes upon adoption of the standard.

The FASB issued ASU 2017-07, *Compensation – Retirement Benefits (Topic 715) – Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost*, in March 2017. This ASU requires entities that sponsor employee defined benefit pension and other postretirement benefit plans to report the service cost component in the same line item on the statement of operations as other salaries, wages, and benefits costs. The other components of net benefit cost will be presented separately outside of operating income. ASU 2017-07 is effective for fiscal year 2020. The Health System expects to record an increase in salaries, wages, and benefits upon adoption of the standard.

(3) Net Patient Service Revenue and Estimated Third-Party Payor Settlements

Patient service revenue, net of contractual allowances and discounts, but before the provision for bad debts, recognized in fiscal years 2018 and 2017 from major payor sources is as follows:

	2018		2017	
	Amount	Percentage	Amount	Percentage
Commercial payors	\$ 1,984,479	57.1 %	\$ 1,845,688	57.4 %
Medicare	990,324	28.5	938,673	29.2
Medicaid	373,970	10.8	326,027	10.2
Self-pay patients	25,195	0.7	16,283	0.5
Other third-party payors	100,648	2.9	87,547	2.7
Total	<u>\$ 3,474,616</u>	<u>100.0 %</u>	<u>\$ 3,214,218</u>	<u>100.0 %</u>

The Health System has entered into payment agreements with third-party payors including certain commercial insurance carriers, health maintenance organizations, and preferred provider organizations. The basis for payment to the Health System under these agreements includes prospectively determined rates per discharge, prospectively determined daily rates, and discounts from established charges. The

**DUKE UNIVERSITY HEALTH SYSTEM, INC.
AND AFFILIATES**

Notes to Consolidated Financial Statements

June 30, 2018 and 2017

(In thousands)

Health System recognizes patient service revenue associated with services provided to patients who have third-party coverage on the basis of contractual rates for the services rendered.

Net patient service revenue includes estimated retroactive adjustments under reimbursement agreements with governmental programs. Adjustments are accrued on an estimated basis in the period the related services are rendered and retroactively adjusted in future periods as changes to estimates become known and tentative and final settlement adjustments are identified. The effects of these retroactive adjustments are to increase net patient service revenue by \$2,611 and \$9,357 in fiscal years 2018 and 2017, respectively. The amounts due to and from governmental programs (Medicare and Medicaid) for final settlement of reimbursements are determined based upon cost reports filed annually with the respective programs. The reports for all years through June 30, 2007 for Medicare and June 30, 2014 for Medicaid have been substantially resolved with the Medicare Administrative Contractor and NC Department of Health and Human Services, respectively. In the opinion of management, adequate provisions have been made in the consolidated financial statements for adjustments that may result from final settlements of reimbursable amounts. The Health System, in part through its Compliance Program, seeks to ensure compliance with governmental program rules. The effects of retroactive adjustments from the compliance and other reviews are to reduce net patient service revenue by \$938 and \$8,148 in fiscal years 2018 and 2017, respectively. In addition, net patient service revenue was increased by \$30,482 in fiscal year 2017 due to a re-evaluation of the need for additional liabilities related to inherent uncertainties in the estimation process for out-of-period revenue cycle adjustments and settlements.

The Health System receives supplemental Medicaid payments from the State of North Carolina through a federally approved disproportionate share program (Medicaid DSH). Medicaid DSH payments are part of the Medicaid Program and are designed to offset a portion of the Medicaid losses incurred. Amounts recognized in the Health System's consolidated financial statements related to supplemental Medicaid follows:

	2018	2017
Supplemental Medicaid amounts included in net patient service revenue	\$ 196,090	155,168
Medicaid assessments included in other operating expenses	(81,215)	(72,412)
Net supplemental Medicaid revenue in operating income	\$ 114,875	82,756
Net receivable (payable) from supplemental Medicaid included in estimated third-party payor settlements, net	\$ 100	(11,768)

There can be no assurance that the Health System will continue to qualify for future participation in this program or that the program will not be discontinued or materially modified.

**DUKE UNIVERSITY HEALTH SYSTEM, INC.
AND AFFILIATES**

Notes to Consolidated Financial Statements

June 30, 2018 and 2017

(In thousands)

For uninsured patients who do not qualify for charity care, the Health System recognizes revenue on the basis of its discounted rates. Uninsured patients automatically receive a discount from billed charges (only medically necessary services are eligible). On the basis of historical experience, a significant portion of the Health System's uninsured patients who do not qualify for charity care will fail to pay for the services provided. Thus, the Health System records a significant provision for bad debts related to uninsured patients in the period the services are provided.

Patient accounts receivable, net at June 30 consists of the following:

	2018	2017
Patient accounts receivable	\$ 1,358,223	1,242,842
Less:		
Allowance for bad debts	(53,652)	(47,759)
Allowance for contractual adjustments	(883,590)	(829,898)
Patient accounts receivable, net	\$ 420,981	365,185

The Health System analyzes historical collections and write-offs and identifies trends for each of its major payor sources of revenue to estimate the appropriate balance sheet allowance for bad debts and statement of operations provision for bad debts. For receivables associated with services provided to patients who have third-party coverage, the Health System analyzes contractually due amounts and provides an allowance for bad debts, allowance for contractual adjustments, provision for bad debts, and contractual adjustments on accounts for which the third-party payor has not yet paid or for payors who are known to be having financial difficulties that make the realization of amounts due unlikely. For receivables associated with self-pay patients or with balances remaining after the third-party coverage has already paid, the Health System records a significant provision for bad debts in the period of service on the basis of its historical collections. The difference between the discounted rates and the amounts collected after all reasonable collection efforts have been exhausted is charged off against the allowance for bad debts.

The activity in the allowance for bad debts by major payor sources is as follows:

Allowance for bad debts	Commercial	Medicare	Medicaid	Self-pay	Other third-party	Total
Balance as of June 30, 2016	\$ 23,800	22,078	5,984	5,013	4,936	61,811
Provision for bad debts	27,997	2,311	606	14,700	504	46,118
Less net w rite-offs	(33,752)	(6,340)	(1,765)	(15,713)	(2,600)	(60,170)
Balance as of June 30, 2017	18,045	18,049	4,825	4,000	2,840	47,759
Provision for bad debts	47,096	7,892	4,527	17,452	3,060	80,027
Less net w rite-offs	(43,260)	(7,393)	(3,976)	(17,403)	(2,102)	(74,134)
Balance as of June 30, 2018	\$ 21,881	18,548	5,376	4,049	3,798	53,652

**DUKE UNIVERSITY HEALTH SYSTEM, INC.
AND AFFILIATES**

Notes to Consolidated Financial Statements

June 30, 2018 and 2017

(In thousands)

The Health System's net write-offs increased \$13,964 from fiscal year 2017 to fiscal year 2018 and decreased \$10,468 from fiscal year 2016 to fiscal year 2017.

The Health System grants credit without collateral to its patients, most of whom are insured under third-party payor agreements. The mix of gross receivables from patients and third-party payors at June 30 is as follows:

	2018	2017
Commercial payors	41.2 %	39.4 %
Medicare	33.6	34.8
Medicaid	14.2	15.6
Self-pay patients	3.1	3.1
Other third-party payors	7.9	7.1
	100.0 %	100.0 %

(4) Charity Care and Other Community Benefits

The Health System provides services at no charge or at a substantially discounted rate to patients who are approved under the guidelines of its financial assistance policy. The Health System does not pursue collection of amounts determined to qualify as charity care. Services qualifying for charity care consideration include emergent and medically necessary services as determined by a Health System physician. Patient household income in relation to the federal poverty guidelines is included in the determination for charity care qualification.

While charity care is excluded from net patient revenue and receivables, the Health System maintains records to identify and monitor the level of charity care it provides. These records include the amount of charges foregone and estimated costs incurred for services and supplies furnished under its financial assistance policy and other equivalent service statistics. Costs incurred are estimated based on the ratio of total operating expenses to gross charges applied to charity care charges. The Health System received gifts and grants of \$125 and \$129 in 2018 and 2017, respectively, to subsidize charity care.

In addition to charity care, the Health System provides services under the Medicare and Medicaid programs, medical education (for which payments received from Medicare and Medicaid are less than the full cost of providing these activities), and research activities. The Health System also provides both in-kind service contributions and direct support payments to Lincoln Community Health Center (LCHC) and the Durham Emergency Medical Services (EMS). LCHC is an outpatient clinic serving the Durham County, North Carolina community, supported in part by a U.S. Public Service Grant. EMS serves as the primary provider of emergency ambulance service in Durham County and is a unit of the Durham County government.

**DUKE UNIVERSITY HEALTH SYSTEM, INC.
AND AFFILIATES**

Notes to Consolidated Financial Statements

June 30, 2018 and 2017

(In thousands)

The Health System estimates charity care and other community benefits in accordance with Internal Revenue Code Section 501(r). Estimates of the cost of charity care and other community benefits provided during the years ended June 30 are as follows:

	<u>2018</u>	<u>2017</u>
Charity care at cost	\$ 97,700	96,710
Unreimbursed Medicaid	<u>95,186</u>	<u>109,019</u>
Total charity care and means-tested programs	<u>192,886</u>	<u>205,729</u>
Health professionals education	69,202	65,277
Cash and in-kind contributions to community groups	<u>12,355</u>	<u>12,000</u>
Total other benefits	<u>81,557</u>	<u>77,277</u>
Total charity care and other community benefits at cost	<u>\$ 274,443</u>	<u>283,006</u>

In addition to the above total charity care and other community benefits reported on Internal Revenue Service (IRS) Form 990, Schedule H, the Health System also provided services under the Medicare program for which payments received were less than the full cost of providing the services. The estimated unreimbursed costs attributable to providing services under Medicare are \$255,540 and \$212,922 for the years ended June 30, 2018 and 2017, respectively. The Health System provides additional uncompensated care in the form of bad debts. Estimated uncompensated costs associated with bad debt accounts were \$22,125 and \$12,619 for June 30, 2018 and 2017, respectively.

(5) Cash and Investments

The following is a summary of cash and investments included in consolidated balance sheets at June 30:

	<u>2018</u>	<u>2017</u>
Cash and cash equivalents	\$ 277,957	181,939
Short-term investments	385,129	484,649
Investments	<u>3,229,495</u>	<u>2,828,977</u>
Cash and investments available for operations	3,892,581	3,495,565
Assets limited as to use, current	19,565	29,951
Assets limited as to use, noncurrent	81,263	80,243
Less receivables and other assets included in assets limited as to use	<u>(5,621)</u>	<u>(5,734)</u>
Total cash and investments	<u>\$ 3,987,788</u>	<u>3,600,025</u>

**DUKE UNIVERSITY HEALTH SYSTEM, INC.
AND AFFILIATES**

Notes to Consolidated Financial Statements

June 30, 2018 and 2017

(In thousands)

The Health System invests through separate accounts and commingled vehicles (including limited partnerships). The fair value of cash and investments consists of the following at June 30:

	2018	2017	Unfunded commitments³
Cash and cash equivalents	\$ 291,439	196,234	—
Deposits with bond trustees	839	632	—
Short-term investments	388,083	498,324	—
Fixed income	626,301	691,673	—
Equities	658,201	512,131	—
Hedged strategies	973,980	840,742	554
Private capital	586,198	458,456	217,333
Real assets	387,155	344,329	147,984
Investment in LTP	27,474	25,050	—
Other	48,118	32,454	—
Total cash and investments ^{1,2}	3,987,788	3,600,025	\$ 365,871
Less cash and investments included in assets limited as to use	(95,207)	(104,460)	
Cash and investments available for operations	\$ 3,892,581	3,495,565	

¹ Includes the Health System's participation in pooled assets of \$329,604 and \$353,303 at June 30, 2018 and 2017, respectively, which are managed by DUMAC.

² Includes unspent net proceeds from the issuance of the 2017 taxable bonds on June 6, 2017 as described in note 7 of \$204,589 and \$394,882 at June 30, 2018 and 2017, respectively.

³ Future commitments likely to be called at various dates through 2022. The Health System expects to finance these commitments with available cash and expected proceeds from the sales of securities.

The Health System's investment classes are described in further detail below. Classes include direct holdings, which are generally marketable securities, or interest in funds, which are stated at NAV as a practical expedient for which the related investment strategies are described.

Short-term investments include short-term U.S. Treasury, agency, corporate, and other highly liquid debt securities with an aggregate duration of less than a year. Short-term investments of \$22,642 and \$10,267 at June 30, 2018 and 2017, respectively, were posted as collateral under derivative agreements (including both debt and investment derivatives) and thus are not readily available for use.

**DUKE UNIVERSITY HEALTH SYSTEM, INC.
AND AFFILIATES**

Notes to Consolidated Financial Statements

June 30, 2018 and 2017

(In thousands)

Fixed income includes U.S. Treasury debt securities with maturities of more than one year and funds that invest in these types of investments and nongovernment U.S. and non-U.S. debt securities.

Equities includes U.S. and non-U.S. stocks and interests in funds that invest predominantly long but also short stocks and in certain cases are nonredeemable. The allocation by market is approximately: 25% domestic, 25% developed international, 35% emerging international, and 15% global.

Hedged strategies include interests in funds that invest both long and short in U.S. and non-U.S. stocks, credit-oriented securities and arbitrage strategies. Approximately 75% of the hedged strategies portfolio is invested through equity oriented strategies, 10% through credit strategies, and 15% through multi-strategy funds. Virtually all of the Health System's investments in these funds are redeemable, and the underlying assets of the funds are predominately marketable securities and derivatives.

Private capital includes primarily interest in funds or partnerships that hold illiquid investments in venture capital, buyouts, and credit. Certain private placement securities may also be held. These funds typically have periods of 10 or more years during which committed capital may be drawn. Distributions are received through liquidation of the underlying assets of the funds, which are anticipated to occur over the next 4 to 10 years.

Real assets include interests in funds or partnerships that hold illiquid investments in residential and commercial real estate, oil and gas production, energy, other commodities, and related services businesses. Additionally, certain liquid commodity- and real-estate related equities, private placement securities and related derivatives are included. These funds typically have periods of 10 or more years during which committed capital may be drawn. Distributions are received through liquidations of the underlying assets of the funds, which are anticipated to occur over the next 5 to 12 years.

Investment in LTP includes the Health System's participation in the LTP. Participation in or withdrawal from the LTP is based on the fair value per unit at quarterly intervals during the year.

The allocation of underlying assets in the LTP at June 30 is as follows:

	<u>2018</u>	<u>2017</u>
Short-term investments	4.4 %	3.6 %
Equities	14.7	15.6
Fixed income	9.2	11.5
Hedged strategies	25.7	26.7
Private capital	27.9	24.5
Real assets	17.2	17.6
Other	0.9	0.5
Totals	<u>100.0 %</u>	<u>100.0 %</u>

**DUKE UNIVERSITY HEALTH SYSTEM, INC.
AND AFFILIATES**

Notes to Consolidated Financial Statements

June 30, 2018 and 2017

(In thousands)

As of June 30, 2018, redemption frequency and the corresponding redemption notice period in days are shown below:

	Daily	Monthly	Quarterly or Annually	Greater than 1 year	Total	Redemption notice period
Cash and cash equivalents	\$ 291,439	—	—	—	291,439	1 day
Deposits w ith bond trustees	839	—	—	—	839	1 day
Short-term investments	388,083	—	—	—	388,083	1 day
Fixed income	508,201	118,099	1	—	626,301	1 to 30 days
Equities	48,643	486,491	121,100	1,967	658,201	1 to 90 days
Hedged strategies	—	160,256	796,071	17,653	973,980	2 to 100 days
Private capital	—	—	—	586,198	586,198	N/A
Real assets	—	16,094	5,491	365,570	387,155	N/A
Investment in LTP	—	—	—	27,474	27,474	30 days
Other	28	—	37,727	10,363	48,118	N/A
Total	<u>\$ 1,237,233</u>	<u>780,940</u>	<u>960,390</u>	<u>1,009,225</u>	<u>3,987,788</u>	

The Health System's investments are exposed to several risks, including liquidity, currency, interest rate, credit, and market risks. The Health System attempts to manage these risks through diversification, ongoing due diligence of fund managers, and monitoring of economic conditions. Due to the level of risk associated with certain investment securities, it is at least reasonably possible that changes in the values of investment securities will occur in the near term and that such changes could materially affect the amounts reported in the Health System's consolidated financial statements.

The Health System may participate in programs to lend securities to brokers. To limit risk, collateral is posted and maintained daily at 100% to 105% of the market value of the lent securities depending on the type of security. Collateral generally is limited to cash, government securities, and irrevocable letters of credit. Both the Health System and security borrowers have the right to terminate a specific loan of securities at any time. The Health System receives lending fees and continues to earn interest and dividends on the loaned securities.

**DUKE UNIVERSITY HEALTH SYSTEM, INC.
AND AFFILIATES**

Notes to Consolidated Financial Statements

June 30, 2018 and 2017

(In thousands)

The Health System's total investment return for the years ended June 30 is detailed below:

	2018	2017
Net realized gains from sales of investments	\$ 143,244	124,863
Net unrealized gains (losses)	163,836	132,367
Total net gains (losses)	307,080	257,230
Investment income	30,174	24,769
Investment gains (losses)	337,254	281,999
Net realized losses on debt derivatives	(11,409)	(14,707)
Net unrealized gains (losses) on debt derivatives	24,590	36,536
Total investment return	\$ 350,435	303,828

Investment return is classified in the consolidated statements of operations and changes in net assets as follows:

	2018	2017
Other operating revenue	\$ 7,273	6,426
Nonoperating income	341,109	295,591
Increase (decrease) in temporarily restricted net assets	2,070	1,799
Increase in permanently restricted net assets	(17)	12
Total investment return	\$ 350,435	303,828

Investment expenses charged directly to the Health System and netted in investment income were \$4,561 and \$4,308 for fiscal years 2018 and 2017, respectively.

**DUKE UNIVERSITY HEALTH SYSTEM, INC.
AND AFFILIATES**

Notes to Consolidated Financial Statements

June 30, 2018 and 2017

(In thousands)

A summary of assets limited as to use and externally restricted funds at June 30 is as follows:

	2018	2017
Assets limited as to use:		
Deposits with bond trustees	\$ 839	632
Investment securities posted as collateral for debt derivative marks-to-market	2,954	13,675
Cash, receivables and investments designated to settle estimated professional liability costs	38,408	38,710
Externally restricted assets	58,627	57,177
Total assets limited as to use	100,828	110,194
Less current portion of assets limited as to use	(19,565)	(29,951)
Assets limited as to use, excluding current portion	\$ 81,263	80,243

(6) Property and Equipment

A summary of property and equipment at June 30 is as follows:

	2018	2017
Buildings and utilities	\$ 1,764,590	1,694,185
Furnishings and equipment	877,512	841,892
Buildings and equipment under capital lease obligations	128,441	122,082
Computer software	354,252	347,470
Depreciable property and equipment	3,124,795	3,005,629
Less accumulated depreciation and amortization	(1,837,182)	(1,693,895)
Depreciable property and equipment, net	1,287,613	1,311,734
Land and land improvements	137,727	117,790
Construction in progress	146,886	56,902
Property and equipment, net	\$ 1,572,226	1,486,426

**DUKE UNIVERSITY HEALTH SYSTEM, INC.
AND AFFILIATES**

Notes to Consolidated Financial Statements

June 30, 2018 and 2017

(In thousands)

The following table summarizes other property and equipment information for fiscal years 2018 and 2017:

	2018	2017
Depreciation expense	\$ 156,603	151,878
Amortization of capital leases	4,160	3,234
Capital leases' accumulated amortization	28,860	24,699

(7) Indebtedness

A summary of indebtedness at June 30 is as follows:

Series	Underlying structure	Mandatory tender date ¹	Fiscal year of maturity	Effective interest rate	Outstanding principal	
					2018	2017
Tax-exempt revenue bonds:						
2005A	Direct placement	6/1/2028	2028	2.30 % \$	85,680	93,320
2005B	Direct placement	5/29/2023	2028	1.83	27,735	30,210
2006A/B/C	Direct placement	3/19/2025	2039	1.73	121,620	121,620
2012B	Direct placement	6/1/2023	2023	2.19	28,650	28,650
2016B	Direct placement	5/26/2026	2042	2.01	90,000	90,000
2016C	Direct placement	5/26/2026	2042	1.96	90,000	90,000
Total variable rate					443,685	453,800
2012A	Fixed rate	N/A	2042	4.73	277,280	278,305
2016A	Fixed rate	N/A	2028	2.04	143,520	155,720
2016D	Fixed rate	N/A	2042	3.52	125,100	125,100
Taxable bonds:						
2017	Fixed rate	N/A	2047	3.92	600,000	600,000
Total fixed rate					1,145,900	1,159,125
Total indebtedness					1,589,585	1,612,925
Plus unamortized premium – net					56,207	62,019
Less unamortized debt issuance costs – net					(17,997)	(18,713)
Indebtedness, net					1,627,795	1,656,231
Less current portion					(23,760)	(23,340)
Indebtedness, net of current portion					\$ 1,604,035	1,632,891

¹ Represents the date upon which the bonds are currently subject to mandatory tender by the bank.

**DUKE UNIVERSITY HEALTH SYSTEM, INC.
AND AFFILIATES**

Notes to Consolidated Financial Statements

June 30, 2018 and 2017

(In thousands)

On August 11, 2016, the Series 2016D bonds were issued in the par amount of \$125,100 to fund an escrow account that was irrevocably placed with a trustee to meet the principal and interest payments of the 2010A refunded bonds (\$120,000) until the first call date. The refunding meets the requirements for derecognition of the bond liability in fiscal year 2017. The refunding transaction resulted in a loss on extinguishment of debt of \$18,328 in fiscal year 2017 representing the write-off of the unamortized bond issue costs related to the refunded bonds and the escrow funding requirements for principal and interest payments in excess of the face value of the 2010A refunded bonds.

On June 6, 2017, the Health System issued its Series 2017 taxable bonds in the par amount of \$600,000 to finance various capital additions and improvements at Health System healthcare facilities and pay certain expenses of issuing the bonds. The Health System executed a forward treasury rate lock agreement to hedge against potential rising interest rates during the period leading up to the issuance of the bonds. A rate lock payment of \$7,889 is included in debt issuance costs and will be amortized to interest expense over the life of the bonds.

All Duke University Health System, Inc. Tax Exempt Revenue Bonds were issued by the North Carolina Medical Care Commission (NCMCC). The Health System is obligated to make payments of principal and interest that correspond to the obligations of the NCMCC under the bond agreements. The aggregate annual maturities of indebtedness for each of the five fiscal years subsequent to June 30, 2018 and thereafter are as follows:

2019	\$	23,760
2020		24,920
2021		25,970
2022		27,120
2023		28,350
Thereafter		1,459,465
Total	\$	1,589,585

The Health System must remain compliant with certain covenants and restrictions required by the trust indentures underlying its revenue bonds. These covenants include maintaining a required debt service coverage ratio and a specific liquidity target, as well as other nonfinancial restrictions.

(8) Derivatives and Other Financial Instruments

(a) Debt Derivatives

The Health System has executed derivative financial instruments in the normal course of managing its debt portfolio. The Health System has three interest rate swap agreements that are designed to synthetically decrease the variable rate exposure associated with its portfolio of indebtedness. In addition, the Health System has one basis swap designed to reduce the interest rate risk on variable rate indebtedness by utilizing the spread between the yield curves for taxable debt securities and tax-exempt municipal debt securities.

**DUKE UNIVERSITY HEALTH SYSTEM, INC.
AND AFFILIATES**

Notes to Consolidated Financial Statements

June 30, 2018 and 2017

(In thousands)

The following summarizes the general terms for each of the Health System's swap agreements:

<u>Effective date</u>	<u>Associated debt series</u>	<u>Original term</u>	<u>Current notional amount</u>	<u>Health System pays</u>	<u>Health System receives</u>
Interest rate:					
August 12, 1993	2012B	30 years	\$ 28,650	5.090 %	SIFMA
May 19, 2005	N/A	23 years	257,030	3.601	61.520% of one-month LIBOR plus 0.28%
April 1, 2009	Portfolio ¹	30 years	127,505	3.797	67.000% of one-month LIBOR
Basis:					
July 6, 2001	N/A	20 years	400,000	SIFMA	72.125% of one-month LIBOR

¹ The notional amount of the April 2009 Interest Rate Swap declines coincident with the principal for the Series 2006 bonds. The residual portion is \$5,885.

The fair value of each swap is the estimated amount the Health System would receive or pay to terminate the swap agreement at the reporting date, taking into account current interest rates and the current creditworthiness of the swap counterparties. The fair value is included in derivative instruments on the consolidated balance sheets, while the change in fair value and the net settlement amount incurred on the swaps are included as a gain or loss in investment income on the consolidated statements of operations. The debt derivative instruments contain cross-collateralization provisions that require each counterparty to post collateral if the fair value meets certain thresholds.

**DUKE UNIVERSITY HEALTH SYSTEM, INC.
AND AFFILIATES**

Notes to Consolidated Financial Statements

June 30, 2018 and 2017

(In thousands)

The related financial information on each of these instruments at June 30 is as follows:

	Financial information related to debt derivative instruments					
	2018			2017		
	Unrealized gain or (loss) recognized	Realized gain or (loss) recognized	Unrealized gain or (loss) recognized	Realized gain or (loss) recognized	Fair value ¹	in income ²
	Fair value ¹	in income ²	Fair value ¹	in income ²	in income ²	in income ²
Derivatives not designated as hedging instruments under ASC Topic 815:						
August 1993:						
Interest rate sw ap	\$ (2,546)	1,491	(1,142)	(4,037)	2,097	(1,266)
May 2005:						
Interest rate sw ap	(22,422)	12,100	(6,623)	(34,522)	18,347	(8,641)
April 2009:						
Interest rate sw ap	(31,778)	9,171	(3,540)	(40,949)	15,493	(4,171)
July 2001:						
Basis sw ap	685	1,828	(104)	(1,143)	599	(629)
Total derivatives not designated as hedging instruments	\$ (56,061)	24,590	(11,409)	(80,651)	36,536	(14,707)

¹ Balance sheet classifications are noncurrent derivative instruments.

² The unrealized and realized gain (loss) on derivative instruments recognized in income is included in nonoperating investment (loss) income.

Health System debt derivative instruments contain provisions requiring long term, unsecured debt to be maintained at specified credit ratings from Moody's Investor Service and Standard and Poor's Rating Service, major rating agencies. If the ratings of the Health System's debt were to fall below certain benchmarks, the counterparty could request immediate payment on derivatives in net liability positions. At June 30, 2018 and 2017, the Health System's long term debt ratings exceeded these requirements. The aggregate fair value of all derivative instruments with credit risk related contingent features that are in a liability position on June 30, 2018 and 2017 is \$56,746 and \$80,651, respectively, for which the Health System has posted collateral of \$2,954 and \$13,675, respectively, in the normal course of business. If the credit risk related features underlying these agreements were triggered on June 30, 2018 and 2017, the Health System would be required to post an additional \$53,792 and \$66,976, respectively, of collateral to its counterparties.

The 2009 interest rate swap is subject to a mandatory early termination right on June 1, 2020. When this right is exercised, the Health System may revoke it, at which time the Health System's collateral threshold reduces to \$0 for the remainder of the swap agreement.

The Health System is exposed to financial loss in the event of nonperformance by a counterparty to any of the financial instruments described above. General market conditions could impact the credit standing of the counterparties and, therefore, potentially impact the value of the instruments on the

**DUKE UNIVERSITY HEALTH SYSTEM, INC.
AND AFFILIATES**

Notes to Consolidated Financial Statements

June 30, 2018 and 2017

(In thousands)

Health System's consolidated balance sheets. The Health System controls this counterparty risk by considering the credit rating, business risk, and reputation of any counterparty before entering into a transaction, monitoring for any change in credit standing of its counterparty during the life of the transaction, and requiring collateral be posted when predetermined thresholds are crossed. The Health System is also exposed to interest rate risk driven by factors influencing the spread between the taxable and tax-exempt market interest rates on its basis swap.

(b) Investment Derivatives

Investment strategies employed by DUMAC and investment managers retained by DUMAC incorporate the use of various derivative financial instruments with off balance sheet risk. DUMAC uses these instruments for a number of investment purposes, including hedging or altering exposure to certain asset classes and cost-effectively adding exposures to portions of the portfolio. Positions are expected to create gains or losses that, when combined with the applicable portion of the total investment portfolio, provide an expected result.

The following table provides the net notional amounts and fair value of the Health System's investment derivative activities at June 30, 2018 and 2017. It also provides the net income amounts included in investment income during fiscal years 2018 and 2017.

	<u>2018</u>	<u>2017</u>	<u>Location in financial statements</u>
Net notional amounts	\$ 2,925,380	3,818,502	N/A
Derivative assets	47,400	46,589	Investments
Derivative liabilities	(25,870)	(23,426)	Investments
Net income	23,807	26,929	Investment income
Posted collateral	19,688	(3,408)	Short-term investments

(9) Fair Value Measurements

The fair value of a financial instrument is the amount that would be received to sell an asset or paid to transfer or settle a liability in an orderly transaction between market participants at the measurement date. ASC Topic 820, *Fair Value Measurement*, establishes a three-level fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1 measurements) and the lowest priority to measurements involving significant unobservable inputs (Level 3 measurements). The classification of an investment within the hierarchy is based upon the pricing transparency or ability to redeem the investment and does not necessarily correspond to the perceived risk of that investment. Inputs are used in applying various valuation techniques that are assumptions, which market participants use to make valuation decisions, including assumptions about risk. Inputs may include price information, volatility statistics, operating statistics, specific and broad credit data, liquidity statistics, recent transactions, earnings forecasts, future cash flows, market multiples, discount rates, and other factors.

**DUKE UNIVERSITY HEALTH SYSTEM, INC.
AND AFFILIATES**

Notes to Consolidated Financial Statements

June 30, 2018 and 2017

(In thousands)

Assets and liabilities measured and reported at fair value are classified within the fair value hierarchy as follows:

Level 1 – Valuations based on quoted market prices in active markets.

Level 2 – Investments that trade in markets that are considered to be active, but are based on dealer quotations or alternative pricing sources supported by observable inputs, or investments that trade in markets that are not considered to be active, but are valued based on quoted market prices, dealer quotations or alternative pricing sources supported by observable inputs.

Level 3 – Investments classified within Level 3 have significant unobservable inputs, as they trade infrequently or not at all.

The following is a summary of the levels within the fair value hierarchy for the Health System's financial assets and liabilities measured at fair value at June 30:

	June 30, 2018	Level 1	Level 2	Level 3	Investments reported at NAV¹
Assets:					
Cash and cash equivalents	\$ 291,439	291,439	—	—	—
Deposits with bond trustees	839	839	—	—	—
Short-term investments	388,083	74,180	313,903	—	—
Fixed income	626,301	128,456	449,312	—	48,533
Equities	658,201	370,696	3,445	—	284,060
Hedged strategies	973,980	9,351	11,737	—	952,892
Private capital	586,198	461	—	61,193	524,544
Real assets	387,155	10,641	334	8,240	367,940
Investment in LTP	27,474	—	—	—	27,474
Other	48,118	60	37,695	—	10,363
Total investment assets	<u>3,987,788</u>	<u>886,123</u>	<u>816,426</u>	<u>69,433</u>	<u>2,215,806</u>
Basis swap derivative	685	—	685	—	—
Total assets	<u>\$ 3,988,473</u>	<u>886,123</u>	<u>817,111</u>	<u>69,433</u>	<u>2,215,806</u>
Liabilities:					
Interest rate derivatives	\$ 56,746	—	56,746	—	—
Total liabilities	<u>\$ 56,746</u>	<u>—</u>	<u>56,746</u>	<u>—</u>	<u>—</u>

¹ Fund investments reported at NAV as a practical expedient estimate of fair value at June 30, 2018.

**DUKE UNIVERSITY HEALTH SYSTEM, INC.
AND AFFILIATES**

Notes to Consolidated Financial Statements

June 30, 2018 and 2017

(In thousands)

	June 30, 2017	Level 1	Level 2	Level 3	Investments reported at NAV¹
Assets:					
Cash and cash equivalents	\$ 196,234	196,234	—	—	—
Deposits with bond trustees	632	632	—	—	—
Short-term investments	498,324	139,563	358,761	—	—
Fixed income	691,673	162,871	482,204	—	46,598
Equities	512,131	241,815	9,517	—	260,799
Hedged strategies	840,742	8,610	8,391	—	823,741
Private capital	458,456	441	—	41,724	416,291
Real assets	344,329	23,063	(352)	4,594	317,024
Investment in LTP	25,050	—	—	—	25,050
Other	32,454	—	22,994	—	9,460
	<u>\$ 3,600,025</u>	<u>773,229</u>	<u>881,515</u>	<u>46,318</u>	<u>1,898,963</u>
Liabilities:					
Interest rate derivatives	\$ 79,508	—	79,508	—	—
Basis swap derivative	1,143	—	1,143	—	—
	<u>\$ 80,651</u>	<u>—</u>	<u>80,651</u>	<u>—</u>	<u>—</u>

¹ Fund investments reported at NAV as a practical expedient estimate of fair value at June 30, 2017.

The following methods and assumptions are used by the Health System in estimating the fair value of each class of financial instruments:

Cash and cash equivalents, patient accounts receivable, other receivables, accounts payable, accrued salaries, wages, and vacation payable and related accruals, estimated third-party payor settlements, and other liabilities. The carrying amounts approximate fair value because of the short maturity of these instruments.

Investments and deposits with bond trustees: Reported at fair value as of the date of the consolidated financial statements.

Capital lease obligations: Estimated as the present value of future minimum lease payments during the lease term.

Derivative instruments: Based on a mid-market position obtained from the swap counterparties. The Health System engages a management advisor to validate the reasonableness of the swaps' recorded fair value. Collateral posting requirements are determined each month using the mid-market positions.

The following tables present additional information about Level 3 financial instruments measured at fair value. Both observable and unobservable inputs may be used to determine the fair value of positions that the Health System has classified within the Level 3 category. As a result, the unrealized gains and losses

**DUKE UNIVERSITY HEALTH SYSTEM, INC.
AND AFFILIATES**

Notes to Consolidated Financial Statements

June 30, 2018 and 2017

(In thousands)

for assets within the Level 3 category in the tables below may include changes in fair value that were attributable to both observable and unobservable inputs.

	Balance as of June 30, 2017	Net realized and unrealized gains (losses)	Purchases	Sales	Net transfers from Level 3	Balance as of June 30, 2018
Asset category:						
Private capital	\$ 41,724	12,209	15,989	(8,729)	—	61,193
Real assets	4,594	29	3,766	(149)	—	8,240
Total	<u>\$ 46,318</u>	<u>12,238</u>	<u>19,755</u>	<u>(8,878)</u>	<u>—</u>	<u>69,433</u>

	Balance as of June 30, 2016	Net realized and unrealized gains (losses)	Purchases	Sales	Net transfers from Level 3	Balance as of June 30, 2017
Asset category:						
Private capital	\$ 39,177	(4)	7,650	(5,099)	—	41,724
Real assets	4,468	1,371	1,592	(2,752)	(85)	4,594
Total	<u>\$ 43,645</u>	<u>1,367</u>	<u>9,242</u>	<u>(7,851)</u>	<u>(85)</u>	<u>46,318</u>

The change in net unrealized gains (losses) related to Level 3 assets still held at June 30, 2018 and 2017 was \$10,109 and \$3,704, respectively. During fiscal years 2018 and 2017, there were net transfers of \$0 and \$85, respectively, between Level 3 investments and investments reported at NAV. There were no transfers between Level 1 and Level 2 investments during fiscal years 2018 and 2017.

(10) Professional Liability Risk Program

The accompanying consolidated financial statements include the assets and liabilities of DCC, a wholly owned subsidiary of the Health System that insures a portion of the medical malpractice risks and patient general liability risks of Health System clinical providers and the PDC. Policy limits were \$110,000 per incident for fiscal years ended June 30, 2018 and 2017 and \$145,000 in the aggregate for fiscal years ended June 30, 2018 and 2017. DCC limits its exposure to loss through reinsurance and excess loss agreements.

Estimated professional liability costs include the estimated cost of professional liability in fiscal years 2018 and 2017 for reported claims incurred in the DCC program. DCC evaluates its estimated professional liability on a discounted actuarial basis. The discount rate at June 30, 2018 and 2017 is 3.5%. Accrued professional liability costs excluding estimated incurred but not reported claims as of June 30, 2018 and 2017 amounted to \$38,408 and \$38,710, respectively. Cash, other receivables, and investments in this amount have been designated by the Health System to settle these claims. Also included in estimated professional liability costs are estimated claims incurred but not reported related to the Health System in the amounts of \$7,000 and \$6,588 as of June 30, 2018 and 2017, respectively.

**DUKE UNIVERSITY HEALTH SYSTEM, INC.
AND AFFILIATES**

Notes to Consolidated Financial Statements

June 30, 2018 and 2017

(In thousands)

The estimated liability for professional and patient general liability claims will be significantly affected if current and future claims differ from historical trends. While management monitors reported claims closely and considers potential outcomes as estimated by its actuaries when determining its professional and general liability accruals, the complexity of the claims, the extended period of time to settle the claims and the wide range of potential outcomes complicate the estimation. In the opinion of management, adequate provision has been made for this related risk.

(11) Benefit Plans

(a) Pension and Retirement Plans

Staff members of the Health System are eligible to participate in the University's defined contribution retirement plan. For the years ended June 30, 2018 and 2017, the Health System contributed approximately \$49,000 and \$44,900, respectively, to this plan, which is reported in salaries, wages, and benefits expense in the consolidated statements of operations. The Health System expects to contribute \$52,000 to this plan in fiscal year 2019.

In addition, other full time Health System employees participate in the University's noncontributory defined benefit pension plan (ERP). The benefits for the defined benefit plan are based on years of service and the employee's compensation during the last ten years of employment. The Health System expects to contribute \$15,700 to this plan in fiscal year 2019. The allocation of the prepaid pension asset or pension liability between the University and the Health System is based primarily on compensation expense of covered employees. Health System staff represent approximately 76% of the total University's defined benefit pension plan for fiscal years 2018 and 2017.

(b) Postretirement Medical Plan

In addition to the Health System's pension plans, the Health System sponsors an unfunded, defined benefit postretirement medical plan that covers all of its full time employees who elect coverage and satisfy the plan's eligibility requirements when they retire. The plan is contributory with retiree contributions established as a percentage of the total cost for retiree healthcare and for the healthcare of their dependents. The Health System pays all benefits on a current basis. Employees hired after June 30, 2002 are not eligible for Health System contribution to the cost of this benefit and must bear the full cost themselves if elected at retirement. As a healthcare provider, the Health System utilizes an incremental cost approach to determine its liability for the postretirement medical plan. The total liability reflects estimated additional costs to provide healthcare benefits to retirees within the Health System plus the full cost to provide healthcare benefits to retirees at facilities other than Health System facilities.

(c) Pension and Postretirement Medical Plans

The measurement date for both the defined benefit pension plan and the postretirement health benefit plan is June 30. Pension and postretirement expense, pension contributions, and the associated

**DUKE UNIVERSITY HEALTH SYSTEM, INC.
AND AFFILIATES**

Notes to Consolidated Financial Statements

June 30, 2018 and 2017

(In thousands)

liabilities are included in the following tables, which provide a reconciliation of the changes in the Health System's portion of the plans' benefit obligations and fair value of assets for the years ended June 30:

	<u>Pension benefits</u>		<u>Postretirement benefits</u>	
	<u>2018</u>	<u>2017</u>	<u>2018</u>	<u>2017</u>
Reconciliation of projected benefit obligation:				
Obligation at beginning of year	\$ 1,312,550	1,288,329	77,838	69,605
Service cost	57,071	59,918	743	668
Interest cost	48,593	44,526	2,851	2,377
Amendments	5,608	—	—	—
Actuarial (gain) loss	(120,100)	(48,088)	712	8,593
Benefits payments	(33,095)	(30,230)	(3,621)	(3,405)
Administrative expenses (estimated)	(2,200)	(1,905)	—	—
Projected benefit obligation at end of year	<u>\$ 1,268,427</u>	<u>1,312,550</u>	<u>78,523</u>	<u>77,838</u>
Reconciliation of fair value of plan assets:				
Fair value of plan assets at beginning of year	\$ 985,355	894,564	—	—
Actual return on plan assets	108,555	107,222	—	—
Employer contributions	16,849	15,844	—	—
Benefits payments	(33,095)	(30,230)	—	—
Administrative expenses	(2,054)	(2,045)	—	—
Fair value of plan assets at end of year	<u>\$ 1,075,610</u>	<u>985,355</u>	<u>—</u>	<u>—</u>
Funded status:				
Net accrued benefit liability	<u>\$ (192,817)</u>	<u>(327,195)</u>	<u>(78,523)</u>	<u>(77,838)</u>

**DUKE UNIVERSITY HEALTH SYSTEM, INC.
AND AFFILIATES**

Notes to Consolidated Financial Statements

June 30, 2018 and 2017

(In thousands)

The pension and postretirement benefits expected to be paid for the ten years subsequent to June 30, 2018 are as follows:

	<u>Pension benefits</u>	<u>Postretirement benefits</u>
2019	\$ 37,350	4,348
2020	39,404	4,435
2021	42,230	4,603
2022	45,596	4,815
2023	49,667	4,893
2024–2028	315,496	26,338

The expected benefits to be paid are based on the same assumptions used to measure the Health System's benefit obligation at June 30 and include estimated future employee service.

The following table provides the components of net periodic benefit cost for the plans for the years ended June 30:

	<u>Pension benefits</u>		<u>Postretirement benefits</u>	
	<u>2018</u>	<u>2017</u>	<u>2018</u>	<u>2017</u>
Service cost	\$ 57,071	59,918	743	668
Interest cost	48,593	44,526	2,851	2,377
Expected return on plan assets	(74,779)	(70,407)	—	—
Amortization of prior-service cost	847	848	—	—
Recognized actuarial loss (gain)	6,563	14,133	—	(58)
Net periodic benefit cost	\$ <u>38,295</u>	<u>49,018</u>	<u>3,594</u>	<u>2,987</u>

The prior-service costs are amortized on a straight-line basis over the average remaining service period of active participants. The expected amortization of prior-service cost for fiscal year 2019 is \$1,208 and \$0 for the pension benefits and postretirement benefits, respectively. The expected amortization of actuarial losses for fiscal year 2019 is \$0 for both pension and postretirement benefits.

**DUKE UNIVERSITY HEALTH SYSTEM, INC.
AND AFFILIATES**

Notes to Consolidated Financial Statements

June 30, 2018 and 2017

(In thousands)

Included in unrestricted net assets are the following amounts that have not been recognized in net periodic benefit cost at June 30, 2018 and 2017, respectively:

	Pension benefits		Postretirement benefits	
	2018	2017	2018	2017
Unrecognized prior service cost	\$ 7,814	3,054	—	—
Unrecognized actuarial losses (gains)	72,529	233,114	(6,273)	(6,985)

The assumptions used in the measurement of the Health System's benefit obligation and benefit cost are shown in the following table:

	Pension benefits				Postretirement benefits			
	2018		2017		2018		2017	
	Obligation	Cost	Obligation	Cost	Obligation	Cost	Obligation	Cost
Weighted average assumptions as of measurement date:								
Discount rate	4.25 %	3.75 %	3.75 %	3.50 %	4.25 %	3.75 %	3.75 %	3.50 %
Expected return on plan assets	N/A	7.5 %	N/A	7.5 %	N/A	N/A	N/A	N/A
Rate of compensation increase	3.0%/2.0% ¹	2.5 %	2.5 %	2.5 %	N/A	N/A	N/A	N/A

¹ Compensation increase for first 20 years of service/thereafter

In order to determine the benefit obligation as of June 30, 2018, the per capita costs of covered healthcare benefits was assumed to increase 8.0% for non-Medicare eligible employees and 8.3% for Medicare eligible employees, declining to an ultimate annual rate of increase of 5.0% by 2033 for non-Medicare and 2028 for Medicare eligible employees. The benefit expense for fiscal year 2018 was driven by the rates of increase used to determine the benefit obligation as of June 30, 2017, which were 7.5% for non-Medicare eligible employees and 8.7% for Medicare eligible employees, declining to an ultimate annual rate of increase of 5.0% by 2028 for non-Medicare and Medicare eligible employees.

**DUKE UNIVERSITY HEALTH SYSTEM, INC.
AND AFFILIATES**

Notes to Consolidated Financial Statements

June 30, 2018 and 2017

(In thousands)

Assumed healthcare cost trend rates have a significant effect on the amounts reported for healthcare plans. A 1.0% change in assumed healthcare cost trend rates would have the following effects:

	<u>One percentage increase</u>	<u>One percentage decrease</u>
Effect on total of service and interest cost components of net periodic postretirement health care benefit cost	\$ 516	(430)
Effect on the healthcare component of the accumulated postretirement benefit obligation	9,799	(7,790)

The defined benefit pension plan's investment strategy focuses on maximizing total return and places limited emphasis on liability matching and no emphasis on generating income. Over the long term, the plan's average exposure target is 49% equity (public and private investments in companies), 13% commodity (direct commodity exposure, commodity related equities, and private investments in energy, power, infrastructure and timber), 11% real estate (private real estate and REITs), 13% credit (investment-grade bonds, corporate bonds, bank debt, asset backed securities, etc.), 5% interest rates (public obligations including treasuries and agencies) and 9% other (U.S. Treasury Inflation Protected Securities, non-U.S. inflation linked bonds and absolute return oriented hedge funds).

The expected return on plan assets is established at an amount that reflects the targeted asset allocation and expected returns for each component of the plan assets. The expected return on pension plan assets is developed using a stochastic forecast model of long term expected returns for each asset class. The rate is reviewed periodically and adjusted as appropriate to reflect changes in the expected market performance or in targeted asset allocation ranges.

The same levels of the fair value hierarchy as described in note 9 are used to categorize the pension plan assets. The Health System's portion of the assets was initially based on the Health System's employee liability as of June 30, 2008 and rolled forward each fiscal year using the Health System's

**DUKE UNIVERSITY HEALTH SYSTEM, INC.
AND AFFILIATES**

Notes to Consolidated Financial Statements

June 30, 2018 and 2017

(In thousands)

associated employee benefit payments since fiscal year 2008. The fair value of the Health System's portion of assets available for pension benefits as of the June 30 measurement date is as follows:

	June 30, 2018	Level 1	Level 2	Level 3	Investments reported at NAV¹
Asset category:					
Short-term investments	\$ 61,108	22,138	38,970	—	—
Fixed income	136,883	29,916	106,967	—	—
Equities	186,514	116,392	1,302	—	68,820
Hedged strategies	263,731	18,774	—	—	244,957
Private capital	252,599	203	—	24,281	228,115
Real assets	165,353	4,245	112	—	160,996
Other investments	9,422	(4,423)	13,845	—	—
	<u>\$ 1,075,610</u>	<u>187,245</u>	<u>161,196</u>	<u>24,281</u>	<u>702,888</u>

¹ Fund investments reported at NAV as a practical expedient estimate.

	June 30, 2017	Level 1	Level 2	Level 3	Investments reported at NAV¹
Asset category:					
Short-term investments	\$ 151,473	(92)	151,565	—	—
Fixed income	23,155	3,479	19,676	—	—
Equities	198,548	105,159	17,723	—	75,666
Hedged strategies	253,366	1,852	3,550	—	247,964
Private capital	200,706	232	—	17,930	182,544
Real assets	152,994	10,646	(10)	—	142,358
Other investments	5,113	(4,694)	9,807	—	—
	<u>\$ 985,355</u>	<u>116,582</u>	<u>202,311</u>	<u>17,930</u>	<u>648,532</u>

¹ Fund investments reported at NAV as a practical expedient estimate.

The following tables present additional information about the Level 3 financial instruments available for pension benefits measured at fair value. Both observable and unobservable inputs may be used to determine the fair value of positions that the Health System has classified within the Level 3 category.

**DUKE UNIVERSITY HEALTH SYSTEM, INC.
AND AFFILIATES**

Notes to Consolidated Financial Statements

June 30, 2018 and 2017

(In thousands)

As a result, the unrealized gains and losses for assets within the Level 3 category in the tables below may include changes in fair value that were attributable to both observable and unobservable inputs:

	<u>Balance as of June 30, 2017</u>	<u>Net realized and unrealized losses</u>	<u>Purchases</u>	<u>Sales</u>	<u>Net transfers from Level 3</u>	<u>Balance as of June 30, 2018</u>
Private capital	\$ 17,930	5,073	4,728	(3,450)	—	24,281
	<u>Balance as of June 30, 2016</u>	<u>Net realized and unrealized losses</u>	<u>Purchases</u>	<u>Sales</u>	<u>Net transfers from Level 3</u>	<u>Balance as of June 30, 2017</u>
Private capital	\$ 16,501	(183)	3,144	(1,532)	—	17,930

The change in net unrealized gains (losses) related to Level 3 assets still held at June 30, 2018 and 2017 was \$4,511 and \$1,174, respectively, and was recorded within change in funded status of defined benefit plans on the consolidated statements of changes in net assets. During fiscal years 2018 and 2017, there were no transfers between Level 3 and investments reported at NAV.

At June 30, 2018 and 2017, the accumulated benefit obligation for pension benefits is \$1,164,470 and \$1,194,393, respectively, as compared to the fair value of the plan assets of \$1,075,610 and \$985,355, respectively. At June 30, 2018 and 2017, the plan is underfunded in relation to accumulated benefits by \$(88,860) and \$(209,038), respectively.

**DUKE UNIVERSITY HEALTH SYSTEM, INC.
AND AFFILIATES**

Notes to Consolidated Financial Statements

June 30, 2018 and 2017

(In thousands)

(12) Functional Expenses

The Health System provides general healthcare services to residents within its geographic location. Expenses related to providing these services for each year ended June 30 are as follows:

	2018	2017
Health care services	\$ 2,578,247	2,318,328
General and administrative	734,278	771,065
	\$ 3,312,525	3,089,393

(13) Commitments and Contingencies

(a) Leases

(i) Capital

The DRH facility lease, which is a forty year evergreen lease, is classified as a capital lease. The Health System made principal and interest payments for this lease of \$9,667 and \$9,589 in fiscal years 2018 and 2017, respectively.

(ii) Operating

The Health System leases various machinery, equipment, healthcare facilities, and office space under operating leases expiring at various dates through fiscal year 2034. Total rental expense in fiscal year 2018 for all operating leases is \$41,994, consisting of \$10,445 for machinery and equipment leases and \$31,549 for facilities and office space leases. Total rental expense in fiscal year 2017 for all operating leases is \$40,939, consisting of \$9,519 for machinery and equipment leases and \$31,420 for facilities and office space leases.

**DUKE UNIVERSITY HEALTH SYSTEM, INC.
AND AFFILIATES**

Notes to Consolidated Financial Statements

June 30, 2018 and 2017

(In thousands)

(iii) Commitments

The following is a schedule by year of future minimum lease payments under leases as of June 30, 2018 that have initial or remaining lease terms in excess of one year and future minimum capital lease payments:

	Capital leases	Operating leases	Total
Year ending June 30:			
2019	\$ 10,591	42,578	53,169
2020	9,473	41,300	50,773
2021	9,717	32,383	42,100
2022	9,971	31,343	41,314
2023	9,883	23,152	33,035
Thereafter	257,798	89,164	346,962
Total minimum lease payments	307,433	259,920	567,353
Less sublease rentals from the PDC	—	(19,149)	(19,149)
Total minimum lease payments less subleases	307,433	\$ 240,771	548,204
Less interest portion	(176,063)		
Capital lease obligations	131,370		
Less current portion capital lease obligations	(2,835)		
Capital lease obligations, net of current portion	\$ 128,535		

(b) Construction and Purchase Commitments

At June 30, 2018, open contracts for the construction of physical properties and other capital expenditures amounted to approximately \$451,600 and outstanding purchase orders for normal operating supplies and equipment amounted to approximately \$8,900.

**DUKE UNIVERSITY HEALTH SYSTEM, INC.
AND AFFILIATES**

Notes to Consolidated Financial Statements

June 30, 2018 and 2017

(In thousands)

(c) Line of Credit

The Health System has an agreement with a commercial bank for a line of credit providing unsecured advances to the Health System of up to \$50,000 for working capital needs. At June 30, 2018 and 2017, there was no balance due under the agreement. Management expects to renew this line of credit annually under the same general terms and conditions as the existing facility.

(d) Self Insurance

The Health System provides employee healthcare benefits, long term disability benefits, unemployment benefits, and workers' compensation benefits primarily through employer contributions, participant contributions, and excess loss insurance and manages those programs through third party administrators. In the opinion of management, adequate provision has been made for the related risks.

(e) Legal Considerations

Laws and regulations governing Medicare and Medicaid programs are complex and subject to interpretation. The Health System, in part through its Compliance Program, seeks to ensure compliance with such laws and regulations, and to rectify instances of noncompliance with governmental program (Medicare, Medicaid, and Tricare) rules. The Health System believes that it is in compliance with all applicable laws and regulations and is not aware of any pending or threatened investigations involving allegations of potential wrongdoing that would have a material effect on the Health System's consolidated financial statements. Compliance with such laws and regulations is subject to future government review and interpretation as well as significant regulatory action, including fines, penalties, and exclusion from the Medicare and Medicaid programs.

In addition to the above, the Health System is involved in various legal actions occurring in the normal course of business. While the final outcomes cannot be determined at this time, management is of the opinion that the resolution of these matters will not have a material adverse effect on the Health System's financial position.

(14) Subsequent Events

The Health System has evaluated subsequent events from the balance sheet date through September 28, 2018, the date on which the consolidated financial statements were issued, and determined that there are no other items to disclose.

**DUKE UNIVERSITY HEALTH SYSTEM, INC.
AND AFFILIATES**

Combined Group under April 13, 1999 Master Trust Indenture (MTI) and Consolidated

Combining and Consolidating Balance Sheet Information

June 30, 2018

(In thousands)

Assets	Duke University Hospital	Duke Regional Hospital	Duke Raleigh Hospital	Other MTI	MTI Combined Group	Duke Univ. Affiliated Physicians	Durham Casualty Company	Other Non-MTI	2018 total DUHS consolidated
Current assets:									
Cash and cash equivalents	\$ (3)	—	—	271,234	271,231	—	6,329	397	277,957
Patient accounts receivable, net	316,429	35,156	49,260	7,567	408,412	10,030	—	2,539	420,981
Other receivables	15,149	1,814	4,395	10,979	32,337	1,058	152	1,415	34,962
Due from the University	(111,456)	(21,982)	(20,536)	155,740	1,766	7,502	(587)	390	9,071
Inventories of drugs and supplies	63,562	8,896	15,173	3,919	91,550	699	—	1,045	93,294
Other assets	1,776	671	369	24,253	27,069	694	—	380	28,143
Short-term investments	—	—	—	385,129	385,129	—	—	—	385,129
Assets limited as to use	—	—	—	2,954	2,954	—	16,611	—	19,565
Total current assets	285,457	24,555	48,661	861,775	1,220,448	19,983	22,505	6,166	1,269,102
Assets limited as to use	—	—	—	59,466	59,466	—	21,797	—	81,263
Investments	—	—	—	3,051,574	3,051,574	—	177,921	—	3,229,495
Property and equipment, net	920,107	165,111	190,918	249,617	1,525,753	37,456	—	9,017	1,572,226
Due from the University	—	—	—	429	429	—	—	—	429
Derivative instruments	—	—	—	685	685	—	—	—	685
Other noncurrent assets	—	—	21,466	22,307	43,773	—	—	2,796	46,569
Total assets	\$ 1,205,564	189,666	261,045	4,245,853	5,902,128	57,439	222,223	17,979	6,199,769
Liabilities and Net Assets									
Current liabilities:									
Accounts payable	\$ 78,921	11,449	30,787	35,862	157,019	2,668	150	7,368	167,205
Other current liabilities	8,900	1,708	894	24,634	36,136	400	—	1,834	38,370
Accrued salaries, wages, and vacation payable	76,007	16,741	15,177	50,635	158,560	19,182	—	11,460	189,202
Estimated third-party payor settlements, net	2,971	(1,814)	964	—	2,121	(274)	—	(1)	1,846
Current portion of postretirement and postemployment benefit obligations	—	—	—	7,540	7,540	—	—	—	7,540
Current portion of indebtedness	—	—	—	23,760	23,760	—	—	—	23,760
Current portion of capital lease obligations	—	—	—	2,835	2,835	—	—	—	2,835
Current portion of estimated professional liability costs	—	—	—	—	—	—	16,611	—	16,611
Total current liabilities	166,799	28,084	47,822	145,266	387,971	21,976	16,761	20,661	447,369
Other noncurrent liabilities	5,600	6,112	2,826	18,201	32,739	3,170	—	4,022	39,931
Postretirement and postemployment benefit obligations, net of current portion	—	—	—	274,628	274,628	—	—	—	274,628
Indebtedness, net of current portion	—	—	—	1,604,035	1,604,035	—	—	—	1,604,035
Capital lease obligations, net of current portion	—	—	—	127,827	127,827	—	—	708	128,535
Derivative instruments	—	—	—	56,746	56,746	—	—	—	56,746
Estimated professional liability costs, net of current portion	—	—	—	7,000	7,000	—	21,797	—	28,797
Total liabilities	172,399	34,196	50,648	2,233,703	2,490,946	25,146	38,558	25,391	2,580,041
Net assets:									
Unrestricted	1,033,165	155,470	210,397	1,953,523	3,352,555	32,293	183,665	(7,412)	3,561,101
Temporarily restricted	—	—	—	44,593	44,593	—	—	—	44,593
Permanently restricted	—	—	—	14,034	14,034	—	—	—	14,034
Total net assets	1,033,165	155,470	210,397	2,012,150	3,411,182	32,293	183,665	(7,412)	3,619,728
Total liabilities and net assets	\$ 1,205,564	189,666	261,045	4,245,853	5,902,128	57,439	222,223	17,979	6,199,769

See accompanying independent auditors' report.

**DUKE UNIVERSITY HEALTH SYSTEM, INC.
AND AFFILIATES**

Combined Group under April 13, 1999 Master Trust Indenture (MTI) and Consolidated

Combining and Consolidating Statement of Operations Information

Year ended June 30, 2018

(In thousands)

	Duke University Hospital	Duke Regional Hospital	Duke Raleigh Hospital	Other MTI	MTI Group eliminations	MTI Combined Group	Duke Univ. Affiliated Physicians	Durham Casualty Company	Other Non-MTI	Other eliminations	2018 total DUHS consolidated
Unrestricted revenues, gains, and other support:											
Net patient service revenue (net of contractual allowances and discounts)	\$ 2,450,023	344,842	477,280	41,700	—	3,313,845	135,055	—	25,738	(22)	3,474,616
Provision for bad debts	(48,799)	(11,803)	(13,580)	(327)	—	(74,509)	(5,417)	—	(101)	—	(80,027)
Net patient revenue less provision for bad debts	2,401,224	333,039	463,700	41,373	—	3,239,336	129,638	—	25,637	(22)	3,394,589
Other revenue	66,233	9,136	15,139	164,678	(113,013)	142,173	4,514	19,315	161,610	(124,321)	203,291
Total unrestricted revenues, gains, and other support	<u>2,467,457</u>	<u>342,175</u>	<u>478,839</u>	<u>206,051</u>	<u>(113,013)</u>	<u>3,381,509</u>	<u>134,152</u>	<u>19,315</u>	<u>187,247</u>	<u>(124,343)</u>	<u>3,597,880</u>
Expenses:											
Salaries, wages, and benefits	786,505	156,339	136,453	275,691	—	1,354,988	107,538	—	108,351	—	1,570,877
Medical supplies	576,880	58,822	141,154	49,590	—	826,446	10,503	—	9,502	—	846,451
Interest	44,822	6,765	6,611	625	—	58,823	—	—	1	—	58,824
Depreciation and amortization	80,679	14,594	17,579	43,647	—	156,499	2,272	—	1,992	—	160,763
Other operating expenses	738,930	103,051	126,803	(160,139)	(113,013)	695,632	25,614	13,517	65,190	(124,343)	675,610
Total expenses	<u>2,227,816</u>	<u>339,571</u>	<u>428,600</u>	<u>209,414</u>	<u>(113,013)</u>	<u>3,092,388</u>	<u>145,927</u>	<u>13,517</u>	<u>185,036</u>	<u>(124,343)</u>	<u>3,312,525</u>
Operating income (loss)	239,641	2,604	50,239	(3,363)	—	289,121	(11,775)	5,798	2,211	—	285,355
Nonoperating income (loss):											
Investment income (loss)	4	—	—	335,679	—	335,683	—	5,426	—	—	341,109
Loss on the extinguishment of debt	—	—	—	—	—	—	—	—	—	—	—
Other	80	41	—	5	—	126	—	—	927	—	1,053
Total nonoperating income	<u>84</u>	<u>41</u>	<u>—</u>	<u>335,684</u>	<u>—</u>	<u>335,809</u>	<u>—</u>	<u>5,426</u>	<u>927</u>	<u>—</u>	<u>342,162</u>
Excess (deficit) of revenues over expenses	239,725	2,645	50,239	332,321	—	624,930	(11,775)	11,224	3,138	—	627,517
Change in funded status of defined benefit plans	19,922	4,223	3,561	126,065	—	153,771	1,341	—	—	—	155,112
Net assets released from restrictions for purchase of property and equipment	494	—	—	139	—	633	—	—	—	—	633
Intracompany transfers, net	(161,989)	(16,450)	(31,323)	199,659	—	(10,103)	13,512	—	(3,409)	—	—
Transfers (to) from the University, net	(98,289)	90	(360)	2,886	—	(95,673)	(271)	—	744	—	(95,200)
Increase (decrease) in unrestricted net assets	<u>\$ (137)</u>	<u>(9,492)</u>	<u>22,117</u>	<u>661,070</u>	<u>—</u>	<u>673,558</u>	<u>2,807</u>	<u>11,224</u>	<u>473</u>	<u>—</u>	<u>688,062</u>

See accompanying independent auditors' report.