KPMG

WAKE FOREST UNIVERSITY

Consolidated Financial Statements

June 30, 2018

(With Independent Auditors' Report Thereon)

KPMG LLP
Suite 400
300 North Greene Street
Greensboro, NC 27401

Independent Auditors' Report

The Board of Trustees
Wake Forest University:

We have audited the accompanying consolidated financial statements of Wake Forest University (the University), which comprise the consolidated balance sheet as of June 30, 2018, and the related consolidated statements of activities and cash flows for the year 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 audit. We conducted our audit 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 financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal controls relevant to the University's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the 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 Wake Forest University as of June 30, 2018, and the changes in its net assets and its cash flows for the year then ended in accordance with U.S. generally accepted accounting principles.

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Report on Summarized Comparative Information

We have previously audited the 2017 consolidated financial statements of the University, and we expressed an unmodified audit opinion on those audited consolidated financial statements in our report dated October 23, 2017. In our opinion, the summarized comparative information presented herein as of and for the year ended June 30, 2017 is consistent, in all material respects, with the audited consolidated financial statements from which it has been derived.

Other Matter

Our audit was conducted for the purpose of forming an opinion on the consolidated financial statements as a whole. The supplementary information included in the consolidated balance sheet, statement of activities, statement of cash flows, and the accompanying notes related to the College of Arts and Sciences, Schools of Law, Business, and Divinity, and Reynolda House, Inc. (collectively, Reynolda Campus); and Wake Forest University Health Sciences (WFUHS) is presented for 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

Greensboro, North Carolina
October 23, 2018

WAKE FOREST UNIVERSITY

Consolidated Balance Sheet

June 30, 2018
(with summarized comparative financial information as of June 30, 2017)

(Dollars in thousands)

Assets		Supplementary information: Reynolda Campus	Supplementary information: WFUHS	2018	2017
Cash and cash equivalents	$	67,300	16,242	83,542	65,143
Accounts receivable, net		11,876	97,226	109,102	120,603
Patient receivables, net		—	69,359	69,359	62,155
Contributions receivable, net		106,564	8,716	115,280	195,246
Notes receivable, net		21,319	775	22,094	22,667
Investments		1,113,566	796,425	1,909,991	1,748,224
Direct investments in real estate		16,903	—	16,903	18,529
Other assets		8,369	27,263	35,632	31,143
Deposit with bond trustee		176	—	176	13,462
Land, buildings, and equipment, net		638,074	355,893	993,967	924,297
Total assets	$	1,984,147	1,371,899	3,356,046	3,201,469
Liabilities and Net Assets					
Liabilities:					
Accounts payable and accruals	$	43,320	177,229	220,549	203,905
Other liabilities and deferrals		68,487	145,369	213,856	222,772
Annuities payable		16,742	2,715	19,457	27,572
Notes payable and capital leases		97,106	111,581	208,687	114,314
Bonds payable		314,631	105,863	420,494	482,497
Postretirement benefits		12,967	34,397	47,364	50,928
Government grants refundable		8,222	—	8,222	9,361
Total liabilities		561,475	577,154	1,138,629	1,111,349
Net assets:					
Unrestricted		653,840	560,020	1,213,860	1,129,683
Temporarily restricted		354,041	58,346	412,387	413,074
Permanently restricted		414,791	176,379	591,170	547,363
Total net assets		1,422,672	794,745	2,217,417	2,090,120
Total liabilities and net assets	$	1,984,147	1,371,899	3,356,046	3,201,469

See accompanying notes to consolidated financial statements.

WAKE FOREST UNIVERSITY

Consolidated Statement of Activities

Year ended June 30, 2018
(with summarized comparative financial information for the year ended June 30, 2017)

(Dollars in thousands)

	2018 Unrestricted	2018 Temporarily restricted	2018 Permanently restricted	2018 Total	2017 Total
Operating revenues:					
Student tuition and fees	$ 381,052	—	—	381,052	360,845
Less student aid	(111,577)	—	—	(111,577)	(105,776)
Net student tuition and fees	269,475	—	—	269,475	255,069
Government grants and contracts	187,522	—	—	187,522	183,691
Private grants and contracts	3,353	24,937	—	28,290	31,717
Contributions	29,496	9,644	—	39,140	42,633
Investment return designated for current operations	50,568	29,973	—	80,541	77,868
Patient revenue, net	519,930	—	—	519,930	486,469
Other	220,737	(3)	—	220,734	291,578
Sales and services of auxiliary enterprises	97,470	—	—	97,470	93,868
Net assets released from restrictions	62,574	(62,574)	—	—	—
Total operating revenues	1,441,125	1,977	—	1,443,102	1,462,893
Operating expenses:					
Salaries and wages	754,629	—	—	754,629	742,826
Employee benefits	154,557	—	—	154,557	194,817
Student aid	10,204	—	—	10,204	8,837
Services	233,747	—	—	233,747	200,318
Clinical and laboratory supplies	54,475	—	—	54,475	46,907
Other operating expenses	129,887	—	—	129,887	117,248
Depreciation and amortization	75,781	—	—	75,781	67,969
Interest on debt	17,694	—	—	17,694	15,802
Total operating expenses	1,430,974	—	—	1,430,974	1,394,724
Operating excess	10,151	1,977	—	12,128	68,169
Nonoperating activities:					
Restricted contributions	—	12,791	36,236	49,027	111,007
Net assets released from restriction	18,953	(18,953)	—	—	—
Investment return in excess of amounts designated for current operations	6,657	3,611	1,025	11,293	34,754
Actuarial gains on annuity obligations	—	—	6,308	6,308	(2,784)
Unrealized gains (losses) on interest rate swaps	5,597	—	—	5,597	9,197
Postretirement related changes other than service cost	6,186	—	—	6,186	5,994
Gains (losses) from affiliates, equity method	46,922	—	—	46,922	(48)
Other, net	(10,289)	(113)	238	(10,164)	439
Change from nonoperating activities	74,026	(2,664)	43,807	115,169	158,559
Change in net assets	84,177	(687)	43,807	127,297	226,728
Net assets at beginning of year	1,129,683	413,074	547,363	2,090,120	1,863,392
Net assets at end of year	$ 1,213,860	412,387	591,170	2,217,417	2,090,120

See accompanying notes to consolidated financial statements.

WAKE FOREST UNIVERSITY

Consolidated Statement of Activities

College of Arts and Sciences, Schools of Law, Business, and Divinity, and Reynolda House, Inc.
(Supplementary Information)

Year ended June 30, 2018

(Dollars in thousands)

	Unrestricted	Temporarily restricted	Permanently restricted	Total
Operating revenues:				
Student tuition and fees	$ 334,725	—	—	334,725
Less student aid	(97,390)	—	—	(97,390)
Net student tuition and fees	237,335	—	—	237,335
Government grants and contracts	9,317	—	—	9,317
Private grants and contracts	3,013	—	—	3,013
Contributions	23,715	12,474	—	36,189
Investment return designated for current operations	24,719	22,472	—	47,191
Other	11,523	—	—	11,523
Sales and services of auxiliary enterprises	97,470	—	—	97,470
Net assets released from restrictions	31,998	(31,998)	—	—
Total operating revenues	439,090	2,948	—	442,038
Operating expenses:				
Salaries and wages	200,340	—	—	200,340
Employee benefits	46,657	—	—	46,657
Student aid	3,465	—	—	3,465
Services	56,529	—	—	56,529
Other operating expenses	58,781	—	—	58,781
Depreciation and amortization	41,318	—	—	41,318
Interest on debt	10,162	—	—	10,162
Total operating expenses	417,252	—	—	417,252
Operating excess	21,838	2,948	—	24,786
Nonoperating activities:				
Restricted contributions	—	12,791	27,458	40,249
Net assets released from restriction	18,953	(18,953)	—	—
Investment return in excess of amounts designated for current operations	7,167	5,063	2,600	14,830
Actuarial gains on annuity obligations	—	—	5,412	5,412
Unrealized gains on interest rate swaps	4,353	—	—	4,353
Postretirement related changes other than service cost	459	—	—	459
Other, net	(7,044)	(113)	227	(6,930)
Change from nonoperating activities	23,888	(1,212)	35,697	58,373
Change in net assets	45,726	1,736	35,697	83,159
Net assets at beginning of year	608,114	352,305	379,094	1,339,513
Net assets at end of year	$ 653,840	354,041	414,791	1,422,672

See accompanying notes to consolidated financial statements.

WAKE FOREST UNIVERSITY

Consolidated Statement of Activities

Wake Forest University Health Sciences
(Supplementary Information)

Year ended June 30, 2018

(Dollars in thousands)

	Unrestricted	Temporarily restricted	Permanently restricted	Total
Operating revenues:				
Student tuition and fees	$ 46,327	—	—	46,327
Less student aid	(14,187)	—	—	(14,187)
Net student tuition and fees	32,140	—	—	32,140
Government grants and contracts	178,205	—	—	178,205
Private grants and contracts	340	24,937	—	25,277
Contributions	5,781	(2,830)	—	2,951
Investment return designated for current operations	25,849	7,501	—	33,350
Patient revenue, net	519,930	—	—	519,930
Other	209,214	(3)	—	209,211
Net assets released from restrictions	30,576	(30,576)	—	—
Total operating revenues	1,002,035	(971)	—	1,001,064
Operating expenses:				
Salaries and wages	554,289	—	—	554,289
Employee benefits	107,900	—	—	107,900
Student aid	6,739	—	—	6,739
Services	177,218	—	—	177,218
Clinical and laboratory supplies	54,475	—	—	54,475
Other operating expenses	71,106	—	—	71,106
Depreciation and amortization	34,463	—	—	34,463
Interest on debt	7,532	—	—	7,532
Total operating expenses	1,013,722	—	—	1,013,722
Operating excess (deficit)	(11,687)	(971)	—	(12,658)
Nonoperating activities:				
Restricted contributions	—	—	8,778	8,778
Investment return in excess of amounts designated for current operations	(510)	(1,452)	(1,575)	(3,537)
Actuarial gains on annuity obligations	—	—	896	896
Unrealized gains on interest rate swaps	1,244	—	—	1,244
Postretirement related changes other than service cost	5,727	—	—	5,727
Gain from affiliates, equity method	46,922	—	—	46,922
Other, net	(3,245)	—	11	(3,234)
Change from nonoperating activities	50,138	(1,452)	8,110	56,796
Change in net assets	38,451	(2,423)	8,110	44,138
Net assets at beginning of year	521,569	60,769	168,269	750,607
Net assets at end of year	$ 560,020	58,346	176,379	794,745

See accompanying notes to consolidated financial statements.

WAKE FOREST UNIVERSITY

Consolidated Statement of Cash Flows

Year ended June 30, 2018
(with summarized comparative financial information for the year ended June 30, 2017)

(Dollars in thousands)

		Supplementary information			
		Reynolda Campus	WFUHS	2018	2017
Cash flows from operating activities:					
Change in net assets	$	83,159	44,138	127,297	226,728
Adjustments to reconcile change in net assets to net cash provided by (used in) operating activities:					
Depreciation and amortization		41,318	34,463	75,781	67,969
Amortization of debt related costs		(538)	(365)	(903)	(1,134)
Gains on extinguishment of debt		—	—	—	(1,153)
Gains on acquisition of affiliate		—	(4,520)	(4,520)	—
Equity transfer to affiliate		—	10,009	10,009	—
Net gains on investments		(47,327)	(29,813)	(77,140)	(99,972)
Noncash gifts		(28)	—	(28)	(72)
Private gifts restricted for capital and long-term investment		(40,249)	(8,778)	(49,027)	(111,007)
Other revenue restricted for long-term investment		(664)	628	(36)	(980)
Losses (gains) on disposals of property and equipment		448	85	533	(389)
Losses on impairment of property held for sale		430	—	430	—
(Gains) losses from equity method affiliates		—	(46,922)	(46,922)	48
Unrealized gains on interest rate swaps		(4,353)	(1,244)	(5,597)	(9,197)
Bad debt expense and change in allowance for contributions receivable		548	30,635	31,183	28,377
Changes in operating assets and liabilities:					
Accounts and patient receivables		(2,617)	(33,681)	(36,298)	(68,429)
Contributions receivable		1,198	4,624	5,822	2,866
Notes receivable		(22)	(153)	(175)	2,299
Other assets and other liabilities and deferrals		(923)	(8,352)	(9,275)	(10,617)
Accounts payable and accruals		667	18,529	19,196	(43,904)
Postretirement benefits		107	(3,514)	(3,407)	(5,316)
Annuities payable		(7,219)	896	(6,323)	(1,251)
Net cash provided by (used in) operating activities		23,935	6,665	30,600	(25,134)
Cash flows from investing activities:					
Purchases of land, buildings, and equipment		(104,913)	(39,333)	(144,246)	(138,886)
Proceeds from sale of land, buildings, and equipment		295	2	297	640
Repayments of notes receivable		—	(97)	(97)	(97)
Disbursements of loans to students and other		(2,483)	(56)	(2,539)	(3,825)
Repayments of loans to students and other		3,034	153	3,187	2,916
Purchases of investments		(555,858)	(151,228)	(707,086)	(672,450)
Net proceeds from sales and maturities of investments		534,076	177,915	711,991	725,049
Equity transfer of affiliate		—	(1,016)	(1,016)	—
Acquisition, net of cash acquired		—	1,090	1,090	—
Increase in deposits with bond trustee		13,286	—	13,286	(13,462)
Net cash used in investing activities		(112,563)	(12,570)	(125,133)	(100,115)
Cash flows from financing activities:					
Change in government grants refundable		(1,139)	—	(1,139)	(86)
Proceeds from notes payable		48,415	4,284	52,699	22,140
Principal payments on notes payable		(2,304)	(4,321)	(6,625)	(30,192)
Payments on borrowings from WFUBMC		—	(1,016)	(1,016)	(970)
Proceeds from issuance of bonds payable		—	—	—	159,100
Premium on bond issuance		—	—	—	19,293
Bond issuance costs		—	—	—	(1,201)
Payments to retire or defease bonds payable		(6,850)	(3,895)	(10,745)	(122,625)
Proceeds from private gifts restricted for capital and long-term investment		72,625	8,778	81,403	49,792
Net realized gains restricted for long-term investment		(1,681)	(628)	(2,309)	(1,439)
Other revenue restricted for long-term investment		664	—	664	712
Net cash provided by financing activities		109,730	3,202	112,932	94,524
Net increase (decrease) in cash and cash equivalents		21,102	(2,703)	18,399	(30,725)
Cash and cash equivalents at beginning of year		46,198	18,945	65,143	95,868
Cash and cash equivalents at end of year	$	67,300	16,242	83,542	65,143
Supplemental disclosures of cash flow information:					
Cash paid for interest, net of amounts capitalized	$	10,206	7,745	17,951	15,692
Assets acquired under capital leases		—	—	—	44,125
Capital expenditures included in account payable		18,318	4,282	22,600	24,321
Refinancing of long-term debt		—	50,355	50,355	—
Equity transfer of affiliate		—	(1,109)	(1,109)	—

See accompanying notes to consolidated financial statements.

(1) Organization and Summary of Significant Accounting Policies

(a) Description of Wake Forest University

Wake Forest University (the University) is a private, coeducational, not-for-profit institution of higher education and research located in Winston-Salem, North Carolina. The consolidated financial statements of the University include the College of Arts and Sciences, Schools of Law, Business, and Divinity, and consolidating subsidiaries including: Verger Capital Management, LLC (VCM), and Reynolda House, Inc. (collectively, Reynolda Campus), and Wake Forest University Health Sciences (WFUHS), and all entities over which the University has control, including all of the subsidiaries of Reynolda Campus and WFUHS. All significant intercompany balances and transactions have been eliminated in consolidation.

On October 18, 2013, the University's Board of Trustees created an asset management company and related investment funds. These entities included Verger Capital Fund, LLC (Master Fund), Verger Fund I, LLC (Verger Fund I), and Verger Fund II, LLC (Verger Fund II). VCM provides investment management services for the University's long-term pool. The Master Fund is controlled by the University and provides investment services for Verger Fund I and Verger Fund II. Verger Fund I was created to hold the Reynolda Campus long-term endowment pool and Verger Fund II was created to hold the WFUHS and Reynolda House long-term endowment pools. Wake Forest University's interest in both Verger Fund I and Verger Fund II are included at NAV in investments on the consolidated balance sheets.

Effective July 1, 2010, the Boards of WFUHS, North Carolina Baptist Hospital (NCBH), Wake Forest University Baptist Medical Center (WFUBMC) and the University approved the Medical Center Integration Agreement (the Integration Agreement or MCIA). The Integration Agreement allows for the leveraging of the combined resources of WFUHS and NCBH to fulfill a single mission, improve health and optimize performance of the combined organizations, while balancing patient care, education and research. The University and NCBH are the members of WFUBMC.

The Integration Agreement created an integrated academic medical center that combines clinical care, education and research under a single management and debt structure referred to as Wake Forest Baptist (WFB), which is governed by WFUBMC. One of the nation's preeminent academic medical centers, WFB is an integrated healthcare system that operates over 50 subsidiaries. It provides a continuum of care that includes primary care centers, outpatient rehabilitation, and dialysis centers. To ensure alignment across the organization, WFUHS and NCBH unrestricted operating income (deficit) are shared equally between the entities. Although the entities will be operated to maximize the value at the total WFB level, revenues, expenses, existing and new assets and debt will continue to be accounted for generally at the individual entity levels.

The WFUBMC Board is comprised of seven directors elected by NCBH from among its Board members, seven directors elected by the University's Board of Trustees and two nonvoting directors elected by the WFUBMC Board from among the faculty of WFUHS. Subject to the reserved powers of the members, WFB operates WFUHS (including all subsidiaries and affiliates) and NCBH (including all subsidiaries and affiliates), including day-to-day management, strategic direction, managed care contracting and other business activities conferred on WFUBMC.

(Continued)

(b) Recent Accounting Standards

In January 2017, the FASB issued ASU 2017-02, *Not-for-Profit Entities-Consolidation (Subtopic 958-810)*. This ASU provides further guidance around when a not-for-profit entity that is a general partner or a limited partner should consolidate a for-profit partnership or similar legal entity once the amendments in Accounting Standards Update 2015-02, *Consolidation (Topic 810): Amendments to the Consolidation Analysis*, becomes effective and clarifies that the amendments in the new guidance on classifying and measuring financial instruments in ASU 2016-01 were not intended to affect the ability of not-for-profit entities with investments in certain for-profit entities to elect to measure those investments at fair value. The University adopted ASU 2017-02 in 2017 and reflected its investment in Verger Fund I & II at fair value.

In April 2015, the FASB issued ASU 2015-05, *Customer's Accounting for Fees Paid in a Cloud Computing Arrangement*. ASU 2015-05 clarifies how customers in cloud computing arrangements should determine whether arrangements include a software license. The standard also eliminates the requirement that customers analogize to the leases standard when determining the asset acquired in a software licensing arrangement. ASU 2015-05 is effective for fiscal years beginning after December 15, 2016 with early adoption permitted. The University early adopted ASU 2015-05 in fiscal 2017 and approximately $6,142 and $3,070 of costs were reflected in Nonoperating expense in 2018 and 2017, respectively.

In March 2017, the FASB issued ASU 2017-07, *Compensation – Retirement Benefits (Topic 715).* ASU 2017-07 requires companies to present the service cost component of net benefit cost in the income statement line items where they report compensation cost and all other components of net benefit cost separate from operating income. ASU 2017-07 is effective for fiscal years beginning after December 15, 2017 with early adoption permitted. The University early adopted ASU 2017-07 in fiscal year 2018 and approximately $2,025 of net benefit costs were reflected in nonoperating expense. Using the prior year comparative footnote practical expedient, the University reclassified $2,738 of net benefit costs from employee benefits expense to Nonoperating expense for fiscal year 2017.

In May 2014, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) 2014-09, *Revenue from Contracts with Customers (Topic 606)*. 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.

In August 2016, the FASB issued ASU 2016-14, *Not-for-Profit Entities (Topic 958)*. This ASU changes certain presentation requirements for not-for-profit entities' financial statements in an effort to make information more meaningful for users. This ASU removes the requirement to distinguish between resources with temporary and permanent restrictions on the face of the financial statements and replaces this with a requirement to present two classes of net assets – with and without donor restrictions. Additionally, the ASU requires expenses to be presented by their natural and functional classifications. The guidance also requires that investment returns be presented net of external and direct internal investment expenses and eliminates the requirements for disclosures of the components of investment returns. Further, the ASU also requires additional qualitative and quantitative disclosures about liquidity and availability of financial assets. ASU 2016-14 is effective for fiscal year 2019.

In June 2018, the FASB issued ASU 2018-08, *Not-for-Profit Entities (Topic 958): Clarifying the Scope and the Accounting Guidance for Contributions Received and Contributions Made*. This ASU clarifies and improves the scope and accounting guidance for contributions received and made and assists entities in evaluating whether transactions should be accounted for as contributions within the scope of Topic 958, Not-for-Profit Entities, or as exchange transactions subject to other guidance, and in determining whether a contribution is conditional. ASU 2018-08 is effective for fiscal year 2019.

(c) Basis of Presentation

The consolidated financial statements have been prepared on the accrual basis in conformity with U.S. generally accepted accounting principles (GAAP).

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

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

Revenues are reported as increases in unrestricted net assets unless their use is limited by donor-imposed restrictions. Expenses are reported as decreases in unrestricted net assets. Gains and losses on investments and other assets or liabilities are reported as increases or decreases in unrestricted net assets unless their use is restricted by explicit donor stipulations or by law. Expirations of restrictions on 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. Net assets released from restrictions from permanently restricted net assets relate to a change in donor's intent.

Income and realized and unrealized gains on investments of permanently restricted net assets are reported as follows:

- As increases in permanently restricted net assets if the terms of the gift require that they be added to the principal of a permanent endowment fund.
- As increases in temporarily restricted net assets until appropriated for expenditure by the University and donor restrictions for their use are met.

Revenues earned, expenses incurred, and returns made available for the University's operating purposes of teaching, research, patient care, and other programs and services are components of the operating excess or deficit presented in the consolidated statement of activities. The University considers the following items to be nonoperating activities: restricted contributions for capital and long-term investment and the related net assets released from restriction, investment return in excess of amounts designated for current operations, actuarial gain or loss on annuity obligations, unrealized gain or loss on interest rate swaps, postretirement related changes other than service cost, gain or loss from affiliates (equity method), donor designation changes and other, net, including costs incurred related to a cloud computing arrangement.

(d) Cash Equivalents

Cash equivalents include highly liquid investments with original maturities at date of purchase of three months or less. Such assets, reported at fair value, primarily consist of depository account balances, money market funds and accounts. The University maintains bank accounts at various financial institutions covered by the Federal Depository Insurance Corporation (FDIC). At various times throughout the year, the University may maintain bank accounts in excess of the FDIC-insured limit. Management believes that the risk associated with these bank accounts is minimal.

(e) Contributions

Contributions, including unconditional promises to give, are recognized as revenues in the period received. Contributions restricted for capital projects or permanent endowment funds and contributions under split-interest agreements or perpetual trusts are reported as nonoperating activities. Conditional promises to give are not recognized until they become unconditional, that is, when the conditions on which they depend are substantially met. Contributions of assets other than cash are recorded at their estimated fair value. Contributions to be received after one year, net of an allowance for uncollectible contributions receivable, are discounted to their present value at a risk-adjusted rate. Amortization of discounts is recorded as additional contribution revenue in accordance with donor-imposed restrictions, if any, on the contributions. An allowance for uncollectible contributions receivable is provided based upon management's judgment, considering such factors as prior collection history, type of contribution, relationship with donor, and nature of fund-raising activity.

(f) Notes Receivable

Notes receivable, which are recorded at face value, principally represent amounts due from students under Perkins and other U.S. government sponsored loan programs. A general allowance is made for uncollectible student loans after considering long-term collection experience and current trends. Other notes receivable are evaluated individually for impairment, with allowances based on management's expectations given facts and circumstances related to each note.

(g) Investments

Investments in readily marketable debt and equity securities are stated at their fair values, which are determined based on quoted market prices. Investments in private equity and absolute return funds are reported at estimated fair value, utilizing their net asset values. Those net asset values are determined by the investment managers and are reviewed and evaluated by the University's investment management company. These estimated fair values may differ from the values that would have been used had a ready market existed for these investments. Investments in equity method affiliates are accounted for using the equity method.

(h) Investments in Real Estate

Investments in real estate are primarily comprised of rental properties of the University and are valued at the lower of net book value or market. Accordingly, if there is a decline in market value the carrying amount of the investment is reduced to market value. The University records depreciation on rental properties over 40 years. Depreciation is calculated using the straight-line method. Real estate gifts held for sale are recorded at fair value, based on periodic external appraisals.

(i) Split-Interest Agreements

The University's split-interest agreements with donors consist primarily of irrevocable charitable remainder trusts for which the University serves as trustee and charitable gift annuities. Assets held in these trusts are stated at fair value and are included in investments. Contribution revenue is recognized at the dates the trusts are established. The University recognizes the change in value of split-interest agreements according to the fair value of assets that are associated with each trust and recalculates the liability for the present value of annuity obligations. Any change in fair value is recognized in the consolidated statement of activities.

The University is also the beneficiary of certain trusts and other assets held and administered by others. The University's share of these assets is recognized in investments at fair value.

(j) Fair Value Measurements

The fair value 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 hierarchy requires the use of observable market data when available. The three levels of the fair value hierarchy are as follows:

Level 1 – Valuations for assets and liabilities traded in active exchange markets as of the reporting date. Valuations are obtained from readily available pricing sources for market transactions involving identical assets or liabilities.

Level 2 – Valuations for assets and liabilities are determined through direct or indirect observations other than quoted market prices.

Level 3 – Valuations for assets and liabilities that are derived from other valuation methodologies including discounted cash flow models and similar techniques, and not based on market exchange, dealer or broker traded transactions.

Net asset value (NAV) – Certain investments that are measured at fair value using the net asset value per share (or its equivalent) practical expedient have not been categorized in the fair value hierarchy.

In the event that changes in the inputs used in the fair value measurement of an asset or liability result in a transfer of the fair value measurement to a different categorization (e.g., from Level 3 to Level 2), such transfers between fair value categories are recognized at the end of the reporting period.

The carrying amounts of cash and cash equivalents (Level 1), patient receivables (Level 2), and accounts receivable (Level 2) approximate fair value because of the terms and relatively short maturity of these financial instruments. The carrying amounts of contributions receivable represent the present value of estimated future cash flows, which approximates fair value (Level 3). Investments (Levels 1–3, see note 8) and deposits with bond trustee (Level 1) are reported at fair value as of the date of the consolidated financial statements. A reasonable estimate of the fair value of notes receivable from students under government loan programs cannot be made because such loans are not sellable and can only be assigned to the U.S. government or its designees. The fair value of receivables from students under University loan programs (Level 2) approximates carrying value.

The carrying amounts of accounts payable and other accruals (Level 2) approximate fair value because of the relatively short maturity of these financial instruments. Annuities payable (Level 2) are recorded at fair value using a single discount rate equivalent to the University's tax-exempt borrowing rate. The carrying amounts of notes and bonds payable (Level 2) with variable interest rates approximate their fair value because substantially all of these financial instruments bear interest at rates that approximate current market rates for borrowings with similar maturities and credit quality.

(k) Land, Buildings, and Equipment

Land, buildings, and equipment are recorded at cost at date of acquisition or estimated fair market value on the date received for donated items. Depreciation is calculated using the straight-line method over the estimated useful life of each class or component of depreciable asset. Estimated lives range from 3 to 60 years. Depreciation is not calculated on land and construction in progress. Gains or losses on the disposal of land, buildings, and equipment are included in the consolidated statement of activities. Interest cost incurred on borrowed funds during the period of construction of capital assets is capitalized as a component of the cost of constructing these assets.

(l) Impairment of Long-Lived Assets

The University periodically assesses the realizability of its long-lived assets and evaluates such assets for impairment whenever events or changes in circumstances indicate the carrying amount of an asset may not be recoverable. For assets to be held, impairment is determined to exist if estimated future cash flows, undiscounted and without interest charges, are less than the carrying amount. The University recognizes an impairment charge when the fair value of the asset or group of assets is less than the carrying value.

(m) Asset Retirement Obligations

The University has asset retirement obligations (AROs) arising from regulatory requirements to perform certain asset retirement activities at the time that certain buildings and equipment are disposed of or renovated. The liability was initially measured at fair value and subsequently is adjusted for accretion expense and changes in the amount or timing of the estimated cash flows. The corresponding asset retirement costs are capitalized as part of the carrying amount of the related long-lived asset and depreciated over the asset's useful life. The University revalues asset retirement obligations as remediation costs are incurred or as additional cost information becomes available.

(n) Derivative Instruments

The University holds certain interest rate swap agreements to manage the fixed/variable mix of its debt portfolio. The notional amounts of the agreements dictate the payments between the counterparties based on agreed-upon rates as determined in the agreements. The University records all derivative instruments on the consolidated balance sheet at their respective fair values. All changes in fair value are reflected in the consolidated statement of activities. Cash payments and receipts are included in interest on debt.

(o) Postretirement Plans

The University records annual amounts relating to its postretirement plans based on calculations that incorporate various actuarial and other assumptions including discount rates, mortality, assumed rates of return, turnover rates, and healthcare cost trend rates. The University reviews its assumptions on an annual basis and makes modifications to the assumptions based on current rates and trends when it is appropriate to do so. The effect of modifications to those assumptions is recorded as a change in unrestricted net assets and amortized to net periodic benefit cost over future periods using the corridor method. The University believes that the assumptions utilized in recording its obligations under its plans are reasonable based on its experience and market conditions. The net periodic benefit costs are recognized as employees render the services necessary to earn the postretirement benefits.

(p) Government Grants Refundable

Funds provided by the U.S. government under the Federal Perkins Loan Program is loaned to qualified students and may be reloaned after collections. These funds are ultimately refundable to the U.S. government and are reported as liabilities.

(q) Revenue Recognition

The University's revenue recognition polices are as follows:

Student tuition and fees – Student tuition and fees are recorded as revenue during the year that the related services are rendered. Student tuition and fees received in advance of services to be rendered are recorded as deferred revenue. Student aid provided by the University is reflected as a reduction of gross student tuition and fee revenue. Student aid does not include payments made to students for services rendered to the University.

Grants and contracts – Revenues under grants and contracts with private and governmental sponsoring organizations are deferred until related expenses are incurred. The revenues include recoveries of direct and indirect costs. Indirect costs are generally determined as a negotiated or agreed-upon percentage of direct costs with certain exclusions.

Patient revenue, net – WFUHS records patient revenue at the estimated net realizable amounts due from patients, third-party payers, and others for services rendered, including estimated retroactive adjustments under reimbursement agreements with third-party payers and contractual adjustments. Retroactive adjustments are accrued on an estimated basis in the period the related services are rendered and will be adjusted in future periods as interim or final settlements are determined.

Charity care – WFUHS provides care for patients who meet certain criteria under its charity care policy without charge or at amounts less than its established rates. WFUHS does not pursue collection of amounts determined to qualify as charity care; accordingly, such amounts are not reported in net patient revenue.

WFUHS 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 charity care policy and equivalent service statistics. Costs incurred are estimated based on the ratio of total operating expenses to gross charges applied to charity care charges. The amounts of direct and indirect costs incurred for services and supplies furnished under WFUHS' charity care policy totaled approximately $16,615 and $19,138 in 2018 and 2017, respectively.

(r) Use of Estimates

The University prepares its consolidated financial statements in accordance with GAAP that requires management to make estimates and assumptions relating to the reporting of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenues and expenses during the reporting period. Significant items subject to such estimates and assumptions include the carrying amount of land, buildings, and equipment, and the valuation of nonreadily marketable investments, investments in real estate, allowances for receivables, third-party payer settlements, AROs, professional liabilities, interest rate swap obligations and obligations related to employee benefits. Actual results could differ from those estimates.

(s) Income Taxes

The University is a tax-exempt organization as described in Section 501(c)(3) of the Internal Revenue Code (the Code) and is generally exempt from federal income taxes on related income pursuant to Section 501(a) of the Code. Accordingly, no provision for income taxes is made in the consolidated financial statements. If applicable, unrelated business income is reported by all member and subsidiary organizations on IRS Form 990-T. Fiscal years ending on or after June 30, 2015 remain subject to examination by federal and state tax authorities. The University has evaluated uncertain tax positions for the years ended June 30, 2018 and 2017, including a quantification of tax risks in areas such as unrelated business income and taxation of its for-profit subsidiaries. This evaluation did not identify any material items that effect the consolidated financial statements for the years ended June 30, 2018 and 2017.

(Dollars in thousands)

(t) Comparative Financial Information

The consolidated financial statements include certain prior year information for comparative purposes, which does not include sufficient detail to constitute a presentation in conformity with GAAP. Accordingly, such information should be read in conjunction with the University's consolidated financial statements for the year ended June 30, 2017 from which this information was derived.

(2) Accounts Receivable

The following is an analysis of accounts receivable at June 30, 2018 and 2017:

		2018			
		Reynolda Campus	WFUHS	Total	2017 Total
Accounts receivable	$	8,344	65,326	73,670	87,893
Grants receivable		4,040	33,341	37,381	34,722
Total accounts receivable		12,384	98,667	111,051	122,615
Less allowance for bad debts		(508)	(1,441)	(1,949)	(2,012)
Accounts receivable, net	$	11,876	97,226	109,102	120,603

(3) Patient Revenue and Patient Receivables

Net patient service revenue is recorded when patient services are performed at the estimated net realizable amounts due from patients, third-party payers, and others for services rendered. WFUHS 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. For uninsured patients who do not qualify for charity care, WFUHS recognizes revenue on the basis of its standard rates for services provided (or on the basis of discounted rates, if negotiated or provided by policy). On the basis of historical experience, a significant portion of WFUHS' uninsured patients will be unable or unwilling to pay for the services provided. Thus, WFUHS records a significant provision for bad debts related to uninsured patients in the period the services are provided. Patient service revenue, net of contractual allowances and discounts (but before the provision for bad debts), recognized in the period from these major payer sources, is as follows:

		WFUHS	
		2018	2017
Third-party payers	$	528,779	494,084
Self-pay		21,218	19,886
Provision for bad debts		(30,067)	(27,501)
Patient revenue, net	$	519,930	486,469

WFUHS has agreements with third-party payers that provide for payments to WFUHS at amounts different from its established rates. Payment arrangements with nongovernmental payers are a negotiated percentage increase to the Medicare fee schedule allowable. Under the Medicare and Medicaid programs, WFUHS is entitled to reimbursement for billed current procedural terminology (CPT) codes at fee schedule rates determined by federal and state governments. Differences between established billing rates and reimbursements from these programs are recorded as contractual adjustments to arrive at net patient service revenue.

Patient receivables are reduced by an allowance for doubtful accounts. In evaluating the collectability of patient receivables, WFUHS analyzes its past history and identifies trends for each of its major payer sources of revenue to estimate the appropriate allowance for doubtful accounts and provision for bad debts. Management regularly reviews data about these major payer sources of revenue in evaluating the sufficiency of the allowance for doubtful accounts. For receivables associated with services provided to patients who have third-party coverage, WFUHS analyzes contractually due amounts and provides an allowance for doubtful accounts and a provision for bad debts, if necessary (e.g., for expected uncollectible deductibles and copayments on accounts for which the third-party payer has not yet paid, or for payers who are known to be having financial difficulties that make the realization of amounts due unlikely). For receivables associated with self-pay patients (which includes both patients without insurance and patients with deductible and copayment balances due for which third-party coverage exists for part of the bill), WFUHS records a provision for bad debts in the period of service on the basis of its past experience, which indicates that many patients are unable or unwilling to pay the portion of their bill for which they are financially responsible. The difference between the standard rates (or the discounted rates if negotiated) and the amounts actually collected after all reasonable collection efforts have been exhausted is charged off against the allowance for doubtful accounts.

Net patient receivables of $69,359 and $62,155 at June 30, 2018 and 2017, respectively, are recorded net of allowances for contractual adjustments and uncollectible accounts of $111,305 and $72,333, respectively, at June 30, 2018 and $119,039 and $71,627, respectively, at June 30, 2017.

WFUHS' allowance for doubtful accounts for self-pay patients decreased from 82% of self-pay accounts receivable at June 30, 2017 to 74% of self-pay accounts receivable at June 30, 2018. In addition, WFUHS' allowances and expenses for uninsured patients (which include charity care charges foregone and bad debt expense) increased $5,665 from $14,631 for fiscal year 2017 to $20,296 for fiscal year 2018. WFUHS maintains an allowance for doubtful accounts for patient residuals associated with third-party payers. The allowance was $17,241 and $21,774 at June 30, 2018 and 2017, respectively.

(Dollars in thousands)

Concentration of Credit Risk

WFUHS grants credit without collateral to its patients, most of whom are insured under third-party payer agreements. The mix of receivables from patients and third-party payers was as follows as of June 30:

	2018	2017
Medicare	24 %	13 %
Medicaid	18	17
Self-pay	21	19
Other	37	51
	100 %	100 %

(4) Contributions Receivable

The following is an analysis of the maturities of the University's contributions receivable at June 30, 2018 and 2017:

		2018			2017
		Reynolda Campus	WFUHS	Total	Total
One year or less	$	30,533	6,781	37,314	74,967
Between one and five years		43,325	3,343	46,668	89,837
More than five years		97,589	168	97,757	98,362
Contributions receivable, gross		171,447	10,292	181,739	263,166
Estimated uncollectible amounts		(6,045)	(1,127)	(7,172)	(8,098)
Discount to present value		(58,838)	(449)	(59,287)	(59,822)
Contributions receivable, net	$	106,564	8,716	115,280	195,246

During the year ended June 30, 2018, the University transferred the net balance of $40,884 from contributions receivable to investments in the accompanying Statement of Financial Position for the year ended June 30, 2018 as the gift is held in trust by others.

Contributions receivable are discounted at a rate commensurate with the scheduled timing of receipt. Such amounts outstanding as of June 30, 2018, and 2017, were discounted at rates ranging from 1.52% to 2.55% for WFU, respectively, and 1.91% to 2.80% for WFUHS, respectively.

Contributions receivable, net for Reynolda Campus included significant pledges from a few donors and perpetual commitments from a foundation with a long-standing history of support to the University. These long-term unconditional promises to give represented 65% and 77% of Reynolda Campus' net contributions receivable as of June 30, 2018 and 2017, respectively.

(Dollars in thousands)

(5) Notes Receivable

The following is an analysis of notes receivable at June 30, 2018 and 2017:

		2018			
		Reynolda Campus	**WFUHS**	**Total**	**2017 Total**
Student loans receivable	$	17,544	833	18,377	18,945
Other notes receivable		4,228	—	4,228	4,068
Total notes receivable		21,772	833	22,605	23,013
Less estimated uncollectible amounts		(453)	(58)	(511)	(346)
Notes receivable, net	$	21,319	775	22,094	22,667

The University makes uncollateralized loans to students based on financial need. Student loans are funded through Federal government loan programs or institutional resources. At June 30, 2018 and 2017, student loans receivable consisted of Federal loan programs of $16,909 and $17,581, respectively, and institutional loan programs of $635 and $653, respectively. The University participates in the Perkins federal revolving loan program. The availability of funds for loans under the program is dependent on reimbursements to the pool from repayments on outstanding loans. Funds advanced by the Federal government of $8,222 and $9,361 at June 30, 2018 and 2017, respectively, are ultimately refundable to the federal government and are reported as government grants refundable on the consolidated balance sheet. Outstanding loans canceled under the program result in a reduction of the funds available for loan and a decrease in the liability to the federal government. The Federal Perkins Loan Program expired on September 30, 2017, and the University has implemented procedures to wind-down the program. The University plans to maintain the Perkins outstanding loans and based on review of the prior collection history has recorded an allowance for uncollectible Perkins loan amounts of $206 as of June 30, 2018. Allowances for uncollectible institutional student loans are based on prior collection experience and current economic factors, which, in management's judgment, could influence the ability of loan recipients to repay the amounts per the loan terms. Institutional student loan balances are written off only when they are deemed to be permanently uncollectible. At June 30, 2018 and 2017, the allowance for uncollectible institutional student loan amounts was $247 and $277, respectively.

(Dollars in thousands)

(6) Investments

Investments at June 30, 2018 and 2017 consist of the following:

		2018	2017
Short-term investments[(a)]	$	19,218	53,447
Absolute return[(b)]		1,292,957	1,181,112
Commodities:[(c)]		20,240	19,422
Fixed income:[(d)]			
Domestic		270,912	259,073
International		2,231	2,731
Private equity[(e)]		1,906	1,846
Public equity:[(f)]			
Domestic		51,641	45,374
International		27,820	33,588
Real estate:[(g)]		15,312	10,808
Beneficial interest in perpetual trusts and assets held by others[(h)]		29,614	24,311
Other[(i)]		178,140	116,512
Total investments	$	1,909,991	1,748,224

(a) Includes short duration U.S. Treasury debt securities and other short-term, higher quality debt securities, cash and money market mutual funds.

(b) Includes investments in hedge funds and hedge fund-of-funds that invest both long and short on a global basis primarily in: equity securities (common stocks), credit securities (both investment grade and noninvestment grade), commodities, and currencies. In aggregate, the expectation is that the returns of this segment should not be highly correlated to the broad equity market. Includes $1,237,025 and $1,141,346 funds managed by Verger valued under the NAV practical expedient in fiscal years 2018 and 2017, respectively, whose underlying investments were comprised of 49.1% and 43.0% of equities, 13.5% and 14.6% of real assets, 22.4% and 25.2% of absolute return, and 15.0% and 17.2% fixed income in fiscal years 2018 and 2017, respectively.

(c) Includes primarily illiquid investments in timberland, oil and gas properties, and water rights and entitlements held through limited partnership interests. While many of the investments are U.S. focused, some are more global. The category also includes more liquid allocations made to commodity (precious metals, industrial materials, and energy) mutual funds.

(Dollars in thousands)

(d) Includes long only, hedge strategies, and illiquid investments in various fixed income strategies (both U.S. and non-U.S.) including: investment grade securities, noninvestment grade securities, mortgage backed securities, asset backed securities, Treasury Inflation Protected Securities (TIPS), distressed debt, senior loans, and bank loans. The long only position also includes mutual funds that have daily liquidity in U.S. and non-U.S. fixed income markets.

(e) Includes illiquid investments primarily in buyout, growth equity, and venture capital (both U.S. and non-U.S.) held through limited partnership interests.

(f) Includes investments primarily in U.S. and non-U.S. common stocks (including emerging markets) as well as funds that invest in U.S. and non-U.S. common stocks (including emerging markets), mutual funds, and exchange traded funds. While most of the assets are invested long only, some assets are invested on a hedged basis (both long and short).

(g) Includes illiquid investments in commercial real estate, residential real estate, and farmland held through limited partnership interests. While many of the investments are U.S. focused, some are more global.

(h) Includes trusts and certain other assets held and administered by others which the University has an unconditional right to receive all or a portion of the specified cash flows.

(i) Includes primarily funds held under retirement and benefit plans and other miscellaneous investments.

In addition to the long-term pool, the University also manages other investment portfolios. Generally, these portfolios are invested in mutual funds, U.S. Treasury debt securities, and fixed income securities with daily liquidity. Each portfolio's asset allocation is customized based upon the return and risk objectives and distribution requirements of the portfolio.

The components of total investment return as reflected in the accompanying consolidated statements of activities are as follows:

		2018	2017
Investment income, net	$	23,242	22,809
Realized gains, net		22,603	36,103
Changes in unrealized appreciation		45,989	53,710
Total investment return		91,834	112,622
Endowment appropriation designated for current operations		(75,601)	(73,454)
Other investment returns designated for current operations		(4,940)	(4,414)
Investment return in excess of amounts designated for current operations	$	11,293	34,754

The University incurred internal investment management costs of $8,288 and $9,434 in 2018 and 2017, respectively. The University reports investment returns net of internal and external management fees.

(7) Endowment

The University's pooled endowment was established for a variety of purposes including both donor-restricted endowment funds and funds designated by the Board of Trustees to function as endowments. Net assets associated with endowment funds are classified and reported based on the existence or absence of donor-imposed restrictions. Gift annuities, beneficial interest in perpetual trusts and assets held by others, and contributions receivable are not considered components of the endowment.

The Board of Trustees has interpreted the Uniform Prudent Management of Institutional Funds Act (UPMIFA) as allowing the University to appropriate for expenditure or accumulate so much of an endowment fund as the University determines is prudent for the uses, benefits, purposes, and duration for which the endowment fund is established, subject to the intent of the donor as expressed in the gift instrument. As a result of this interpretation, the University's policy is to report as permanently restricted net assets (a) the original value of gifts donated to the permanent endowment, (b) the original value of subsequent gifts to the permanent endowment, and (c) accumulations to the permanent endowment made in accordance with the direction of the applicable donor gift instrument at the time the accumulation is added to the fund.

The portion of the donor-restricted endowment fund that is not classified in permanently restricted net assets is classified as temporarily restricted net assets until those amounts are appropriated for expenditure by the University in a manner consistent with the standard of prudence prescribed by UPMIFA. In accordance with UPMIFA, the board of trustees considers the following factors in making a determination to appropriate or accumulate donor-restricted endowment funds:

1. The duration and preservation of the fund
2. The purposes of the University and the donor-restricted endowment fund
3. General economic conditions
4. The possible effect of inflation and deflation
5. The expected total return from income and the appreciation of investments
6. Other resources of the University
7. The investment policies of the University

The University has adopted investment and spending policies for endowment assets that support the objectives of optimizing long-term returns and providing a sustainable level of endowment income distribution to support the University's activities through the annual operating budget while preserving the real (inflation adjusted) purchasing power of the endowment. The University's primary investment objective is to maximize total return within reasonable and prudent levels or risk while maintaining sufficient liquidity to meet disbursement needs. The endowment spending rate is calculated as a percentage of the average of the previous three-year semiannual moving market value per unit and subject to a 10% maximum annual growth or decline in per-unit spending. The endowment spending rate for the years ended June 30, 2018 and 2017, respectively were 5.15% and 5.3% for Reynolda Campus, and 5.3% for WFUHS.

(Dollars in thousands)

The portfolio is constructed on a foundation of modern portfolio theory and strategic asset allocation. Under the direction of VCM the University diversifies its investments among various asset classes incorporating multiple strategies and investment advisors to help manage risk. Management and investment decisions are not made in isolation, but in the context of the portfolio of investments as a whole and as part of the overall investment strategy.

The University invests the majority of these assets in Verger Capital Fund. The University has established three individual unitized endowment pools for WFU, Reynolda House, and WFUHS. The internal long-term pools are reported on a fair value basis, with each individual fund subscribing to or disposing of units based on the fair value per unit at the beginning of each quarter within which the transaction took place.

From time to time, the fair value of assets associated with individual donor-restricted endowment funds may fall below the value of the original gift. Deficiencies of this nature are reported in unrestricted net assets as follows: Reynolda Campus and WFUHS, respectively, were $5,831 and $1,168 as of June 30, 2018; and $8,829 and $1,474 as of June 30, 2017.

Endowment net assets consist of the following at June 30, 2018 and 2017:

	2018				2017
	Unrestricted	**Temporarily restricted**	**Permanently restricted**	**Total**	**Total**
Reynolda Campus:					
Donor-restricted endowment funds	$ (5,831)	223,573	375,753	593,495	489,858
Board-designated endowment funds	230,617	—	—	230,617	229,878
Total endowment net assets	$ 224,786	223,573	375,753	824,112	719,736
WFUHS:					
Donor-restricted endowment funds	$ (1,168)	50,878	154,576	204,286	195,291
Board-designated endowment funds	300,857	—	—	300,857	290,296
Total endowment net assets	$ 299,689	50,878	154,576	505,143	485,587

(Dollars in thousands)

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

	2018				
	Unrestricted	**Temporarily restricted**	**Permanently restricted**	**Total**	**2017 Total**
Reynolda Campus:					
Beginning balance	$ 221,049	219,694	278,993	719,736	686,322
Investment return:					
Investment income net of fees	333	(3,242)	(158)	(3,067)	(2,471)
Net appreciation	10,431	30,564	1,358	42,353	52,012
Total investment return	10,764	27,322	1,200	39,286	49,541
Contributions	1,777	2,112	96,342	100,231	19,436
Appropriation for expenditure	(7,963)	(25,449)	(1,109)	(34,521)	(35,950)
Transfers due to donor redesignations	—	(106)	77	(29)	(113)
Transfers to (from) Board-designated funds	(841)	—	250	(591)	500
Ending balance	$ 224,786	223,573	375,753	824,112	719,736

	2018				
	Unrestricted	**Temporarily restricted**	**Permanently restricted**	**Total**	**2017 Total**
WFUHS:					
Beginning balance	$ 288,822	50,189	146,576	485,587	454,890
Investment return:					
Investment income net of fees	1,961	1,443	126	3,530	4,879
Net appreciation	12,699	7,010	620	20,329	26,578
Total investment return	14,660	8,453	746	23,859	31,457
Contributions	3,206	—	7,254	10,460	9,054
Appropriation for expenditure	(14,531)	(7,764)	—	(22,295)	(20,726)
Transfers	7,532	—	—	7,532	10,912
Ending balance	$ 299,689	50,878	154,576	505,143	485,587

(Dollars in thousands)

(8) Fair Values of Financial Instruments

The following table summarizes the valuation of the University’s financial assets and liabilities within the fair value hierarchy levels as of June 30:

			2018		
	Level 1	Level 2	Level 3	NAV	Total
Financial assets:					
Cash and cash equivalents	$ 83,542	—	—	—	83,542
Investments:					
Short-term investments	19,218	—	—	—	19,218
Absolute return	55,932	—	—	1,237,025	1,292,957
Commodities	20,240	—	—	—	20,240
Fixed income:					
Domestic	270,912	—	—	—	270,912
International	2,231	—	—	—	2,231
Private equity	—	—	1,832	74	1,906
Public equity:					
Domestic	51,641	—	—	—	51,641
International	27,820	—	—	—	27,820
Real estate	9,634	—	5,678	—	15,312
Beneficial interest in perpetual trusts and assets held by others	—	—	29,614	—	29,614
Other	3,632	69,578	—	104,930	178,140
Total assets	$ 544,802	69,578	37,124	1,342,029	1,993,533
Financial liabilities:					
Other liabilities and deferrals:					
Interest rate swap agreements	$ —	16,126	—	—	16,126
Annuities payable	—	19,457	—	—	19,457
Total liabilities	$ —	35,583	—	—	35,583

(Continued)

(Dollars in thousands)

	2017				
	Level 1	Level 2	Level 3	NAV	Total
Financial assets:					
Cash and cash equivalents	$ 65,143	—	—	—	65,143
Investments:					
Short-term investments	53,447	—	—	—	53,447
Absolute return	39,766	—	—	1,141,346	1,181,112
Commodities	19,422	—	—	—	19,422
Fixed income:					
Domestic	259,073	—	—	—	259,073
International	2,731	—	—	—	2,731
Private equity	—	—	1,748	98	1,846
Public equity:					
Domestic	45,374	—	—	—	45,374
International	33,588	—	—	—	33,588
Real estate	10,808	—	—	—	10,808
Beneficial interest in perpetual trusts and assets held by others	—	—	24,311	—	24,311
Other	3,785	58,981	—	53,746	116,512
Total assets	$ 533,137	58,981	26,059	1,195,190	1,813,367
Financial liabilities:					
Other liabilities and deferrals:					
Employee benefits	$ —	58,981	—	—	58,981
Interest rate swap agreements	—	21,722	—	—	21,722
Annuities payable	—	27,572	—	—	27,572
Total liabilities	$ —	108,275	—	—	108,275

The classification of investments in the fair value hierarchy is not necessarily an indication of the risks or liquidity of each investment's underlying assets and liabilities. In general, for Level 2 and Level 3 investments, the University utilizes the investment manager to provide a valuation estimate based on disclosed techniques and processes, which have been reviewed for propriety and consistency with consideration given to type and investment strategy.

The University's policy is to recognize transfers into and out of Levels 1, 2, and 3 as of the end of the year or when a change in level becomes known. There were no transfers between Level 1 and Level 2 securities during the year ended June 30, 2018. Transfers into and out of Level 3 are typically the result of a change in observation of significant valuation inputs required by various models.

(Dollars in thousands)

Fair value for LIBOR-based interest rate swaps is determined using a relative price approach, by discounting the future expected cash flows at the market discount rate. For the variable leg of a swap, the expected cash flows are based on implied market forward rates for the appropriate underlying index. A credit value adjustment is applied to the total market value of the swap and quantifies the default risk of a counterparty using a default probability assumption based on the counterparty's credit default swap pricing at year-end.

Obligations under split-interest agreements reported in annuities payable, which approximates fair value, were discounted at a rate that is equivalent to the University's tax-exempt borrowing rate of 2.83% and 2.18% at June 30, 2018 and 2017, respectively.

The following table presents the reconciliation of Level 3 assets measured at fair value for the year ended June 30, 2018. Both observable and unobservable inputs may be used to determine the fair value of positions that the University has classified as Level 3.

	Balance as of June 30, 2017	Total realized and unrealized losses	Purchases	Sales	Net transfers out of Level 3	Balance as of June 30, 2018
Investments:						
Private equity	$ 1,748	(126)	350	(30)	(110)	1,832
Real estate	—	—	5,678	—	—	5,678
Beneficial interests in perpetual trusts and assets held by others	24,311	603	5,436	(736)	—	29,614
Total Level 3 investments	$ 26,059	477	11,464	(766)	(110)	37,124

Private investments are generally made through limited partnership agreements where the University is normally one of many limited partners. Under the terms of such agreements, the University is required to provide funding, up to the total amount committed by the University, when fund managers make capital calls. These partnerships have a stated maturity date, but can provide for annual extensions for the purpose of disposing remaining portfolio positions and returning capital to investors. Alternatively, the fund may dispose of all portfolio investments and return all capital to investors before the stated maturity date. While the timing and amount of future capital calls and distributions in any particular year are inherently uncertain, the University considers these factors when allocating to private investments and believes that it has adequate liquidity to meet its obligations.

(Dollars in thousands)

As of June 30, 2018, redemption frequency and the corresponding notice period for all investments are as follows:

Category	Redemption frequency (in days) (if currently eligible)	Redemption notice period (in days)
Short-term investments	1 to 7 days	1 day
Absolute return	daily to >365	1 to 90 days
Commodities	1 to N/A	1 to N/A
Fixed income:		
Domestic	1 to 180 days	daily to monthly
International	N/A	N/A
Private equity	N/A	N/A
Public equity:		
Domestic	1 to 65 days	daily to quarterly
International	90 days	quarterly
Real estate	N/A	N/A
Beneficial interest in perpetual trusts and assets held by others	N/A	N/A
Other	N/A	N/A

(9) Land, Buildings, and Equipment

Land, buildings, and equipment are summarized as follows at June 30, 2018 and 2017:

	2018			2017
	Reynolda Campus	WFUHS	Total	Total
Land and improvements	$ 35,301	110,274	145,575	131,459
Buildings and other improvements	799,655	432,477	1,232,132	1,149,778
Equipment and furnishings	132,872	264,450	397,322	377,874
Construction in progress	99,109	13,253	112,362	91,152
	1,066,937	820,454	1,887,391	1,750,263
Less accumulated depreciation	(428,863)	(464,561)	(893,424)	(825,966)
	$ 638,074	355,893	993,967	924,297

Total depreciation expense on buildings, improvements, equipment, and furnishings was $75,626 and $67,816 for the years ended June 30, 2018 and 2017, respectively.

(Continued)

(Dollars in thousands)

The University's policy is to capitalize interest cost incurred on debt during the construction of major projects exceeding one year. Interest cost of $4,399 and $4,186 was capitalized in the years ended June 30, 2018 and 2017, respectively.

The liabilities associated with AROs for the years ended June 30, 2018 and 2017, respectively, were $6,108 and $6,775 for Reynolda Campus, and $2,652 and $2,692 for WFUHS. These liabilities are reported in other liabilities and deferrals on the accompanying consolidated balance sheet.

(10) Notes, Capital Leases, and Bonds Payable

Notes, capital leases, and bonds payable at June 30, 2018 and 2017 consist of the following:

Reynolda Campus	Years to nominal maturity	Interest rate at June 30, 2018			2018	2017
Notes payable and capital leases:						
Line of credit	>1	LIBOR plus 0.75%	Variable	$	80,328	40,753
Promissory note	>1	LIBOR plus 0.65%	Variable		12,000	4,107
Promissory note	<1	4.00%	Fixed		—	50
Lease and installment loans	<1 to 4	0.81% to 1.82%	Fixed		4,778	6,085
Total notes payable and capital leases					97,106	50,995
Bonds payable:						
2004 Series A tax-exempt	<1 to 2	91 day US T-bill	Variable		14,425	17,545
2004 Series B tax-exempt		91 day US T-bill	Variable		—	3,730
2012 Series serial taxable	24	2.60% to 3.10%	Fixed		20,425	20,425
2012 Series term taxable	24	3.45% to 3.70%	Fixed		104,575	104,575
2016 Series serial tax-exempt	28	4.00% to 5.00%	Fixed		136,730	136,730
2016 Series term tax-exempt	28	2.75% to 3.00%	Fixed		22,370	22,370
Unamortized bond premium					18,115	18,757
Unamortized bond issuance costs					(2,009)	(2,113)
Total bonds payable					314,631	322,019
Total notes payable, capital leases, and bonds payable				$	411,737	373,014

Reynolda Campus entered into a capital projects financing agreement with Branch Banking and Trust Company that permits the University to borrow up to $100,000. This line of credit refinanced and consolidated the previously held lines of credit, totaling $100,000. The line of credit is due on March 31, 2020 and bears interest at the one-month LIBOR plus 0.50%.

Reynolda Campus entered into a financing agreement with Branch Banking and Trust Company to finance the purchase and implementation of an enterprise resource-planning program that permits the University to borrow up to $12,000. The term loan is due on July 1, 2026 and bears interest at the one-month LIBOR plus 0.75%.

Reynolda Campus leases various equipment under lease and installment loans expiring at various dates through 2022.

(Dollars in thousands)

Reynolda Campus has outstanding $14,425 of tax-exempt North Carolina Facilities Finance Agency Revenue Bonds, Series 2004A and Series 2004B. The obligations of the University are evidenced by a loan agreement dated December 1, 2004, by and between the University and Branch Banking and Trust Company, as trustee. The Series 2004 tax-exempt bonds are due annually through 2020 in varying amounts from $7,085 to $7,340. The interest rate on the bonds is determined weekly, and at the option of the University may be converted to a fixed rate. The University's obligation under the loan agreement is an unsecured, unconditional obligation. There are no related covenants underlying the bonds and the University has complied with all continuing disclosure requirements.

The Series 2012 taxable bonds are evidenced by a loan agreement dated August 2, 2012, by and between the University and Branch Banking and Trust Company, as trustee. The Series 2012 taxable bonds have final maturities of January 15, 2027 for the serial bonds and January 15, 2042 for the term bonds. The 2012 bonds maturing on January 15, 2032 and 2042 are subject to mandatory sinking fund redemptions through 2032 and 2042 in increasing annual amounts of $5,445 to $6,205 and $6,405 to $8,830, respectively. Interest is payable each January 15 and July 15. The University's obligation under the loan agreement is an unsecured, unconditional obligation. There are no related covenants underlying the bonds and the University has complied with all continuing disclosure requirements.

Reynolda Campus issued $159,100 of tax-exempt North Carolina Capital Facilities Finance Agency Educational Facilities Revenue and Revenue Refunding Bonds, Series 2016. The 2016 Series bonds were issued for the purpose of the current refunding and defeasance of the Series 2009 tax-exempt bonds ($110,000) and financing the costs of acquisition, construction, renovation and installation of capital assets of the Reynolda Campus. The Series 2016 tax-exempt bonds are evidenced by a loan agreement dated July 1, 2016, by and between the University and Branch Banking and Trust Company, as trustee. The Series 2016 tax-exempt bonds have final maturities of January 1, 2039 for the series bonds and January 1, 2041 and 2046 for the term bonds. The 2016 bonds maturing on January 1, 2040 and 2046 are subject to mandatory sinking fund redemptions through 2041 and 2046 with annual amounts of $1,720 to $2,930 and $1,290 to $3,485, respectively. Interest is payable each January 1 and July 1. The University's obligation under the loan agreement is an unsecured, unconditional obligation. There are no related covenants underlying the bonds and the University has complied with all continuing disclosure requirements.

WFUHS	Years to nominal maturity	Interest rate at June 30, 2018		2018	2017
Notes payable and capital leases:					
Line of credit	>1	LIBOR plus 0.65%	Variable	$ 7,449	8,488
Loan agreement	<1 to 10	LIBOR plus 0.65%	Variable	9,674	11,675
Loan agreement	<1 to 2	LIBOR plus 0.55%	Variable	48,035	—
Loan agreement	<1 to 7	LIBOR plus 1.05%	Variable	4,284	—
Capital lease	15	4.5%	Fixed	42,139	43,156
Total notes payable				111,581	63,319

(Dollars in thousands)

WFUHS	Years to nominal maturity	Interest rate at June 30, 2018			2018	2017
Bonds payable:						
Series 2012 B	<1 to 16	2.00%–5.00%	Fixed	$	94,520	98,415
Series 2012 C	<1 to 16	SIFMA plus 0.74%	Variable		—	50,355
Unamortized bond premium					12,050	12,832
Unamortized bond issuance costs					(707)	(1,124)
Total bonds payable					105,863	160,478
Total notes payable, capital leases, and bonds payable				$	217,444	223,797

Effective March 26, 2011, NCBH, WFUHS, and WFUBMC formed a single obligated group (Obligated Group) under the existing NCBH MTI. New obligations were issued to WFUHS obligation holders under the NCBH MTI. In addition, substantially all of the subsidiaries of NCBH and WFUHS were included in the single credit group as Designated Members (Combined Group). Under the new credit structure, each member of the Obligated Group is jointly and severally liable for all debt and other obligations that are evidenced and secured under the MTI.

Bonds issued under the MTI are payable solely from the Obligated Group's revenues (as defined by the MTI). Additionally, the Combined Group must remain compliant with certain covenants and restrictions required by the MTI and loan agreements underlying the bonds. The Combined Group is subject to covenants under the MTI containing restrictions or limitations with respect to indebtedness, property encumbrance, consolidation or merger or transfer of assets. In addition, the Combined Group has agreed that it will not create any lien upon its property, accounts, or revenue now owned or hereafter acquired other than "permitted liens" as described in the MTI. WFUHS believes it is in compliance with such covenants and restrictions as of June 30, 2018. As of June 30, 2018, WFUHS is jointly and severally liable for $458,461 of bonds payable borrowed by the other members of the Obligated Group and for $11,749 and $35,221 under WFUBMC's line of credit and notes payable. Because WFUHS does not expect to fund repayment of any of the amounts attributed to the other members of the Obligated Group under the MTI, no portion of these amounts meets the criteria for liability recognition in the accompanying consolidated financial statements.

The Series 2012 Revenue Bonds represent bonds issued by Wake Forest Baptist Obligated Group, representing funds borrowed by the entities pursuant to loan agreements with the North Carolina Medical Care Commission (NCMCC). As a conduit issuer, the NCMCC loans the debt proceeds to the borrower and the bonds are issued by the NCMCC under a MTI structure. The MTI provides the flexibility for multiple parties to participate in the debt issuances as part of an obligated group.

The Series 2012B bonds mature in full in fiscal year 2034. The fixed rate instruments bear interest at fixed coupon rates ranging from 2.00% to 5.00%. Per the bond agreements, the principal and sinking fund payments on the bonds are due on December 1 of each year beginning in 2016 and in increasing annual amounts of $3,385 to $7,000.

(Dollars in thousands)

The Series 2012C bonds mature in full in fiscal year 2034. The bonds were issued in the Index Floating Rate Mode and bear interest at an Index Floating Rate based on the SIFMA Index plus a spread of 0.74%. At the option of WFUHS, the bonds may be converted to various interest rate modes.

WFUHS entered into an unsecured, taxable line of credit agreement with a total borrowing capacity of $75,000 to provide for the working capital needs of NCBH, WFUHS, and the Medical Center, all Borrowers under the credit facility. The line of credit is due on June 9, 2020 and bears interest at the one-month LIBOR plus 0.65%.

WFUHS entered into an unsecured loan agreement, with a variable interest rate based upon the one-month LIBOR plus a premium of 0.65% for $20,014 to refinance two previously outstanding fixed rate notes. Fixed principal payments and accrued interest are due monthly with a final maturity date of April 1, 2023. This taxable loan is guaranteed by both NCBH and WFUBMC.

WFUHS entered into an unsecured loan agreement, with a variable interest rate based upon the one-month LIBOR plus a premium of 0.55% for $50,355 to refinance the previously outstanding Series 2012C bonds. Principal payments and due on December 1 of each year with monthly interest payments and a bullet maturity date of October 1, 2019. This loan agreement is guaranteed by both NCBH and WFUBMC.

A WFUHS subsidiary entered into a notes payable obligation, with variable interest rates based on one-month LIBOR plus a premium of 1.05% and final maturities in 2021 and 2025.

WFUHS entered into a capital lease obligation of $44,125 related to the Bowman Gray Center for Medical Education with an initial term of 15 years and additional renewal options. The obligation has a fixed interest rate of 4.5%.

Aggregate annual maturities of notes, capital leases, and bonds payable (including premiums and bond issuance costs) for each of the five fiscal years subsequent to June 30, 2018 and thereafter are as follows:

	Reynolda Campus	WFUHS	Total
2019	$ 11,027	10,038	21,065
2020	91,460	60,403	151,863
2021	4,327	7,575	11,902
2022	3,395	7,641	11,036
2023	3,447	7,483	10,930
In total thereafter	298,081	112,961	411,042
	$ 411,737	206,101	617,838

Costs related to the registration and issuance of bonds are carried at cost less accumulated amortization and are amortized over the life of the bonds on a method that approximates the effective-interest method and are included in bonds payable on the accompanying consolidated balance sheet. Total amortization expense for issue costs and premium is included in interest expense in the consolidated statements of activities.

(Dollars in thousands)

(11) Interest Rate Swap Agreements

To manage the fixed/variable allocation of its debt portfolio, including hedging exposure to increasing interest expense from variable rate debt, the University utilizes interest rate swap agreements. The University has only limited involvement with derivative instruments and does not use them for trading purposes.

Parties to interest rate swap agreements are subject to market risk for changes in interest rates as well as credit loss in the event of nonperformance by the counterparty. To minimize this exposure, the University verifies that the counterparties for these swap transactions are major financial institutions that meet the University's criteria for financial stability and creditworthiness. Additionally, the University is exposed to tax basis risk since a change in tax rate environments will change the level of correlation between the interest rate payments made on the variable rate bonds and the percentage of LIBOR payments being received from the counterparties.

The following table summarizes the general terms for each of the University's swap agreements:

	Reynolda Campus			WFUHS
	November 2006 interest rate swap	**October 2008 interest rate swap**	**December 2016 interest rate swap**	**August 2002 interest rate swap**
Notional amount	$ 14,425	50,000	12,000	21,856
Effective date	November 6, 2006	October 1, 2008	December 28, 2016	August 20, 2002
Maturity date	January 1, 2020	January 1, 2038	July 1, 2026	July 1, 2034
Rate received	67% of one-month LIBOR	67% of one-month LIBOR	67% of one-month LIBOR	67% of one-month LIBOR
Rate paid	3.38 %	3.61 %	2.44 %	3.67 %
Collateral provisions	None	100% liability if > $20,000	None	100% asset/ liability – $250 min
Settlement frequency	Monthly	Monthly	Monthly	Weekly

The University records all interest rate swap agreements in other liabilities and deferrals on the consolidated balance sheet at their respective fair values. The estimated amount the University would pay to terminate the swap agreements at the reporting date, taking into account current forward interest rates and the current forward creditworthiness of the swap counterparties, approximates the fair value of the interest rate swap. All changes in fair value are reflected as a gain or loss in nonoperating activities in the consolidated statement of activities. Periodic net cash settlement amounts with counterparties are accounted for as adjustments to interest expense on the related debt and collateral to support the swaps is included in investments on the consolidated balance sheet. Collateral held by counterparties at June 30, 2018 and 2017, respectively, was $0 for Reynolda Campus, and $3,090 and $4,600 for WFUHS.

(Continued)

(Dollars in thousands)

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

	2018		2017	
	Fair value	**Gain**	**Fair value**	**Gain (loss)**
Reynolda Campus:				
November 2006 interest rate swap	$ (272)	475	(747)	758
October 2008 interest rate swap	(12,839)	3,574	(16,413)	6,731
December 2016 interest rate swap	125	304	(179)	(179)
Total	(12,986)	4,353	(17,339)	7,310
WFUHS:				
August 2002 interest rate swap	(3,140)	1,244	(4,384)	1,887
Grand total	$ (16,126)	5,597	(21,723)	9,197

As of June 30, 2018, the University's adjusted debt portfolio, after taking into account the aforementioned swap agreements, was 93% fixed rate for Reynolda Campus, and approximately 79% fixed rate for WFUHS.

(12) Net Assets

Temporarily restricted net assets are composed of the following at June 30, 2018 and 2017:

	2018			
	Reynolda Campus	**WFUHS**	**Total**	**2017 Total**
Gifts and pledges	$ 125,337	7,468	132,805	139,540
Donor-restricted endowments	228,704	50,878	279,582	273,534
	$ 354,041	58,346	412,387	413,074

(Continued)

(Dollars in thousands)

Such temporarily restricted net assets are available for the following purposes as of June 30, 2018 and 2017:

	2018			2017
	Reynolda Campus	WFUHS	Total	Total
Student scholarships	$ 215,979	2,942	218,921	206,967
Instruction and research	55,370	36,712	92,082	99,583
Academic support	36,084	11,176	47,260	50,065
Subsequent period operations, capital, and other	46,608	7,516	54,124	56,459
	$ 354,041	58,346	412,387	413,074

Permanently restricted net assets are composed of the following at June 30, 2018 and 2017:

	2018			2017
	Reynolda Campus	WFUHS	Total	Total
Donor-restricted endowments	$ 375,977	154,576	530,553	425,720
Gifts and pledges	21,249	2,117	23,366	90,864
Student loan funds	—	5,006	5,006	4,980
Interests in perpetual trusts and assets held by others	5,110	12,672	17,782	18,218
Annuity and other split-interest agreements	12,455	2,008	14,463	7,581
	$ 414,791	176,379	591,170	547,363

(Continued)

(Dollars in thousands)

The future return on the following donor-restricted endowments is restricted for the following purposes as of June 30, 2018 and 2017:

		2018			
		Reynolda Campus	WFUHS	Total	2017 Total
Student scholarships	$	276,239	33,764	310,003	216,767
Instruction and research		62,322	104,298	166,620	159,149
Academic support		29,936	16,514	46,450	40,660
Subsequent period operations and other		7,480	—	7,480	9,144
	$	375,977	154,576	530,553	425,720

(13) Functional Expenses

Expenses are reported in the consolidated statements of activities in natural categories. Functional expenses for the years ended June 30, 2018 and 2017 are categorized as follows:

		2018			
		Reynolda Campus	WFUHS	Total	2017 Total
Instruction and departmental research	$	143,195	82,100	225,295	220,590
Patient services		—	690,615	690,615	654,690
Sponsored research, training, and other programs		10,097	195,017	205,114	202,366
Organized activities		2,952	—	2,952	2,730
Academic support		31,550	15,724	47,274	46,312
Libraries		16,226	3,207	19,433	19,266
Student services		34,678	1,399	36,077	33,028
Institutional support		81,139	25,660	106,799	126,828
Auxiliary enterprises		97,415	—	97,415	88,914
Total operating expenses	$	417,252	1,013,722	1,430,974	1,394,724

Functional expenses are reported in categories recommended by the National Association of College and University Business Officers. The expenses are reported in these functional categories after the allocation of plant operation and maintenance expense, depreciation expense, accretion expense, and interest expense. The University's primary program services are instruction, patient services, sponsored research, and organized activities. Expenses reported as academic support, libraries, student services, institutional support, and auxiliary enterprises are incurred in support of these primary program services.

(Dollars in thousands)

Plant operation and maintenance expense, depreciation expense, accretion expense, and interest expense are allocated to program and supporting activities based on a percentage allocation and periodic assessment of facilities usage, for Reynolda Campus and WFUHS, respectively.

(14) Contingencies and Other Commitments

The University maintains rental properties and has entered into long-term operating lease agreements for this real estate providing for future rental income as follows:

	Reynolda Campus	WFUHS	Total
Year ending June 30:			
2019	$ 10,725	978	11,703
2020	10,940	994	11,934
2021	10,359	1,011	11,370
2022	10,314	1,028	11,342
	$ 42,338	4,011	46,349

Total income from real estate was $11,297 and $10,803 for Reynolda Campus and $1,232 and $1,607 for WFUHS for the years ended June 30, 2018 and 2017, respectively.

In 2018, the Reynolda Campus amended an outstanding lease agreement associated with occupying space in the Wake Forest Innovation Quarter. The initial lease term is 15 years with two renewal options for a 5-year and 14-year period, respectively. The lease is classified as an operating lease. Operating lease payments are due monthly and expected payments each year from 2019 to 2023 are $2,860, $2,917, $2,976, $3,035 and $3,096, respectively, and $22,173 thereafter.

The estimated cost to complete construction in progress at June 30, 2018 and 2017, respectively, were $66,618 and $121,454 for Reynolda Campus, and $25,603 and $23,799 for WFUHS.

Expenditures related to federal and state grants and contracts are subject to adjustment based upon review by the granting agencies. Amounts of expenditures that granting agencies might disallow cannot be determined at this time. These amounts affect government grants and contracts revenue as well as facilities and administrative cost recovery. The University would not expect these costs to influence the consolidated financial position significantly.

Expenditures and indirect costs related to federal and state grants and contracts are subject to adjustment based upon review by the granting agencies. The amounts, if any, of expenditures, which may be disallowed by the granting agencies cannot be determined at this time, although management expects they will not have a material effect on the University’s consolidated financial statements.

(Continued)

The University is self-insured for dental benefits, self-insured or fully insured for retiree medical benefits (depending on retiree benefit elections), and self-insured for active employees receiving medical benefits. The University provides an accrual for actual claims reported but not paid and a provision for incurred but not reported claims based on historical trends. Accrued employee health and dental costs, including estimated claims incurred but not reported, amounted to approximately $928 and $1,421 at June 30, 2018 and 2017, respectively, for Reynolda Campus and $4,775 and $4,586 at June 30, 2018 and 2017, respectively, for WFUHS and are included in other liabilities in the accompanying consolidated balance sheet.

The estimated liability for self-insurance 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 self-insurance 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.

The University self-insures workers' compensation liability with excess commercial insurance providing per loss and aggregate annual coverage. The University provides an accrual for actual claims reported but not paid and a provision for incurred but not reported claims based on historical trends.

The estimated liability for workers' compensation 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 self-insurance 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.

Under the Health Insurance Portability and Accountability Act of 1996 (HIPPA), the federal government has authority to complete fraud and abuse investigations. HIPPA has established substantial fines and penalties for offenders. WFUHS maintains policies, procedures and requires regular training sessions to employers to monitor compliance with HIPPA, as well as other applicable local, state and federal statutes and regulations.

The University is involved in legal actions arising in the normal course of activities and is subject to periodic audits and inquiries by regulatory agencies. Although the ultimate outcome of such matters is not determinable at this time, management, after taking into consideration advice of legal counsel, believes that the resolutions of pending matters will not have a materially adverse effect, individually or in the aggregate, upon the University's consolidated financial statements.

(15) Sale-Leaseback Agreement

In 2006, WFUHS entered into a sale-leaseback agreement to sell and lease back certain assets. The initial lease term is 20 years with four 5-year renewal options. The lease is classified as an operating lease. Operating lease expected payments in each year from 2019 to 2023 are $7,821, $7,899, $7,978, $8,058 and $8,139, respectively, and $32,136 thereafter.

In 2010, WFUHS entered into another sale-leaseback agreement to sell and lease back certain assets. The initial lease term is 16 years with three 5-year renewal options. The lease is classified as an operating lease. Operating lease payments are due monthly and expected payments each year from 2019 to 2023 are $5,779, $5,924, $6,072, $6,223 and $6,379, respectively, and $27,151 thereafter.

WFUHS has a deferred gain related to the sale and leaseback of certain assets. The deferred gain was $17,234 and $19,180 at June 30, 2018 and 2017, respectively, and is included in other liabilities and deferrals in the accompanying consolidated balance sheet.

(16) Retirement Plans

Substantially all employees of the University are eligible to participate in defined contribution benefit plans. The University contributes a specified percentage of each employee's salary to the plans. Contributions for the years ended June 30, 2018 and 2017, respectively, were $13,575 and $13,089 for Reynolda Campus and $30,958 and $29,358 for WFUHS.

Certain employees of the University are eligible to participate in other benefit plans including a defined supplemental executive retirement plan, deferred compensation arrangements, and supplemental retirement agreements. The Reynolda Campus and WFUHS have accrued $1,532 and $5,967 at June 30, 2018, respectively, and $4,345 and $6,948 at June 30, 2017, respectively, for liabilities associated with these plans. These liabilities are included in other liabilities and deferrals on the consolidated balance sheet.

(17) Postretirement Benefits

The University sponsors defined benefit postretirement medical and dental plans that cover all of its full-time employees who elect coverage and satisfy the plans' eligibility requirements when they retire. In addition, Reynolda Campus sponsors a death benefit plan, which pays a $2 benefit for each retiree. To be eligible, retired employees of Reynolda Campus must be at least 62 years of age with ten or more years of service or be at least 65 years of age with five or more years of service.

WFUHS sponsors a defined benefit postretirement medical and dental plan that covers all WFUHS full-time employees who elect coverage and satisfy the plan eligibility requirements when they retire. On June 2, 2011, the Board of WFUHS approved that effective as of January 1, 2012; the defined benefit postretirement plan would be discontinued for most future retirees. The minimum age required for postretirement benefits will increase from 60 to 62. However, the additional requirement of the Rule of 75 (age and years of service) remains unchanged. All current retirees and currently eligible employees previously grandfathered will continue to be eligible for benefits under this plan. Any WFUHS employee who is within 5 years of meeting the new retirement eligibility of age 62 with combined age and years of service equal to at least 75 as of January 1, 2012 will be grandfathered into this benefit.

The measurement date for the defined postretirement benefit plan is June 30.

(Dollars in thousands)

The following table provides a reconciliation of the changes in each plan's benefit obligation, fair value of plan assets, and funded status for the years ended June 30, 2018 and 2017:

	2018			
	Reynolda Campus	**WFUHS**	**Total**	**2017 Total**
Change in benefit obligation:				
Benefit obligation at beginning of year	$ 12,860	38,068	50,928	56,001
Service cost	566	33	599	946
Interest cost	501	1,412	1,913	2,039
Participants' contributions	352	402	754	819
Actuarial gain	(623)	(3,363)	(3,986)	(6,039)
Benefits paid	(689)	(2,155)	(2,844)	(2,838)
Benefit obligation at end of year	12,967	34,397	47,364	50,928
Change in plan assets:				
Fair value of plan assets at beginning of year	—	—	—	—
Employer's contributions	337	1,753	2,090	2,019
Participants' contributions	352	402	754	819
Benefits paid	(689)	(2,155)	(2,844)	(2,838)
Fair value of plan assets at end of year	—	—	—	—
Total liability	$ (12,967)	(34,397)	(47,364)	(50,928)
Amounts recognized in unrestricted net assets:				
Prior service (cost) credit	$ (3,795)	136	(3,659)	(4,003)
Net actuarial loss	(3,180)	(1,994)	(5,174)	(8,655)
Total decrease	$ (6,975)	(1,858)	(8,833)	(12,658)

(Dollars in thousands)

The following table provides the components of net periodic benefit cost for the years ended June 30, 2018 and 2017:

	2018			
	Reynolda Campus	**WFUHS**	**Total**	**2017 Total**
Service cost	$ 566	33	599	945
Interest cost	501	1,412	1,913	2,039
Amortization of prior service credit	(374)	(30)	(404)	(403)
Amortization of net actuarial (gain) loss	(99)	643	544	1,337
Net periodic benefit cost	$ 594	2,058	2,652	3,918

The prior service costs are amortized on a straight-line basis over the average remaining service period of active participants. Gains in excess of 10% of the greater of the benefit obligation and the market-related value of assets are amortized over the average remaining service period of active participants.

The actuarial net gain and prior service credit for the defined postretirement benefits plans that will be amortized from accumulated nonoperating income into net periodic benefit cost over the next fiscal year for Reynolda Campus and WFUHS are $510 and $0, respectively.

The weighted average discount rate used to determine the accumulated postretirement benefit obligation at June 30, 2018 for Reynolda Campus and WFUHS, respectively, was 4.34% and 4.26%, and at June 30, 2017 was 3.99% and 3.83%, respectively. The discount rate reflects the current yield curve results as of June 30, 2018 and 2017. For management purposes, Reynolda Campus used 6.80% and 7.00%, and WFUHS used 7.67% and 7.32% for 2018 and 2017, respectively, for the annual rate of increase in the per capita cost of covered healthcare benefits for the first year, and a 4.50% rate was assumed in each year as the ultimate rate.

(Dollars in thousands)

Assumed healthcare cost trend rates have a significant effect on the amounts reported for the postretirement benefit plan. A 1% change in assumed healthcare cost trend rates would have the following effects:

		One percentage increase	One percentage decrease
Reynolda Campus:			
Effect on total service and interest cost components of net periodic benefit cost	$	211	(186)
Effect on postretirement benefit obligation		22	(19)
WFUHS:			
Effect on total service and interest cost components of net periodic benefit cost	$	1	(1)
Effect on postretirement benefit obligation		24	(24)

Aggregate benefits expected to be paid by the University, net of participant contributions, for the postretirement benefits plans are as follows:

		Reynolda Campus	WFUHS	Total
2019	$	526	2,274	2,800
2020		545	2,249	2,794
2021		620	2,246	2,866
2022		673	2,229	2,902
2023		737	2,157	2,894
Five years thereafter		4,442	11,061	15,503
	$	7,543	22,216	29,759

The expected benefits to be paid are based on the same assumptions used to measure the University's benefit obligation at June 30, 2018 and include estimated future employee service.

Recent federal healthcare legislation includes several provisions that may affect the University's benefit plans, including imposing an excise tax on high cost coverage, eliminating lifetime and annual coverage limits, and imposing inflation-adjusted fees for each person covered by a health insurance policy for each policy plan year ending after September 30, 2012, through September 30, 2019. For the postretirement benefit plan, the changes due to recent federal healthcare legislation did not change the postretirement benefit obligation for Reynolda Campus and WFUHS.

(Continued)

(Dollars in thousands)

(18) Related-Party Transactions

WFUHS and NCBH each incur expenses in the course of managing WFB as an integrated academic medical center. These expenses are aggregated and allocated between WFUHS and NCBH such that each individual entity bears a share of the expenses that is proportionate to the benefit received by each entity. Additionally, WFUHS and NCBH share certain facilities, provide various services, and incur certain expenses on behalf of each other. These transactions are recorded at fair value and the costs associated with operating and maintaining jointly occupied facilities are ultimately paid by the party having beneficial occupancy.

These transactions are recorded as follows in the consolidated financial statements:

		2018	2017
Revenue from MCIA	$	177,143	250,188
Corporate service allocation, net		65,672	40,897
Other professional fees, net		74,912	(18,518)
Total net revenue from NCBH	$	317,727	272,567
Accounts payable to NCBH	$	(25,694)	(24,978)

In 2015, WFUBMC entered into an unsecured, taxable line of credit with a total borrowing capacity of $125,000 and a $60,000 unsecured loan agreement that is guaranteed by both NCBH and WFUHS. In 2018, WFUBMC refinanced the line of credit, bringing its total borrowing capacity to $75,000. The outstanding balance on the line of credit was $19,200 and $20,238 as of June 30, 2018 and 2017, respectively, of which WFUHS recorded a liability of $7,449 and $8,488, respectively. The outstanding balance of the unsecured loan was $42,000 and $48,000 as of June 30, 2018 and 2017, respectively, of which WFUHS recorded a liability of $6,779 and $7,747, respectively, due to WFUBMC in other liabilities and deferrals that represented the portion of the unsecured loan utilized by WFUHS.

(19) Professional Liability Insurance

WFUHS maintains professional liability coverage, which included a $5,000 per occurrence and a $25,000 annual aggregate self-insurance retention for the year ended June 30, 2018. WFUHS estimates its professional liability on an actuarial basis. WFUHS' accrued professional liability costs, including estimated claims incurred but not reported, amounted to approximately $44,980 and $38,786 at June 30, 2018 and 2017, respectively, and are included in other liabilities and deferrals on the consolidated balance sheet. In the opinion of management, adequate provision has been made for the related risk.

The estimated liability for self-insurance 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 self-insurance 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.

(20) Subsequent Events

The University evaluated events subsequent to June 30, 2018, through October 23, 2018, the date of the issuance of the consolidated financial statements. During this period, the Reynolda Campus issued $97,900 of tax-exempt North Carolina Capital Facilities Finance Agency Educational Facilities Revenue and Revenue Refunding Bonds, Series 2018. The 2018 Series bonds were issued for the purpose of repaying a portion of the line of credit and financing the costs of acquisition, construction, renovation and installation of capital assets of the Reynolda Campus. The Series 2018 tax-exempt bonds are evidenced by a loan agreement dated July 1, 2018, by and between the University and Branch Banking and Trust Company, as trustee. The Series 2018 tax-exempt bonds have final maturities of January 1, 2039 for the series bonds and January 1, 2043 and 2048 for the term bonds. The 2018 bonds maturing on January 1, 2043 and 2048 are subject to mandatory sinking fund redemptions through 2043 and 2048 with annual amounts of $875 to $8,205 and $4,870 to $8,940, respectively. Interest is payable each January 1 and July 1. The University's obligation under the loan agreement is an unsecured, unconditional obligation.

The University did not identify any other material subsequent events for recognition or disclosure.