



WAKE FOREST UNIVERSITY

Independent Auditors' Reports as Required by Title 2 U.S. Code of Federal Regulations Part 200, Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards (Uniform Guidance) and *Government Auditing Standards* and Related Information

Year Ended June 30, 2017

WAKE FOREST UNIVERSITY

Table of Contents

| | Page |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| Independent Auditors' Report | 1 |
| Basic Consolidated Financial Statements – Year ended June 30, 2017 | 3 |
| Schedule of Expenditures of Federal Awards – Year ended June 30, 2017 | 46 |
| Schedule of Expenditures of State Awards – Year ended June 30, 2017 | 57 |
| Notes to Schedule of Expenditures of Federal Awards and Schedule of Expenditures of State Awards | 58 |
| Independent Auditors' Report on Internal Control over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance with <i>Government Auditing Standards</i> | 60 |
| Independent Auditors' Report on Compliance for Each Major Federal Program; Report on Internal Control over Compliance; and Report on Schedule of Expenditures of Federal Awards Required by Uniform Guidance and the Schedule of Expenditures of State Awards | 62 |
| Schedule of Findings and Questioned Costs | 65 |



KPMG LLP
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Independent Auditors' Report

The Board of Trustees
Wake Forest University:

Report on the Financial Statements

We have audited the accompanying consolidated financial statements of Wake Forest University (the University), which comprise the consolidated balance sheet as of June 30, 2017, 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 controls 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 and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the consolidated financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the consolidated financial position of Wake Forest University as of June 30, 2017, 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.



Report on Summarized Comparative Information

We have previously audited the 2016 consolidated financial statements, and we expressed an unmodified audit opinion on those audited consolidated financial statements in our report dated October 25, 2016. In our opinion, the summarized comparative information presented herein as of and for the year ended June 30, 2016 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.

Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated October 23, 2017 on our consideration of the University's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the University's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the University's internal control over financial reporting and compliance.

KPMG LLP

Greensboro, North Carolina
October 23, 2017

WAKE FOREST UNIVERSITY

Consolidated Balance Sheet

June 30, 2017

(with summarized comparative financial information as of June 30, 2016)

(Dollars in thousands)

| Assets | Supplementary information | | | |
|-----------------------------------------|----------------------------------|------------------|------------------|------------------|
| | Reynolda Campus | WFUHS | 2017 | 2016 |
| Cash and cash equivalents | \$ 46,198 | 18,945 | 65,143 | 95,868 |
| Accounts receivable, net | 9,349 | 111,254 | 120,603 | 85,990 |
| Patient receivables, net | — | 62,155 | 62,155 | 57,250 |
| Contributions receivable, net | 181,906 | 13,340 | 195,246 | 136,097 |
| Notes receivable, net | 22,025 | 642 | 22,667 | 23,714 |
| Investments | 1,001,781 | 746,443 | 1,748,224 | 1,700,008 |
| Direct investments in real estate | 18,529 | — | 18,529 | 19,763 |
| Other assets | 8,431 | 22,712 | 31,143 | 22,175 |
| Deposit with bond trustee | 13,462 | — | 13,462 | — |
| Land, buildings, and equipment, net | 578,453 | 345,844 | 924,297 | 817,047 |
| Total assets | \$ 1,880,134 | 1,321,335 | 3,201,469 | 2,957,912 |
| Liabilities and Net Assets | | | | |
| Liabilities: | | | | |
| Accounts payable and accruals | \$ 47,256 | 156,649 | 203,905 | 253,807 |
| Other liabilities and deferrals | 74,169 | 148,603 | 222,772 | 238,486 |
| Annuities payable | 23,961 | 3,611 | 27,572 | 27,351 |
| Notes payable and capital leases | 50,995 | 63,319 | 114,314 | 79,210 |
| Bonds payable | 322,019 | 160,478 | 482,497 | 430,218 |
| Postretirement benefits | 12,860 | 38,068 | 50,928 | 56,001 |
| Government grants refundable | 9,361 | — | 9,361 | 9,447 |
| Total liabilities | 540,621 | 570,728 | 1,111,349 | 1,094,520 |
| Net assets: | | | | |
| Unrestricted | 608,114 | 521,569 | 1,129,683 | 1,007,996 |
| Temporarily restricted | 352,305 | 60,769 | 413,074 | 400,173 |
| Permanently restricted | 379,094 | 168,269 | 547,363 | 455,223 |
| Total net assets | 1,339,513 | 750,607 | 2,090,120 | 1,863,392 |
| Total liabilities and net assets | \$ 1,880,134 | 1,321,335 | 3,201,469 | 2,957,912 |

See accompanying notes to consolidated financial statements.

WAKE FOREST UNIVERSITY

Consolidated Statement of Activities

Year ended June 30, 2017

(with summarized comparative financial information for the year ended June 30, 2016)

(Dollars in thousands)

| | 2017 | | | Total | 2016 Total |
|-----------------------------------------------------------------------------------------|--------------|---------------------------|---------------------------|-----------|---------------|
| | Unrestricted | Temporarily restricted | Permanently restricted | | |
| Operating revenues: | | | | | |
| Student tuition and fees | \$ 360,845 | — | — | 360,845 | 349,467 |
| Less student aid | (105,776) | — | — | (105,776) | (103,841) |
| Net student tuition and fees | 255,069 | — | — | 255,069 | 245,626 |
| Government grants and contracts | 183,691 | — | — | 183,691 | 167,966 |
| Private grants and contracts | 4,475 | 27,242 | — | 31,717 | 24,098 |
| Contributions | 34,038 | 8,595 | — | 42,633 | 38,364 |
| Investment return designated for current operations | 48,995 | 28,873 | — | 77,868 | 71,044 |
| Patient revenue, net | 486,469 | — | — | 486,469 | 473,959 |
| Other | 291,578 | — | — | 291,578 | 234,613 |
| Sales and services of auxiliary enterprises | 93,868 | — | — | 93,868 | 87,319 |
| Net assets released from restrictions | 63,690 | (63,690) | — | — | — |
| Total operating revenues | 1,461,873 | 1,020 | — | 1,462,893 | 1,342,989 |
| Operating expenses: | | | | | |
| Salaries and wages | 742,826 | — | — | 742,826 | 697,815 |
| Employee benefits | 197,555 | — | — | 197,555 | 162,565 |
| Student aid | 8,837 | — | — | 8,837 | 8,001 |
| Services | 200,318 | — | — | 200,318 | 197,403 |
| Clinical and laboratory supplies | 46,907 | — | — | 46,907 | 48,821 |
| Other operating expenses | 117,248 | — | — | 117,248 | 110,716 |
| Depreciation and amortization | 67,969 | — | — | 67,969 | 64,648 |
| Interest on debt | 15,802 | — | — | 15,802 | 17,489 |
| Total operating expenses | 1,397,462 | — | — | 1,397,462 | 1,307,458 |
| Operating excess | 64,411 | 1,020 | — | 65,431 | 35,531 |
| Nonoperating activities: | | | | | |
| Restricted contributions | — | 19,827 | 91,180 | 111,007 | 38,727 |
| Net assets released from restriction | 21,469 | (20,469) | (1,000) | — | — |
| Investment return in excess of (less than) amounts designated for current operations | 16,232 | 12,770 | 5,752 | 34,754 | (64,044) |
| Actuarial losses on annuity obligations | — | — | (2,784) | (2,784) | (1,839) |
| Unrealized gains (losses) on interest rate swaps | 9,197 | — | — | 9,197 | (8,824) |
| Postretirement related changes other than net periodic cost | 8,732 | — | — | 8,732 | 2,988 |
| (Losses) gains from affiliates, equity method | (48) | — | — | (48) | 3,706 |
| Other, net | 1,694 | (247) | (1,008) | 439 | (871) |
| Change from nonoperating activities | 57,276 | 11,881 | 92,140 | 161,297 | (30,157) |
| Change in net assets | 121,687 | 12,901 | 92,140 | 226,728 | 5,374 |
| Net assets at beginning of year | 1,007,996 | 400,173 | 455,223 | 1,863,392 | 1,858,018 |
| Net assets at end of year | \$ 1,129,683 | 413,074 | 547,363 | 2,090,120 | 1,863,392 |

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, 2017

(Dollars in thousands)

| | <u>Unrestricted</u> | <u>Temporarily restricted</u> | <u>Permanently restricted</u> | <u>Total</u> |
|-----------------------------------------------------------------------------|---------------------|-----------------------------------|-----------------------------------|------------------|
| Operating revenues: | | | | |
| Student tuition and fees | \$ 316,483 | — | — | 316,483 |
| Less student aid | (93,121) | — | — | (93,121) |
| Net student tuition and fees | 223,362 | — | — | 223,362 |
| Government grants and contracts | 10,290 | — | — | 10,290 |
| Private grants and contracts | 4,410 | — | — | 4,410 |
| Contributions | 26,852 | 11,027 | — | 37,879 |
| Investment return designated for current operations | 23,995 | 21,608 | — | 45,603 |
| Other | 9,430 | — | — | 9,430 |
| Sales and services of auxiliary enterprises | 93,868 | — | — | 93,868 |
| Net assets released from restrictions | 30,077 | (30,077) | — | — |
| Total operating revenues | <u>422,284</u> | <u>2,558</u> | <u>—</u> | <u>424,842</u> |
| Operating expenses: | | | | |
| Salaries and wages | 193,287 | — | — | 193,287 |
| Employee benefits | 51,961 | — | — | 51,961 |
| Student aid | 3,226 | — | — | 3,226 |
| Services | 50,776 | — | — | 50,776 |
| Other operating expenses | 48,552 | — | — | 48,552 |
| Depreciation and amortization | 36,135 | — | — | 36,135 |
| Interest on debt | 8,625 | — | — | 8,625 |
| Total operating expenses | <u>392,562</u> | <u>—</u> | <u>—</u> | <u>392,562</u> |
| Operating excess | <u>29,722</u> | <u>2,558</u> | <u>—</u> | <u>32,280</u> |
| Nonoperating activities: | | | | |
| Restricted contributions | — | 19,827 | 83,350 | 103,177 |
| Net assets released from restriction | 20,469 | (20,469) | — | — |
| Investment return in excess of amounts designated for current operations | 6,930 | 11,199 | 4,400 | 22,529 |
| Actuarial losses on annuity obligations | — | — | (2,048) | (2,048) |
| Unrealized gains on interest rate swaps | 7,310 | — | — | 7,310 |
| Postretirement related changes other than net periodic cost | 3,967 | — | — | 3,967 |
| Other, net | (1,444) | (247) | 660 | (1,031) |
| Change from nonoperating activities | <u>37,232</u> | <u>10,310</u> | <u>86,362</u> | <u>133,904</u> |
| Change in net assets | 66,954 | 12,868 | 86,362 | 166,184 |
| Net assets at beginning of year | <u>541,160</u> | <u>339,437</u> | <u>292,732</u> | <u>1,173,329</u> |
| Net assets at end of year | \$ <u>608,114</u> | <u>352,305</u> | <u>379,094</u> | <u>1,339,513</u> |

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, 2017

(Dollars in thousands)

| | <u>Unrestricted</u> | <u>Temporarily restricted</u> | <u>Permanently restricted</u> | <u>Total</u> |
|-----------------------------------------------------------------------------|---------------------|-----------------------------------|-----------------------------------|------------------|
| Operating revenues: | | | | |
| Student tuition and fees | \$ 44,362 | — | — | 44,362 |
| Less student aid | (12,655) | — | — | (12,655) |
| Net student tuition and fees | 31,707 | — | — | 31,707 |
| Government grants and contracts | 173,401 | — | — | 173,401 |
| Private grants and contracts | 65 | 27,242 | — | 27,307 |
| Contributions | 7,186 | (2,432) | — | 4,754 |
| Investment return designated for current operations | 25,000 | 7,265 | — | 32,265 |
| Patient revenue, net | 486,469 | — | — | 486,469 |
| Other | 282,148 | — | — | 282,148 |
| Net assets released from restrictions | 33,613 | (33,613) | — | — |
| Total operating revenues | <u>1,039,589</u> | <u>(1,538)</u> | <u>—</u> | <u>1,038,051</u> |
| Operating expenses: | | | | |
| Salaries and wages | 549,539 | — | — | 549,539 |
| Employee benefits | 145,594 | — | — | 145,594 |
| Student aid | 5,611 | — | — | 5,611 |
| Services | 149,542 | — | — | 149,542 |
| Clinical and laboratory supplies | 46,907 | — | — | 46,907 |
| Other operating expenses | 68,696 | — | — | 68,696 |
| Depreciation and amortization | 31,834 | — | — | 31,834 |
| Interest on debt | 7,177 | — | — | 7,177 |
| Total operating expenses | <u>1,004,900</u> | <u>—</u> | <u>—</u> | <u>1,004,900</u> |
| Operating excess (deficit) | <u>34,689</u> | <u>(1,538)</u> | <u>—</u> | <u>33,151</u> |
| Nonoperating activities: | | | | |
| Restricted contributions | — | — | 7,830 | 7,830 |
| Net assets released from restriction | 1,000 | — | (1,000) | — |
| Investment return in excess of amounts designated for current operations | 9,302 | 1,571 | 1,352 | 12,225 |
| Actuarial losses on annuity obligations | — | — | (736) | (736) |
| Unrealized gains on interest rate swaps | 1,887 | — | — | 1,887 |
| Postretirement related changes other than net periodic cost | 4,765 | — | — | 4,765 |
| Losses from affiliates, equity method | (48) | — | — | (48) |
| Other, net | 3,138 | — | (1,668) | 1,470 |
| Change from nonoperating activities | <u>20,044</u> | <u>1,571</u> | <u>5,778</u> | <u>27,393</u> |
| Change in net assets | 54,733 | 33 | 5,778 | 60,544 |
| Net assets at beginning of year | 466,836 | 60,736 | 162,491 | 690,063 |
| Net assets at end of year | <u>\$ 521,569</u> | <u>60,769</u> | <u>168,269</u> | <u>750,607</u> |

See accompanying notes to consolidated financial statements.

WAKE FOREST UNIVERSITY

Consolidated Statement of Cash Flows

Year ended June 30, 2017

(with summarized comparative financial information for the year ended June 30, 2016)

(Dollars in thousands)

| | Supplementary information | | 2017 | 2016 |
|-------------------------------------------------------------------------------------------------------|---------------------------|-----------------|------------------|------------------|
| | Reynolds Campus | WFUHS | | |
| Cash flows from operating activities: | | | | |
| Change in net assets | \$ 166,184 | 60,544 | 226,728 | 5,374 |
| Adjustments to reconcile change in net assets to net cash provided by (used in) operating activities: | | | | |
| Depreciation and amortization | 36,135 | 31,834 | 67,969 | 63,866 |
| Amortization of debt related costs | (421) | (713) | (1,134) | — |
| Gains on extinguishment of debt | (1,153) | — | (1,153) | — |
| Net (gains) losses on investments | (59,183) | (40,789) | (99,972) | 1,023 |
| Noncash gifts | (72) | — | (72) | (98) |
| Private gifts restricted for capital and long-term investment | (103,177) | (7,830) | (111,007) | (38,829) |
| Other revenue restricted for long-term investment | (712) | (268) | (980) | (1,118) |
| Losses (gains) on disposals of property and equipment | 87 | (476) | (389) | 92 |
| Losses (gains) from equity method affiliates | — | 48 | 48 | (3,706) |
| Unrealized (gains) losses on interest rate swaps | (7,310) | (1,887) | (9,197) | 9,162 |
| Bad debt expense and change in allowance for contributions receivable | (257) | 28,634 | 28,377 | 15,881 |
| Changes in due from affiliates | — | — | — | 4,293 |
| Changes in operating assets and liabilities: | | | | |
| Accounts and patient receivables | (721) | (67,708) | (68,429) | (8,376) |
| Contributions receivable | (1,796) | 4,662 | 2,866 | 5,618 |
| Notes receivable | 2,202 | 97 | 2,299 | 116 |
| Other assets and other liabilities and deferrals | 6,134 | (16,751) | (10,617) | (14,810) |
| Accounts payable and accruals | 4,795 | (48,699) | (43,904) | (32,660) |
| Postretirement benefits | (3,123) | (2,193) | (5,316) | 1,172 |
| Annuities payable | (515) | (736) | (1,251) | 252 |
| Net cash provided by (used in) operating activities | <u>37,097</u> | <u>(62,231)</u> | <u>(25,134)</u> | <u>7,252</u> |
| Cash flows from investing activities: | | | | |
| Purchases of land, buildings, and equipment | (108,769) | (30,117) | (138,886) | (111,891) |
| Proceeds from sale of land, buildings, and equipment | 606 | 34 | 640 | 3,458 |
| Repayments of notes receivable | — | (97) | (97) | 632 |
| Disbursements of loans to students and other | (3,772) | (53) | (3,825) | (4,095) |
| Repayments of loans to students and other | 2,766 | 150 | 2,916 | 3,435 |
| Purchases of investments | (465,721) | (206,729) | (672,450) | (1,085,569) |
| Net proceeds from sales and maturities of investments | 435,446 | 289,603 | 725,049 | 1,018,111 |
| Increase in deposits with bond trustee | (13,462) | — | (13,462) | — |
| Net cash (used in) provided by investing activities | <u>(152,906)</u> | <u>52,791</u> | <u>(100,115)</u> | <u>(175,919)</u> |
| Cash flows from financing activities: | | | | |
| Change in government grants refundable | (86) | — | (86) | (135) |
| Proceeds from notes payable | 19,140 | 3,000 | 22,140 | 44,511 |
| Principal payments on notes payable | (22,111) | (8,081) | (30,192) | (8,436) |
| Payments on borrowings from WFUBMC | — | (970) | (970) | (3,037) |
| Proceeds from issuance of bonds payable | 159,100 | — | 159,100 | — |
| Premium on bond issuance | 19,293 | — | 19,293 | — |
| Bond issuance costs | (1,201) | — | (1,201) | — |
| Payments to retire or defease bonds payable | (116,625) | (6,000) | (122,625) | (12,194) |
| Proceeds from private gifts restricted for capital and long-term investment | 41,962 | 7,830 | 49,792 | 34,371 |
| Net realized (gains) losses restricted for long-term investment | (1,707) | 268 | (1,439) | (2,041) |
| Other revenue restricted for long-term investment | 712 | — | 712 | 962 |
| Net cash provided by (used in) financing activities | <u>98,477</u> | <u>(3,953)</u> | <u>94,524</u> | <u>54,001</u> |
| Net decrease in cash and cash equivalents | <u>(17,332)</u> | <u>(13,393)</u> | <u>(30,725)</u> | <u>(114,666)</u> |
| Cash and cash equivalents at beginning of year | <u>63,530</u> | <u>32,338</u> | <u>95,868</u> | <u>210,534</u> |
| Cash and cash equivalents at end of year | <u>\$ 46,198</u> | <u>18,945</u> | <u>65,143</u> | <u>95,868</u> |
| Supplemental disclosures of cash flow information: | | | | |
| Cash paid for interest, net of amounts capitalized | \$ 7,935 | 7,757 | 15,692 | 19,177 |
| Assets acquired under capital leases | — | 44,125 | 44,125 | — |
| Capital expenditures included in account payable | 22,872 | 1,449 | 24,321 | 32,572 |

See accompanying notes to consolidated financial statements.

WAKE FOREST UNIVERSITY

Notes to Consolidated Financial Statements

June 30, 2017

(with summarized information for 2016)

(Dollars in thousands)

(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 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 40 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.

WAKE FOREST UNIVERSITY
Notes to Consolidated Financial Statements
June 30, 2017
(with summarized information for 2016)
(Dollars in thousands)

(b) Recently Adopted Accounting Standards

In January 2016, the FASB issued ASU 2016-01, *Recognition and Measurement of Financial Assets and Financial Liabilities*. This ASU removes the requirement to disclose the fair value of financial instruments measured at amortized costs. The University adopted ASU 2016-01 in fiscal year 2016 and removed the fair value disclosure for its fixed rate debt.

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. Retrospectively, the June 30, 2016 statement of cash flows and disclosure of amounts in footnotes 6 and 8 have been updated to conform to the changes adopted in fiscal year 2017.

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 for fiscal 2017 and approximately \$3,070 of costs were reflected in Nonoperating expense.

(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.

WAKE FOREST UNIVERSITY

Notes to Consolidated Financial Statements

June 30, 2017

(with summarized information for 2016)

(Dollars in thousands)

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 or less than 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 net periodic 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

WAKE FOREST UNIVERSITY

Notes to Consolidated Financial Statements

June 30, 2017

(with summarized information for 2016)

(Dollars in thousands)

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.

WAKE FOREST UNIVERSITY
Notes to Consolidated Financial Statements
June 30, 2017
(with summarized information for 2016)
(Dollars in thousands)

(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 nonexempt 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.

WAKE FOREST UNIVERSITY
Notes to Consolidated Financial Statements
June 30, 2017
(with summarized information for 2016)
(Dollars in thousands)

(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

WAKE FOREST UNIVERSITY
Notes to Consolidated Financial Statements
June 30, 2017
(with summarized information for 2016)
(Dollars in thousands)

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 policies 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 \$17,939 and \$24,179 in 2017 and 2016, respectively.

WAKE FOREST UNIVERSITY

Notes to Consolidated Financial Statements

June 30, 2017

(with summarized information for 2016)

(Dollars in thousands)

(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, 2014 remain subject to examination by federal and state tax authorities. The University has evaluated uncertain tax positions for the years ended June 30, 2017 and 2016, 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, 2017 and 2016.

(t) Reclassifications

Certain amounts previously reported in the 2016 consolidated financial statements have been reclassified to conform to the 2017 presentation. Such reclassifications have no effect on total assets, liabilities or net assets or operating, investing or financing cash flows as previously reported.

(u) 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, 2016 from which this information was derived.

WAKE FOREST UNIVERSITY
Notes to Consolidated Financial Statements
June 30, 2017
(with summarized information for 2016)
(Dollars in thousands)

(2) Accounts Receivable

The following is an analysis of accounts receivable at June 30, 2017 and 2016:

| | 2017 | | | 2016 Total |
|------------------------------|----------------------------|--------------|--------------|-----------------------|
| | Reynolda Campus | WFUHS | Total | |
| Accounts receivable | \$ 6,608 | 81,285 | 87,893 | 49,233 |
| Grants receivable | 3,692 | 31,030 | 34,722 | 38,940 |
| Total accounts receivable | 10,300 | 112,315 | 122,615 | 88,173 |
| Less allowance for bad debts | (951) | (1,061) | (2,012) | (2,183) |
| Accounts receivable, net | \$ 9,349 | 111,254 | 120,603 | 85,990 |

(3) Patient Revenue and Patient Receivables

Net patient service revenue is recorded when patient services are performed at the estimated net realizable amounts 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 | |
|-------------------------|--------------|-------------|
| | 2017 | 2016 |
| Third-party payers | \$ 494,084 | 475,552 |
| Self-pay | 19,886 | 13,702 |
| Provision for bad debts | (27,501) | (15,295) |
| Patient revenue, net | \$ 486,469 | 473,959 |

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

WAKE FOREST UNIVERSITY

Notes to Consolidated Financial Statements

June 30, 2017

(with summarized information for 2016)

(Dollars in thousands)

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 \$62,155 and \$57,250 at June 30, 2017 and 2016, respectively, are recorded net of allowance for contractual adjustments and uncollectible accounts of \$119,039 and \$71,627, respectively, at June 30, 2017 and \$105,309 and \$63,748, respectively, at June 30, 2016.

WFUHS' allowance for doubtful accounts for self-pay patients increased from 89% of self-pay accounts receivable at June 30, 2016 to 91% of self-pay accounts receivable at June 30, 2017. In addition, WFUHS' self-pay allowances and expenses (which include charity care charges foregone and bad debt expense) decreased \$544 from \$15,175 for fiscal year 2016 to \$14,631 for fiscal year 2017. WFUHS maintains an allowance for doubtful accounts for patient residuals associated with third-party payers. The allowance was \$21,774 and \$21,611 at June 30, 2017 and 2016, respectively.

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:

| | <u>2017</u> | <u>2016</u> |
|----------|--------------|--------------|
| Medicare | 13 % | 13 % |
| Medicaid | 18 | 15 |
| Self-pay | 17 | 18 |
| Other | 52 | 54 |
| | <u>100 %</u> | <u>100 %</u> |

WAKE FOREST UNIVERSITY
Notes to Consolidated Financial Statements
June 30, 2017
(with summarized information for 2016)
(Dollars in thousands)

(4) Contributions Receivable

The following is an analysis of the maturities of the University's contributions receivable at June 30, 2017 and 2016:

| | 2017 | | | 2016 Total |
|------------------------------------|----------------------------|---------------|----------------|-----------------------|
| | Reynolda Campus | WFUHS | Total | |
| One year or less | \$ 66,698 | 8,269 | 74,967 | 40,426 |
| Between one and five years | 82,552 | 7,285 | 89,837 | 64,492 |
| More than five years | 98,251 | 111 | 98,362 | 100,494 |
| Contributions receivable, gross | 247,501 | 15,665 | 263,166 | 205,412 |
| Estimated uncollectible amounts | (6,486) | (1,612) | (8,098) | (8,053) |
| Discount to present value | (59,109) | (713) | (59,822) | (61,262) |
| Contributions receivable, net | \$ <u>181,906</u> | <u>13,340</u> | <u>195,246</u> | <u>136,097</u> |

Contributions receivable are discounted at a rate commensurate with the scheduled timing of receipt. Such amounts outstanding as of June 30, 2017, and 2016, were discounted at rates ranging from 1.52% to 2.26% for WFU, respectively, and 1.19% 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 77% and 60% of Reynolda Campus' net contributions receivable as of June 30, 2017 and 2016, respectively.

WAKE FOREST UNIVERSITY
Notes to Consolidated Financial Statements
June 30, 2017
(with summarized information for 2016)
(Dollars in thousands)

(5) Notes Receivable

The following is an analysis of notes receivable at June 30, 2017 and 2016:

| | 2017 | | | 2016 Total |
|-----------------------------------------|----------------------------|--------------|--------------|-----------------------|
| | Reynolda Campus | WFUHS | Total | |
| Student loans receivable | \$ 18,234 | 711 | 18,945 | 20,107 |
| Other notes receivable | 4,068 | — | 4,068 | 4,576 |
| Total notes receivable | 22,302 | 711 | 23,013 | 24,683 |
| Less estimated uncollectible amounts | (277) | (69) | (346) | (969) |
| Notes receivable, net | \$ 22,025 | 642 | 22,667 | 23,714 |

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, 2017 and 2016, student loans receivable consisted of Federal loan programs of \$17,581 and \$18,542, respectively, and institutional loan programs of \$653 and \$1,565, 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 \$9,361 and \$9,447 at June 30, 2017 and 2016, 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. Amounts due under the Perkins loan program are guaranteed by the federal government and, therefore, no allowance for uncollectible amounts is reported under the program. 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, 2017 and 2016, the allowance for uncollectible institutional student loan amounts was \$277 and \$382, respectively.

WAKE FOREST UNIVERSITY
Notes to Consolidated Financial Statements
June 30, 2017
(with summarized information for 2016)
(Dollars in thousands)

(6) Investments

Investments at June 30, 2017 and 2016 consist of the following:

| | <u>2017</u> | <u>2016</u> |
|-------------------------------------------------------------------------------------|---------------------|------------------|
| Short-term investments ^(a) | \$ 53,447 | 121,459 |
| Absolute return ^(b) | 1,181,112 | 1,054,479 |
| Commodities: ^(c) | 19,422 | 24,834 |
| Fixed income: ^(d) | | |
| Domestic | 259,073 | 251,074 |
| International | 2,731 | 6,580 |
| Private equity ^(e) | 1,846 | 1,766 |
| Public equity: ^(f) | | |
| Domestic | 45,374 | 61,529 |
| International | 33,588 | 35,172 |
| Real estate: ^(g) | 10,808 | 12,179 |
| Beneficial interest in perpetual trusts and assets held by others ^(h) | 24,311 | 23,909 |
| Other | <u>116,512</u> | <u>107,027</u> |
| Total investments | <u>\$ 1,748,224</u> | <u>1,700,008</u> |

- (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 \$1,141,346 and \$1,040,657 funds managed by Verger valued under the NAV practical expedient in fiscal years 2017 and 2016, respectively, whose underlying investments were comprised of 43.0% and 40.3% of equities, 14.6% and 14.5% of real assets, 25.2% and 26.1% of absolute return, and 17.2% and 19.1% fixed income in fiscal years 2017 and 2016, 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.

WAKE FOREST UNIVERSITY

Notes to Consolidated Financial Statements

June 30, 2017

(with summarized information for 2016)

(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.

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 consolidated statement of activities are as follows:

| | 2017 | 2016 |
|--------------------------------------------------------------------------------------|-------------|-------------|
| Investment income, net | \$ 22,809 | 25,817 |
| Realized gains (losses), net | 36,103 | (14,415) |
| Changes in unrealized depreciation | 53,710 | (4,402) |
| Total investment return | 112,622 | 7,000 |
| Endowment appropriation designated for current operations | (73,454) | (68,203) |
| Other investment returns designated for current operations | (4,414) | (2,841) |
| Investment return in excess of (less than) amounts designated for current operations | \$ 34,754 | (64,044) |

The University incurred internal investment management costs of \$9,434 and \$8,741 in 2017 and 2016, respectively. The University reports investment returns net of internal and external management fees.

WAKE FOREST UNIVERSITY
Notes to Consolidated Financial Statements
June 30, 2017
(with summarized information for 2016)
(Dollars in thousands)

(7) Endowment

The University's pooled endowment consists of approximately 1,845 individual funds 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 of risk while maintaining sufficient liquidity to meet disbursement needs. The endowment spending rate for the years ended June 30, 2017 and 2016 was 5.3%, 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.

WAKE FOREST UNIVERSITY

Notes to Consolidated Financial Statements

June 30, 2017

(with summarized information for 2016)

(Dollars in thousands)

The portfolio is constructed on a foundation of modern portfolio theory and strategic asset allocation. The University diversifies its investments among various asset classes incorporating multiple strategies and investment advisors to help manage risk. Major investment decisions are approved by the Board's Investment Policy Committee, which oversees the University's investments in accordance with established guidelines. 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 on the basis of the fair value per unit at the beginning of each quarter within which the transaction took place. At June 30, 2017, Reynolda Campus held units of 15,715,491, WFUHS held 11,369,722 units and Reynolda House held units of 649,988 in these long-term pools with a fair value of \$47.74, \$47.21 and \$47.11 per unit, respectively. At June 30, 2016, Reynolda Campus held units of 14,601,539, WFUHS held 11,021,932 units and Reynolda House held units of 641,689 in these long-term pools with a fair value of \$46.76, \$46.52 and \$46.46 per unit, respectively.

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 \$8,829 and \$1,474 as of June 30, 2017; and \$10,591 and \$2,217 as of June 30, 2016.

Endowment net assets consist of the following at June 30, 2017 and 2016:

| | 2017 | | | Total | 2016 Total |
|----------------------------------|--------------|---------------------------|---------------------------|---------|---------------|
| | Unrestricted | Temporarily restricted | Permanently restricted | | |
| Reynolda Campus: | | | | | |
| Donor-restricted endowment funds | \$ (8,829) | 219,694 | 278,993 | 489,858 | 461,824 |
| Board-designated endowment funds | 229,878 | — | — | 229,878 | 224,498 |
| Endowment net assets | \$ 221,049 | 219,694 | 278,993 | 719,736 | 686,322 |
| WFUHS: | | | | | |
| Donor-restricted endowment funds | \$ (1,474) | 50,189 | 146,576 | 195,291 | 182,461 |
| Board-designated endowment funds | 290,296 | — | — | 290,296 | 272,429 |
| Total endowment net assets | \$ 288,822 | 50,189 | 146,576 | 485,587 | 454,890 |

WAKE FOREST UNIVERSITY
Notes to Consolidated Financial Statements
June 30, 2017
(with summarized information for 2016)
(Dollars in thousands)

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

| | 2017 | | | Total | 2016 Total |
|------------------------------------------|---------------------|-----------------------------------|-----------------------------------|----------------|-----------------------|
| | Unrestricted | Temporarily restricted | Permanently restricted | | |
| Reynolda Campus: | | | | | |
| Beginning balance | \$ 213,907 | 212,609 | 259,806 | 686,322 | 712,988 |
| Investment return: | | | | | |
| Investment income net of fees | 554 | (2,946) | (79) | (2,471) | (4,960) |
| Net appreciation | 15,359 | 35,577 | 1,076 | 52,012 | 865 |
| Total investment return (loss) | 15,913 | 32,631 | 997 | 49,541 | (4,095) |
| Contributions | 604 | 97 | 18,735 | 19,436 | 13,200 |
| Appropriation for expenditure | (9,625) | (25,643) | (682) | (35,950) | (36,529) |
| Transfers due to donor redesignations | — | — | (113) | (113) | 8 |
| Transfers to Board-designated funds | 250 | — | 250 | 500 | 750 |
| Ending balance | <u>\$ 221,049</u> | <u>219,694</u> | <u>278,993</u> | <u>719,736</u> | <u>686,322</u> |
| WFUHS: | | | | | |
| Beginning balance | \$ 270,212 | 45,683 | 138,995 | 454,890 | 454,412 |
| Investment return: | | | | | |
| Investment income net of fees | 3,300 | 1,454 | 125 | 4,879 | 4,451 |
| Net appreciation (depreciation) | 16,755 | 9,020 | 803 | 26,578 | (5,601) |
| Total investment return (loss) | 20,055 | 10,474 | 928 | 31,457 | (1,150) |
| Contributions | 1,401 | — | 7,653 | 9,054 | 8,890 |
| Appropriation for expenditure | (13,758) | (5,968) | (1,000) | (20,726) | (19,556) |
| Transfers | 10,912 | — | — | 10,912 | 12,294 |
| Ending balance | <u>\$ 288,822</u> | <u>50,189</u> | <u>146,576</u> | <u>485,587</u> | <u>454,890</u> |

WAKE FOREST UNIVERSITY
Notes to Consolidated Financial Statements
June 30, 2017
(with summarized information for 2016)
(Dollars in thousands)

(8) Fair Values of Assets and Liabilities

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

| | 2017 | | | | Total |
|-------------------------------------------------------------------|-------------------|----------------|---------------|------------------|------------------|
| | Level 1 | Level 2 | Level 3 | NAV | |
| 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 |

WAKE FOREST UNIVERSITY

Notes to Consolidated Financial Statements

June 30, 2017

(with summarized information for 2016)

(Dollars in thousands)

| | 2016 | | | | |
|-------------------------------------------------------------------|-------------------|----------------|---------------|------------------|------------------|
| | Level 1 | Level 2 | Level 3 | NAV | Total |
| Financial assets: | | | | | |
| Cash and cash equivalents | \$ 95,868 | — | — | — | 95,868 |
| Investments: | | | | | |
| Short-term investments | 121,459 | — | — | — | 121,459 |
| Absolute return | 13,822 | — | — | 1,040,657 | 1,054,479 |
| Commodities | 24,834 | — | — | — | 24,834 |
| Fixed income: | | | | | |
| Domestic | 230,494 | 20,580 | — | — | 251,074 |
| International | 2,987 | 3,593 | — | — | 6,580 |
| Private equity | — | — | 1,429 | 337 | 1,766 |
| Public equity: | | | | | |
| Domestic | 61,529 | — | — | — | 61,529 |
| International | 35,172 | — | — | — | 35,172 |
| Real estate | 12,179 | — | — | — | 12,179 |
| Beneficial interest in perpetual trusts and assets held by others | — | — | 23,909 | — | 23,909 |
| Other | 3,889 | 48,690 | — | 54,448 | 107,027 |
| Total assets | \$ 602,233 | 72,863 | 25,338 | 1,095,442 | 1,795,876 |
| Financial liabilities: | | | | | |
| Other liabilities and deferrals: | | | | | |
| Employee benefits | \$ — | 48,690 | — | — | 48,690 |
| Interest rate swap agreements | — | 30,920 | — | — | 30,920 |
| Annuities payable | — | 27,351 | — | — | 27,351 |
| Total liabilities | \$ — | 106,961 | — | — | 106,961 |

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 significant transfers between Level 1 and Level 2 securities during the year ended June 30, 2017. Transfers into and out of Level 3 are typically the result of a change in observation of significant valuation inputs required by various models.

WAKE FOREST UNIVERSITY
Notes to Consolidated Financial Statements
June 30, 2017
(with summarized information for 2016)
(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 were discounted at a rate that is equivalent to the University's nonexempt borrowing rate of 2.18% and 3.07% at June 30, 2017 and 2016, respectively.

The following table presents the reconciliation of Level 3 assets measured at fair value for the year ended June 30, 2017. Both observable and unobservable inputs may be used to determine the fair value of positions that the University has classified as Level 3.

| | <u>Balance as of June 30, 2016</u> | <u>Total realized and unrealized losses</u> | <u>Purchases</u> | <u>Sales</u> | <u>Net transfers out of Level 3</u> | <u>Balance as of June 30, 2017</u> |
|--------------------------------------------------------------------------|----------------------------------------|---------------------------------------------------------|------------------|----------------|---------------------------------------------|----------------------------------------|
| Investments: | | | | | | |
| Private equity | 1,429 | (827) | 1,227 | (81) | — | 1,748 |
| Beneficial interests in perpetual trusts and assets held by others | 23,909 | 1,696 | 1,625 | (2,919) | — | 24,311 |
| Total Level 3 investments | <u>25,338</u> | <u>869</u> | <u>2,852</u> | <u>(3,000)</u> | <u>—</u> | <u>26,059</u> |

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 capital calls are made by fund managers. 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 takes these factors into consideration when allocating to private investments and believes that it has adequate liquidity to meet its obligations.

WAKE FOREST UNIVERSITY
Notes to Consolidated Financial Statements
June 30, 2017
(with summarized information for 2016)
(Dollars in thousands)

As of June 30, 2017, 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 |
| 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, 2017 and 2016:

| | 2017 | | | 2016 Total |
|----------------------------------|----------------------------|------------------|------------------|-----------------------|
| | Reynolda Campus | WFUHS | Total | |
| Land and improvements | \$ 31,668 | 99,791 | 131,459 | 128,933 |
| Buildings and other improvements | 740,774 | 409,004 | 1,149,778 | 1,080,594 |
| Equipment and furnishings | 126,167 | 251,707 | 377,874 | 309,400 |
| Construction in progress | 72,005 | 19,147 | 91,152 | 73,173 |
| | <u>970,614</u> | <u>779,649</u> | <u>1,750,263</u> | <u>1,592,100</u> |
| Less accumulated depreciation | <u>(392,161)</u> | <u>(433,805)</u> | <u>(825,966)</u> | <u>(775,053)</u> |
| | <u>\$ 578,453</u> | <u>345,844</u> | <u>924,297</u> | <u>817,047</u> |

Total depreciation expense on buildings, improvements, equipment, and furnishings was \$67,816 and \$64,584 for the years ended June 30, 2017 and 2016, respectively.

WAKE FOREST UNIVERSITY
Notes to Consolidated Financial Statements
June 30, 2017
(with summarized information for 2016)
(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 \$4,186 and \$1,091 was capitalized in the years ended June 30, 2017 and 2016, respectively.

The liabilities associated with AROs for the years ended June 30, 2017 and 2016, respectively, were \$6,775 and \$8,414 for Reynolda Campus, and \$2,692 and \$2,756 for WFUHS. These liabilities are reported in other liabilities and deferrals on the consolidated balance sheet.

(10) Notes, Capital Leases, and Bonds Payable

Notes, capital leases, and bonds payable at June 30, 2017 and 2016 consist of the following:

| Reynolda Campus | Years to nominal maturity | Interest rate at June 30, 2017 | | 2017 | 2016 |
|--------------------------------------------------------------|---------------------------------|-----------------------------------|----------|-------------------|----------------|
| Notes payable and capital leases: | | | | | |
| 2013 Construction loan | 0 | 0% | | \$ — | 48,973 |
| Line of credit | >1 | LIBOR plus 0.75% | Variable | 40,753 | — |
| Promissory note | >1 | LIBOR plus 0.65% | Variable | 4,107 | — |
| Promissory note | <1 | 4.00% | Fixed | 50 | 275 |
| Lease and installment loans | <1 to 4 | 0.81% to 1.82% | Fixed | 6,085 | 4,718 |
| Total notes payable and capital leases | | | | <u>50,995</u> | <u>53,966</u> |
| Bonds payable: | | | | | |
| 2004 Series A tax-exempt | <1 to 3 | 91 day US T-bill | Variable | 17,545 | 20,560 |
| 2004 Series B tax-exempt | <1 to 3 | 91 day US T-bill | Variable | 3,730 | 7,340 |
| 2009 Series serial tax-exempt | 0 | 0% | Fixed | — | 49,430 |
| 2009 Series term tax-exempt | 0 | 0% | Fixed | — | 60,570 |
| 2012 Series serial taxable | 25 | 2.60% to 3.10% | Fixed | 20,425 | 20,425 |
| 2012 Series term taxable | 25 | 3.45% to 3.70% | Fixed | 104,575 | 104,575 |
| 2016 Series serial tax-exempt | 32 | 4.00% to 5.00% | Fixed | 136,730 | — |
| 2016 Series term tax-exempt | 32 | 2.75% to 3.00% | Fixed | 22,370 | — |
| Unamortized bond premium | | | | 18,757 | 2,003 |
| Unamortized bond issuance costs | | | | <u>(2,113)</u> | <u>(1,877)</u> |
| Total bonds payable | | | | <u>322,019</u> | <u>263,026</u> |
| Total notes payable, capital leases, and bonds payable | | | | <u>\$ 373,014</u> | <u>316,991</u> |

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%.

WAKE FOREST UNIVERSITY

Notes to Consolidated Financial Statements

June 30, 2017

(with summarized information for 2016)

(Dollars in thousands)

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 has outstanding \$21,275 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 \$6,850 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

WAKE FOREST UNIVERSITY
Notes to Consolidated Financial Statements
June 30, 2017
(with summarized information for 2016)
(Dollars in thousands)

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, 2017 | | 2017 | 2016 |
|-----------------------------------|---------------------------------|-----------------------------------|----------|---------------|---------------|
| Notes payable and capital leases: | | | | | |
| Line of credit | >1 | LIBOR plus 0.65% | Variable | \$ 8,488 | 11,489 |
| Loan agreement | <1 to 10 | LIBOR plus 0.65% | Variable | 11,675 | 13,675 |
| Promissory note | 0 | 0% | | — | 80 |
| Capital lease | 15 | 4.5% | Fixed | 43,156 | — |
| Total notes payable | | | | <u>63,319</u> | <u>25,244</u> |

| WFUHS | Years to nominal maturity | Interest rate at June 30, 2017 | | 2017 | 2016 |
|------------------------------------------|---------------------------------|-----------------------------------|----------|-------------------|----------------|
| Bonds payable: | | | | | |
| Series 2012 B | <1 to 20 | 2.00%–5.00% | Fixed | \$ 98,415 | 102,155 |
| Series 2012 C | <1 to 20 | SIFMA plus 0.74% | Variable | 50,355 | 52,615 |
| Unamortized bond premium | | | | 12,832 | 13,614 |
| Unamortized bond issuance costs | | | | (1,124) | (1,192) |
| Total bonds payable | | | | <u>160,478</u> | <u>167,192</u> |
| Total notes payable and bonds payable | | | | <u>\$ 223,797</u> | <u>192,436</u> |

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, 2017. As of June 30, 2017, WFUHS is jointly and severally liable for \$469,287 of bonds payable borrowed

WAKE FOREST UNIVERSITY

Notes to Consolidated Financial Statements

June 30, 2017

(with summarized information for 2016)

(Dollars in thousands)

by the other members of the Obligated Group and for \$11,750 and \$40,253 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.

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. 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 \$2,090 to \$4,825.

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 30, 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 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%.

WAKE FOREST UNIVERSITY
Notes to Consolidated Financial Statements
June 30, 2017
(with summarized information for 2016)
(Dollars in thousands)

Aggregate annual maturities of notes, capital leases, and bonds payable for each of the five fiscal years subsequent to June 30, 2017 and thereafter are as follows:

| | <u>Reynolda Campus</u> | <u>WFUHS</u> | <u>Total</u> |
|---------------------|----------------------------|----------------|----------------|
| 2018 | \$ 13,569 | 9,232 | 22,801 |
| 2019 | 9,410 | 8,806 | 18,216 |
| 2020 | 50,143 | 17,614 | 67,757 |
| 2021 | 2,604 | 9,462 | 12,066 |
| 2022 | 1,882 | 9,791 | 11,673 |
| In total thereafter | <u>295,406</u> | <u>168,892</u> | <u>464,298</u> |
| | <u>\$ 373,014</u> | <u>223,797</u> | <u>596,811</u> |

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 2017 consolidated balance sheet. Total amortization expense for issue costs and premium is included in interest expense in the consolidated statements of activities.

(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.

WAKE FOREST UNIVERSITY
Notes to Consolidated Financial Statements
June 30, 2017
(with summarized information for 2016)
(Dollars in thousands)

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

| | Reynolda Campus | | | WFUHS |
|-----------------------|------------------------------|---------------------------------|------------------------------|-----------------------------------------|
| | November 2006 | October 2008 | December 2016 | August 2002 |
| | interest rate | interest rate | interest rate | interest rate |
| | swap | swap | swap | swap |
| Notional amount | \$ 20,560 | 50,000 | 12,000 | 22,622 |
| 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 fair value of the interest rate swap agreements is 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. 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, 2017 and 2016, respectively, was \$0 and \$2,500 for Reynolda Campus, and \$4,600 and \$5,980 for WFUHS.

WAKE FOREST UNIVERSITY
Notes to Consolidated Financial Statements
June 30, 2017
(with summarized information for 2016)
(Dollars in thousands)

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

| | <u>2017</u> | | <u>2016</u> | |
|----------------------------------|--------------------|--------------------|-------------------|--------------------|
| | <u>Fair value</u> | <u>Gain (loss)</u> | <u>Fair value</u> | <u>Gain (loss)</u> |
| Reynolda Campus: | | | | |
| November 2006 interest rate swap | \$ (747) | 758 | (1,505) | 338 |
| October 2008 interest rate swap | (16,413) | 6,731 | (23,144) | (7,694) |
| December 2016 interest rate swap | (179) | (179) | — | — |
| Total | <u>(17,339)</u> | <u>7,310</u> | <u>(24,649)</u> | <u>(7,356)</u> |
| WFUHS: | | | | |
| August 2002 interest rate swap | (4,384) | 1,887 | (6,271) | (1,468) |
| Total | <u>(4,384)</u> | <u>1,887</u> | <u>(6,271)</u> | <u>(1,468)</u> |
| Grand total | <u>\$ (21,723)</u> | <u>9,197</u> | <u>(30,920)</u> | <u>(8,824)</u> |

As of June 30, 2017, the University's adjusted debt portfolio, after taking into account the aforementioned swap agreements, was 100% fixed rate for Reynolda Campus, and approximately 75% fixed rate for WFUHS.

(12) Net Assets

Temporarily restricted net assets are composed of the following at June 30, 2017 and 2016:

| | <u>2017</u> | | | <u>2016</u> |
|-----------------------------|------------------------|---------------|----------------|----------------|
| | <u>Reynolda Campus</u> | <u>WFUHS</u> | <u>Total</u> | <u>Total</u> |
| Gifts and pledges | \$ 128,960 | 10,580 | 139,540 | 141,881 |
| Donor-restricted endowments | 223,345 | 50,189 | 273,534 | 258,292 |
| | <u>\$ 352,305</u> | <u>60,769</u> | <u>413,074</u> | <u>400,173</u> |

WAKE FOREST UNIVERSITY
Notes to Consolidated Financial Statements
June 30, 2017
(with summarized information for 2016)
(Dollars in thousands)

Such temporarily restricted net assets are available for the following purposes as of June 30, 2017 and 2016:

| | 2017 | | | 2016 Total |
|-----------------------------------------------------|----------------------------|---------------|----------------|-----------------------|
| | Reynolda Campus | WFUHS | Total | |
| Student scholarships | \$ 204,113 | 2,854 | 206,967 | 203,566 |
| Instruction and research | 63,520 | 36,063 | 99,583 | 95,049 |
| Academic support | 37,566 | 12,499 | 50,065 | 49,201 |
| Subsequent period operations, capital, and other | 47,106 | 9,353 | 56,459 | 52,357 |
| | <u>\$ 352,305</u> | <u>60,769</u> | <u>413,074</u> | <u>400,173</u> |

Permanently restricted net assets are composed of the following at June 30, 2017 and 2016:

| | 2017 | | | 2016 Total |
|------------------------------------------------------------|----------------------------|----------------|----------------|-----------------------|
| | Reynolda Campus | WFUHS | Total | |
| Donor-restricted endowments | \$ 279,144 | 146,576 | 425,720 | 398,801 |
| Gifts and pledges | 88,525 | 2,339 | 90,864 | 24,760 |
| Student loan funds | — | 4,980 | 4,980 | 4,944 |
| Interests in perpetual trusts and assets held by others | 5,044 | 13,174 | 18,218 | 18,076 |
| Annuity and other split-interest agreements | 6,381 | 1,200 | 7,581 | 8,642 |
| | <u>\$ 379,094</u> | <u>168,269</u> | <u>547,363</u> | <u>455,223</u> |

WAKE FOREST UNIVERSITY
Notes to Consolidated Financial Statements
June 30, 2017
(with summarized information for 2016)
(Dollars in thousands)

The future return on the following donor-restricted endowments is restricted for the following purposes as of June 30, 2017 and 2016:

| | 2017 | | | 2016 Total |
|-------------------------------------------|----------------------------|----------------|----------------|-----------------------|
| | Reynolda Campus | WFUHS | Total | |
| Student scholarships | \$ 183,931 | 32,836 | 216,767 | 204,217 |
| Instruction and research | 60,940 | 98,209 | 159,149 | 150,280 |
| Academic support | 25,129 | 15,531 | 40,660 | 37,172 |
| Subsequent period operations and other | 9,144 | — | 9,144 | 7,132 |
| | <u>\$ 279,144</u> | <u>146,576</u> | <u>425,720</u> | <u>398,801</u> |

(13) Functional Expenses

Expenses are reported in the consolidated statement of activities in natural categories. Functional expenses for the years ended June 30, 2017 and 2016 are categorized as follows:

| | 2017 | | | 2016 Total |
|-----------------------------------------------------|----------------------------|------------------|------------------|-----------------------|
| | Reynolda Campus | WFUHS | Total | |
| Instruction and departmental research | \$ 132,123 | 88,467 | 220,590 | 215,260 |
| Patient services | — | 654,690 | 654,690 | 616,751 |
| Sponsored research, training, and other programs | 10,728 | 191,638 | 202,366 | 188,331 |
| Organized activities | 2,730 | — | 2,730 | 2,595 |
| Academic support | 29,869 | 16,443 | 46,312 | 40,398 |
| Libraries | 15,260 | 4,006 | 19,266 | 18,255 |
| Student services | 31,027 | 2,001 | 33,028 | 31,831 |
| Institutional support | 81,911 | 47,655 | 129,566 | 109,841 |
| Auxiliary enterprises | 88,914 | — | 88,914 | 84,196 |
| Total operating expenses | <u>\$ 392,562</u> | <u>1,004,900</u> | <u>1,397,462</u> | <u>1,307,458</u> |

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

WAKE FOREST UNIVERSITY
Notes to Consolidated Financial Statements
June 30, 2017
(with summarized information for 2016)
(Dollars in thousands)

organized activities. Expenses reported as academic support, libraries, student services, institutional support, and auxiliary enterprises are incurred in support of these primary program services.

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:

| | <u>Reynolda Campus</u> | <u>WFUHS</u> | <u>Total</u> |
|----------------------|----------------------------|--------------|---------------|
| Year ending June 30: | | | |
| 2018 | \$ 11,121 | 1,153 | 12,274 |
| 2019 | 11,343 | 749 | 12,092 |
| 2020 | 11,570 | 660 | 12,230 |
| 2021 | 11,801 | 691 | 12,492 |
| 2022 | 12,037 | — | 12,037 |
| | <u>\$ 57,872</u> | <u>3,253</u> | <u>61,125</u> |

Total income from real estate was \$10,803 and \$10,526 for Reynolda Campus and \$1,607 and \$1,789 for WFUHS for the years ended June 30, 2017 and 2016, respectively.

In 2017, 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 2018 to 2022 are \$2,804, \$2,860, \$2,917, \$2,976 and \$3,035, respectively, and \$25,269 thereafter.

The estimated cost to complete construction in progress at June 30, 2017 and 2016, respectively, were \$121,454 and \$96,240 for Reynolda Campus, and \$23,799 and \$12,182 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 contract revenue as well as facilities and administrative cost recovery. The University would not expect these costs to influence the consolidated financial position significantly.

WAKE FOREST UNIVERSITY

Notes to Consolidated Financial Statements

June 30, 2017

(with summarized information for 2016)

(Dollars in thousands)

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.

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 \$1,421 and \$1,473 at June 30, 2017 and 2016, respectively, for Reynolda Campus and \$4,586 and \$5,485 at June 30, 2017 and 2016, 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.

WAKE FOREST UNIVERSITY

Notes to Consolidated Financial Statements

June 30, 2017

(with summarized information for 2016)

(Dollars in thousands)

(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 payments in each year from 2018 to 2022 are \$7,744, \$7,821, \$7,899, \$7,978 and \$8,058, respectively, and \$40,275 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 2018 to 2022 are \$5,638, \$5,779, \$5,924, \$6,072 and \$6,223, respectively, and \$33,531 thereafter.

WFUHS has a deferred gain related to the sale and leaseback of certain assets. The deferred gain was \$19,180 and \$21,126 for 2017 and 2016, respectively, and is included in other liabilities and deferrals in the accompanying consolidated balance sheets.

(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, 2017 and 2016, respectively, were \$13,089 and \$12,558 for Reynolda Campus and \$29,358 and \$24,303 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 \$4,345 and \$6,948 at June 30, 2017, respectively, and \$3,697 and \$6,190 at June 30, 2016, 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.

WAKE FOREST UNIVERSITY
Notes to Consolidated Financial Statements
June 30, 2017
(with summarized information for 2016)
(Dollars in thousands)

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

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, 2017 and 2016:

| | 2017 | | | 2016 Total |
|------------------------------------------------|----------------------------|-----------------|-----------------|-----------------------|
| | Reynolda Campus | WFUHS | Total | |
| Change in benefit obligation: | | | | |
| Benefit obligation at beginning of year | \$ 15,983 | 40,018 | 56,001 | 54,828 |
| Service cost | 869 | 77 | 946 | 931 |
| Interest cost | 602 | 1,437 | 2,039 | 2,386 |
| Plan amendments | — | — | — | (4,543) |
| Participants' contributions | 381 | 438 | 819 | 1,139 |
| Actuarial (gain) loss | (4,335) | (1,704) | (6,039) | 4,500 |
| Benefits paid | (640) | (2,198) | (2,838) | (3,240) |
| Benefit obligation at end of year | <u>12,860</u> | <u>38,068</u> | <u>50,928</u> | <u>56,001</u> |
| Change in plan assets: | | | | |
| Fair value of plan assets at beginning of year | — | — | — | — |
| Employer's contributions | 259 | 1,760 | 2,019 | 2,101 |
| Participants' contributions | 381 | 438 | 819 | 1,139 |
| Benefits paid | (640) | (2,198) | (2,838) | (3,240) |
| Fair value of plan assets at end of year | <u>—</u> | <u>—</u> | <u>—</u> | <u>—</u> |
| Total liability | <u>\$ (12,860)</u> | <u>(38,068)</u> | <u>(50,928)</u> | <u>(56,001)</u> |
| Amounts recognized in unrestricted net assets: | | | | |
| Prior service cost | \$ (4,169) | (166) | (4,335) | (4,346) |
| Net actuarial (loss) gain | <u>(2,655)</u> | <u>6,000</u> | <u>3,345</u> | <u>(7,352)</u> |
| Total (decrease) increase | <u>\$ (6,824)</u> | <u>5,834</u> | <u>(990)</u> | <u>(11,698)</u> |

WAKE FOREST UNIVERSITY
Notes to Consolidated Financial Statements
June 30, 2017
(with summarized information for 2016)
(Dollars in thousands)

The following table provides the components of net periodic benefit cost for the years ended June 30, 2017 and 2016:

| | 2017 | | | 2016 Total |
|--------------------------------------|----------------------------|--------------|--------------|-----------------------|
| | Reynolda Campus | WFUHS | Total | |
| Service cost | \$ 868 | 77 | 945 | 930 |
| Interest cost | 602 | 1,437 | 2,039 | 2,386 |
| Amortization of prior service credit | (373) | (30) | (403) | (30) |
| Amortization of net actuarial loss | 6 | 1,331 | 1,337 | 1,349 |
| Net periodic benefit cost | \$ <u>1,103</u> | <u>2,815</u> | <u>3,918</u> | <u>4,635</u> |

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 loss 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 \$3,966 and \$1,362, respectively.

The weighted average discount rate used to determine the accumulated postretirement benefit obligation at June 30, 2017 for Reynolda Campus and WFUHS, respectively, was 3.99% and 3.83%, and at June 30, 2016 was 3.85% and 3.70%, respectively. The discount rate reflects the current yield curve results as of June 30, 2017 and 2016. For management purposes, Reynolda Campus used 8.00% and 7.00%, and WFUHS used 7.32% and 7.00% for 2017 and 2016, 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.

WAKE FOREST UNIVERSITY
Notes to Consolidated Financial Statements
June 30, 2017
(with summarized information for 2016)
(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:

| | <u>One percentage increase</u> | <u>One percentage decrease</u> |
|-----------------------------------------------------------------------------------|----------------------------------------|----------------------------------------|
| Reynolda Campus: | | |
| Effect on total service and interest cost components of net periodic benefit cost | \$ 145 | (128) |
| 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 | 35 | (34) |

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

| | <u>Reynolda Campus</u> | <u>WFUHS</u> | <u>Total</u> |
|-----------------------|----------------------------|---------------|---------------|
| 2018 | \$ 589 | 2,432 | 3,021 |
| 2019 | 489 | 2,379 | 2,868 |
| 2020 | 537 | 2,363 | 2,900 |
| 2021 | 595 | 2,335 | 2,930 |
| 2022 | 648 | 2,291 | 2,939 |
| Five years thereafter | 3,920 | 11,217 | 15,137 |
| | <u>\$ 6,778</u> | <u>23,017</u> | <u>29,795</u> |

The expected benefits to be paid are based on the same assumptions used to measure the University's benefit obligation at June 30, 2017 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.

WAKE FOREST UNIVERSITY
Notes to Consolidated Financial Statements
June 30, 2017
(with summarized information for 2016)
(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:

| | <u>2017</u> | <u>2016</u> |
|-----------------------------------|--------------------|-----------------|
| Revenue from MCIA | \$ 250,188 | 198,796 |
| Corporate service allocation, net | 40,897 | 34,477 |
| Other professional fees, net | <u>(18,518)</u> | <u>(19,509)</u> |
| Total net revenue from NCBH | <u>\$ 272,567</u> | <u>213,764</u> |
| Accounts payable to NCBH | <u>\$ (24,978)</u> | <u>(17,089)</u> |

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. The outstanding balance on the line of credit was \$20,238 and \$26,006 as of June 30, 2017 and 2016, respectively, of which WFUHS recorded a liability of \$8,488 and \$11,488, respectively. The outstanding balance of the unsecured loan was \$48,000 and \$54,000 as of June 30, 2017 and 2016, respectively, of which WFUHS recorded a liability of \$7,747 and \$8,716, respectively, due to WFUBMC in other liabilities 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, 2017. WFUHS estimates its professional liability on an actuarial basis. WFUHS' accrued professional liability costs, including estimated claims incurred but not reported, amounted to approximately \$38,786 and \$45,779 at June 30, 2017 and 2016, 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.

WAKE FOREST UNIVERSITY
Notes to Consolidated Financial Statements
June 30, 2017
(with summarized information for 2016)
(Dollars in thousands)

(20) Subsequent Events

The University evaluated events subsequent to June 30, 2017, through October 23, 2017, the date of the issuance of the consolidated financial statements. Effective October 2, 2017 WFUHS redeemed the Series 2012C bonds and refinanced with a term note with WFUHS, NCBH and WFUBMC named as co-borrowers. The note matures on October 1, 2019 and bears interest at one-month LIBOR plus 0.55%. Principal payments on the note are due on December 1 of each year beginning in 2017 in increasing annual amounts ranging from \$2,320 to \$2,380 with the remaining unpaid principal due at maturity.

WAKE FOREST UNIVERSITY
Schedule of Expenditures of Federal Awards
Year ended June 30, 2017

| Federal Grantor/Pass-Through Grantor/Program or Cluster Title | Federal CFDA No. or Other Grant Identifying No. | Pass-Through Entity Identifying Number | Passed Through to Subrecipients | Federal Expenditures |
|---------------------------------------------------------------------------------------------|-------------------------------------------------------|-------------------------------------------|---------------------------------------|-------------------------|
| Federal award expenditures: | | | | |
| <i>Research and Development Cluster:</i> | | | | |
| Wake Forest University Health Sciences: | | | | |
| U.S. Department of Health and Human Services: | | | | |
| National Institutes of Health Direct Programs: | | | | |
| <i>Family Smoking Prevention and Tobacco Control Act Regulatory Research</i> | 93.077 | | \$ — | 59,271 |
| <i>Maternal and Child Health Federal Consolidated Programs</i> | 93.110 | | — | 46,711 |
| <i>Environmental Health</i> | 93.113 | | 125,933 | 871,202 |
| <i>Nurse Anesthetist Traineeship</i> | 93.124 | | — | 24,223 |
| <i>Community Programs to Improve Minority Health Grant Program</i> | 93.137 | | 48,903 | 217,768 |
| <i>Human Genome Research</i> | 93.172 | | 113,615 | 684,026 |
| <i>Research Related to Deafness and Communication Disorders</i> | 93.173 | | — | 142,688 |
| <i>Research and Training in Complementary and Integrative Health</i> | 93.213 | | 411,784 | 1,356,181 |
| <i>Research on Healthcare Costs, Quality and Outcomes</i> | 93.226 | | 61,253 | 504,246 |
| <i>Mental Health Research Grants</i> | 93.242 | | 226,043 | 389,473 |
| <i>Alcohol Research Programs</i> | 93.273 | | 68,449 | 3,728,320 |
| <i>Drug Abuse and Addiction Research Programs</i> | 93.279 | | 164,299 | 3,608,429 |
| <i>Discovery and Applied Research for Technological Innovations to Improve Human Health</i> | 93.286 | | — | 460,388 |
| <i>Minority Health and Health Disparities Research</i> | 93.307 | | 63,301 | 1,332,515 |
| <i>National Center for Advancing Translational Sciences</i> | 93.350 | | 29,258 | 3,346,946 |
| <i>Research Infrastructure Programs</i> | 93.351 | | — | 850,428 |
| <i>Nurse Education, Practice Quality and Retention Grants</i> | 93.359 | | — | 417,142 |
| <i>Nursing Research</i> | 93.361 | | — | 1,897 |
| <i>Cancer Cause and Prevention Research</i> | 93.393 | | 246,450 | 4,542,952 |
| <i>Cancer Detection and Diagnosis Research</i> | 93.394 | | 58,251 | 1,301,026 |
| <i>Cancer Treatment Research</i> | 93.395 | | 98,878 | 4,102,624 |
| <i>Cancer Biology Research</i> | 93.396 | | 173,873 | 3,267,816 |
| <i>Cancer Centers Support Grants</i> | 93.397 | | 11,262 | 2,078,506 |
| <i>Cancer Research Manpower</i> | 93.398 | | — | 837,786 |
| <i>Cancer Control</i> | 93.399 | | — | 245,795 |
| <i>Trans-NIH Recovery Act Research Support</i> | 93.701 | | 27,975 | 17,754 |
| <i>Cardiovascular Diseases Research</i> | 93.837 | | 3,300,923 | 11,911,607 |
| <i>Lung Diseases Research</i> | 93.838 | | 257,163 | 941,261 |
| <i>Blood Diseases and Resources Research</i> | 93.839 | | — | (298) |
| <i>Arthritis, Musculoskeletal and Skin Diseases Research</i> | 93.846 | | 73,194 | 711,165 |
| <i>Diabetes, Digestive, and Kidney Diseases Extramural Research</i> | 93.847 | | 3,362,345 | 10,064,460 |
| <i>Extramural Research Programs in the Neurosciences and Neurological Disorders</i> | 93.853 | | 647,778 | 2,948,564 |
| <i>Allergy and Infectious Diseases Research</i> | 93.855 | | 629,078 | 2,754,759 |
| <i>Microbiology and Infectious Diseases Research</i> | 93.856 | | 8,740 | 202,959 |
| <i>Biomedical Research and Research Training</i> | 93.859 | | 282,322 | 4,980,649 |
| <i>Child Health and Human Development Extramural Research</i> | 93.865 | | 374,565 | 2,413,668 |
| <i>Aging Research</i> | 93.866 | | 7,512,727 | 17,492,356 |
| <i>Vision Research</i> | 93.867 | | — | 2,167,578 |
| <i>Grants for Primary Care Training and Enhancement</i> | 93.884 | | 21,944 | 474,946 |
| <i>Grants to Provide Outpatient Early Intervention Services with Respect to HIV Disease</i> | 93.918 | | — | 118,164 |
| <i>Special Projects of National Significance</i> | 93.928 | | 12,274 | 251,297 |
| <i>HIV Demonstration, Research, Public and Professional Education Projects</i> | 93.941 | | 35,401 | 97,846 |
| <i>Assistance Programs for Chronic Disease Prevention and Control</i> | 93.945 | | 66,307 | 502,343 |
| <i>International Research and Research Training</i> | 93.989 | | 125,449 | 379,969 |
| <i>Action to Control Cardiovascular Risk in Diabetes (ACCORD) Trial</i> | 93.UNKNOWN | | — | 238 |
| <i>Accelerometer Data Collection and Analysis of REHAB-HF Participants</i> | 93.UNKNOWN | | 49,426 | 131,397 |
| <i>Regional Center for the Women's Health Initiative</i> | 93.UNKNOWN | | 324,335 | 1,073,675 |
| <i>Action to Control Cardiovascular Risk in Diabetes Follow-On (ACCORDION) Study</i> | 93.UNKNOWN | | 19,945 | 483,972 |
| <i>Regional Center for the Women's Health Initiative 2010 - 2015 Extension Study</i> | 93.UNKNOWN | | — | (62,366) |
| <i>Multi-Ethnic Study of Atherosclerosis (MESA) - Field Center</i> | 93.UNKNOWN | | — | (4,470) |
| <i>The Systolic Blood Pressure Intervention Trial (SPRINT) Coordinating Center</i> | 93.UNKNOWN | | 1,553,625 | 3,446,612 |
| <i>The Systolic Blood Pressure Intervention Trial (SPRINT)</i> | 93.UNKNOWN | | 363,746 | 804,091 |
| <i>Machine Learning Analyses of Longitudinal Plasma Metabolomics Data</i> | 93.UNKNOWN | | — | 28,439 |
| <i>Hormone Therapy and Cognitive Aging in Older Postmenopausal Women</i> | 93.UNKNOWN | | — | 606,882 |
| <i>Women's Health Initiative Memory Study (WHIMS) Extension</i> | 93.UNKNOWN | | — | 307,745 |
| <i>Sub Populations and Intermediate Outcomes Measures in COPD Study (SPIROMICS)</i> | 93.UNKNOWN | | 38,541 | 68,900 |
| <i>Continued, Long-Term Follow-up and Lenalidomide Maintenance Therapy for Patients</i> | 93.UNKNOWN | | — | 506 |
| <i>Subtotal National Institutes of Health Direct Programs</i> | | | 20,989,355 | 99,735,027 |
| National Institutes of Health Pass-Through Programs From: | | | | |
| <i>Smoking Prevention and Tobacco Control Act:</i> | | | | |
| <i>American Heart Association</i> | 93.077 | FX-ATrac-WF-02 | — | 80,947 |
| <i>American Heart Association</i> | 93.077 | FX-ATrac-WF-01 | — | 72 |
| <i>University of North Carolina at Chapel Hill</i> | 93.077 | 5033768 | — | 132,676 |
| <i>University of North Carolina at Chapel Hill</i> | 93.077 | 5105859 | 25,595 | 578,181 |
| <i>Total Smoking Prevention and Tobacco Control Act</i> | | | 25,595 | 791,876 |
| <i>Area Health Education Centers:</i> | | | | |
| <i>University of North Carolina at Chapel Hill</i> | 93.107 | None Identified | — | (7) |
| <i>University of North Carolina at Chapel Hill</i> | 93.107 | 5106312 | — | 85,745 |
| <i>University of North Carolina at Chapel Hill</i> | 93.107 | 5102890 | — | 5,973 |
| <i>Total Area Health Education Centers</i> | | | — | 91,711 |

WAKE FOREST UNIVERSITY
Schedule of Expenditures of Federal Awards
Year ended June 30, 2017

| Federal Grantor/Pass-Through Grantor/Program or Cluster Title | Federal CFDA No. or Other Grant Identifying No. | Pass-Through Entity Identifying Number | Passed Through to Subrecipients | Federal Expenditures |
|---------------------------------------------------------------------------------------------------|-------------------------------------------------------|-------------------------------------------|---------------------------------------|-------------------------|
| <i>Maternal and Child Health:</i> | | | | |
| Hemophilia of Georgia, Inc. | 93.110 | H30MC24046-04-00 | \$ — | (2,521) |
| Hemophilia of Georgia, Inc. | 93.110 | MCHB #5 H30MC24046-05-00 | — | 17,745 |
| <i>Total Maternal and Child Health</i> | | | — | 15,224 |
| <i>Environmental Health:</i> | | | | |
| Johns Hopkins University | 93.113 | 2002425846 | — | 24,478 |
| <i>Total Environmental Health</i> | | | — | 24,478 |
| <i>Human Genome Research:</i> | | | | |
| Arizona State University | 93.172 | 15-743 | — | 3,893 |
| Arizona State University | 93.172 | 17-082 | — | 43,185 |
| University of North Carolina at Chapel Hill | 93.172 | 5033459 | — | (6,133) |
| University of North Carolina at Chapel Hill | 93.172 | 5104383 | — | 20,033 |
| <i>Total Human Genome</i> | | | — | 60,978 |
| <i>Mental Health:</i> | | | | |
| Duke University | 93.242 | 2035157 | — | 232,945 |
| Georgia Health Sciences University | 93.242 | 26733-01 | — | 42,513 |
| Research Foundation for Mental Hygiene | 93.242 | 130157 | — | 56,443 |
| University of Washington | 93.242 | UWSC8567 | — | 9,637 |
| <i>Total Mental Health</i> | | | — | 341,538 |
| <i>Alcohol Research Programs:</i> | | | | |
| Johns Hopkins University | 93.273 | PTEID 2003378008 | — | 17,143 |
| Oregon Health & Sciences University | 93.273 | GPRC00872WF | — | (4,345) |
| Oregon Health & Sciences University | 93.273 | 1006932_WF | — | 77,487 |
| University of North Carolina at Chapel Hill | 93.273 | 5033209 | — | (19,777) |
| University of Pittsburgh | 93.273 | 9006452 (120468-1) | — | (63,693) |
| <i>Total Alcohol Research Programs</i> | | | — | 6,815 |
| <i>Drug Abuse and Addiction Research Programs:</i> | | | | |
| Duke University | 93.279 | None Identified | — | (1,720) |
| Scripps Research Institute | 93.279 | 5-53164 | — | 1,161 |
| University of California - San Diego | 93.279 | 84187174 PO#S9001584 | — | 191,795 |
| University of Michigan | 93.279 | 3004221025 | — | 59,556 |
| <i>Total Drug Abuse and Addiction Research Programs</i> | | | — | 250,792 |
| <i>CDC Investigations and Technical Assistance:</i> | | | | |
| North Carolina Department of Health and Human Services | 93.283 | 00033914 | — | 73,316 |
| Community Anti-Drug Coalitions of America | 93.283 | CDC GHE 144406 | — | 14,743 |
| Community Anti-Drug Coalitions of America | 93.283 | CDCGHE 15-4406 | — | 19,786 |
| Community Anti-Drug Coalitions of America | 93.283 | CDCGHE 16-4407 | — | 52,892 |
| Johns Hopkins University | 93.283 | 2001586409 | — | 129 |
| Johns Hopkins University | 93.283 | 2002750797 | — | 22,432 |
| <i>Total CDC Investigations and Technical Assistance</i> | | | — | 183,298 |
| <i>Discovery and Applied Research for Technological Innovations to Improve Human Health:</i> | | | | |
| University of Maryland | 93.286 | 48414-Z0005203 | — | 1,568 |
| University of Nebraska Medical Center | 93.286 | 34-2005-2071-001 | — | 18,573 |
| <i>Total Discovery and Applied Research for Technological Innovations to Improve Human Health</i> | | | — | 20,141 |
| <i>Minority Health and Health Disparities Research:</i> | | | | |
| Emory University | 93.307 | T609091 | — | 6,792 |
| Emory University | 93.307 | T773363 | — | 8,151 |
| <i>Total Minority Health and Health Disparities Research</i> | | | — | 14,943 |
| <i>Trans-NIH Research Support:</i> | | | | |
| University of Florida | 93.310 | UFDSP00011594 | — | 48,876 |
| University of Florida | 93.310 | UFDSP00011592 | — | 1,924 |
| University of North Carolina at Chapel Hill | 93.310 | 5106195 | — | 45,149 |
| University of Southern California | 93.310 | CTAFYN137 | — | 180,880 |
| Women & Infants Hospital | 93.310 | 9525 | — | 50,820 |
| <i>Total Trans-NIH Research Support</i> | | | — | 327,649 |
| <i>National Center for Advancing Translational Sciences:</i> | | | | |
| Emory University | 93.350 | U54TR001456 | — | 1,597 |
| RTI International | 93.350 | TBD | — | 76,896 |
| University of North Carolina at Chapel Hill | 93.350 | 5106964 | — | 14,130 |
| <i>Total National Center for Advancing Translational Sciences</i> | | | — | 92,623 |
| <i>Research Infrastructure Programs:</i> | | | | |
| American Heart Association | 93.351 | None Identified | — | 57,670 |
| American Heart Association | 93.351 | T32 OD010957 | — | 240,602 |
| Oregon Health & Sciences University | 93.351 | 9008142_WF | — | 20,354 |
| <i>Total Research Infrastructure Programs</i> | | | — | 318,626 |
| <i>Nursing Research:</i> | | | | |
| Emory University | 93.361 | T042545 | — | 219,847 |
| Emory University | 93.361 | T573917 | — | 23,898 |
| Northwestern University | 93.361 | 60043295 WF | — | 7,027 |
| <i>Total Nursing Research</i> | | | — | 250,772 |

WAKE FOREST UNIVERSITY
Schedule of Expenditures of Federal Awards
Year ended June 30, 2017

| Federal Grantor/Pass-Through Grantor/Program or Cluster Title | Federal CFDA No. or Other Grant Identifying No. | Pass-Through Entity Identifying Number | Passed Through to Subrecipients | Federal Expenditures |
|---------------------------------------------------------------|-------------------------------------------------------|-------------------------------------------|---------------------------------------|-------------------------|
| <i>Cancer Cause and Prevention:</i> | | | | |
| Alliance for Clinical Trials in Oncology | 93.393 | A071102 | \$ — | 297 |
| Emory University | 93.393 | T014112 | — | (26,955) |
| Johns Hopkins University | 93.393 | 2001668226 | — | 1,682 |
| Kaiser Permanente Southern California | 93.393 | None Identified | — | 15,416 |
| Mount Sinai School of Medicine | 93.393 | 0255-0851-4609 | — | 1,111 |
| Ohio State University | 93.393 | None Identified | — | 180 |
| University of Alabama School of Medicine | 93.393 | 000508050 | — | 1,662 |
| University of Miami | 93.393 | 66649Y | — | (50) |
| <i>Total Cancer Cause and Prevention</i> | | | — | (6,657) |
| <i>Cancer Detection and Diagnosis Research:</i> | | | | |
| ECOG-ACRIN Cancer Research Group | 93.394 | None Identified | — | 588 |
| Institute for Systems Biology | 93.394 | 2016.0001 | — | 28,991 |
| University of Illinois-Urbana | 93.394 | 086213-16366 | — | 147,980 |
| Virginia Polytechnic and State University | 93.394 | 431850-19541 | — | 4,152 |
| <i>Total Cancer Detection and Diagnosis Research</i> | | | — | 181,711 |
| <i>Cancer Treatment Research:</i> | | | | |
| Cancer and Leukemia Group B Foundation | 93.395 | 5-32014 | — | 82,934 |
| Children's Hospital of Philadelphia | 93.395 | FP00013087_SUB206_01 | — | 45,824 |
| Children's Hospital of Philadelphia | 93.395 | None Identified | — | 14,933 |
| Children's Hospital of Philadelphia | 93.395 | 95000080215-13C | — | (13,867) |
| Gynecologic Oncology Group | 93.395 | None Identified | — | 952 |
| Gynecologic Oncology Group | 93.395 | 27469 041 | — | 16,835 |
| NRG Oncology | 93.395 | NRG-GY005 | — | 7,378 |
| NRG Oncology | 93.395 | NRG-GY004 | — | 8,740 |
| Brigham & Women's Hospital | 93.395 | CALGB-BWH | — | 3,183 |
| ECOG-ACRIN Cancer Research Group | 93.395 | E2112 | — | 156 |
| ECOG-ACRIN Cancer Research Group | 93.395 | 1UG1CA189828-01-WFU1 | — | 142,461 |
| ECOG-ACRIN Cancer Research Group | 93.395 | 1UG1CA189828-01-WFU2 | — | 11,274 |
| John Wayne Cancer Institute | 93.395 | JWCIMSLTII | — | 930 |
| Johns Hopkins University | 93.395 | ABTC1202 | — | 20 |
| Mount Sinai School of Medicine | 93.395 | 0254-7376-4605 | — | 23,238 |
| Regents of the University of California | 93.395 | 568GTA594 | — | 265,906 |
| Regents of the University of California | 93.395 | 1568GTA594 | — | 329,983 |
| University of Nebraska Medical Center | 93.395 | 34-5140-2058-001 | — | 15,349 |
| University of South Florida | 93.395 | 6119-1222-30-AI | — | (2,699) |
| <i>Total Cancer Treatment Research</i> | | | — | 953,530 |
| <i>Cancer Control:</i> | | | | |
| Alliance for Clinical Trials in Oncology | 93.399 | A021501 | — | 42 |
| Alliance for Clinical Trials in Oncology | 93.399 | None Identified | — | 58 |
| NRG Oncology | 93.399 | NRG-BR001 | — | (14,521) |
| NRG Oncology | 93.399 | NSABP B-55 | — | 28 |
| NRG Oncology | 93.399 | E4112 | — | 18,000 |
| Southwest Oncology Group | 93.399 | None Identified | — | 768 |
| Southwest Oncology Group | 93.399 | S1304 | — | 9,232 |
| <i>Total Cancer Control</i> | | | — | 13,607 |
| <i>Trans-NIH Recovery Act Research Support:</i> | | | | |
| American College of Radiology Imaging Network | 93.701 | None Identified | — | 1,273 |
| <i>Total Trans-NIH Recovery Act Research Support</i> | | | — | 1,273 |
| <i>Cancer Centers Support Grants:</i> | | | | |
| University of Michigan | 93.397 | 3003669897 | — | 10,270 |
| University of Texas M.D. Anderson Cancer Center | 93.397 | 00004757 | — | 36,032 |
| <i>Total Cancer Centers Support Grants</i> | | | — | 46,302 |
| <i>Cardiovascular Diseases:</i> | | | | |
| Brigham & Women's Hospital | 93.837 | 109361 | — | 10,894 |
| Brigham & Women's Hospital | 93.837 | None Identified | — | 743 |
| Columbia University | 93.837 | 2(GG011046-01)/2(GG0110462-02) | — | 41,159 |
| Duke University Medical Center | 93.837 | None Identified | — | 1,830 |
| Georgia State University | 93.837 | SP00010936 | — | 6,693 |
| Memorial Hospital of Rhode Island | 93.837 | 5001191-Shumaker | — | 12,556 |
| New England Research Institute | 93.837 | None Identified | — | 13,118 |
| Oregon Health & Sciences University | 93.837 | 1002459_WakeF | — | 7,983 |
| Oregon Health & Sciences University | 93.837 | 1005000-WFU | — | 14,372 |
| Partners Healthcare | 93.837 | 225712 | — | 62,779 |
| Pennsylvania State University | 93.837 | WFUHL098115GWAS | — | 114,498 |
| The Miriam Hospital & Brown Medical School | 93.837 | 710-9144 | 13,711 | 248,876 |
| University of Colorado | 93.837 | 2560942 | — | 2,634 |
| University of Minnesota | 93.837 | N00494404 | — | 74,184 |
| University of Minnesota | 93.837 | None Identified | — | 15,676 |
| University of Mississippi | 93.837 | 66100850513-WFUHS | — | 41,661 |
| University of Mississippi Medical Center | 93.837 | 66105170515-WFUHS | — | 4,853 |
| University of North Carolina at Chapel Hill | 93.837 | 5101203 | — | 29,197 |
| University of North Carolina at Chapel Hill | 93.837 | 5105017 / 5033553 | — | 32,174 |

WAKE FOREST UNIVERSITY
Schedule of Expenditures of Federal Awards
Year ended June 30, 2017

| Federal Grantor/Pass-Through Grantor/Program or Cluster Title | Federal CFDA No. or Other Grant Identifying No. | Pass-Through Entity Identifying Number | Passed Through to Subrecipients | Federal Expenditures |
|---------------------------------------------------------------|-------------------------------------------------------|-------------------------------------------|---------------------------------------|-------------------------|
| University of North Carolina at Chapel Hill | 93.837 | 5-30761 | \$ — | (8,133) |
| University of North Carolina at Chapel Hill | 93.837 | 5105018 / 5033554 | — | 17,701 |
| University of Pittsburgh | 93.837 | 0017452 (121273-1) | — | 70,641 |
| University of Utah | 93.837 | 10022504-10 | — | 32,870 |
| University of Utah | 93.837 | 10036793-01 | — | 18,771 |
| University of Washington | 93.837 | 748710 | — | (2,495) |
| University of Washington | 93.837 | 757043 | — | 6,104 |
| University of Washington | 93.837 | BPO16612 | — | 50,344 |
| University of Washington | 93.837 | UWSC 9055 | — | 71,351 |
| University of Washington | 93.837 | UWSC6291 | — | 3,116 |
| University of Washington | 93.837 | UWSC7564 | — | 51,109 |
| University of Washington | 93.837 | UWSC8536 | — | 52,545 |
| University of Washington | 93.837 | UWSC8252 | — | 43,758 |
| Washington University - St. Louis | 93.837 | WU-14-240 | — | 31,195 |
| Washington University - St. Louis | 93.837 | WU-17-322 | — | 33,019 |
| <i>Total Cardiovascular Diseases</i> | | | 13,711 | 1,207,776 |
| <i>Lung Diseases:</i> | | | | |
| Brigham & Women's Hospital | 93.838 | 106219 | — | 310 |
| Columbia University | 93.838 | 7(GG010919-02) | — | 67,070 |
| Fred Hutchinson Cancer Research Center | 93.838 | 0000760192 | — | 39,613 |
| Massachusetts General Hospital | 93.838 | 224404 | — | 212,908 |
| Massachusetts General Hospital | 93.838 | 228540 | 35,153 | 56,003 |
| Massachusetts General Hospital | 93.838 | 229886 | — | 792 |
| National Jewish Medical and Research Center | 93.838 | 2020095402 | — | 9,459 |
| National Jewish Medical and Research Center | 93.838 | 2020095405 | — | 7,075 |
| Pennsylvania State University | 93.838 | WFU U10HL 109086 | — | (17,082) |
| Pennsylvania State University | 93.838 | WFUHL109086SPU | — | 22,085 |
| University of Alabama - Birmingham | 93.838 | 000505877-001 | — | 18,973 |
| University of California - San Francisco | 93.838 | 6021sc | — | 2,919 |
| University of Washington | 93.838 | UWSC9506 | — | 20,822 |
| University of Washington | 93.838 | UWSC9347 | — | 48,585 |
| <i>Total Lung Diseases</i> | | | 35,153 | 489,532 |
| <i>Blood Diseases and Resources Research:</i> | | | | |
| Washington University, St. Louis | 93.839 | WU-09-330 | — | 17,379 |
| Winston Salem State University | 93.839 | 211149 A | — | 113,376 |
| <i>Total Blood Diseases and Resources Research</i> | | | — | 130,755 |
| <i>Arthritis, Musculoskeletal and Skin Diseases:</i> | | | | |
| Cincinnati Children's Hospital | 93.846 | 134740 | — | 16,562 |
| Johns Hopkins University | 93.846 | STREAM | — | 622 |
| University of Michigan | 93.846 | 3002095782 | — | 31,804 |
| University of Washington | 93.846 | None Identified | — | (3,716) |
| Virginia Commonwealth University | 93.846 | PT107007-SC104560 | — | 126,554 |
| <i>Total Arthritis, Musculoskeletal and Skin Diseases</i> | | | — | 171,826 |
| <i>Diabetes, Digestive, and Kidney Diseases:</i> | | | | |
| Case Western Reserve University | 93.847 | RESS10573 | — | 11,638 |
| Dana-Farber Cancer Institute | 93.847 | 4503602 | — | (6,406) |
| Dana-Farber Cancer Institute | 93.847 | 4802702 | — | (22,702) |
| Duke University Medical Center | 93.847 | 203-8872 | — | (15,880) |
| Duke University Medical Center | 93.847 | 203-8873 | — | (16,165) |
| George Washington University | 93.847 | 15-B02 | — | (5,004) |
| George Washington University | 93.847 | S-GRD1617-LL43 | — | 135,230 |
| George Washington University | 93.847 | S-GRD1516-MW43 | — | 12,382 |
| George Washington University | 93.847 | 21049-44-CCLS29189F | — | 60,356 |
| George Washington University | 93.847 | 21049-45-CCLS91301F | — | 28,877 |
| Johns Hopkins University | 93.847 | 2001772846 | — | 6,659 |
| Johns Hopkins University | 93.847 | 2002179504 | — | 2,488 |
| Johns Hopkins University | 93.847 | 2002910217 | — | 65,473 |
| Kaiser Permanente Southern California | 93.847 | OOS030112_WFU | — | 4,763 |
| Kaiser Permanente Southern California | 93.847 | CS113409_WFUHS | — | 13,178 |
| Massachusetts General Hospital | 93.847 | None Identified | — | (2,598) |
| Mount Sinai Medical Center | 93.847 | 0255-3839-4609 | — | 136,759 |
| Mount Sinai Medical Center | 93.847 | 0255-3837-4609 | — | (2,673) |
| Mount Sinai Medical Center | 93.847 | 0255-3838-4609 | — | 29,439 |
| Pennsylvania State University | 93.847 | 755380 | — | 35,326 |
| Loyola University Stritch School of Medicine | 93.847 | 206423 | — | 5,742 |
| The Miriam Hospital and Brown Medical School | 93.847 | 710-9197 | — | 18,901 |
| Tufts University | 93.847 | 5014197-SERV | — | 22,418 |
| University of Texas Health Sciences Center - San Antonio | 93.847 | 159193/152953 | — | 53,663 |
| University of Alabama-Birmingham | 93.847 | 000502646-001 | — | 58,393 |
| University of Alabama School of Medicine | 93.847 | 000501788-001 | — | (433) |
| University of Colorado Denver | 93.847 | FY16.253.002 | — | 25,155 |
| University of Illinois at Chicago College | 93.847 | P1157703 | — | 2,916 |
| University of Michigan | 93.847 | 3004195235 | — | 29,051 |
| University of Michigan | 93.847 | 3004195234 | — | 12,453 |
| University of Michigan | 93.847 | 3003773940 | — | 12,416 |

WAKE FOREST UNIVERSITY
Schedule of Expenditures of Federal Awards
Year ended June 30, 2017

| Federal Grantor/Pass-Through Grantor/Program or Cluster Title | Federal CFDA No. or Other Grant Identifying No. | Pass-Through Entity Identifying Number | Passed Through to Subrecipients | Federal Expenditures |
|-------------------------------------------------------------------------------------------|-------------------------------------------------------|-------------------------------------------|---------------------------------------|-------------------------|
| University of Michigan | 93.847 | 3003773938 | \$ — | 21,784 |
| University of North Carolina at Chapel Hill | 93.847 | 5104211 | — | 8,752 |
| University of North Carolina at Chapel Hill | 93.847 | 5105187 | — | 61,113 |
| University of North Carolina at Chapel Hill | 93.847 | 5101067 | — | 77 |
| University of Pennsylvania | 93.847 | 568355 | — | 543 |
| University of Pennsylvania | 93.847 | 569506 | — | 151,453 |
| University of Pennsylvania | 93.847 | 568952 | — | 7,678 |
| University of Pennsylvania | 93.847 | 566493 | — | (34) |
| University of Utah | 93.847 | 10019509-05 | — | 27,310 |
| University of Washington | 93.847 | UWSC8594 | — | 16,683 |
| Veterans Medical Research Foundation | 93.847 | 09001001-314264 | — | 22,400 |
| Veterans Medical Research Foundation | 93.847 | 08740003-318605 | — | 54,706 |
| <i>Total Diabetes, Digestive, and Kidney Diseases</i> | | | — | 1,084,280 |
| <i>Extramural Research Programs in the Neurosciences and Neurological Disorders:</i> | | | | |
| Boston University | 93.853 | 0314304 | — | 4,562 |
| Cedars-Sinai Medical Center | 93.853 | None Identified | — | 7,169 |
| Cedars-Sinai Medical Center | 93.853 | 1281169 | — | 6,051 |
| Emory University | 93.853 | T651854 (Yr4 473217) | — | 17,403 |
| Emory University | 93.853 | T423217 (Yr3 T270095) | — | 7,813 |
| Emory University | 93.853 | T473217 | — | 35,590 |
| Emory University | 93.853 | T270095 | — | 36 |
| John Hopkins University | 93.853 | PO#2003044864PO#2001948320 | — | 20,773 |
| Massachusetts General Hospital | 93.853 | 219314 | — | 485 |
| Massachusetts General Hospital | 93.853 | 228032 | — | (11,423) |
| Massachusetts General Hospital | 93.853 | 227810 | — | 20,831 |
| University of Alabama-Birmingham | 93.853 | 000426787-001 | — | 182,410 |
| University of Cincinnati | 93.853 | 010333-002 | — | 311,413 |
| University of Cincinnati | 93.853 | COEUS # 006883-010 | — | 12,843 |
| University of Miami | 93.853 | 665164 | — | 2,450 |
| University of Texas Southwest Medical Center - Dallas | 93.853 | GMO-160603 | — | 137 |
| University of Washington | 93.853 | UWSC77779 | — | (1,937) |
| University of Washington | 93.853 | UWSC7779 | — | 53,649 |
| Virginia Polytechnic Institute and State University | 93.853 | 431861-541 | — | 119,571 |
| Virginia Polytechnic Institute and State University Carilion School of Medicine | 93.853 | 431884-19541 | — | 87,251 |
| Weill Cornell Medical College | 93.853 | 1640482-01; 170326-03 | — | 83,035 |
| <i>Total Extramural Research Programs in the Neurosciences and Neurological Disorders</i> | | | — | 960,112 |
| <i>Allergy and Infectious Diseases:</i> | | | | |
| Benaroya Research Institute at Virginia Madison | 93.855 | FY15ITN134 | — | 26,349 |
| Columbia University | 93.855 | None Identified | — | 93,885 |
| Columbia University | 93.855 | None Identified | — | 79,906 |
| Columbia University | 93.855 | 3(GG011896-21); 63(GG011895-09) | — | 20,660 |
| Duke University | 93.855 | 2033864 | — | (5,142) |
| Duke University | 93.855 | 2035485 | — | 1,733,144 |
| Duke University | 93.855 | 2034598 | — | 283,416 |
| Duke University | 93.855 | 2034582 | — | 71,283 |
| Duke University | 93.855 | 2035478 | — | 571,879 |
| Duke University | 93.855 | 2033869 | — | 2,352 |
| Institute for Clinical Research, Inc. | 93.855 | M52-WF-034-1101-3 | — | 23,525 |
| Johns Hopkins University | 93.855 | 2003171528 | — | 80,003 |
| Partners Healthcare | 93.855 | 227111 | — | 5,553 |
| University of Alabama-Birmingham | 93.855 | 000506671-001 | — | 7,862 |
| University of Minnesota | 93.855 | M661-6285-7905 | — | (26,801) |
| University of Minnesota | 93.855 | P004756925 | — | 85,870 |
| <i>Total Allergy and Infectious Diseases</i> | | | — | 3,053,744 |
| <i>Biomedical Research and Research Training:</i> | | | | |
| East Tennessee State University | 93.859 | 270605 | — | 22,133 |
| Presbyterian College School of Pharmacy | 93.859 | 2013-14/03 | — | 16,102 |
| University of New Mexico | 93.859 | IRADA PLUS | — | 1,229 |
| <i>Biomedical Research and Research Training</i> | | | — | 39,464 |
| <i>Child Health and Human Development:</i> | | | | |
| University of California - Los Angeles | 93.865 | 2000 G UD584 | — | 102,161 |
| University of North Carolina at Chapel Hill | 93.865 | 5-39440 | — | 58,621 |
| University of South Carolina | 93.865 | 17-3164/PO # 2000028782 | — | 13,977 |
| Women & Infants Hospital | 93.865 | 9373 | — | 59,310 |
| <i>Total Child Health and Human Development</i> | | | — | 234,069 |
| <i>Aging:</i> | | | | |
| Boston University | 93.866 | 4500001453 | — | (211) |
| Brigham & Women's Hospital | 93.866 | 113340 | — | 13,738 |
| Brigham & Women's Hospital | 93.866 | 111014 | — | 49,146 |
| City of Hope Comprehensive Cancer Center | 93.866 | 23030.1914940.669305 | — | 57,268 |
| Johns Hopkins University | 93.866 | 2002345500 | — | (357) |
| Ohio State University | 93.866 | 60051415 | — | 66,784 |
| University of California - San Diego | 93.866 | 3716447 | — | 37,209 |
| University of California - San Diego | 93.866 | M15A11884 (A10043) | — | (82,085) |

WAKE FOREST UNIVERSITY
Schedule of Expenditures of Federal Awards
Year ended June 30, 2017

| Federal Grantor/Pass-Through Grantor/Program or Cluster Title | Federal CFDA No. or Other Grant Identifying No. | Pass-Through Entity Identifying Number | Passed Through to Subrecipients | Federal Expenditures |
|----------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|-------------------------------------------|---------------------------------------|-------------------------|
| University of California - San Diego | 93.866 | 42024655 | \$ 297,600 | 476,534 |
| University of California - San Diego | 93.866 | 59507529 | — | (23,755) |
| University of California - San Diego | 93.866 | 45895410 | — | 1,714 |
| University of Florida | 93.866 | UFDSP00010436 | — | 67,856 |
| University of Florida | 93.866 | UFDSP00011305 | — | 361,403 |
| University of Florida | 93.866 | UFDSP00011020 | — | (1,188) |
| University of Florida | 93.866 | UFDSP00011022 | — | (3,210) |
| University of Florida | 93.866 | UFDSP00011306 | — | 310,650 |
| University of Florida | 93.866 | UFDSP0010690 | — | 56,921 |
| University of Florida | 93.866 | UFDSP00010689 | — | 13,119 |
| University of Florida | 93.866 | UFDSP00010698 | 9,368 | 625,597 |
| University of Minnesota | 93.866 | MMRF - ASPREE | 109,440 | 202,370 |
| University of North Carolina at Chapel Hill | 93.866 | 5-50150 | — | 63,296 |
| University of North Carolina at Chapel Hill | 93.866 | 5106148 | — | 64,967 |
| University of Pittsburgh | 93.866 | 0012200 (122381-7) | — | (409) |
| University of Pittsburgh | 93.866 | 0038415 (125159-1) | — | 11,098 |
| University of Pittsburgh | 93.866 | 0052914 (127841-2) | — | 7,666 |
| University of Pittsburgh | 93.866 | 0040521 (128113-6) | — | 34,644 |
| University of Pittsburgh | 93.866 | 0040521 (126268-6) | — | 1,380 |
| University of Southern California | 93.866 | CTAADN1137 | — | 1,066 |
| University of Southern California | 93.866 | 75696819 | — | 100,561 |
| University of Southern California | 93.866 | 85221759 | — | 101,790 |
| University of Texas - Houston | 93.866 | 001496F | — | 49,376 |
| University of Washington | 93.866 | UWSC7199 | — | (2,126) |
| The Regents of the University of California | 93.866 | ADC-041-EXERT | — | 108,191 |
| <i>Total Aging</i> | | | <u>416,408</u> | <u>2,771,003</u> |
| <i>HIV Prevention Activities:</i> | | | | |
| Central Carolina Health Network | 93.940 | CAPUS 2016-1 | — | 21,463 |
| North Carolina Department of Health and Human Services | 93.940 | 00031204 | — | 2,632 |
| <i>Total HIV Prevention Activities</i> | | | <u>—</u> | <u>24,095</u> |
| <i>HIV Demonstration, Research, Public and Professional Education Projects:</i> | | | | |
| Centers for Disease Control and Prevention | 93.941 | None Identified | — | 37,743 |
| Altarum Institute | 93.941 | SC-16-001 | 16,848 | 122,602 |
| <i>Total HIV Demonstration, Research, Public and Professional Education Projects</i> | | | <u>16,848</u> | <u>160,345</u> |
| <i>PPHF Geriatric Education Centers:</i> | | | | |
| University of North Carolina at Chapel Hill | 93.969 | 5-52533 | — | (105) |
| University of North Carolina at Chapel Hill | 93.969 | 5102245 | — | 15,003 |
| University of North Carolina at Chapel Hill | 93.969 | 5103795 | — | 8,260 |
| <i>Total PPHF Geriatric Education Centers</i> | | | <u>—</u> | <u>23,158</u> |
| <i>Birth Defects and Developmental Disabilities - Prevention and Surveillance:</i> | | | | |
| Duke University | 93.073 | 216069 | — | 818 |
| <i>Blood Disorder Program: Prevention, Surveillance, and Research:</i> | | | | |
| University of North Carolina at Chapel Hill | 93.080 | 5106851 | — | 10,879 |
| <i>Advancing System Improvements for Key Issues in Women's Health:</i> | | | | |
| NC Coalition Against Domestic Violence | 93.088 | ASTWH150030 | — | 41,686 |
| <i>Oral Diseases and Disorders Research:</i> | | | | |
| The Methodist Hospital Research Institute: | 93.121 | 22000006-48 | — | 141,665 |
| <i>Disabilities Prevention:</i> | | | | |
| University of North Carolina at Chapel Hill | 93.184 | 5100497 | — | 1,845 |
| <i>Research and Training in Complementary and Integrative Health:</i> | | | | |
| Massachusetts General Hospital | 93.213 | 224322 | — | 2,012 |
| <i>Cancer Biology Research:</i> | | | | |
| University of Southern California | 93.396 | 45923235 | — | 228,401 |
| <i>HIV Care Formula Grants:</i> | | | | |
| North Carolina Department of Health and Human Services | 93.917 | 00034892 | — | 171,282 |
| <i>Preventive Health Services Sexually Transmitted Diseases Control Grants:</i> | | | | |
| University of Alabama Birmingham | 93.977 | 000506238-002 | 33,282 | 81,826 |
| University of Alabama Birmingham | 93.UNKNOWN | 000500918-T010-SC011 | — | 1,357 |
| University of Alabama Birmingham | 93.UNKNOWN | 000500918-T013-010 | — | 5,247 |
| University of Alabama Birmingham | 93.UNKNOWN | 000500918-T011-004 | — | 21,102 |
| Center for Disease Control and Prevention | 93.UNKNOWN | None Identified | — | 48,709 |
| <i>Total Preventive Health Services Sexually Transmitted Diseases Control Grants</i> | | | <u>33,282</u> | <u>158,241</u> |
| <i>Surveillance, Natural History, Quality of Care and Outcomes of Diabetes Mellitus with Onset in Childhood and Adolescence:</i> | | | | |
| Center for Disease Control and Prevention | 93.UNKNOWN | None Identified | — | (9,820) |
| <i>The North Carolina Coalition Initiative (NCCI) Evaluation:</i> | | | | |
| CenterPoint Human Services | 93.UNKNOWN | FY16-275 | 10,057 | 11,509 |
| <i>Cancer Trials Support Unit Phase II Supplemental Payments:</i> | | | | |
| Children's Hospital of Philadelphia | 93.UNKNOWN | None Identified | — | 558 |

WAKE FOREST UNIVERSITY
Schedule of Expenditures of Federal Awards
Year ended June 30, 2017

| Federal Grantor/Pass-Through Grantor/Program or Cluster Title | Federal CFDA No. or Other Grant Identifying No. | Pass-Through Entity Identifying Number | Passed Through to Subrecipients | Federal Expenditures |
|--------------------------------------------------------------------------------------------|-------------------------------------------------------|-------------------------------------------|---------------------------------------|-------------------------|
| <i>ODSH as a Countermeasure for Radiation-Induced Thrombocytopenia:</i> | | | | |
| Children's Hospital of Philadelphia | 93.UNKNOWN | FP16320_SUB05_02 | \$ — | 18,255 |
| Children's Hospital of Philadelphia | 93.UNKNOWN | 7300220817 | — | 82,379 |
| <i>Total ODSH as a Countermeasure for Radiation-Induced Thrombocytopenia</i> | | | — | 100,634 |
| <i>National Coalition Institute Independent Evaluation:</i> | | | | |
| Community Anti-Drug Coalitions of America | 93.UNKNOWN | None Identified | — | 41,937 |
| <i>Antibiotic Safety in Infants with Complicated Intra-Abdominal Infections:</i> | | | | |
| Duke University | 93.UNKNOWN | 201316 | — | (2,029) |
| <i>Molecular Analysis for Therapy Choice (MATCH):</i> | | | | |
| ECOG-ACRIN Cancer Research Group | 93.UNKNOWN | None Identified | — | 9,012 |
| <i>Disaster Medical Advisor of the Office of Emergency Medical Services:</i> | | | | |
| North Carolina Department of Health and Human Services | 93.UNKNOWN | 00029343 | — | 577 |
| <i>A Randomized Phase III Trial of Adjuvant Therapy Comparing Doxorubicin Plus:</i> | | | | |
| NRG Oncology | 93.UNKNOWN | None Identified | — | 8 |
| <i>Jackson Heart Study:</i> | | | | |
| University of Mississippi | 93.UNKNOWN | 66102700417-01WF | — | 7,818 |
| <i>Genome-wide Association Study (GWAS):</i> | | | | |
| University of North Carolina at Chapel Hill | 93.UNKNOWN | 5102903 | — | 109,508 |
| <i>Hispanic Community Health Studies (HCHS):</i> | | | | |
| University of North Carolina at Chapel Hill | 93.UNKNOWN | 5-35034 | — | (13,300) |
| <i>Atherosclerosis Risk in Communities Study:</i> | | | | |
| University of North Carolina at Chapel Hill | 93.UNKNOWN | 5102906 | — | 10,399 |
| University of North Carolina at Chapel Hill | 93.UNKNOWN | 5103327 | — | 252,371 |
| University of North Carolina at Chapel Hill | 93.UNKNOWN | 5100680 | — | 23,523 |
| University of North Carolina at Chapel Hill | 93.UNKNOWN | 5106368 | — | 289,743 |
| University of North Carolina at Chapel Hill | 93.UNKNOWN | 5106342 | — | 75,460 |
| University of North Carolina at Chapel Hill | 93.UNKNOWN | 5106335 | — | 65,679 |
| <i>Total Atherosclerosis Risk in Communities Study</i> | | | — | 717,175 |
| <i>SPIROMICS - Genomics Analysis:</i> | | | | |
| University of North Carolina at Chapel Hill | 93.UNKNOWN | 5-56026 | — | 8,483 |
| <i>Enhancement of Anti-Pertussis Immune Responses by Bordetella Colonization Factor A:</i> | | | | |
| University of Rochester | 93.UNKNOWN | 416478-G | — | 82,761 |
| <i>Trans-Omics for Precision Medicine Program</i> | | | | |
| University of Washington | 93.UNKNOWN | UWSC9290 | — | 125,517 |
| <i>Multi-Ethnic Study of Atherosclerosis (MESA):</i> | | | | |
| University of Washington | 93.UNKNOWN | UWSC8541 | — | 500,129 |
| University of Washington | 93.UNKNOWN | UWSC8897 | — | 302,686 |
| <i>Total Multi-Ethnic Study of Atherosclerosis (MESA)</i> | | | — | 802,815 |
| <i>Subtotal National Institutes of Health Pass-Through Programs</i> | | | 551,054 | 17,081,381 |
| Total U.S. Department of Health and Human Services | | | 21,540,409 | 116,816,408 |
| U.S. Department of Defense Direct Programs: | | | | |
| <i>Military Medical Research and Development</i> | | | | |
| Department of Army | 12.420 | | 6,403,068 | 15,018,084 |
| <i>Basic Scientific Research</i> | | | | |
| Department of Army | 12.431 | | — | 844,048 |
| <i>Integrated Organoid Testing System</i> | | | | |
| Department of Navy | 12.UNKNOWN | | 1,835,895 | 2,804,944 |
| <i>Mitigation of Symptoms for PTSD with or without Mild TBI</i> | | | | |
| United States Special Operations Command | 12.UNKNOWN | | — | 25,215 |
| <i>RAM - Development of a Human Memory Prosthetic</i> | | | | |
| Defense Advance Research Project | 12.UNKNOWN | | 205,134 | 609,759 |
| <i>Subtotal U.S. Department of Defense Direct Programs</i> | | | 8,444,097 | 19,302,050 |
| U.S. Department of Defense Pass-Through Programs From: | | | | |
| <i>Military Medical Research and Development</i> | | | | |
| American Burn Association | 12.420 | ABA W81XWH-11-1-0835 | — | 29,853 |
| Geneva Foundation | 12.420 | None Identified | — | 22 |
| Henry Jackson Foundation | 12.420 | 859167 | — | 339,875 |
| Johns Hopkins University | 12.420 | 2001186134 | — | 40,004 |
| Johns Hopkins University | 12.420 | VUMC37447 | — | 89 |
| Johns Hopkins University | 12.420 | 2001950420 | — | 562 |
| Johns Hopkins University | 12.420 | SR00001694 | — | 909 |
| Johns Hopkins University | 12.420 | 8399SC | — | 296 |
| Virginia Polytechnic Institute and State University | 12.420 | 450055-19541 | — | (5,181) |
| University of California at San Diego | 12.420 | 37253038 | — | 5,518 |
| University of Texas at San Antonio | 12.420 | 155615/155536 | — | 103,773 |

WAKE FOREST UNIVERSITY
Schedule of Expenditures of Federal Awards
Year ended June 30, 2017

| Federal Grantor/Pass-Through Grantor/Program or Cluster Title | Federal CFDA No. or Other Grant Identifying No. | Pass-Through Entity Identifying Number | Passed Through to Subrecipients | Federal Expenditures |
|-------------------------------------------------------------------------------|-------------------------------------------------------|-------------------------------------------|---------------------------------------|-------------------------|
| Johns Hopkins University | 12.420 | None Identified | \$ — | 22,627 |
| University of Kentucky | 12.420 | 320001006-17-130 | — | 5,490 |
| University of Michigan | 12.420 | 3004015397 | — | 122,591 |
| University of Michigan | 12.420 | 3004015759 | — | 94,975 |
| University of Southern California | 12.420 | WEI1872-06 - CTADODTAU1372 | — | 2,480 |
| University of Virginia | 12.420 | GG11825 148187 | — | 87,830 |
| | | | <u>—</u> | <u>851,713</u> |
| <i>Basic Scientific Research</i> | | | | |
| Virginia Polytechnic Institute and State University | 12.431 | 450277-19541 | — | 141,452 |
| <i>Uniformed Services University Medical Research Projects</i> | | | | |
| Henry Jackson Foundation | 12.750 | 3125 | — | 113,620 |
| <i>Universal Media for the Support and Expansion of Human Cells:</i> | | | | |
| RegenMed Development Organization | 12.UNKNOWN | 2017-601-001 (M) | — | 450,719 |
| RegenMed Development Organization | 12.UNKNOWN | 2017-601-001 (B) | — | 452,214 |
| | | | <u>—</u> | <u>902,933</u> |
| <i>Warrior Injury Assessment Manikin Biomechanics Product Team:</i> | | | | |
| Johns Hopkins University | 12.UNKNOWN | 117216 | — | 472,984 |
| <i>Subtotal U.S. Department of Defense Pass-Through Programs</i> | | | <u>—</u> | <u>2,482,702</u> |
| Total U.S. Department of Defense | | | 8,444,097 | 21,784,752 |
| National Science Foundation Direct Programs: | | | | |
| <i>Engineering Grants</i> | 47.041 | | — | 107,905 |
| <i>Biological Sciences</i> | 47.074 | | — | 60,177 |
| <i>Social, Behavioral, and Economic Sciences</i> | 47.075 | | — | 118,243 |
| <i>Education and Human Resources</i> | 47.076 | | — | 244,295 |
| <i>Subtotal National Science Foundation Direct Programs</i> | | | <u>—</u> | <u>530,620</u> |
| National Science Foundation Pass-Through Programs From: | | | | |
| <i>Engineering Grants:</i> | | | | |
| Children's Hospital of Philadelphia | 47.041 | CHOPCCChIPS | — | (2,206) |
| Children's Hospital of Philadelphia | 47.041 | CHOPCCChIPS | — | 49,854 |
| <i>Total Engineering Grants</i> | | | <u>—</u> | <u>47,648</u> |
| <i>Education and Human Resources:</i> | | | | |
| Winston Salem State University | 47.076 | 211145 B | — | 8,000 |
| <i>Subtotal National Science Foundation Pass-Through Programs</i> | | | <u>—</u> | <u>55,648</u> |
| Total National Science Foundation | | | <u>—</u> | 586,268 |
| U.S. Department of Justice Direct Programs: | | | | |
| <i>Part E -- Developing, Testing and Demonstrating Promising New Programs</i> | 16.541 | | — | (909) |
| <i>Subtotal U.S. Department of Justice Direct Programs</i> | | | <u>—</u> | <u>(909)</u> |
| Total U.S. Department of Justice | | | <u>—</u> | (909) |
| U.S. Department of Transportation Direct Programs: | | | | |
| <i>Crash Injury Research and Engineering Network Center</i> | | | | |
| National Highway Traffic Safety Administration | 20.UNKNOWN | | — | 137,710 |
| <i>Subtotal U.S. Department of Transportation Direct Programs</i> | | | <u>—</u> | <u>137,710</u> |
| Total U.S. Department of Transportation | | | <u>—</u> | 137,710 |
| U.S. Department of Veterans Affairs Direct Programs: | | | | |
| <i>Chronic Effects of Neurotrauma Consortium</i> | 64.UNKNOWN | | — | 101,048 |
| <i>Subtotal U.S. Department of Veteran Affairs Direct Programs</i> | | | <u>—</u> | <u>101,048</u> |
| U.S. Department of Veterans Affairs Pass-Through Programs From: | | | | |
| <i>Effect of PKD1-E-Cadherin Interaction in Prostate Cancer:</i> | | | | |
| W.G. Hefner VA Medical Center | 64.UNKNOWN | None Identified | — | 28,275 |
| <i>Veterinary Services for VA Owned Primates:</i> | | | | |
| W.G. Hefner VA Medical Center | 64.UNKNOWN | None Identified | — | 141,127 |
| <i>Subtotal U.S. Department of Veterans Affairs Pass-Through Programs</i> | | | <u>—</u> | <u>169,402</u> |
| Total U.S. Department of Veterans Affairs | | | <u>—</u> | 270,450 |
| National Aeronautics and Space Administration Direct Programs: | | | | |
| <i>Exploration</i> | 43.003 | | — | 193,355 |
| <i>Space Operations</i> | 43.007 | | — | 183,183 |
| <i>Subtotal U.S. Department of Veteran Affairs Direct Programs</i> | | | <u>—</u> | <u>376,538</u> |

WAKE FOREST UNIVERSITY
Schedule of Expenditures of Federal Awards
Year ended June 30, 2017

| Federal Grantor/Pass-Through Grantor/Program or Cluster Title | Federal CFDA No. or Other Grant Identifying No. | Pass-Through Entity Identifying Number | Passed Through to Subrecipients | Federal Expenditures |
|----------------------------------------------------------------------------------------|-------------------------------------------------------|-------------------------------------------|---------------------------------------|-------------------------|
| National Aeronautics and Space Administration Pass-Through Programs From: | | | | |
| Improving Cardiovascular Risk Prediction: Baylor College of Medicine | 43.UNKNOWN | CA03801 | \$ — | 15,069 |
| <i>Subtotal National Aeronautics and Space Administration Pass-Through Programs</i> | | | — | 15,069 |
| Total National Aeronautics and Space Administration | | | — | 391,607 |
| Subtotal – Wake Forest University Health Sciences | | | 29,984,506 | 139,986,286 |
| Reynolda Campus: | | | | |
| U.S. Department of Health and Human Services: | | | | |
| National Institutes of Health Direct Programs: | | | | |
| Aging Research | 93.866 | | 19,499 | 124,490 |
| Arthritis Musculoskeletal and Skin Diseases Research | 93.846 | | 1,202,316 | 1,949,804 |
| Blood Diseases and Resources | 93.839 | | 109,369 | 287,173 |
| Cardiovascular Research | 93.837 | | 149,827 | 526,166 |
| Mental Health Research: | 93.242 | | 64,133 | 189,855 |
| Pharmacology, Physiology and Biological Chemistry | 93.859 | | — | 83,332 |
| <i>Subtotal National Institutes of Health Direct Programs</i> | | | 1,545,144 | 3,160,820 |
| National Institutes of Health Pass-Through Programs From: | | | | |
| Aging Research Ohio State University | 93.866 | 60051416 | — | 39,874 |
| Allergy and Infectious Disease Research Emory University | 93.855 | T405249 | — | 18,042 |
| Arthritis Musculoskeletal and Skin Diseases Research Brigham & Women's Hospital | 93.846 | 109136 | — | 31,310 |
| Biomedical Research and Research Training Neuroglobin | 93.859 | 0042274 (125454-1) | — | 42,211 |
| Blood Diseases and Resources Research University of Pittsburgh | 93.839 | 0034673 (123613-1) | 21,976 | 154,856 |
| Cardiovascular Diseases Research Northwestern University | 93.837 | 60039432 WAFU | — | 13,910 |
| Trans-NIH Research Support University of Florida | 93.310 | UFDSP00011593 | — | 21,297 |
| <i>Subtotal U.S. Department of Health and Human Services Pass-Through Programs</i> | | | 21,976 | 321,500 |
| Total U.S. Department of Health and Human Services | | | 1,567,120 | 3,482,320 |
| U.S. Department of Defense Direct Programs: | | | | |
| Basic and Applied Scientific Research Department of Navy | 12.300 | | — | 12,395 |
| Military Medical Research and Development Department of Army | 12.420 | | 203,596 | 647,287 |
| Air Force Defense Research Sciences Program Air Force Office of Scientific Research | 12.800 | | — | 87,870 |
| Mathematical Sciences Grants Program National Security Agency | 12.901 | | — | 162 |
| <i>Subtotal U.S. Department of Defense Direct Programs</i> | | | 203,596 | 747,714 |
| U.S. Department of Defense Pass-Through Programs From: | | | | |
| Air Force Defense Research Sciences Program: University of New Mexico | 12.800 | 707791-874N | — | 46,425 |
| <i>Subtotal U.S. Department of Defense Pass-Through Programs</i> | | | — | 46,425 |
| Total U.S. Department of Defense | | | 203,596 | 794,139 |
| National Science Foundation Direct Programs: | | | | |
| Engineering Grants | 47.041 | | — | 316,552 |
| Mathematical and Physical Sciences | 47.049 | | — | 630,341 |
| Computer and Information Science Engineering | 47.070 | | — | 25,137 |
| Biological Sciences | 47.074 | | — | 616,257 |
| Social, Behavioral, and Economic Sciences | 47.075 | | 97,215 | 179,490 |
| Education and Human Resources | 47.076 | | 50,000 | 122,577 |
| <i>Subtotal National Science Foundation Direct Programs</i> | | | 147,215 | 1,890,354 |

WAKE FOREST UNIVERSITY
Schedule of Expenditures of Federal Awards
Year ended June 30, 2017

| Federal Grantor/Pass-Through Grantor/Program or Cluster Title | Federal CFDA No. or Other Grant Identifying No. | Pass-Through Entity Identifying Number | Passed Through to Subrecipients | Federal Expenditures |
|--------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|-------------------------------------------|---------------------------------------|-------------------------|
| National Science Foundation Pass-Through Programs From: | | | | |
| <i>Engineering Grants:</i> Clemson University | 47.041 | 1642-206-2009110 | \$ — | 5 |
| <i>Geosciences:</i> Duke University | 47.050 | 14-NSF-1032 | — | 29,340 |
| <i>Computer and Information Science and Engineering:</i> Georgia State University | 47.070 | TCPP/CDER | — | 1,647 |
| <i>Education and Human Resources</i> American Mathematical Society | 47.076 | CBMS2015 | — | 53,198 |
| Purdue University | 47.076 | 4101-70770 | — | 21,086 |
| <i>Total Education and Human Resources</i> | | | — | 74,284 |
| <i>Subtotal National Science Foundation Pass-Through Programs</i> | | | — | 105,276 |
| Total National Science Foundation | | | 147,215 | 1,995,630 |
| Agency for International Development Direct Programs: | | | | |
| <i>USAID Foreign Assistance for Programs Overseas</i> | 98.001 | | — | 1,023,120 |
| <i>Subtotal Agency for International Development Direct Programs</i> | | | — | 1,023,120 |
| Agency for International Development Pass-Through Programs From: | | | | |
| <i>Pakistan-US Science and Technology Cooperation Programs</i> National Academy of Sciences | 98.000 | 2000006099 | — | 38,254 |
| <i>Subtotal Agency for International Development Pass-Through Programs</i> | | | — | 38,254 |
| Total Agency for International Development | | | — | 1,061,374 |
| U.S. Department of Energy Pass-Through Programs From: | | | | |
| <i>Improvement of Scintillators</i> Lawrence of Berkeley National Laboratory | 81.UNKNOWN | 7223011 | — | 43,564 |
| <i>Parallel Tensor Decompositions for Massive Data</i> Sandia National Laboratories | 81.UNKNOWN | 1697182 | — | 21,542 |
| <i>Linear and Multiyear Techniques for Data Analysis</i> Sandia National Laboratories | 81.UNKNOWN | 1777863 | — | 7,039 |
| <i>Renewable Energy Research and Development</i> University of South Carolina | 81.087 | 08-1477 | — | 40 |
| <i>Office of Science Financial Assistance Program</i> University of Texas at Dallas | 81.049 | 120063 | — | 109,263 |
| <i>Subtotal Agency for International Development Pass-Through Programs</i> | | | — | 181,448 |
| Total U.S. Department of Energy | | | — | 181,448 |
| U.S. Department of Agriculture Direct Programs: | | | | |
| <i>Agriculture and Food Research Initiative</i> | 10.310 | | 61,620 | 127,631 |
| <i>Subtotal U.S. Department of Agricultural Direct Programs</i> | | | 61,620 | 127,631 |
| Total U.S. Department of Agriculture | | | 61,620 | 127,631 |
| U.S. Department of Homeland Security Direct Programs: | | | | |
| <i>Homeland Security Research, Development, Testing, Evaluation, and Demonstration of Technologies Related to Nuclear Threat Detection</i> | 97.077 | | — | 118,095 |
| <i>Subtotal U.S. Department of Homeland Security Direct Programs</i> | | | — | 118,095 |
| Total U.S. Department of Homeland Security | | | — | 118,095 |
| U.S. Department of Interior Fish and Wildlife Service Direct Programs: | | | | |
| <i>Partners for Fish and Wildlife</i> | 15.631 | | — | 7,640 |
| <i>Subtotal U.S. Department of Interior Fish and Wildlife Service Direct Programs</i> | | | — | 7,640 |
| Total U.S. Department of Interior Fish and Wildlife Service | | | — | 7,640 |
| U.S. Department of State Direct Programs: | | | | |
| <i>Professional and Cultural Exchange Programs – Citizen Exchanges</i> | 19.415 | | — | 206,920 |
| <i>Subtotal U.S. Department of State Direct Programs</i> | | | — | 206,920 |
| Total U.S. Department of State | | | — | 206,920 |

WAKE FOREST UNIVERSITY
Schedule of Expenditures of Federal Awards
Year ended June 30, 2017

| Federal Grantor/Pass-Through Grantor/Program or Cluster Title | Federal CFDA No. or Other Grant Identifying No. | Pass-Through Entity Identifying Number | Passed Through to Subrecipients | Federal Expenditures |
|-------------------------------------------------------------------------------|-------------------------------------------------------|-------------------------------------------|---------------------------------------|-------------------------|
| National Aeronautics and Space Administration Direct Programs: | | | | |
| <i>Science</i> | 43.001 | | \$ — | 39,784 |
| <i>Subtotal National Aeronautics and Space Administration Direct Programs</i> | | | — | 39,784 |
| Total National Aeronautics and Space Administration | | | — | 39,784 |
| Subtotal – Reynolda Campus | | | 1,979,551 | 8,014,981 |
| Total Research and Development Cluster | | | 31,964,057 | 148,001,267 |
| <i>Student Financial Assistance Cluster:</i> | | | | |
| Wake Forest University Health Sciences: | | | | |
| U.S. Department of Education Direct Programs: | | | | |
| Federal Direct Student Loans | 84.268 | | — | 26,456,507 |
| <i>Subtotal U.S. Department of Education Direct Programs</i> | | | — | 26,456,507 |
| Total U.S. Department of Education | | | — | 26,456,507 |
| Subtotal – Wake Forest University Health Sciences | | | — | 26,456,507 |
| Reynolda Campus: | | | | |
| U.S. Department of Education Direct Programs: | | | | |
| Federal Supplemental Educational Opportunity Grant | 84.007 | | — | 574,112 |
| Federal Direct Student Loans | 84.268 | | — | 46,800,297 |
| Federal Work Study Program | 84.033 | | — | 830,717 |
| Federal Perkins Loan Program | 84.038 | | — | 20,717,150 |
| Federal Pell Grant Program | 84.063 | | — | 1,982,456 |
| <i>Subtotal U.S. Department of Education Direct Programs</i> | | | — | 70,904,732 |
| Total U.S. Department of Education | | | — | 70,904,732 |
| Subtotal – Reynolda Campus | | | — | 70,904,732 |
| Total Student Financial Assistance Cluster | | | — | 97,361,239 |
| Total Federal Award Expenditures | | | \$ 31,964,057 | 245,362,506 |

See accompanying notes to schedule of expenditures of federal awards and schedule of expenditures of state awards.

See accompanying independent auditors' report.

WAKE FOREST UNIVERSITY
Schedule of Expenditures of State Awards
Year ended June 30, 2017

| State grantors/pass-through grantors/agencies | State expenditures |
|--------------------------------------------------------------|---------------------------|
| Wake Forest University Health Sciences: | |
| NC Department of Health and Human Services | \$ 6,018,459 |
| North Carolina State Education Assistance Authority: | |
| Forgivable Education Loans for Services (FELS) | 1,104,000 |
| State of NC pass-through funds from: | |
| North Carolina Biotechnology Center | 166,011 |
| University of North Carolina at Chapel Hill | 6,142,147 |
| University of North Carolina State | 29,784 |
| Other | 450,633 |
| <hr/> | |
| Subtotal – Wake Forest University Health Sciences | 13,911,034 |
| <hr/> | |
| Reynolda Campus: | |
| North Carolina State Education Assistance Authority (NCSEAA) | 3,081 |
| Forgivable Education Loans for Services (FELS) | 7,000 |
| Golden LEAF Scholarship Program (GOLD) | 12,000 |
| NC National Guard Tuition Assistance Program (NCTAP) | 6,000 |
| NC Need-Based Scholarships (NBS) | 1,369,923 |
| <hr/> | |
| Subtotal – Reynolda Campus | 1,398,004 |
| <hr/> | |
| Total State Award Expenditures | \$ 15,309,038 |

See accompanying notes to schedule of expenditures of federal awards and schedule of expenditures of state awards.

See accompanying independent auditors' report.

WAKE FOREST UNIVERSITY

Notes to Schedule of Expenditures of Federal Awards and Schedule of Expenditures of State Awards

Year ended June 30, 2017

(1) Basis of Presentation

The accompanying schedule of expenditures of federal awards (the schedule) includes all grants, contracts, and similar agreements entered into directly between Wake Forest University (the University) and agencies and departments of the federal government and all subawards to the University by nonfederal organizations pursuant to federal grants, contracts, and similar agreements and is presented on the accrual basis of accounting. The information in the schedule is presented in accordance with the requirements of Title 2 U.S. Code of Federal Regulations Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (Uniform Guidance). Therefore, some amounts presented in the schedule may differ from amounts presented in, or used in the preparation of, the basic financial statements.

The accompanying schedule of expenditures of state awards includes all grants, contracts, and similar agreements entered into directly between the University and agencies and departments of the state government and all subawards to the University by nonfederal organizations pursuant to state grants, contracts, and similar agreements and is presented on the accrual basis of accounting.

(2) Summary of Significant Accounting Policies

Expenditures for certain federal student financial aid programs are recognized as incurred and include the federal share of students' Federal Supplemental Educational Opportunity Grant (FSEOG) program grants and Federal Work Study (FWS) program earnings, Pell grants, loan disbursements, and administrative cost allowances, where applicable.

Expenditures for other federal awards of the University's academic and other divisions are recognized following, as applicable, either the cost principles in OMB Circular A-21, *Cost Principles for Educational Institutions*, or the cost principles contained in Title 2 U.S. Code of Federal Regulations Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards*, wherein certain types of expenditures are not allowable or are limited as to reimbursement.

Expenditures for non-financial aid awards include indirect costs, related primarily to facilities operation and maintenance and general, divisional, and departmental administrative services, which are allocated to direct cost objectives (including federal awards) based on negotiated formulas commonly referred to as facilities and administrative cost rates. Facilities and administrative costs allocated to such awards for the year ended June 30, 2017 were based on predetermined rates negotiated with the University's cognizant federal agency, the U.S. Department of Health and Human Services. The University has elected not to use the 10-percent de minimis indirect cost rate as allowed under the Uniform Guidance.

Negative balances presented in the schedule represent programs with unfunded expenditures prior to normal close-out procedures, which were subsequently transferred to nonfederal cost centers.

WAKE FOREST UNIVERSITY

Notes to Schedule of Expenditures of Federal Awards
and Schedule of Expenditures of State Awards

Year ended June 30, 2017

(3) Summary of Facilities and Administrative Costs and Administrative Cost Allowances – Governmental Sources

Facilities and administrative cost recoveries and administrative cost allowances for the University's academic and other divisions for the year ended June 30, 2017 are summarized as follows:

| | | |
|--------------------------|----|--------------------------|
| Federal: | | |
| Research and development | \$ | 37,465,708 |
| Student financial aid | | <u>247,072</u> |
| Total | \$ | <u><u>37,712,780</u></u> |

(4) Federal Student Financial Aid Loan Programs

The Federal Perkins Loan, Health Professions Student Loan (HPSL), and the Primary Care Loan (PCL) programs are administered directly by the University and balances and transactions relating to these programs are included in the University's basic financial statements. The current year loaned amounts under the Federal Perkins Loan program was \$2,058,776. There were no current year loaned amounts under HSPL and PCL. The balance of loans outstanding under the Federal Perkins Loan program was \$17,580,883 as of June 30, 2017. There were no loans outstanding for the HPSL and PCL programs as of June 30, 2017.

The University disbursed the following amounts of new loans under the Federal Direct Student Loan Program to students of the University during the year ended June 30, 2017:

| | | |
|--------------------------------------|----|--------------------------|
| Federal Direct Student Loan Program: | | |
| Federal subsidized Stafford loans | \$ | 3,418,209 |
| Federal unsubsidized Stafford loans | | 41,671,908 |
| Federal PLUS loans | | <u>28,166,687</u> |
| Total | \$ | <u><u>73,256,804</u></u> |

The University is responsible only for the performance of certain administrative duties with respect to the Federal Direct Student Loan Program and, accordingly, these loans are not included in its basic financial statements. It is not practicable to determine the balance of loans outstanding to students and former students of the University under these programs as of June 30, 2017.

(5) Matching

Under the FWS program, the University matched \$243,479 in compensation to students for the year ended June 30, 2017 in addition to the federal share of expenditures in the accompanying schedule.

Under the FSEOG program, the University matched \$191,371 in funds awarded to students for the year ended June 30, 2017 in addition to the federal share of expenditures in the accompanying schedule.



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

Independent Auditors' Report on Internal Control over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance with *Government Auditing Standards*

The Board of Trustees
Wake Forest University:

We have audited, in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States, the consolidated financial statements of Wake Forest University (the University), which comprise the consolidated balance sheet as of June 30, 2017, and the related consolidated statements of activities and cash flows for the year then ended, and the related notes to the consolidated financial statements, and have issued our report thereon dated October 23, 2017.

Internal Control over Financial Reporting

In planning and performing our audit of the consolidated financial statements, we considered the University's internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the consolidated financial statements, but not for the purpose of expressing an opinion on the effectiveness of the University's internal control. Accordingly, we do not express an opinion on the effectiveness of University's internal control.

A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A material weakness is a deficiency, or combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis. A significant deficiency is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

Compliance and Other Matters

As part of obtaining reasonable assurance about whether the University's consolidated financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.



Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the University's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the University's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

KPMG LLP

Greensboro, North Carolina
October 23, 2017



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

Independent Auditors' Report on Compliance for Each Major Federal Program; Report on Internal Control over Compliance; and Report on the Schedule of Expenditures of Federal Awards Required by Uniform Guidance and the Schedule of Expenditures of State Awards

The Board of Trustees
Wake Forest University:

Report on Compliance for Each Major Federal Program

We have audited Wake Forest University's (the University) compliance with the types of compliance requirements described in the *OMB Compliance Supplement* that could have a direct and material effect on the University's major federal program for the year ended June 30, 2017. The University's major federal program is identified in the summary of auditor's results section of the accompanying schedule of findings and questioned costs.

The University's financial statements include the operations of Wake Forest Innovation Quarter CDC, which received \$3,002,640 in federal awards which is not included in the schedule of expenditures of federal awards for the year ended June 30, 2017. Our audit, described below, did not include the operations of Wake Forest Innovation Quarter CDC because the affiliate engaged other auditors to perform an audit in accordance with the Uniform Guidance.

Management's Responsibility

Management is responsible for compliance with federal statutes, regulations, and the terms and conditions of its federal awards applicable to its federal programs.

Auditors' Responsibility

Our responsibility is to express an opinion on compliance for the University's major federal program based on our audit of the types of compliance requirements referred to above. We conducted our audit of compliance in accordance with auditing standards generally accepted in the United States of America; the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States; and the audit requirements of Title 2 U.S. *Code of Federal Regulations* Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (Uniform Guidance). Those standards and the Uniform Guidance require that we plan and perform the audit to obtain reasonable assurance about whether noncompliance with the types of compliance requirements referred to above that could have a direct and material effect on a major federal program occurred. An audit includes examining, on a test basis, evidence about the University's compliance with those requirements and performing such other procedures as we considered necessary in the circumstances.

We believe that our audit provides a reasonable basis for our opinion on compliance for the major federal program. However, our audit does not provide a legal determination of the University's compliance.

Opinion on the Major Federal Program

In our opinion, the University complied, in all material respects, with the types of compliance requirements referred to above that could have a direct and material effect on its major federal program for the year ended June 30, 2017.



Report on Internal Control over Compliance

Management of the University is responsible for establishing and maintaining effective internal control over compliance with the types of compliance requirements referred to above. In planning and performing our audit of compliance, we considered the University's internal control over compliance with the types of requirements that could have a direct and material effect on a major federal program to determine the auditing procedures that are appropriate in the circumstances for the purpose of expressing an opinion on compliance for a major federal program and to test and report on internal control over compliance in accordance with the Uniform Guidance, but not for the purpose of expressing an opinion on the effectiveness of internal control over compliance. Accordingly, we do not express an opinion on the effectiveness of the University's internal control over compliance.

A deficiency in internal control over compliance exists when the design or operation of a control over compliance does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, noncompliance with a type of compliance requirement of a federal program on a timely basis. A material weakness in internal control over compliance is a deficiency, or combination of deficiencies, in internal control over compliance, such that there is a reasonable possibility that material noncompliance with a type of compliance requirement of a federal program will not be prevented, or detected and corrected, on a timely basis. A significant deficiency in internal control over compliance is a deficiency, or a combination of deficiencies, in internal control over compliance with a type of compliance requirement of a federal program that is less severe than a material weakness in internal control over compliance, yet important enough to merit attention by those charged with governance.

Our consideration of internal control over compliance was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control over compliance that might be material weaknesses or significant deficiencies. We did not identify any deficiencies in internal control over compliance that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

The purpose of this report on internal control over compliance is solely to describe the scope of our testing of internal control over compliance and the results of that testing based on the requirements of Uniform Guidance. Accordingly, this report is not suitable for any other purpose.



Report on the Schedule of Expenditures of Federal Awards Required by Uniform Guidance and the Schedule of Expenditures of State Awards

We have audited the consolidated financial statements of the University as of and for the year ended June 30, 2017, and have issued our report thereon dated October 23, 2017 which contained an unmodified opinion on those financial statements. Our audit was conducted for the purpose of forming an opinion on the consolidated financial statements as a whole. The accompanying schedule of expenditures of federal awards is presented for purposes of additional analysis as required by the Uniform Guidance and is not a required part of the consolidated financial statements. The accompanying schedule of expenditures of state awards is also 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 schedule of expenditures of federal awards and the schedule of expenditures of state awards are fairly stated in all material respects in relation to the consolidated financial statements as a whole.

KPMG LLP

Greensboro, North Carolina
November 21, 2017

WAKE FOREST UNIVERSITY
Schedule of Findings and Questioned Costs
Year ended June 30, 2017

(1) Summary of Auditors' Results

- (i) The type of report issued on whether the financial statements were prepared in accordance with generally accepted accounting principles: **Unmodified opinion**
- (j) Significant deficiencies in internal control disclosed by the audit of the financial statements: **None reported** Material weaknesses: **No**
- (k) Noncompliance which is material to the financial statements: **No**
- (l) Significant deficiencies in internal control over major programs: **None reported** Material weaknesses: **No**
- (m) The type of report issued on compliance for major programs: **Unmodified opinion**
- (n) Any audit findings which are required to be reported under 2 CFR 200.516(a): **No**
- (o) Major program: **Student Financial Assistance Cluster**
- (p) Dollar threshold used to distinguish between Type A and Type B programs: **\$3,000,000**
- (q) Auditee qualified as a low-risk auditee: **Yes**

(2) Findings Relating to the Financial Statements Reported in Accordance with *Government Auditing Standards*

None

(3) Findings and Questioned Costs Relating to Federal Awards

None