



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

Consolidated Financial Statements and Supplementary Schedules

June 30, 2017 and 2016

(With Independent Auditors' Report Thereon)

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

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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, 2017 and 2016, 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, 2017 and 2016, and the results of their operations 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*

October 6, 2017

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

Consolidated Balance Sheets

June 30, 2017 and 2016

(In thousands)

<b>Assets</b>	<b>2017</b>	<b>2016</b>
Current assets:		
Cash and cash equivalents	\$ 181,939	281,143
Patient accounts receivable, net	365,185	367,459
Other receivables	31,111	28,993
Inventories of drugs and supplies	86,462	82,398
Other assets	23,867	19,334
Short-term investments	484,649	237,859
Assets limited as to use	29,951	547,481
Total current assets	1,203,164	1,564,667
Assets limited as to use	80,243	78,617
Investments	2,828,977	2,024,867
Property and equipment, net	1,486,426	1,458,462
Due from the University	569	708
Other noncurrent assets	41,827	37,604
Total assets	\$ 5,641,206	5,164,925
<b>Liabilities and Net Assets</b>		
Current liabilities:		
Accounts payable	\$ 116,482	130,316
Due to the University, net	612	523,739
Other current liabilities	39,610	41,935
Accrued salaries, wages, and vacation payable	176,427	157,834
Estimated third-party payor settlements, net	13,522	19,244
Current portion of postretirement and postemployment benefit obligations	6,145	6,087
Current portion of indebtedness	23,340	22,275
Current portion of capital lease obligations	2,726	1,764
Current portion of estimated professional liability costs	16,276	15,612
Total current liabilities	395,140	918,806
Other noncurrent liabilities	37,955	65,138
Postretirement and postemployment benefit obligations, net of current portion	410,486	465,020
Indebtedness, net of current portion	1,632,891	1,055,784
Capital lease obligations, net of current portion	124,845	121,653
Derivative instruments	80,651	117,187
Estimated professional liability costs, net of current portion	29,022	26,445
Total liabilities	2,710,990	2,770,033
Net assets:		
Unrestricted	2,873,039	2,337,076
Temporarily restricted	43,472	44,116
Permanently restricted	13,705	13,700
Total net assets	2,930,216	2,394,892
Total liabilities and net assets	\$ 5,641,206	5,164,925

See accompanying notes to consolidated financial statements.

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

Consolidated Statements of Operations

Years ended June 30, 2017 and 2016

(In thousands)

	<u>2017</u>	<u>2016</u>
Unrestricted revenues, gains, and other support:		
Net patient service revenue (net of contractual allowances and discounts)	\$ 3,214,218	3,049,954
Provision for bad debts	(46,118)	(72,841)
Net patient service revenue less provision for bad debts	3,168,100	2,977,113
Other revenue	196,624	183,221
Total unrestricted revenues, gains, and other support	<u>3,364,724</u>	<u>3,160,334</u>
Expenses:		
Salaries, wages, and benefits	1,491,281	1,349,876
Medical supplies	771,616	712,028
Interest	37,251	41,198
Depreciation and amortization	155,112	152,460
Other operating expenses	634,133	601,618
Total expenses	<u>3,089,393</u>	<u>2,857,180</u>
Operating income	<u>275,331</u>	<u>303,154</u>
Nonoperating income (loss):		
Investment income (loss)	295,591	(139,946)
Loss on extinguishment of debt	(18,328)	(25,078)
Other	(11)	1,629
Total nonoperating income (loss)	<u>277,252</u>	<u>(163,395)</u>
Excess of revenues over expenses	552,583	139,759
Change in funded status of defined benefit plans	91,092	(316,047)
Net assets released from restrictions for purchase of property and equipment	519	2,635
Transfers to the University, net	(108,231)	(614,574)
Increase (decrease) in unrestricted net assets	<u>\$ 535,963</u>	<u>(788,227)</u>

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, 2017 and 2016

(In thousands)

	<b>2017</b>	<b>2016</b>
Unrestricted net assets:		
Excess of revenues over expenses	\$ 552,583	139,759
Change in funded status of defined benefit plans	91,092	(316,047)
Net assets released from restrictions for purchase of property and equipment	519	2,635
Transfers to the University, net	(108,231)	(614,574)
Increase (decrease) in unrestricted net assets	535,963	(788,227)
Temporarily restricted net assets:		
Contributions for restricted purposes	2,319	5,188
Transfers from the University, net	74	102
Net assets released from restrictions used for operations	(4,317)	(2,916)
Net assets released from restrictions for purchase of property and equipment	(519)	(2,635)
Net realized and unrealized gains (losses)	1,799	(1,698)
Decrease in temporarily restricted net assets	(644)	(1,959)
Permanently restricted net assets:		
Contributions for endowment funds	(7)	2,089
Net realized and unrealized gains	12	107
Increase in permanently restricted net assets	5	2,196
Increase (decrease) in net assets	535,324	(787,990)
Net assets, beginning of year	2,394,892	3,182,882
Net assets, end of year	\$ 2,930,216	2,394,892

See accompanying notes to consolidated financial statements.

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

Consolidated Statements of Cash Flows

Years ended June 30, 2017 and 2016

(In thousands)

	<b>2017</b>	<b>2016</b>
Cash flows from operating activities:		
Increase (decrease) in net assets	\$ 535,324	(787,990)
Adjustments to reconcile increase (decrease) in net assets to net cash provided by operating activities:		
Depreciation and amortization	155,112	152,460
Investment (income) loss	(297,390)	141,644
Loss on the extinguishment of debt	18,328	25,078
Net loss (gains) on other investments and disposals of property and equipment	882	(421)
Transfers to the University, net	108,157	614,472
Provision for bad debts	46,118	72,841
Restricted contributions received for long-term capital projects	(29)	(795)
Permanently restricted contributions and associated realized and unrealized gains	(5)	(2,196)
(Increase) decrease in:		
Patient accounts receivable	(43,844)	(38,739)
Other receivables	(2,189)	(58)
Inventories of drugs and supplies	(4,064)	(5,241)
Other assets	(7,315)	(4,173)
Increase (decrease) in:		
Accounts payable	(6,267)	(8,166)
Due to the University, net	(14,813)	8,697
Other current liabilities	(10,259)	(1,867)
Accrued salaries, wages, and vacation payable	18,593	12,653
Estimated third-party payor settlements, net	(5,722)	12,431
Postretirement and postemployment benefit obligations	(54,476)	327,669
Other noncurrent liabilities	(27,183)	(1,370)
Estimated professional liability costs	3,241	(3,799)
Net cash provided by operating activities	412,199	513,130
Cash flows from investing activities:		
Capital expenditures	(188,847)	(141,060)
Decrease (increase) in assets limited as to use	11,782	(10,649)
Sales of investments	1,635,032	1,601,666
Purchases of investments	(2,420,916)	(2,008,861)
Proceeds from sale of fixed assets	627	388
Increase in other assets	(1,301)	(1,363)
Net cash used in investing activities	(963,623)	(559,879)



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Consolidated Statements of Cash Flows

Years ended June 30, 2017 and 2016

(In thousands)

	<b>2017</b>	<b>2016</b>
Cash flows from financing activities:		
Payments on indebtedness and bank borrowings	\$ (160,134)	(392,789)
Proceeds from issuance of indebtedness	740,200	383,990
Bond issuance and rate hedge costs	(14,606)	(1,459)
Proceeds from restricted contributions and associated realized gains	676	4,873
Payments on capital lease obligations	(2,060)	(1,416)
Transfers to the University, net	(111,856)	(99,643)
Net cash provided by (used in) financing activities	452,220	(106,444)
Net decrease in cash and cash equivalents	(99,204)	(153,193)
Cash and cash equivalents, beginning of year	281,143	434,336
Cash and cash equivalents, end of year	\$ 181,939	281,143
Supplemental disclosure of cash flow information:		
Cash paid for interest, net of amount capitalized	\$ 41,468	41,999
Supplemental disclosures of noncash investing/financing activities:		
Change in fixed asset payables as of June 30	\$ 7,246	(18,525)
Transfer of investments to the University	501,417	—
Net transfers payable between the Health System and University	2,968	511,443
Net transfers to the University of property and equipment	3,359	4,681

See accompanying notes to consolidated financial statements.

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June 30, 2017 and 2016

(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, six 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

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(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 \$37,385 and \$34,697 in fiscal years 2017 and 2016, 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, 2017 and 2016, unrestricted transfers to the University and other changes are as follows:

	2017	2016
Transfers to the School of Medicine	\$ 99,187	91,676
Transfers to the University	6,470	8,263
Transfers from the University/School of Medicine	(785)	(46)
Total funded transfers, net	104,872	99,893
Transfer payable to the School of Medicine	—	510,000
Fixed assets and other unfunded transfers, net	3,359	4,681
Unrestricted transfers to the University, net	\$ 108,231	614,574

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 \$510,000 of investments and cash are reported in current assets limited as to use and current due to the University, net, in the consolidated balance sheet of June 30, 2016. The Health System plans to transfer \$94,500 in cash (and some noncash) equity transfers to the University in 2018.

**(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

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(In thousands)

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.

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. The PDC purchases its malpractice insurance coverage through DCC. 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:

	<b>2017</b>	<b>2016</b>
Billing and collection services	\$ 36,863	35,857
Revenue under service agreements	58,087	53,048
DCC malpractice insurance premiums	6,209	6,234
Rental income	11,106	11,854
Total	\$ 112,265	106,993

For the years ended June 30, 2017 and 2016, other operating expenses in the Health System's consolidated statements of operations include PDC-related expenses under service agreements of \$131,707 and \$113,388, respectively. The Health System has net payables to the PDC of \$10,842 and \$4,666 as of June 30, 2017 and 2016, 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 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 certain 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.

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(In thousands)

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.

**(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 entered into 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. The investments and cash designated to fund the July 1, 2016 \$510,000 transfer to the University are also included in current assets limited as to use as of June 30, 2016.

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(In thousands)

**(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 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:

<u>Asset type</u>	<u>Useful life</u>
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. Interest on borrowings to finance facilities is capitalized during construction, net of any investment income earned through the temporary investment of project borrowings for tax exempt bonds.

**(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.

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June 30, 2017 and 2016

(In thousands)

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

	<b>2017</b>	<b>2016</b>
Health care services:		
Health education	\$ 4,777	5,891
Capital expenditures	19,212	19,973
Other	19,483	18,252
	\$ 43,472	44,116

*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 as reclassifications between the applicable classes of net assets if used to acquire capital assets; otherwise, they are recorded as unrestricted operating revenue. 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.

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(In thousands)

**(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) Meaningful Use Incentive Revenue**

The American Recovery and Reinvestment Act of 2009 established incentive payments under the Medicare and Medicaid programs for certain professionals and hospitals that meaningfully use certified electronic health record technology. The Health System has recorded as revenue the estimated incentive amount for the entire reporting period in a lump sum at the point reasonable assurance of satisfying compliance requirements was determined by management. The Health System recognized meaningful use revenues of \$2,363 and \$5,081, in fiscal years 2017 and 2016, respectively, which is reported in other operating revenue. The income recognized is based on the cost report data, which is subject to change and audit by the government. In addition, the attestation of compliance is subject to audit by the government and subject to change.

**(l) 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.

**(m) 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, 2017, there were no material uncertain tax positions.

**(n) 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.



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(In thousands)

**(o) 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. 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.

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

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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 2017 and 2016 from major payor sources is as follows:

	<u>2017</u>		<u>2016</u>	
	<u>Amount</u>	<u>Percentage</u>	<u>Amount</u>	<u>Percentage</u>
Commercial payors	\$ 1,845,688	57.4 %	1,790,723	58.7 %
Medicare	938,673	29.2	868,575	28.5
Medicaid	326,027	10.2	302,383	9.9
Self-pay patients	16,283	0.5	23,594	0.8
Other third-party payors	87,547	2.7	64,679	2.1
Total	<u>\$ 3,214,218</u>	<u>100.0 %</u>	<u>3,049,954</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 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 \$9,357 and \$4,404 in fiscal years 2017 and 2016, 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, 2013 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 \$8,148 and \$7,366 in fiscal years 2017 and 2016, 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.

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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:

	<b>2017</b>	<b>2016</b>
Supplemental Medicaid amounts included in net patient service revenue	\$ 155,168	154,469
Medicaid assessments included in other operating expenses	(72,412)	(68,032)
Net supplemental Medicaid revenue in operating income	\$ 82,756	86,437
Net payable for supplemental Medicaid included in estimated third-party payor settlements, net	\$ (11,768)	(9,982)

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.

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 (excluding cosmetic services). 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:

	<b>2017</b>	<b>2016</b>
Patient accounts receivable	\$ 1,242,842	1,239,379
Less:		
Allowance for bad debts	(47,759)	(61,811)
Allowance for contractual adjustments	(829,898)	(810,109)
Patient accounts receivable, net	\$ 365,185	367,459

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

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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:

<u>Allowance for bad debts</u>	<u>Commercial</u>	<u>Medicare</u>	<u>Medicaid</u>	<u>Self-pay</u>	<u>Other third-party</u>	<u>Total</u>
Balance as of June 30, 2015	\$ 19,508	22,604	7,605	4,059	5,832	59,608
Provision for bad debts	42,026	9,066	2,407	17,927	1,415	72,841
Less net write-offs	<u>(37,734)</u>	<u>(9,592)</u>	<u>(4,028)</u>	<u>(16,973)</u>	<u>(2,311)</u>	<u>(70,638)</u>
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 write-offs	<u>(33,752)</u>	<u>(6,340)</u>	<u>(1,765)</u>	<u>(15,713)</u>	<u>(2,600)</u>	<u>(60,170)</u>
Balance as of June 30, 2017	<u>\$ 18,045</u>	<u>18,049</u>	<u>4,825</u>	<u>4,000</u>	<u>2,840</u>	<u>47,759</u>

The Health System's net write-offs decreased \$10,468 from fiscal year 2016 to fiscal year 2017 and decreased \$8,036 from fiscal year 2015 to fiscal year 2016.

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:

	<u>2017</u>	<u>2016</u>
Commercial payors	39.4 %	41.2 %
Medicare	34.8	35.8
Medicaid	15.6	11.4
Self-pay patients	3.1	3.2
Other third-party payors	<u>7.1</u>	<u>8.4</u>
	<u>100.0 %</u>	<u>100.0 %</u>

**(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.

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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 \$129 and \$25 in 2017 and 2016, 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.

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:

	<b>2017</b>	<b>2016</b>
Charity care at cost	\$ 96,710	81,504
Unreimbursed Medicaid	109,019	86,398
Total charity care and means-tested programs	205,729	167,902
Health professionals education	65,277	62,835
Cash and in-kind contributions to community groups	12,000	11,592
Total other benefits	77,277	74,427
Total charity care and other community benefits at cost	\$ 283,006	242,329

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 \$212,922 and \$183,077 for the years ended June 30, 2017 and 2016, respectively. The Health System provides additional uncompensated care in the form of bad debts. Estimated uncompensated costs associated with bad debt accounts were \$12,619 and \$19,251 for June 30, 2017 and 2016, respectively.

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**(5) Cash and Investments**

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

	<u>2017</u>	<u>2016</u>
Cash and cash equivalents	\$ 181,939	281,143
Short-term investments	484,649	237,859
Investments	<u>2,828,977</u>	<u>2,024,867</u>
Cash and investments available for operations	3,495,565	2,543,869
Assets limited as to use, current	29,951	547,481
Assets limited as to use, noncurrent	80,243	78,617
Less receivables and other assets included in assets limited as to use	<u>(5,734)</u>	<u>(6,731)</u>
Total cash and investments	<u>\$ 3,600,025</u>	<u>3,163,236</u>

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:

	<u>2017</u>	<u>2016</u>	<u>Unfunded commitments<sup>3</sup></u>
Cash and cash equivalents	\$ 196,234	305,636	—
Deposits with bond trustees	632	1,628	—
Short-term investments	498,324	259,728	—
Fixed income	691,673	319,195	—
Equities	512,131	413,919	—
Hedged strategies	840,742	599,831	554
Private capital	458,456	394,172	183,242
Real assets	344,329	288,266	144,015
Investment in LTP	25,050	524,422	—
Other	<u>32,454</u>	<u>56,439</u>	<u>—</u>
Total cash and investments <sup>1</sup>	3,600,025 <sup>2</sup>	3,163,236	<u>\$ 327,811</u>
Less cash and investments included in assets limited as to use	<u>(104,460)</u>	<u>(619,367)</u>	
Cash and investments available for operations	<u>\$ 3,495,565</u>	<u>2,543,869</u>	

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- <sup>1</sup> Includes the Health System's participation in pooled assets of \$353,303 and \$871,918 at June 30, 2017 and 2016, respectively, which are managed by DUMAC.
- <sup>2</sup> Includes \$394,882 of unspent net proceeds from the issuance of the 2017 taxable bonds on June 6, 2017 as described in note 7.
- <sup>3</sup> Future commitments likely to be called at various dates through 2021. 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 \$10,267 and \$29,001 at June 30, 2017 and 2016, respectively, were posted as collateral under derivative agreements (including both debt and investment derivatives) and thus are not readily available for use.

**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 breakout by market is approximately: 20% domestic, 25% developed international, 35% emerging international, and 20% 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 70% of the hedged strategies portfolio is invested through equity oriented strategies, 10% through credit strategies, and 20% 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. 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. 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.

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

	<u>2017</u>	<u>2016</u>
Short-term investments	11.5 %	12.1 %
Equities	16.7	15.5
Fixed income	1.9	1.8
Hedged strategies	27.3	29.4
Private capital	24.5	22.9
Real assets	17.6	16.4
Other	0.5	1.9
Totals	<u>100.0 %</u>	<u>100.0 %</u>

As of June 30, 2017, redemption frequency and the corresponding redemption notice period in days are shown below:

	<u>Daily</u>	<u>Monthly</u>	<u>Quarterly or Annually</u>	<u>Greater than 1 year</u>	<u>Total</u>	<u>Redemption notice period</u>
Cash and cash equivalents \$	196,234	—	—	—	196,234	1 day
Deposits with bond trustees	632	—	—	—	632	1 day
Short-term investments	498,324	—	—	—	498,324	1 day
Fixed income	586,011	105,662	—	—	691,673	1 to 30 days
Equities	43,847	411,299	54,808	2,177	512,131	1 to 90 days
Hedged strategies	—	115,337	704,747	20,658	840,742	2 to 100 days
Private capital	—	—	—	458,456	458,456	N/A
Real assets	—	24,542	—	319,787	344,329	N/A
Investment in LTP	—	—	—	25,050	25,050	30 days
Other	—	—	22,994	9,460	32,454	N/A
Total	<u>\$ 1,325,048</u>	<u>656,840</u>	<u>782,549</u>	<u>835,588</u>	<u>3,600,025</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.



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

	<u>2017</u>	<u>2016</u>
Net realized gains from sales of investments	\$ 124,863	101,980
Net unrealized gains (losses)	<u>132,367</u>	<u>(218,760)</u>
Total net gains (losses)	257,230	(116,780)
Investment income	<u>24,769</u>	<u>24,619</u>
Investment gains (losses)	281,999	(92,161)
Net realized losses on debt derivatives	(14,707)	(15,487)
Net unrealized gains (losses) on debt derivatives	<u>36,536</u>	<u>(27,829)</u>
Total investment return	<u>\$ 303,828</u>	<u>(135,477)</u>

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

	<u>2017</u>	<u>2016</u>
Other operating revenue	\$ 6,426	6,060
Nonoperating income (loss)	295,591	(139,946)
Increase (decrease) in temporarily restricted net assets	1,799	(1,698)
Increase in permanently restricted net assets	<u>12</u>	<u>107</u>
Total investment return	<u>\$ 303,828</u>	<u>(135,477)</u>

Investment expenses charged directly to the Health System and netted in investment income were \$4,308 and \$3,039 for fiscal years 2017 and 2016, respectively.

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

	<u>2017</u>	<u>2016</u>
Assets limited as to use:		
Deposits with bond trustees	\$ 632	1,628
Investment securities posted as collateral for debt derivative marks-to-market	13,675	21,869
Cash and investments designated to settle transfer to the University	—	510,000
Cash, receivables and investments designated to settle estimated professional liability costs	38,710	34,785
Externally restricted assets	<u>57,177</u>	<u>57,816</u>
Total assets limited as to use	110,194	626,098
Less current portion of assets limited as to use	<u>(29,951)</u>	<u>(547,481)</u>
Assets limited as to use, excluding current portion	<u>\$ 80,243</u>	<u>78,617</u>

**(6) Property and Equipment**

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

	<u>2017</u>	<u>2016</u>
Buildings and utilities	\$ 1,694,185	1,601,864
Furnishings and equipment	841,892	810,080
Buildings and equipment under capital lease obligations	122,082	115,751
Computer software	<u>347,470</u>	<u>342,365</u>
Depreciable property and equipment	3,005,629	2,870,060
Less accumulated depreciation and amortization	<u>(1,693,895)</u>	<u>(1,567,358)</u>
Depreciable property and equipment, net	1,311,734	1,302,702
Land and land improvements	117,790	88,262
Construction in progress	<u>56,902</u>	<u>67,498</u>
Property and equipment, net	<u>\$ 1,486,426</u>	<u>1,458,462</u>

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The following table summarizes other property and equipment information for fiscal years 2017 and 2016:

	<b>2017</b>	<b>2016</b>
Depreciation expense	\$ 151,878	149,603
Amortization of capital leases	3,234	2,857
Capital leases' accumulated amortization	24,699	21,465

**(7) Indebtedness**

A summary of indebtedness at June 30 is as follows:

Series	Underlying structure	Mandatory tender date <sup>1</sup>	Fiscal year of maturity	Effective interest rate	Outstanding principal	
					2017	2016
Tax-exempt revenue bonds:						
2005A	Direct placement	6/1/2028	2028	1.54 % \$	93,320	100,615
2005B	Direct placement	5/29/2023	2028	1.22	30,210	32,570
2006A/B/C	Direct placement	3/19/2025	2039	1.19	121,620	121,620
2012B	Direct placement	6/1/2023	2023	1.49	28,650	28,650
2016B	Direct placement	5/26/2026	2042	1.26	90,000	90,000
2016C	Direct placement	5/26/2026	2042	1.36	90,000	90,000
Total variable rate					453,800	463,455
2010A	Fixed rate	N/A	N/A	4.93	—	120,000
2012A	Fixed rate	N/A	2042	4.73	278,305	279,570
2016A	Fixed rate	N/A	2028	2.05	155,720	167,075
2016D	Fixed rate	N/A	2042	3.53	125,100	—
Taxable bonds:						
2017	Fixed rate	N/A	2047	3.92	600,000	—
Total fixed rate					1,159,125	566,645
Total indebtedness					1,612,925	1,030,100
Plus unamortized premium – net					62,019	53,599
Less unamortized debt issuance costs – net					(18,713)	(5,640)
Indebtedness, net					1,656,231	1,078,059
Less current portion					(23,340)	(22,275)
Indebtedness, net of current portion					\$ 1,632,891	1,055,784

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

On May 26, 2016, the Series 2016A, B, and C bonds (collectively, the Series 2016 bonds) were issued in the aggregate par amount of \$347,075 to (1) fund an escrow account that was irrevocably placed with a trustee to meet the principal and interest payments of the 2009A refunded bonds (\$180,000) until the first

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call date; (2) refund the 2005C privately placed bonds (\$107,380); and (3) refund a portion of the 2005B privately placed bonds (\$72,620). The Series 2016A bonds were issued at a premium of \$36,915. The refunding meets the requirements for derecognition of the bond liability. The refunding transaction resulted in a loss on extinguishment of debt of \$25,078 in fiscal year 2016 representing the write-off of the unamortized bond issue costs and discount on bonds payable related to the refunded bonds and the escrow funding requirements for principal and interest payments in excess of the face value of the 2009A refunded bonds.

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, 2017 and thereafter are as follows:

2018	\$	23,340
2019		23,760
2020		24,925
2021		25,970
2022		27,120
Thereafter		1,487,810
Total	\$	1,612,925

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.

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**(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.

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	279,955	3.601	61.520% of one-month LIBOR plus 0.28%
April 1, 2009	Portfolio <sup>1</sup>	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

<sup>1</sup> 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.

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

	Financial information related to debt derivative instruments					
	2017			2016		
	Fair value <sup>1</sup>	Unrealized gain or (loss) recognized in income <sup>2</sup>	Realized gain or (loss) recognized in income <sup>2</sup>	Fair value <sup>1</sup>	Unrealized gain or (loss) recognized in income <sup>2</sup>	Realized gain or (loss) recognized in income <sup>2</sup>
Derivatives not designated as hedging instruments under ASC Topic 815:						
August 1993:						
Interest rate sw ap	\$ (4,037)	2,097	(1,266)	(6,134)	28	(1,431)
May 2005:						
Interest rate sw ap	(34,522)	18,347	(8,641)	(52,869)	(8,320)	(9,996)
April 2009:						
Interest rate sw ap	(40,949)	15,493	(4,171)	(56,442)	(17,757)	(4,502)
July 2001:						
Basis sw ap	(1,143)	599	(629)	(1,742)	(1,780)	442
Total derivatives not designated as hedging instruments	\$ (80,651)	36,536	(14,707)	(117,187)	(27,829)	(15,487)

<sup>1</sup> Balance sheet classifications are noncurrent derivative instruments.

<sup>2</sup> 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, 2017 and 2016, 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, 2017 and 2016 is \$80,651 and \$117,187, respectively, for which the Health System has posted collateral of \$13,675 and \$21,869, respectively, in the normal course of business. If the credit risk related features underlying these agreements were triggered on June 30, 2017 and 2016, the Health System would be required to post an additional \$66,976 and \$95,318, 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

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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, 2017 and 2016. It also provides the net income (loss) amounts included in investment (loss) income during fiscal years 2017 and 2016.

	<u>2017</u>	<u>2016</u>	<u>Location in financial statements</u>
Net notional amounts	\$ 3,818,502	2,278,740	N/A
Derivative assets	46,589	49,942	Investments
Derivative liabilities	(23,426)	(16,121)	Investments
Net income (loss)	26,929	(25,485)	Investment income (loss)
Posted collateral	(3,408)	7,132	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.

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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:

	<u>2017</u>	<u>Level 1</u>	<u>Level 2</u>	<u>Level 3</u>	<u>Investments reported at NAV<sup>1</sup></u>
<b>Assets:</b>					
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
Total assets	<u>\$ 3,600,025</u>	<u>773,229</u>	<u>881,515</u>	<u>46,318</u>	<u>1,898,963</u>
<b>Liabilities:</b>					
Interest rate derivatives	\$ 79,508	—	79,508	—	—
Basis swap derivative	1,143	—	1,143	—	—
Total liabilities	<u>\$ 80,651</u>	<u>—</u>	<u>80,651</u>	<u>—</u>	<u>—</u>

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



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	<u>2016</u>	<u>Level 1</u>	<u>Level 2</u>	<u>Level 3</u>	<u>Investments reported at NAV<sup>1</sup></u>
<b>Assets:</b>					
Cash and cash equivalents	\$ 305,636	305,636	—	—	—
Deposits with bond trustees	1,628	1,628	—	—	—
Short-term investments	259,728	126,056	133,672	—	—
Fixed income	319,195	16,044	262,311	—	40,840
Equities	413,919	120,915	4,795	—	288,209
Hedged strategies	599,831	44,736	5,294	—	549,801
Private capital	394,172	224	—	39,177	354,771
Real assets	288,266	13,160	540	4,468	270,098
Investment in LTP	524,422	—	—	—	524,422
Other	56,439	4,275	44,895	—	7,269
<b>Total assets</b>	<b>\$ <u>3,163,236</u></b>	<b><u>632,674</u></b>	<b><u>451,507</u></b>	<b><u>43,645</u></b>	<b><u>2,035,410</u></b>
<b>Liabilities:</b>					
Interest rate derivatives	\$ 115,445	—	115,445	—	—
Basis swap derivative	1,742	—	1,742	—	—
<b>Total liabilities</b>	<b>\$ <u>117,187</u></b>	<b><u>—</u></b>	<b><u>117,187</u></b>	<b><u>—</u></b>	<b><u>—</u></b>

<sup>1</sup> Fund investments reported at NAV as a practical expedient estimate of fair value at June 30, 2016.

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.

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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 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, 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>

	Balance as of June 30, 2015	Net realized and unrealized gains (losses)	Purchases	Sales	Net transfers (from) to Level 3	Balance as of June 30, 2016
Asset category:						
Fixed income	\$ 280	1	—	—	(281)	—
Private capital	46,409	(3,752)	8,724	(6,769)	(5,435)	39,177
Real assets	3,283	(1,019)	2,026	(1,261)	1,439	4,468
Total	<u>\$ 49,972</u>	<u>(4,770)</u>	<u>10,750</u>	<u>(8,030)</u>	<u>(4,277)</u>	<u>43,645</u>

The change in net unrealized gains (losses) related to Level 3 assets still held at June 30, 2017 and 2016 was \$3,704 and \$(3,763), respectively. During fiscal years 2017 and 2016, there were net transfers of \$85 and \$4,277, respectively, between Level 3 investments and investments reported at NAV. There were no transfers between Level 1 and Level 2 investments during fiscal years 2017 and 2016.

**(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, 2017 and 2016 and \$145,000 in the aggregate for fiscal year 2017 and \$155,000 in the aggregate for fiscal year 2016. 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 2017 and 2016 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, 2017 and 2016 is 3.5%. Accrued professional liability costs excluding estimated incurred but not reported claims as of June 30, 2017 and

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2016 amounted to \$38,710 and \$34,785, 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 \$6,588 and \$7,272 as of June 30, 2017 and 2016, respectively.

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, 2017 and 2016, the Health System contributed approximately \$44,900 and \$40,400, 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 \$46,200 to this plan in fiscal year 2018.

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 \$14,900 to this plan in fiscal year 2018. 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% and 75% of the total University's defined benefit pension plan for fiscal years 2017 and 2016, respectively.

**(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.

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**(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 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:

	<b>Pension benefits</b>		<b>Postretirement benefits</b>	
	<b>2017</b>	<b>2016</b>	<b>2017</b>	<b>2016</b>
Reconciliation of projected benefit obligation:				
Obligation at beginning of year	\$ 1,288,329	1,007,657	69,605	66,141
Service cost	59,918	47,518	668	628
Interest cost	44,526	47,171	2,377	2,887
Actuarial (gain) loss	(48,088)	216,003	8,593	3,928
Benefits payments	(30,230)	(28,335)	(3,405)	(3,979)
Administrative expenses (estimated)	(1,905)	(1,685)	—	—
Projected benefit obligation at end of year	<u>\$ 1,312,550</u>	<u>1,288,329</u>	<u>77,838</u>	<u>69,605</u>
Reconciliation of fair value of plan assets:				
Fair value of plan assets at beginning of year	\$ 894,564	938,903	—	—
Actual return (loss) on plan assets	107,222	(29,329)	—	—
Employer contributions	15,844	15,163	—	—
Benefits payments	(30,230)	(28,335)	—	—
Administrative expenses	(2,045)	(1,838)	—	—
Fair value of plan assets at end of year	<u>\$ 985,355</u>	<u>894,564</u>	<u>—</u>	<u>—</u>
Funded status:				
Net accrued benefit liability	\$ (327,195)	(393,765)	(77,838)	(69,605)

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The pension and postretirement benefits expected to be paid for the ten years subsequent to June 30, 2017 are as follows:

	<b>Pension benefits</b>	<b>Postretirement benefits</b>
2018	\$ 33,793	3,621
2019	36,337	3,819
2020	38,936	3,935
2021	42,333	4,109
2022	46,126	4,300
2023–2027	295,963	23,239

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:

	<b>Pension benefits</b>		<b>Postretirement benefits</b>	
	<b>2017</b>	<b>2016</b>	<b>2017</b>	<b>2016</b>
Service cost	\$ 59,918	47,518	668	628
Interest cost	44,526	47,171	2,377	2,887
Expected return on plan assets	(70,407)	(66,433)	—	—
Amortization of prior-service cost (asset)	848	1,024	(58)	(1,225)
Recognized actuarial loss	14,133	—	—	—
Net periodic benefit cost	<u>\$ 49,018</u>	<u>29,280</u>	<u>2,987</u>	<u>2,290</u>

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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 2018 is \$848 and \$0 for the pension benefits and postretirement benefits, respectively. The expected amortization of actuarial losses (gains) for fiscal year 2018 is \$6,563 for the pension benefits and \$0 for postretirement benefits. Included in unrestricted net assets are the following amounts that have not been recognized in net periodic benefit cost at June 30, 2017 and 2016, respectively:

	<b>Pension benefits</b>		<b>Postretirement benefits</b>	
	<b>2017</b>	<b>2016</b>	<b>2017</b>	<b>2016</b>
Unrecognized prior service cost (asset)	\$ 3,054	3,901	—	—
Unrecognized actuarial losses (gains)	233,114	332,010	(6,985)	(15,636)

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

	<b>Pension benefits</b>				<b>Postretirement benefits</b>			
	<b>2017</b>		<b>2016</b>		<b>2017</b>		<b>2016</b>	
	<b>Obligation</b>	<b>Cost</b>	<b>Obligation</b>	<b>Cost</b>	<b>Obligation</b>	<b>Cost</b>	<b>Obligation</b>	<b>Cost</b>
Weighted average assumptions as of measurement date:								
Discount rate	3.75 %	3.50 %	3.50 %	4.75 %	3.75 %	3.50 %	3.50 %	4.50 %
Expected return on plan assets	NA	7.50	NA	7.50	NA	NA	NA	NA
Rate of compensation increase	2.50	2.50	2.50	3.00	NA	NA	NA	NA

In order to determine the benefit obligation as of June 30, 2017, the per capita costs of covered healthcare benefits was assumed to increase 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. The benefit expense for fiscal year 2017 was driven by the rates of increase used to determine the benefit obligation as of June 30, 2016, which were 7.5% for non-Medicare eligible employees and 6.9% for Medicare eligible employees, declining to an ultimate annual rate of increase of 5.0% by 2023 for non-Medicare and 2022 for Medicare eligible employees.

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:

	<b>One percentage increase</b>	<b>One percentage decrease</b>
Effect on net periodic postretirement health care benefit cost	\$ 418	(351)
Effect on accumulated postretirement benefit obligation	9,793	(8,284)

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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 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:

	<u>2017</u>	<u>Level 1</u>	<u>Level 2</u>	<u>Level 3</u>	<u>Investments Reported at NAV<sup>1</sup></u>
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>

<sup>1</sup> Fund investments reported at NAV as a practical expedient estimate.

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	<u>2016</u>	<u>Level 1</u>	<u>Level 2</u>	<u>Level 3</u>	<u>Investments Reported at NAV<sup>1</sup></u>
Asset category:					
Short-term investments	\$ 146,074	(330)	146,404	—	—
Fixed income	21,654	3,261	18,393	—	—
Equities	176,257	65,101	8,261	—	102,895
Hedged strategies	229,370	19,726	4,703	—	204,941
Private capital	173,580	115	—	16,501	156,964
Real assets	132,288	5,902	603	—	125,783
Other investments	15,341	(4,035)	19,376	—	—
	<u>\$ 894,564</u>	<u>89,740</u>	<u>197,740</u>	<u>16,501</u>	<u>590,583</u>

<sup>1</sup> 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. 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, 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

	<u>Balance as of June 30, 2015</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, 2016</u>
Private capital	\$ 18,818	(1,934)	3,557	(1,556)	(2,384)	16,501

The change in net unrealized gains (losses) related to Level 3 assets still held at June 30, 2017 and 2016 was \$1,174 and \$(1,627), 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 2017 and 2016, there were net transfers of \$0 and \$(2,384), respectively, between Level 3 and investments reported at NAV.



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

Notes to Consolidated Financial Statements

June 30, 2017 and 2016

(In thousands)

At June 30, 2017 and 2016, the accumulated benefit obligation for pension benefits is \$1,194,393 and \$1,164,883, respectively, as compared to the fair value of the plan assets of \$985,355 and \$894,564, respectively. At June 30, 2017 and 2016, the plan is underfunded in relation to accumulated benefits by \$(209,038) and \$(270,319), respectively.

**(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:

	<b>2017</b>	<b>2016</b>
Health care services	\$ 2,318,328	2,131,791
General and administrative	771,065	725,389
	\$ 3,089,393	2,857,180

**(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 \$9,589 and \$9,600 in fiscal years 2017 and 2016, respectively.

*(ii) Operating*

The Health System leases various machinery, equipment, healthcare facilities, and office space under operating leases expiring at various dates through 2032. 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. Total rental expense in fiscal year 2016 for all operating leases is \$39,026, consisting of \$9,463 for machinery and equipment leases and \$29,563 for facilities and office space leases.

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

Notes to Consolidated Financial Statements

June 30, 2017 and 2016

(In thousands)

*(iii) Commitments*

The following is a schedule by year of future minimum lease payments under leases as of June 30, 2017 that have initial or remaining lease terms in excess of one year and future minimum capital lease payments:

	<b>Capital leases</b>	<b>Operating leases</b>	<b>Total</b>
Year ending June 30:			
2018	\$ 10,413	40,300	50,713
2019	9,186	37,765	46,951
2020	8,069	31,135	39,204
2021	8,313	27,699	36,012
2022	8,569	27,389	35,958
Thereafter	268,220	91,327	359,547
Total minimum lease payments	312,770	255,615	568,385
Less sublease rentals from the PDC	—	(23,661)	(23,661)
Total minimum lease payments less subleases	312,770	\$ 231,954	544,724
Less interest portion	(185,199)		
Capital lease obligations	127,571		
Less current portion capital lease obligations	(2,726)		
Capital lease obligations, net of current portion	\$ 124,845		

**(b) Construction and Purchase Commitments**

At June 30, 2017, open contracts for the construction of physical properties and other capital expenditures amounted to approximately \$69,400 and outstanding purchase orders for normal operating supplies and equipment amounted to approximately \$3,100.

**(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, 2017 and 2016, 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.

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

Notes to Consolidated Financial Statements

June 30, 2017 and 2016

(In thousands)

**(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 October 6, 2017, 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, 2017

(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	2017 total DUHS consolidated
Current assets:									
Cash and cash equivalents	\$ —	(1)	(1)	174,871	174,869	—	6,971	99	181,939
Patient accounts receivable, net	278,634	32,226	44,087	(1,715)	353,232	9,783	—	2,170	365,185
Other receivables	12,856	1,975	2,905	11,082	28,818	1,141	—	1,152	31,111
Inventories of drugs and supplies	59,702	7,771	13,413	3,950	84,836	622	—	1,004	86,462
Other assets	2,916	525	245	19,378	23,064	629	—	174	23,867
Short-term investments	—	—	—	484,649	484,649	—	—	—	484,649
Assets limited as to use	—	—	—	13,675	13,675	—	16,276	—	29,951
<b>Total current assets</b>	<b>354,108</b>	<b>42,496</b>	<b>60,649</b>	<b>705,890</b>	<b>1,163,143</b>	<b>12,175</b>	<b>23,247</b>	<b>4,599</b>	<b>1,203,164</b>
Assets limited as to use	—	—	—	57,809	57,809	—	22,434	—	80,243
Investments	—	—	—	2,662,882	2,662,882	—	166,095	—	2,828,977
Property and equipment, net	902,644	162,993	152,212	231,293	1,449,142	29,795	—	7,489	1,486,426
Due from the University	—	—	—	569	569	—	—	—	569
Other noncurrent assets	—	—	20,465	18,332	38,797	—	—	3,030	41,827
<b>Total assets</b>	<b>\$ 1,256,752</b>	<b>205,489</b>	<b>233,326</b>	<b>3,676,775</b>	<b>5,372,342</b>	<b>41,970</b>	<b>211,776</b>	<b>15,118</b>	<b>5,641,206</b>
<b>Liabilities and Net Assets</b>									
Current liabilities:									
Accounts payable	\$ 56,552	8,460	15,161	28,024	108,197	2,232	90	5,963	116,482
Due to (from) the University, net	63,132	7,925	10,459	(71,309)	10,207	(10,139)	535	9	612
Other current liabilities	13,604	2,764	1,612	19,285	37,265	983	—	1,362	39,610
Accrued salaries, wages, and vacation payable	72,371	15,713	14,166	46,428	148,678	16,753	—	10,996	176,427
Estimated third-party payor settlements, net	12,733	(360)	1,149	—	13,522	—	—	—	13,522
Current portion of postretirement and postemployment benefit obligations	—	—	—	6,145	6,145	—	—	—	6,145
Current portion of indebtedness	—	—	—	23,340	23,340	—	—	—	23,340
Current portion of capital lease obligations	—	—	—	2,726	2,726	—	—	—	2,726
Current portion of estimated professional liability costs	—	—	—	—	—	—	16,276	—	16,276
<b>Total current liabilities</b>	<b>218,392</b>	<b>34,502</b>	<b>42,547</b>	<b>54,639</b>	<b>350,080</b>	<b>9,829</b>	<b>16,901</b>	<b>18,330</b>	<b>395,140</b>
Other noncurrent liabilities	5,058	6,025	2,499	17,045	30,627	2,655	—	4,673	37,955
Postretirement and postemployment benefit obligations, net of current portion	—	—	—	410,486	410,486	—	—	—	410,486
Indebtedness, net of current portion	—	—	—	1,632,891	1,632,891	—	—	—	1,632,891
Capital lease obligations, net of current portion	—	—	—	124,845	124,845	—	—	—	124,845
Derivative instruments	—	—	—	80,651	80,651	—	—	—	80,651
Estimated professional liability costs, net of current portion	—	—	—	6,588	6,588	—	22,434	—	29,022
<b>Total liabilities</b>	<b>223,450</b>	<b>40,527</b>	<b>45,046</b>	<b>2,327,145</b>	<b>2,636,168</b>	<b>12,484</b>	<b>39,335</b>	<b>23,003</b>	<b>2,710,990</b>
Net assets:									
Unrestricted	1,033,302	164,962	188,280	1,292,453	2,678,997	29,486	172,441	(7,885)	2,873,039
Temporarily restricted	—	—	—	43,472	43,472	—	—	—	43,472
Permanently restricted	—	—	—	13,705	13,705	—	—	—	13,705
<b>Total net assets</b>	<b>1,033,302</b>	<b>164,962</b>	<b>188,280</b>	<b>1,349,630</b>	<b>2,736,174</b>	<b>29,486</b>	<b>172,441</b>	<b>(7,885)</b>	<b>2,930,216</b>
<b>Total liabilities and net assets</b>	<b>\$ 1,256,752</b>	<b>205,489</b>	<b>233,326</b>	<b>3,676,775</b>	<b>5,372,342</b>	<b>41,970</b>	<b>211,776</b>	<b>15,118</b>	<b>5,641,206</b>

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, 2017

(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	2017 total DUHS consolidated
Unrestricted revenues, gains, and other support:											
Net patient service revenue (net of contractual allowances and discounts)	\$ 2,279,224	308,420	437,611	41,121	—	3,066,376	125,620	—	22,253	(31)	3,214,218
Provision for bad debts	(22,328)	(8,321)	(10,449)	(303)	—	(41,401)	(4,245)	—	(472)	—	(46,118)
Net patient revenue less provision for bad debts	2,256,896	300,099	427,162	40,818	—	3,024,975	121,375	—	21,781	(31)	3,168,100
Other revenue	64,979	9,882	15,895	161,617	(110,235)	142,138	3,077	16,433	151,939	(116,963)	196,624
Total unrestricted revenues, gains, and other support	2,321,875	309,981	443,057	202,435	(110,235)	3,167,113	124,452	16,433	173,720	(116,994)	3,364,724
Expenses:											
Salaries, wages, and benefits	755,400	150,049	129,169	258,899	—	1,293,517	96,433	—	101,331	—	1,491,281
Medical supplies	536,503	46,836	124,314	45,063	—	752,716	10,671	—	8,229	—	771,616
Interest	28,573	4,399	3,732	547	—	37,251	—	—	—	—	37,251
Depreciation and amortization	79,993	12,511	16,803	42,384	—	151,691	1,704	—	1,717	—	155,112
Other operating expenses	699,435	90,912	115,801	(143,041)	(110,235)	652,872	24,745	11,399	62,111	(116,994)	634,133
Total expenses	2,099,904	304,707	389,819	203,852	(110,235)	2,888,047	133,553	11,399	173,388	(116,994)	3,089,393
Operating income (loss)	221,971	5,274	53,238	(1,417)	—	279,066	(9,101)	5,034	332	—	275,331
Nonoperating income (loss):											
Investment income (loss)	5	—	—	282,961	—	282,966	—	12,625	—	—	295,591
Loss on the extinguishment of debt	—	—	—	(18,328)	—	(18,328)	—	—	—	—	(18,328)
Other	46	45	21	(6)	—	106	—	—	(117)	—	(11)
Total nonoperating income	51	45	21	264,627	—	264,744	—	12,625	(117)	—	277,252
Excess (deficit) of revenues over expenses	222,022	5,319	53,259	263,210	—	543,810	(9,101)	17,659	215	—	552,583
Change in funded status of defined benefit plans	106,703	22,645	17,987	(63,515)	—	83,820	7,272	—	—	—	91,092
Net assets released from restrictions for purchase of property and equipment	519	—	—	—	—	519	—	—	—	—	519
Intracompany transfers, net	(141,657)	2,623	(43,949)	170,269	—	(12,714)	20,054	—	(7,340)	—	—
Transfers (to) from the University, net	(109,853)	(694)	(69)	1,202	—	(109,414)	(78)	—	1,261	—	(108,231)
Increase (decrease) in unrestricted net assets	\$ 77,734	29,893	27,228	371,166	—	506,021	18,147	17,659	(5,864)	—	535,963

See accompanying independent auditors' report.