BOARD OF TRUSTEES
NORTH CAROLINA STATE UNIVERSITY
AGENDA

Audit, Risk Management and Finance Committee
3:15 p.m. – 4:45 p.m., September 12, 2019
Winslow Hall Conference Room

Members: Ed Weisiger, Chair, Ann B. Goodnight, Stan Kelly, Ed Stack, Wendell Murphy, Dewayne Washington

CALL TO ORDER
Ed Weisiger, Chair of Committee

ROLL CALL
Ed Weisiger, Chair of Committee

READING OF STATE GOVERNMENT ETHICS ACT CONFLICT OF INTEREST STATEMENT
Ed Weisiger, Chair of Committee

RESPONSIBILITIES OF THE COMMITTEE

A. Review Committee Responsibilities as established in Bylaws 4.0A
Office of Finance and Administration
Mary Peloquin-Dodd, Interim Vice Chancellor, Finance and Administration

B. Review Draft Agenda/Plan of Work for the Year 4.0B
Office of Finance and Administration
Ed Weisiger, Chair, Audit, Risk Management and Finance Committee
Mary Peloquin-Dodd, Interim Vice Chancellor, Finance and Administration

1. APPROVAL OF MINUTES 4.1
Approval of April 18, 2019 Open and Closed Session Minutes

2. ACTION ITEMS 4.2

A. Internal Audit Charter Review and Approval (Internal Audit Act) 4.2A
Office of Internal Audit
Cecile Hinson, Director, Internal Audit

3. INFORMATIONAL REPORTS 4.3

A. Internal Audit Update (NC State Pol 01.05.1, Appendix 1, I.a.i-viii) 4.3A
Office of Internal Audit
Cecile Hinson, Director, Internal Audit
B. Legislative and Finance/Budget Update 4.3B
(UNC Pol, Ch. 100.1, Appendix 1 (V), NC State Pol 01.05.1, Appendix 1, I.b)
Office of External Affairs, Partnerships & Economic Development
Kevin Howell, Vice Chancellor, External Affairs, Partnerships
& Economic Development
Office of Finance and Administration
Mary Peloquin-Dodd, Interim Vice Chancellor, Finance and Administration
Barbara Moses, Associate Vice Chancellor, Budget and Resource Management

C. Enterprise Risk Management and Compliance Update 4.3C
(NC State Pol 01.05.1, Appendix 1, I.c.i, ii)
University Strategic Risk Management
Office of General Counsel
Allison Newhart, Vice Chancellor and General Counsel

4. COMMITTEE DISCUSSION TAB 4.4

5. ADDITIONAL INFORMATIONAL MATERIALS TAB 4.5

A. NC State Investment Fund Performance Review 4.5A
(NC State Pol 01.05.1, Appendix 1, I.b, d.i)

B. NC State Intermediate Term Fund Performance Review 4.5B
(NC State Pol 01.05.1, Appendix 1, Ib, d.i)

ADJOURN
APPENDIX 1

NC State Board of Trustees’ Delegations of Authority, Assignments and Guidelines

Audit, Risk Management and Finance Committee Delegated Authority and Assignments

a. Audit

i. Provide oversight of the internal audit function.

ii. Review and approve the annual internal audit plan at the beginning of the audit cycle.

iii. Receive quarterly activity reports from the internal auditor.

iv. Receive direct verbal and/or written reports from the university’s internal auditor regarding out of the ordinary reviews and findings that may involve senior level university employees, trustees or affiliates.

v. Review a comparison of the annual internal audit plan to the actual internal audits performed.

vi. Provide oversight of the annual financial statement audit.

vii. Assure that the university is performing self-assessments of operating risks and evaluations of internal controls on a regular basis.

viii. Meet with representatives of the State Auditor’s Office to review the annual state auditor’s report and the university’s corrective action, if any.

ix. Review audit reports of University-associated entities.
b. Finance

   i. Advise the Chancellor with respect to the development of budget estimates for
      the university, and with respect to the execution and administration of the budget
      as approved by the General Assembly and the Board of Governors.

c. Risk Management

   i. Provide oversight of the risk management and compliance functions.

   ii. Receive annual reports on risk management, compliance and legal issues.

d. Planning

e. Policy Development

   i. Recommend to the Board of Trustees for approval policies regarding the
      preservation, maintenance and management of institutional trust funds.

   ii. Upon recommendation of the chancellor, recommend to the Board of Trustees
      for approval policies related to the maintenance of campus security.

   iii. Upon recommendation of the chancellor, recommend to the Board of Trustees
      for approval, policies related to information technology and cyber security.
NC STATE BOARD OF TRUSTEES
AUDIT, RISK MANAGEMENT AND FINANCE COMMITTEE RESPONSIBILITIES
FY 2019 – 2020

Plan of Work/Calendar
- Review of Committee Responsibilities (Annual)
- Review of Draft Agenda Items for the Year (Annual)

Approvals/Recommendations (Action Items)
- Minutes
- Internal Audit Charter Review and Approval (Annual) (Audit)
- Internal Audit Yearly Plan (Annual) (Audit)
- Recommendation to full Board – policy changes related to institutional trusts – as needed (Policy Development)
- Recommendation to full Board – campus security policy changes – as needed (Policy Development)
- Recommendation to full Board – information technology and cybersecurity policy changes – as needed (Policy Development)
- Recommendation to full Board – Bond/Debt – as needed (Finance)

Review of Required Annual Reports
- Annual Financial Report/Audit (State Auditors attend) (Audit)
- Annual Report on Endowment and Investments (Annual) (Finance, Policy Development)
- Associated Entities Review (Annual) (Audit)
- University Debt Update (Annual) (Finance)
- Intercollegiate Athletics Finance and Budget Reporting (Annual) (Finance)

Receive Informational Reports
- Enterprise Risk Management & Compliance Update – (Audit, Risk Management, Policy Development)
- Finance and Budget Update (Finance)
- Legislative Priorities (Audit, Finance, Risk Management, Policy Development)
- Internal Audit Update (Audit)
- Investment and Institutional Fund Performance Review (Finance, Policy Development)
Board of Trustees  
North Carolina State University  
Audit, Risk Management, and Finance Committee  
Agenda Topics for FY19-20 (listed alphabetically) (Per Bylaws POL01.05.01, Appendix 1, I)

**SEPTEMBER 2019**
- **Approval of Bonds/Debt (if needed)** (Finance, Policy Development)  
- Enterprise Risk Management & Compliance Update (Audit, Risk Management, Policy Development)  
  - Proposed Topic: TBD
- Legislative/Budget/Finance Update (Audit, Finance, Risk Management, Policy Development)  
- *Internal Audit Charter Review and Approval (Annual) (Audit)
- Internal Audit Update (Audit)  
- *Minutes Approval
- Investment and Institutional Fund Performance Review (Finance, Policy Development)  
- Review of Committee Responsibilities (Annual)  
- Review of Draft Agenda Items for the Year (Annual)

**NOVEMBER 2019**
- **Approval of Bonds/Debt (if needed)** (Finance, Policy Development)  
- Campus Securities (Risk Management)  
- Enterprise Risk Management & Compliance Update (Audit, Risk Management, Policy Development)  
  - Proposed Topic: TBD
- Legislative/Budget/Finance Update (Audit, Finance, Risk Management, Policy Development)  
- Internal Audit Update (Audit)  
- Investment Performance Review (Finance, Policy Development)  
- *Minutes Approval
- State Auditor's Report (State Auditors attend) (Audit)

**FEBRUARY 2020**
- Annual Report on Endowment and Investments (Annual) (Finance, Policy Development)  
- Associated Entities Review (Annual) (Audit)  
- Enterprise Risk Management & Compliance Update (Audit, Risk Management, Policy Development)  
  - Proposed Topic: TBD
- Information Technology Update (Annual) (Risk Management)  
- Intercollegiate Athletics Finance and Budget Reporting (Annual) (Finance)  
- Internal Audit Update (Audit)  
- Legislative/Budget/Finance Update (Audit, Finance, Risk Management, Policy Development)  
- *Minutes Approval

**APRIL 2020**
- Budget Outlook/Legislative Priorities (Audit, Finance, Risk Management, Policy Development)  
- Enterprise Risk Management & Compliance Update (Audit, Risk Management, Policy Development)  
  - Proposed Topic: TBD
- Legislative/Budget/Finance Update (Audit, Finance, Risk Management, Policy Development)  
- Internal Audit Update (Audit)  
- *Internal Audit Yearly Plan Review for Upcoming FY (Annual) (Audit)
- Investment Performance Review (Finance, Policy Development)  
- *Minutes Approval
- University Debt Update (Annual) (Finance)

*Except as noted, all update reports are as needed.*
NC STATE BOARD OF TRUSTEES
AUDIT, RISK MANAGEMENT AND FINANCE COMMITTEE
2019 – 2020 PLAN OF WORK (Annual Calendar)

**July**
- New Trustee Orientation (as needed)

**September**
- Approval of Bonds/Debts (NC State Pol 01.05.01, Appendix 1, I.b, and di) (as needed)
  - Desired outcome and measure of success: Consider and recommend bond resolution approval to BOT when presented. BOT bond approval
- Enterprise Risk Management, and Compliance Update (NOTE: Do we want to change the name of this to include Safety and Security as referenced in the UNC Policy, or do you think that Risk Management covers it? (UNC Pol, Ch.100.1, Appendix 1 (XV) and UNC Pol., Ch 1300.9) (NC State Pol 01.05.1, Appendix 1, I.a.vi, c, d.ii)
  - Desired outcome and measure of success: Receive informational reports on University security, risk and compliance issues. Review risk, security and compliance processes, including but not limited to Title IX, Clery Act, information technology, campus safety and other specifically related.
- Finance and Budget Update (UNC Pol, Ch. 100.1, Appendix 1 (V) (NC State Pol 01.05.1, Appendix 1, I.b)
  - Desired outcome and measure of success: Receive informational reports on budget, institutional trust funds and investments to better understand resources and priorities that impact the University.
- Internal Audit Charter Review and Approval (Req by Internal Audit Act)
  - Desired outcome and measure of success: Review the Internal Audit Charter to be compliant with the Internal Audit Act
- Internal Audit Update (NC State Pol 01.05.1, Appendix 1, I.a.i-viii)
  - Desired outcome and measure of success: Receive informational reports quarterly on current activity, so that Trustees are aware of any issues that could impact the University. In addition, Trustees would receive bi-annual report on the activities by the Internal Audit Office in reference to the annual plan, and offer guidance when needed.
- Investment/Institutional Fund Performance Review (NC State Pol 01.05.1, Appendix 1, I.d.i)
  - Desired outcome and measure of success: Inform Trustees of Investment Fund valuation and changes to market affecting the same via written materials provided at each meeting.
- Legislative Updates (NC State Pol 01.05.1 App 1, I. a-d) (as needed)
  - Desired outcome and measure of success: Receive informational report on Legislative budget priorities and understanding possible impacts to University
- Policy Approvals (NC State Pol 01.05.1, Appendix 1, I.d) (as needed)
  - Desired outcome and measure of success: Recommend appropriate policies to the full Board for approval.
- Review of Committee Responsibilities (Annually)
  - Desired outcome and measure of success: Understand Committee scope and develop an effective plan of work for the year.

**November**
- Annual Audit Review (NC State Policy 01.05.1, Appendix 1, I.a.viii)
  - Desired outcome and measure of success: Receive a clean audit opinion from the State Auditor’s Office.
- Annual Financial Report (NC State Policy 01.05.1, Appendix 1, I.a.viii)
  - Desired outcome and measure of success: Review the University Financial Statement after receiving a clean audit opinion from the State Auditor's Office. (Financial Statement distributed electronically).
- Approval of Bonds/Debts (NC State Pol 01.05.01, Appendix 1, I.b and .d.i) (as needed)
  - Desired outcome and measure of success: Consider and recommend bond resolution approval to BOT when presented. BOT bond approval
- Enterprise Risk Management and Compliance Update (NC State Pol 01.05.1, Appendix 1, I.a.vi, c, d.ii)
  - Desired outcome and measure of success: Receive information report of University any known risks, November includes report on Campus Securities.
- Finance and Budget Update (UNC Pol, Ch. 100.1, Appendix 1 (V) (NC State Pol 01.05.1, Appendix 1, I.b)
Desired outcome and measure of success: Receive informational reports on budget, institutional trust funds and investments to better understand resources and priorities that impact the University.

- **Internal Audit Update (NC State Pol 01.05.1, Appendix 1, I.a.i-viii)**
  Desired outcome and measure of success: Receive informational reports quarterly on current activity, so that Trustees are aware of any issues that could impact the University. In addition, Trustees would receive bi-annual report on the activities by the Internal Audit Office in reference to the annual plan, and offer guidance when needed.

- **Investment Performance Review (NC State Pol 01.05.1, Appendix 1, I.d.i)**
  Desired outcome and measure of success: Receive informational report on Legislative budget priorities and understanding possible impacts to University.

- **Policy Approvals (NC State Pol 01.05.1, Appendix 1, I.d)** (as needed)
  Desired outcome and measure of success: Recommend appropriate policies to the full Board for approval.

### February

- **Annual Report on Endowment and Investments (Annual) (UNC Pol, Ch 100.1, Appendix 1 (VII) (NC State Pol 01.05.1, Appendix 1, I.d.i)**
  Desired outcome and measure of success: To provide Committee with more understanding about University Endowment and Investments and progress over time.

- **Enterprise Risk Management and Compliance Update (NC State Pol 01.05.1, Appendix 1, I.a.vi, c, d.ii)**

- **Finance and Budget Update (UNC Pol, Ch. 100.1, Appendix 1 (V) (NC State Pol 01.05.1, Appendix 1, I.b, I.d.i)**
  Desired outcome and measure of success: Receive informational reports on budget, institutional trust funds and investments to better understand resources and priorities that impact the University.

### April

- **Associated Entities Review (UNC Pol, Ch. 600.2.1.5,) (NC State Policy 01.05.1, Appendix 1, I.a.ix)**
  Desired outcome and measure of success: To inform Committee on the activities and broad overview of annual performance of associated entities as reported to UNC General Administration.
Enterprise Risk Management and Compliance Update (NC State Pol 01.05.1, Appendix 1, I.a.vi, c, d.ii)

Desired outcome and measure of success: Receive information report of University any known risks.

Finance and Budget Update (UNC Pol, Ch. 100.1, Appendix 1 (V) (NC State Pol 01.05.1, Appendix 1, I.b, I.d.i)

Desired outcome and measure of success: Receive informational reports on budget, institutional trust funds and investments to better understand resources and priorities that impact the University.

Internal Audit Update (NC State Pol 01.05.1, Appendix 1, I.a.iii, I.a.iv, I.a.v)

Desired outcome and measure of success: Receive informational reports quarterly on current activity, so that Trustees are aware of any issues that could impact the University. In addition, Trustees would receive bi-annual report on the activities by the Internal Audit Office in reference to the annual plan, and offer guidance when needed.

Internal Audit Yearly Plan Review and Approval (NC State Policy 01.05.1, Appendix 1, I.a.ii)

Requires Committee Approval Desired outcome and measure of success: .

Investment/Institutional Trust Performance Review (NC State Pol 01.05.1, Appendix 1, I.d.i)

Desired outcome and measure of success: Inform Trustees of Investment Fund valuation and changes to market affecting the same via written materials provided at each meeting.

Legislative Updates (NC State Pol 01.05.1 App 1, I. a-d) (as needed)

Desired outcome and measure of success: Receive informational report on Legislative budget priorities and understanding possible impacts to University.

Policy Approvals (NC State Pol 01.05.1, Appendix 1, I.d) (as needed)

Desired outcome and measure of success: Recommend appropriate policies to the full Board for approval.

University Debt Update (NC State Pol 01.05.1, Appendix 1, I.b.)

Desired Outcome: Receive informational report regarding the University Debt, and debt standings/rating

Measure of Success: Knowledgeable regarding University Debt, standings and ratings
Chair Cabaniss opened the meeting at 3:16 p.m. in the Chancellor’s Conference Room in Holladay Hall. Roll was taken and a quorum was present. Committee members present for the meeting were:

Mr. Tom Cabaniss, Chair  
Ms. Jess Errico  
Ms. Ann Goodnight  
Mr. Jim Harrell  
Dr. Ron Prestage  
Ms. Susan Ward

All members of the Committee were reminded of their duty to avoid conflicts of interest and appearances of conflicts of interest under the State Government Ethics Act. With no known conflicts of interests, the meeting continued.

Minutes from the February 21, 2019 meeting were presented for approval. Ms. Goodnight made a motion to accept the minutes and Ms. Ward seconded.

The Internal Audit Annual Audit Plan for Fiscal Year 2020 was presented. The Committee heard about the Continuous Risk Assessment and Audit Planning process used to develop the Plan and referenced the illustration of that process in the materials. Time was allowed for any questions related to the proposed plan. Dr. Prestage made a motion to accept the Plan as presented, Ms. Goodnight seconded the motion. The Committee unanimously approved the FY 2020 Audit Plan.

A quarterly update on Internal Audit activity since the last meeting was given. There are 23 engagements in process, one investigation was closed, one consultation related to WolfTime and a special assignment related to NIST were closed. Two audits in Campus Enterprises were completed and corrective actions started. Sensitive information regarding the Campus Enterprise audits was discussed in closed session.

The Committee heard information related to the budget timeline. The Governor’s Budget has already been released and the House and Senate are expected to release theirs in late April early May, with negotiations expected mid-May. Capital requests could affect many things including funding for building reserves, faculty recruitment and ARP’s. There are also several bills that could impact NC State as well as the UNC System, such as alcohol sales at athletic events, honey bee laboratory funds, and repeal of tuition surcharge.

The attached third quarter financial results and position for the current fiscal year 2019 were compared with information for the same time for fiscal year 2018. The University’s financial performance and position is favorable and consistent with the prior year.

The Annual Review of Associated Entities was reported to satisfy the annual Associated Entity review required by the Board of Governors. All audits have been sent to General Administration and the copies of the Audits were made available to the Committee. The Student Aid Association was issued a management letter this year due to transition with new auditors. All other associated entities received unqualified audit
opinions and no management letters. All associated entities have operating agreements in place with the University. Information on net assets and endowments for the Associated Entities was also presented.

The committee heard a debt update, which included a review of the ten-year history of the University’s Outstanding Debt, by amount, type, and purpose. The University took advantage of low rates and locked in low fixed costs. There are no longer any swaps or synthetically fixed bonds. There have been no major changes in debt by purpose, the three largest components remaining housing, Talley Student Union and energy savings. As previously reported, borrowing to supplement funding of Carmichael Renovations, Engineering Oval, and Plant Sciences projects is underway. The Committee was also apprised of the impact of recent tax changes on the debt markets.

A report on the University’s compliance structure was also given. The report included background information on the definition of compliance and university-wide obligations with decentralized functional areas. The University has a compliance steering committee and a compliance officials working group that provide leadership and ownership. The ultimate goal of the compliance and integrity program is to enhance compliance consciousness in the campus community. The Committee learned about the reporting mechanisms, the 100 federal laws and regulations that make up the compliance matrix and reporting calendar. NC State is making changes to keep up with compliance requirements and needs.

Tabitha Groelle made a motion that the Committee convene to closed session to plan, conduct and hear a report concerning an audit under N.C. General Statutes 132-6.19(c) and 143-318.11(a)(1) to protect from disclosure of security features of electronic data processing systems and information technology systems. Dr. Prestage moved to convene to closed session, Mr. Andrews seconded, and with no dissent the Committee convened to closed session at 4:37 p.m.

The Committee reconvened to open session at 4:41 p.m.

Chair Cabaniss referenced informational materials provided to the Committee.

With no further business, the Committee adjourned at 4:41 p.m.

Submitted by ________________________________
   Secretary to the Committee

Approved ________________________________
   Chair of the Committee

Attachments
North Carolina State University  
Statement of Net Position  
Unaudited  
As of March 31, 2018 and 2019  

<table>
<thead>
<tr>
<th>Fiscal Year 2019</th>
<th>Fiscal Year 2018</th>
<th>Increase/Decrease</th>
</tr>
</thead>
<tbody>
<tr>
<td>As of 3/31/2019</td>
<td>As of 3/31/2018</td>
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</tr>
</tbody>
</table>

### ASSETS

#### Current Assets
- Cash and Cash Equivalents: 366,386,310.05  
  Increase: 28,750,090.95
- Receivables: 41,202,947.22  
  Increase: 3,976,269.88

#### Total Current Assets: 407,589,257.27  
  Increase: 32,726,360.83

#### Noncurrent Assets
- Restricted Cash - Capital Improvements: 51,596,129.58  
  Decrease: 2,038,429.08
- Capital Assets Depreciable Net - Note 1: 1,823,713,168.34  
  Decrease: 20,650,633.99
- Investments: 525,874,700.22  
  Increase: 40,026,499.92

#### Total Noncurrent Assets: 2,568,248,570.41  
  Increase: 59,408,124.70

#### Total Assets: 2,975,837,827.68  
  Increase: 92,134,485.53

### DEFERRED OUTFLOWS OF RESOURCES - Note 2

- Deferred Outflows Derivatives: 0.00  
  Increase: (9,026,065.00)
- Deferred Outflows Related to Pensions: 95,716,440.00  
  Decrease: (43,320,077.00)
- Deferred Outflows Related to OPEB: 136,526,254.00  
  Increase: 2,168,166.00

#### Total Deferred Outflows: 564,695,968.00  
  Decrease: (9,565,156.00)

### LIABILITIES

#### Current Liabilities
- Accounts Payable And Accrued Liabilities: 17,308,234.00  
  Increase: 2,298,281.61
- Commercial Paper Payable: 25,000,000.00  
  Increase: 5,000,000.00
- Unearned Revenue: 6,302,742.36  
  Increase: 156,047.58

#### Total Current Liabilities: 48,610,976.36  
  Increase: 7,454,329.19

#### Noncurrent Liabilities
- Bonds Payable: 482,249,656.67  
  Decrease: (19,043,688.18)
- Deposits Payable: 1,886,426.30  
  Increase: 256,979.45
- US Government Grants Refundable: 3,221,418.00  
  Decrease: (452,732.85)
- Notes Payable: 62,229,128.19  
  Decrease: (3,897,673.34)
- Unearned Revenue: 72,357,569.36  
  Decrease: (1,539,522.75)

#### Pension Liability - Note 2: 176,617,483.00  
  Decrease: (25,770,902.00)

#### OPEB Liability - Note 2: 1,161,399,772.00  
  Decrease: (568,604,246.00)

#### Total Noncurrent Liabilities: 1,959,961,453.52  
  Decrease: (600,008,097.49)

#### Total Liabilities: 2,008,572,429.88  
  Decrease: (592,553,768.30)

### DEFERRED INFLOWS OF RESOURCES - Note 2

- Deferred Inflows Related to Pensions: 5,778,080.00  
  Increase: 15,343,236.00
- Deferred Inflows Related to OPEB: 558,917,888.00  
  Increase: 574,261,124.00

#### Total Deferred Inflows: 564,695,968.00  
  Increase: (9,565,156.00)

### NET POSITION

#### Net Assets
- Beginning Net Position - July 1: 559,297,045.16  
  Increase: 81,505,594.37
- Increase In Net Assets: (20,201,361.36)  
  Increase: (2,212,752.36)

#### Total Net Position - Note 3: 539,095,683.80  
  Increase: 79,292,842.01

**Notes:**
<table>
<thead>
<tr>
<th><strong>Note 1</strong></th>
<th>The amounts shown for Capital Assets are the amounts reported on the audited financial statements as of June 30, 2017 and 2018 - adjusted for estimated Depreciation expense. Adjustments for current year asset additions are not included - these adjustments are made at year end.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Note 2</strong></td>
<td>The amount shown for the Net Pension Liability is reflective of the University's share of the State of NC's collective net pension liability as measured on June 30th 2017. The associated Deferred Outflows and Inflows of Resources will be recognized against Pension expense over future periods (Outflows will increase the expense; Inflows will decrease the expense).</td>
</tr>
<tr>
<td></td>
<td>The amount shown for the Net OPEB Liability is reflective of the University's share of the Retirement Health Benefit Fund as of June 30th 2017. The associated OPEB Deferred Outflows and Inflows of Resources will be recognized against OPEB expense over future periods (Outflows will increase the expense; Inflows will decrease the expense).</td>
</tr>
<tr>
<td><strong>Note 3</strong></td>
<td>This statement does not include many year end entries required for university financial reporting, such as various asset reclassifications, fair market value adjustments, additional receivables, additional liabilities including compensated absences and funds held for others.</td>
</tr>
</tbody>
</table>
North Carolina State University

Statement of Revenues, Expenses and Changes in Net Assets

Unaudited

For the Nine Months Ended March 31, 2018 and 2019

<table>
<thead>
<tr>
<th></th>
<th>Fiscal Year 2019</th>
<th>Fiscal Year 2018</th>
<th>Increase/Decrease</th>
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<tbody>
<tr>
<td></td>
<td>Through 3/31/2019</td>
<td>Through 3/31/2018</td>
<td></td>
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<tr>
<td><strong>REVENUES</strong></td>
<td></td>
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</tr>
<tr>
<td>Operating Revenues:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student Tuition And Fees</td>
<td>434,845,159.89</td>
<td>416,862,994.10</td>
<td>17,982,165.79</td>
</tr>
<tr>
<td>Federal Appropriations</td>
<td>20,485,187.94</td>
<td>16,139,933.00</td>
<td>4,345,254.94</td>
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<tr>
<td>Federal Grants And Contracts</td>
<td>159,321,504.58</td>
<td>153,398,421.55</td>
<td>5,923,083.03</td>
</tr>
<tr>
<td>State And Local Grants And Contracts</td>
<td>57,071,436.52</td>
<td>51,187,088.81</td>
<td>5,884,347.71</td>
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<tr>
<td>Nongovernmental Grants And Contracts</td>
<td>70,942,087.25</td>
<td>67,050,867.47</td>
<td>3,891,219.78</td>
</tr>
<tr>
<td>Sales And Services</td>
<td>228,781,484.28</td>
<td>226,713,437.32</td>
<td>2,068,046.96</td>
</tr>
<tr>
<td>Interest Earnings On Loans</td>
<td>172,298.49</td>
<td>170,049.30</td>
<td>2,249.19</td>
</tr>
<tr>
<td>Other Operating Revenues</td>
<td>13,197,314.29</td>
<td>9,920,416.59</td>
<td>3,276,897.70</td>
</tr>
<tr>
<td>Total Operating Revenues</td>
<td>984,816,473.24</td>
<td>941,443,208.14</td>
<td>43,373,265.10</td>
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<tr>
<td><strong>EXPENSES</strong></td>
<td></td>
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</tr>
<tr>
<td>Operating Expenses</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Salaries And Benefits</td>
<td>762,359,678.80</td>
<td>723,558,523.14</td>
<td>38,801,155.66</td>
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<tr>
<td>Scholarships And Fellowships</td>
<td>160,699,920.94</td>
<td>153,934,126.11</td>
<td>6,765,794.83</td>
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<td>Services</td>
<td>187,272,654.18</td>
<td>175,502,391.02</td>
<td>11,770,263.16</td>
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<tr>
<td>Supplies And Materials</td>
<td>198,184,445.07</td>
<td>160,993,897.31</td>
<td>37,190,547.76</td>
</tr>
<tr>
<td>Utilities</td>
<td>24,144,028.84</td>
<td>22,761,606.25</td>
<td>1,382,422.59</td>
</tr>
<tr>
<td>Depreciation - Note 1</td>
<td>74,191,041.00</td>
<td>71,731,992.45</td>
<td>2,459,048.55</td>
</tr>
<tr>
<td>Total Operating Expenses</td>
<td>1,406,851,668.83</td>
<td>1,308,482,536.28</td>
<td>98,369,132.55</td>
</tr>
<tr>
<td>Operating Loss</td>
<td>(422,035,195.59)</td>
<td>(367,039,328.14)</td>
<td>(54,995,867.45)</td>
</tr>
<tr>
<td><strong>NONOPERATING REVENUES (EXPENSES)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>State Appropriations</td>
<td>291,070,368.05</td>
<td>276,526,388.48</td>
<td>14,543,979.57</td>
</tr>
<tr>
<td>Gifts</td>
<td>78,170,970.71</td>
<td>68,950,645.17</td>
<td>9,220,325.54</td>
</tr>
<tr>
<td>Investment Income (Net Of Investment Expense)</td>
<td>7,841,912.68</td>
<td>3,481,004.90</td>
<td>4,360,907.78</td>
</tr>
<tr>
<td>Interest And Fees On Debt</td>
<td>(11,837,796.13)</td>
<td>(13,432,197.09)</td>
<td>1,594,400.96</td>
</tr>
<tr>
<td>Federal Interest Subsidy On Debt</td>
<td>570,993.43</td>
<td>569,159.40</td>
<td>1,834.03</td>
</tr>
<tr>
<td>Other Nonoperating Revenues (Expenses)</td>
<td>(676,629.02)</td>
<td>(118,092.17)</td>
<td>(558,536.85)</td>
</tr>
<tr>
<td>Net Nonoperating Revenues</td>
<td>364,939,819.72</td>
<td>335,976,908.69</td>
<td>28,962,911.03</td>
</tr>
<tr>
<td>Income Before Other Revenues</td>
<td>(57,095,375.87)</td>
<td>(31,062,419.45)</td>
<td>(26,032,956.42)</td>
</tr>
<tr>
<td>Capital Appropriations</td>
<td>4,336,793.00</td>
<td>5,621,800.00</td>
<td>(1,285,007.00)</td>
</tr>
<tr>
<td>Capital Grants</td>
<td>30,768,087.51</td>
<td>5,672,876.45</td>
<td>25,095,211.06</td>
</tr>
<tr>
<td>Capital Gifts</td>
<td>1,789,134.00</td>
<td>1,779,134.00</td>
<td>10,000.00</td>
</tr>
<tr>
<td>Increase In Net Assets - Note 2</td>
<td>(20,201,361.36)</td>
<td>(17,988,609.00)</td>
<td>(2,212,752.36)</td>
</tr>
</tbody>
</table>

Notes:

Note 1 - The amounts shown for Depreciation are estimates based on amounts reported on the audited financial statements for the Fiscal Years ending June 30, 2017 and 2018.

Note 2 - This statement does not include many year end entries required by GASB for university financial reporting, such as tuition discounting, internal sales elimination, capitalization of fixed asset expenses greater than $5,000, blending of the NCSU Partnership, and other year end entries.
INTERNAL AUDIT DIVISION

INTERNAL AUDIT CHARTER

MISSION

The mission of the Internal Audit Division (IAD) is to support the University in the successful achievement of its strategic goals. This is accomplished by serving as an independent partner to University leadership, faculty, and staff in the identification and balancing of their units’ risks through objective, flexible, and proactive audit and consultation services. IAD provides independent evaluation of the effectiveness of risk management, control, and governance processes and makes recommendations for improvement.

SCOPE OF WORK

IAD’s scope of work includes assessing whether:

- Risks are appropriately identified and managed across the University
- University governance processes support the organization’s strategies and objectives
- Financial, process, and information technology controls are effective and efficient
- Policies, regulations, rules, and other guidance and training are consistent in their information, effective, and do not create undue bureaucracy or inefficiencies
- University units are compliant to University, UNC-System Office (UNC-SO), State, and Federal requirements, related processes are administered correctly, and issues are recognized and addressed properly and promptly
- Significant financial, managerial, and operating information is accurate, reliable, secure, and timely
- Actions of University personnel are in compliance with policies and applicable laws and regulations
- University resources are acquired economically, used efficiently, and adequately protected
- Quality and continuous improvement are fostered in the University’s processes

INDEPENDENCE AND ACCOUNTABILITY

All internal audit activity must be free from undue influence or interference in the selection of activities to be examined, determination of the scope or methodology of work, and in communication of the results in accordance with the international standards of independence as set forth by the Institute of Internal Auditors (IIA).

The Chief Audit Officer & Director of Internal Audit (CAO) reports functionally and administratively directly to the Chancellor. The CAO is also accountable to the Board of Trustees (BOT) through its Audit, Risk Management and Finance Committee (Committee) as required by the University of North Carolina (UNC) Board of Governors (BOG) and the IIA standards. The CAO communicates and interacts directly and independently with the Committee. In addition, the
CAO has informational reporting accountability to the Executive Vice Chancellor and Provost and the Vice Chancellor for Finance and Administration.

RESPONSIBILITY

The CAO has the responsibility to ensure IAD achieves the following:

- Maintain compliance with North Carolina General Statute (GS) Chapter §116-40.7 (which establishes the independent audit function at state universities); NC GS Chapter §143 Article 79, The NC Internal Audit Act; and audit-related requirements from the UNC BOG
- Establish a risk assessment process to support the development of a risk-based audit plan and a risk-based approach to individual engagements
- Submit, at least annually, a risk-based audit plan to the Chancellor and the Committee for approval and implement that audit plan
- Continually re-evaluate the audit plan based on changing conditions and emerging issues and revise as necessary to ensure that the highest risk items are given priority
- Consider the scope of work of the external auditors and regulators, as appropriate, for the purpose of providing optimal audit coverage to the organization
- Appropriate and necessary interactions with the various external audit-related governance groups occur as needed, including interactions with UNC-SO, the state’s Council of Internal Audit, Office of the State Auditor (OSA), Office of the State Controller, and the State Bureau of Investigation
- Appropriate and necessary interactions with the various internal audit and investigation related units occur as needed, including interactions with Office of the General Counsel, University Police Department, Employee Relations, and Student Conduct
- Investigate suspected fraudulent activities and notify the Chancellor, the Committee, and other management of any significant results; assist OSA or other external investigators with investigation of allegations as necessary
- Issue audit reports or engagement letters as appropriate to the Chancellor and other management summarizing the results of audit or consulting activities
- Report recent activities and high-risk issues to the Committee at regular quarterly meetings
- Perform consulting services, beyond internal auditing’s assurance services, to assist management in meeting its objectives and to proactively address issues
- Coordinate with other control and monitoring functions both internal and external regarding areas such as risk management, compliance, security, legal affairs, environmental health, and external audits and investigations
- Keep the Chancellor, the Committee, the Executive Vice Chancellor and Provost, and the Vice Chancellor for Finance and Administration informed of emerging trends and successful practices in the internal auditing profession
- Educate the campus-community on University policies, State and Federal regulations, best practices, and the importance of effective internal controls
- Participate on various committees, compliance task forces, and system development projects to provide guidance, proactively address potential issues and internal control weaknesses, improve inefficiencies, and increase effectiveness
- Evaluate and assess significant University functions and new or changing services, processes, operations, major systems, and control processes coincident with their development, implementation, and/or expansion
- Develop and maintain a continuous improvement and quality assurance program covering all aspects of IAD’s activities
Internal audit activity is governed by adherence to The Institute of Internal Auditors’ Mandatory Guidance, which includes the Core Principles for the Professional Practice of Internal Auditing, the Code of Ethics, the *International Standards for the Professional Practice of Internal Auditing*, and the Definition of Internal Auditing.

**AUTHORITY**

The CAO is authorized to:

- Have direct and unrestricted access to senior management and the BOT
- Have (and delegate to the IAD staff as appropriate) unrestricted, independent access to all personnel, units, functions, records, and property relevant to the performance of engagements and risk assessment activities
- Allocate resources, set frequencies, select subjects, determine scopes of work, and apply the techniques required to accomplish audit objectives
- Obtain the necessary assistance of personnel in units of the organization where they perform audits as well as other specialized services from within or outside the organization as needed

The CAO and staff of the IAD are **not** authorized to:

- Perform any operational duties for the organization or its affiliates
- Initiate or approve accounting transactions external to the IAD
- Make decisions that are the responsibility of management

*To Be Approved by the NC State University Board of Trustees Audit, Risk Management and Finance Committee*

*September 12, 2019*
ACHIEVEMENTS TOWARDS UNIVERSITY STRATEGIC GOALS

The Internal Audit Division (IAD) is in a unique position to elicit positive change and add value to the university through a variety of engagement services including assurance (formal audits), advisory/consulting, investigative, and special assignments. In Fiscal Year 2019, IAD’s engagements and activities touched on four of the university’s strategic goals as noted in the chart below, with examples following:

<table>
<thead>
<tr>
<th>UNIVERSITY GOAL 1 – ENHANCE STUDENT SUCCESS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Matt Wall joined IAD as an intern auditor in May 2019. Matt graduated from NC State in May 2019 with a Bachelor of Science in Accounting and a concentration in Internal Auditing. Internships with our team provide a student with total immersion in the &quot;real world&quot; of the internal auditing profession. The student is assigned to audit and consulting projects and, with the coaching and mentorship of a senior auditor, performs all aspects of a typical project from risk assessment and planning to developing audit findings and writing the report. This experience positions the student ahead of many new graduates and even some experienced junior auditors; thus, improving their ability to compete for jobs in the marketplace.</td>
</tr>
</tbody>
</table>

IAD presented on data analytics and auditing to about 35 undergraduate students in a Poole College of Management audit course in January 2019. Using Tableau (data analysis and visualization software), Neil Holloway and M’Sheila Hawthorne presented practical applications of how data visualization can be used to identify trends and risks within financial business processes such as purchasing and journal entries. Additionally, Neil and M’Sheila answered questions about the auditing profession and their experience auditing in higher education.

<table>
<thead>
<tr>
<th>UNIVERSITY GOAL 3 – SUPPORT INTERDISCIPLINARY SCHOLARSHIP</th>
</tr>
</thead>
<tbody>
<tr>
<td>IAD provided advisory services on university-wide projects to support administration of research activities including interdisciplinary research. This included the Enterprise Research Administration (ERA) system project as well as the creation of the Secure University Research Environment. IAD joined work teams at all levels to provide insight into research data security and compliance requirements as multiple units collaborated to create new university-wide processes and resources. These activities support all areas of research including colleges, centers, institutes, clusters, interdisciplinary programs and initiatives.</td>
</tr>
</tbody>
</table>
UNIVERSITY GOAL 4 – PURSUE ORGANIZATIONAL EXCELLENCE

During audits, collaborations, consultations, and investigations, issues were identified and discussed with management and stakeholders to facilitate improvements in a variety of categories including the following.

Greater Employee Awareness
- IT security
- Identifying and reporting concerning behavior
- Disclosing and managing conflict of interest
- Fiscal responsibility and accountability
- State and university purchasing requirements and procedures

Enhanced Processes and Procedures
- Management and oversight of funds
- Review of financial transactions for documentation of allowability, allocability, and appropriateness
- Governance, security, and internal controls over ultra-sensitive data
- Securing state and university property
- Accurate time reporting

Shared Best Practices
Sharing best practices helps the university fill knowledge gaps, improve efficiencies, and enables improved decision making by leadership. Examples of IAD activities in this category included providing advisory and consultative services to:

- College of Agriculture and Life Sciences (CALS)
  - Scotland and Warren County Cooperative Extension Offices business process improvements
  - Consulting with Center for Integrated Pest Management Research and the Prestage Department of Poultry Science regarding compliance with university policy
- Office of Research and Innovation (ORI), Office of General Counsel (OGC), Office of Finance and Administration (OFA), and Office of Information Technology (OIT) as they developed a collaborative compliance process
  - Increased awareness of research compliance requirements
  - Provided compliance educational opportunities
  - Created new processes that will optimize compliance activities

Efficiency and Effectiveness
IAD’s broad-based perspective of the university uniquely positions it to identify opportunities to improve efficiency and effectiveness. Examples of IAD activities in this category included providing advisory and consultative services to:

- Business Operations Group Steering Committee
  - Share knowledge and best practices to improve business practices
  - Advise the Vice Chancellor of OFA
  - Suggest topics and speakers for meetings
  - Evaluate effectiveness and suggest improvements
- Controller’s Office - implementation of a vendor management system application
- ORI and OFA - identifying research administration business processes and university-wide requirements
for a new ERA system to replace multiple legacy systems

- OIT Security & Compliance (S&C) and the HIPAA Compliance Sub-committee - facilitate a complete HIPAA security assessment and privacy review for the HIPAA covered health care components at NC State
- Compliance Manager services - enhancing university-wide compliance activities; increasing collaboration amongst compliance units; expanding reporting opportunities for student, faculty, and staff for ethical or compliance related concerns; and, promoting self-assessment in each of the university’s major compliance offices

**Internal Process Improvements**

We have made substantial progress this year in developing new data analytics competency within the unit. We are incorporating data visualizations into our engagements as part of risk analysis, planning, fieldwork, and reporting. During meetings with university business leaders, we have used our analytics tools to visualize preliminary audit results, trends, and risks within business processes. We are tying data visualizations to higher risk transactions, fund classifications, and accounts to help identify potential areas of non-compliance and unallowable use of university resources.

We have identified new capabilities within our analytics tools that allow us to quickly join different university data sets and create dashboards to visualize data at multiple levels. Our ability to drill both deeply and broadly across data sets allows better identification of issues, trends, and areas for improvement across the university. We continue to optimize the functionality and utility of our analytics tools within our engagements and we are building on this work for future engagements and to share our methodologies with business units across campus.

**UNIVERSITY GOAL 5 – ENGAGE LOCALLY AND GLOBALLY**

**Focus on Customer Service**

As the mission of IAD is to support the university in the successful achievement of its strategic goals, we have worked hard to become a trusted partner to the university community. Noted below are some examples of our on-going customer service focus.

- A County Extension Director noted: “I’ve been through many audits. I wanted to compliment you on the professionalism of your Staff. They asked thorough questions without being demeaning or appearing judgmental... This was a positive experience.”
- Supporting OIT S&C through the Office of State Auditor audit of NCSU’s Information Technology General Controls
- Partnering with our consultant to train state agency auditors in the use of Tableau
- Consulting with the Office of Global Engagement, Associate Director for NC State European Center in Prague to assist in determining IT needs for Prague as their current support contract was ending
- Participating on various senior management candidate searches to interview, evaluate and recommend the most qualified candidates for critical positions across the university such as:
  - Office of Finance and Administration – Vice Chancellor of Finance and Administration
  - McKimmon Center - Vice Provost of Continuing Education
  - CALS - Director of Business Services
  - Office of Global Engagement – Financial Operations Manager
**Focus on Community Involvement**
Throughout the year, IAD participates in opportunities to give back to both our local and global communities. Each year the team participates in group community service by volunteering for unanimously selected activities. These activities not only benefit our communities but also provide a valuable opportunity for strengthening our team bonds. This year the IAD staff:

- Visited the Food Bank of Central and Eastern North Carolina to sort and bag 18,771 pounds of produce providing 15,650 meals to NC families
- Selected three children’s wish lists from the Salvation Army’s Angel Tree and purchased holiday gifts
- Assembled and repaired furniture at the Green Chair Project which provides home furnishings for families and individuals transitioning from homelessness
- Achieved a 100% participation rate in the State Employees Combined Campaign

**PROGRAM REVIEW**
A Quality Assessment Review (QAR) is mandated by the Institute of Internal Auditors (IIA) Professional Standards and by the State of North Carolina for all internal audit units every five years. NCSU IAD’s QAR report was issued in August 2018 with the reviewer noting that IAD:

- Has implemented “cutting edge” best practices
- Is very effective, often exceeding the expectations of leadership
- Conforms to the IIA Standards

Specifically, the independent assessor noted: “IAD implemented agile auditing, which is a leading trend within the internal audit profession. This best-practice emphasis has facilitated IAD’s maturation into providing forward-focused, risk-based services, which significantly increases the unit’s positive impact on the university. Agile auditing allows IAD to direct time and effort toward the issues, challenges, and risks that most affect the university’s ability to implement strategy and achieve goals. This has been accomplished through leveraging technology and data analytics across the audit life cycle to: provide broader-based, more dynamic audit scopes; streamline IAD audit processes and procedures; increase IAD’s services despite limited staffing resources; and, deliver more relevant, higher impact services.”

Continuous improvement is embedded within the IAD culture and is incorporated within all of our activities. All staff participate and take ownership in improving internal processes through active discussion during weekly management meetings, staff meetings, and performance appraisals.

IAD developed and implemented a Continuous Risk Assessment (RA) process in 2008, well before it became a nationwide best practice. This process is at the core of our audit and consulting engagements and is used to ensure comprehensive input to our continuous risk assessment program. All team members visit faculty and staff across the university every week in strategic conversations to discuss their unit’s strategic plans, goals, and risk posture in relation to the university’s mission.

In July 2018, IAD conducted an internal Risk Retreat to discuss the current risk assessment process and find ways to improve our process. The outcomes from the retreat were:

- New ways to hold strategic conversations with the campus community to allow IAD to be a trusted partner in identifying and balancing risks. This included discussing challenges that may prevent a unit from reaching its goals and also discussing dependencies in order to achieve unit goals
- Better identification and definition of risks to assist in determining whether risks are auditable or should be monitored
- Connected risk assessments into other IAD processes and engagements

All objective and subjective information and data gathered through our continuous RA process is analyzed when received. This on-going analysis process allows IAD to determine areas that may need immediate attention, areas that are potential near-term or future audits, and areas that we will continue to watch and monitor through our process.

**METRICS**

In Fiscal Year 2019, 22% of our engagements directly related to the 2019 Top Ten Risks or prior year’s Top Ten Risks identified by the University’s Strategic Risk Management program and the remaining 78% related to risks identified through IAD’s continuous risk assessment process. Risk areas covered by IAD engagements are shown below:
IAD worked on 64 engagements during FY2019. As our audit activities are continuous, 21 engagements were carried forward into Fiscal Year 2019 with substantial additional testing required on two of the engagements as a result of preliminary findings. Twenty engagements were added during the year and four engagements were returned to risk inventory because the risks were reassessed and determined to be lower than those of current investigations and new management requests. Below is a breakdown of the areas of IAD effort.
Our audit activities flow continuously from year to year; their life-cycles do not begin or end with the FY. The status of our engagements at the end of FY2019 is shown in the graph below. We will be carrying forward 21 engagements into Fiscal Year 2020.

Additionally, IAD follows up on all management corrective actions to recommendations reported in audit reports to ensure effective improvement. Below is the status of corrective actions at the end of FY2019; 63% of corrective actions were closed during the fiscal year.
INITIATIVES

IAD receives numerous allegations of wrong-doing through various sources. One source, the EthicsPoint (third-party) Hotline, is the central NCSU hotline that supplements existing reporting mechanisms within compliance units. With the departure of the University Compliance Manager from OGC, IAD has maintained the continuity of the EthicsPoint investigation process. This has ensured appropriate assignments of allegations to the correct compliance units to address complainant concerns.

Since 2014, there has been an upward trend in the number of reported allegations received and we expect this trend to continue into the future.
STAFF NEWS

At the end of FY2019, all team members have been in place for at least a year; the CAO and the Assistant Director have been at the university for 18 and 21 years, respectively. Combined, the unit has over 100 years of audit experience and 48 years of UNC audit experience. The stability of the team combined with longevity enables a deeper and more holistic understanding of the organization culturally, structurally, and operationally. In addition, it ensures a solid understanding of the risks inherent at a complex, Research 1, land-grant institution. All of our auditors have professional certifications including:

- Certified Compliance and Ethics Professional (CCEP)
- Certified Fraud Examiner (CFE)
- Certified Government Financial Manager (CGFM)
- Certified Internal Auditor (CIA)
- Certified Information Systems Auditor (CISA)
- Network + (Net+)
- Project Management Professional (PMP)

New Staff Appointment

Seth Miller, Information Technology Auditor, joined IAD in August 2018. He has over seven years of compliance and auditing experience in regulated industries. Seth started his career at RTI International focusing on governance, security, and compliance. He then moved to SAS where he was focused on compliance, operations, and auditing. Seth has a Bachelor of Science Degree in Business Administration with a concentration in Marketing from Appalachian State University. He also has CISA and Net+ certifications.

Staff Kudos, Professional Activities, and Recognition

M'Shiela Hawthorne was invited by the Office of State Budget and Management and its consultant, Visual Risk IQ, to be one of the two assistant trainers providing Tableau software training to University and State Agency auditors and other State Agency personnel. Two training sessions were conducted and provided data visualization techniques for procurement card transactions. This invitation was extended based on M'Shiela’s expertise in using Tableau for data analytics and ways to use the information to enhance audit work.

M'Shiela also earned her CIA certification in June. This credential is an internationally recognized designation. Congratulations M'Shiela!

CONCERNS FOR THE FUTURE

As noted by IAD’s QAR independent assessor:

- “One set back within IAD is staffing challenges and limitations; IAD has only six audit staff”
- “IAD is understaffed based on the most recent Office of State Budget and Management (OSBM) internal audit staffing analysis which concluded a need for a minimum of eight auditor positions....to cover the size of the institution, not the optimal number of positions.”
- “additional resources will improve IAD ability to meet the needs of their stakeholders and ensure proper controls are in place to mitigate risk within the University.”

Since 2008, IAD has maintained the same number of audit staff, which includes the Administrative Assistant, CAO, Assistant Director, and 5 auditors. Of the existing 5 auditors, one is part of IAD’s management team and has supervisory and strategic planning responsibilities, 1 FTE has been dedicated to investigations, and another position is dedicated to IT auditing, thus, leaving only 2 auditors to focus on all other areas.
### NC State University Internal Audit Division

**Fiscal Year 2019 Audit Plan and Engagement Status**

**As of June 28, 2019**

<table>
<thead>
<tr>
<th>Engagement</th>
<th>On Original Fiscal Year 2019 Audit Plan?</th>
<th>Coverage of University Strategic Risks</th>
<th>Fiscal Year 2019 University Strategic Plan Goals</th>
<th>Status</th>
<th>Auditor Comments</th>
</tr>
</thead>
</table>
| College of Natural Resources - Parks, Recreation, and Tourism Management Investigation | No - Carried Forward From Prior Year | Other - Prior Year Strategic Risk Employee Misconduct  
Other - Internal Audit Universe Risk - Internal Controls  
Other - Internal Audit Universe Risk - Regulatory Non-Compliance  
Other - Internal Audit Universe Risk - Effectiveness and Efficiency of Process | Closed | The objectives of this audit was to investigation were to: investigate the circumstances regarding the un-deposited receipts, determine the source of the funds, reconcile documentation to account for all of the funds, confirm reimbursement for personal purchases, and determine if there were any unreimbursed personal purchases made by the Director.  
Allegations were substantiated and corrective actions for the issues noted were fully and successfully implemented prior to the issuance of the report. Report issued 8/14/18. |
| College of Agriculture and Life Sciences - Department of Crop and Soil Sciences Investigation | No - Carried Forward From Prior Year | Other - Prior Year Strategic Risk Employee Misconduct  
Other - Internal Audit Universe Risk - Fraud  
Other - Internal Audit Universe Risk - Internal Controls  
Other - Internal Audit Universe Risk - Effectiveness and Efficiency of Process | Closed | The objective of this audit was to investigate allegations from an internal source regarding the potential misuse of funds by a faculty member making inappropriate purchases on a PCard.  
Allegations were substantiated and corrective actions for the issues noted were fully and successfully implemented prior to the issuance of the report. Report issued 10/31/18. |
### NC STATE UNIVERSITY INTERNAL AUDIT DIVISION
### FISCAL YEAR 2019 AUDIT PLAN AND ENGAGEMENT STATUS
### AS OF JUNE 28, 2019

<table>
<thead>
<tr>
<th>Engagement</th>
<th>On Original Fiscal Year 2019 Audit Plan?</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Office of Finance and Administration - Materials Management Division Investigation</td>
<td>No - Added</td>
<td>Other - Internal Audit Universe Risk - Governance</td>
<td>Closed</td>
<td>The objective of this audit was to investigate allegations from an internal source regarding potential non-compliance to policies and procedures related to Materials Management internal procurement services. Allegations were unsubstantiated. Report issued 1/30/19.</td>
<td></td>
</tr>
<tr>
<td>College of Agriculture and Life Sciences - Department of Food, Bioprocessing, and Nutrition Sciences Investigation</td>
<td>No - Carried Forward From Prior Year</td>
<td>Other - Prior Year Strategic Risk - Employee Misconduct</td>
<td>Closed</td>
<td>The objectives of this investigation were to: determine if employees were instructed to falsify time records to delay payment of earned wages; determine if the employees were paid for all hours actually worked; and identify any non-compliance with federal, state, or university personnel requirements. Allegations were substantiated and corrective actions for the issues noted were fully and successfully implemented prior to the issuance of the report. Report issued 2/12/19.</td>
<td></td>
</tr>
<tr>
<td>College of Agriculture and Life Sciences - Department of Crop and Soil Sciences - Consortium Uniting People for Sustainability (CUPS) Investigation</td>
<td>No - Carried Forward From Prior Year</td>
<td>Other - Prior Year Strategic Risk - Employee Misconduct</td>
<td>Closed</td>
<td>The objective of this audit was to investigate the fundraising activities and determine if they were legitimate, approved, and conducted in compliance with federal, state and university regulations. Allegations were substantiated and corrective actions for the issues noted were fully and successfully implemented prior to the issuance of the report. Report issued 2/14/19.</td>
<td></td>
</tr>
<tr>
<td>College of Humanities and Social Sciences - Department of Social Work Investigation</td>
<td>No - Added</td>
<td>Other - Employee Misconduct</td>
<td>Closed</td>
<td>The objective of this audit was to determine if the employees were non-compliant with state, university, and college requirements and used their university positions to personally benefit by providing services to the university through undisclosed personal businesses. Allegations were substantiated and corrective actions for the issues noted were fully and successfully implemented prior to the issuance of the report. Report issued 2/19/19.</td>
<td></td>
</tr>
</tbody>
</table>

### Key:
- Closed
- In Process
- Not Started
- On-Hold
- Complete
- In Follow Up
- Canceled
- Returning to Continuous Risk Assessment

Page 2 of 27
## NC STATE UNIVERSITY INTERNAL AUDIT DIVISION
### FISCAL YEAR 2019 AUDIT PLAN AND ENGAGEMENT STATUS
#### AS OF JUNE 28, 2019

<table>
<thead>
<tr>
<th>Engagement</th>
<th>On Original Fiscal Year 2019 Audit Plan?</th>
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<th>Status</th>
<th>Auditor Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poole College of Management (PCOM) - Development and External Relations Investigation</td>
<td>No - Carried Forward From Prior Year</td>
<td>Other - Prior Year Strategic Risk Employee Misconduct</td>
<td>4. Pursue organizational excellence</td>
<td>Complete - In Follow-up</td>
<td>The objective of this audit was to investigate allegations from an internal source to determine if a PCOM employee inappropriately used a university-issued PCard for personal use. The allegation was substantiated and unit is working on corrective action for 1 issue related to PCard transaction review. Report issued 10/9/18. Number of Audit Issues Remaining Open: 1 (corrective action in progress) Number of Audit Issues Closed: 0</td>
</tr>
<tr>
<td>Office of Finance and Administration - Facilities - Utilities and Engineering (U&amp;E) Department - Timekeeping and Pay Investigation</td>
<td>No - Carried Forward From Prior Year</td>
<td>Other - Internal Audit Universe Risk - Fraud</td>
<td>4. Pursue organizational excellence</td>
<td>Complete - In Follow-up</td>
<td>The objectives of this investigation were to determine if: employees were paid incorrectly; employee access to Facilities Human Resources (HR), University HR, and University Payroll offices was restricted; University HR and University Payroll provided the U&amp;E Department and operators with adequate, transparent communication and support regarding timekeeping and pay; and, Facilities HR and the U&amp;E management provided operators with transparent communication and support regarding timekeeping and pay. The allegations were substantiated and the unit is working on corrective action for 1 issue related to insufficient communication and coordination from Facilities Human Resources following WolfTime Go-Live. Employee pay was corrected prior to issuance of the report. Report issued 2/19/19. Number of Audit Issues Remaining Open: 1 (corrective action in progress) Number of Audit Issues Closed: 0</td>
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**Key:**
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<tr>
<td>College of Agriculture and Life Sciences - Prestage Department of Poultry Science - Feed Mill Education Unit Investigation [Phase 2]</td>
<td>No - Carried Forward From Prior Year</td>
<td>Other - Prior Year Strategic Risk Employee Misconduct</td>
<td>4. Pursue organizational excellence</td>
<td>Complete - In Follow-up</td>
<td>The objective of this investigation was to determine if the unit's purchase of a truck owned by the unit's manager was conducted in a manner that was transparent to university administration and in compliance with state and university requirements. The allegations were substantiated and unit is working on corrective actions for 3 issues related to manager intentionally misrepresented several facts to purchase vehicle, improper review of transactions, and culture of non-compliance. Report issued 2/19/19. Number of Audit Issues Remaining Open: 3 (corrective action in progress) Number of Audit Issues Closed: 0</td>
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<td>Other - Internal Audit Universe Risk - Fraud</td>
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<td>Other - Internal Audit Universe Risk - Internal Controls</td>
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<tr>
<td>Other - Internal Audit Universe Risk - Regulatory Non-Compliance</td>
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<td>Other - Internal Audit Universe Risk - Effectiveness and Efficiency of Processes</td>
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<tbody>
<tr>
<td>Campus Enterprises - NC State Dining - Vendor Processes Fraud Risk Assessment</td>
<td>Yes</td>
<td>3 - Data or Cyber Security Breach</td>
<td>4. Pursue organizational excellence</td>
<td>Complete - In Follow-up</td>
<td>The objectives of this fraud risk assessment were to: review Dining's manual and automated Information Technology (IT) vendor payment processes and internal controls for efficiency and effectiveness; identify potential risk areas; make recommendations to mitigate risks and improve internal controls and processes; and coordinate with Office of Information Technology, Security and Compliance to perform a security risk assessment on the automated parts of the process. Unit is working on corrective actions for 2 issues related to non-compliance with university IT security requirements and use of non-university vendor payment and accounting systems creating redundancy, extra work, and unnecessary risk. Report issued 3/12/19. Number of Audit Issues Remaining Open: 2 (corrective action in progress) Number of Audit Issues Closed: 0</td>
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<td>---------------------------------------------------------------------------</td>
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<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Campus Enterprises - NC State Stores - Vendor Processes Fraud Risk Assessment</td>
<td>No - Carried Forward From Prior Year</td>
<td>3 - Data or Cyber Security Breach, Other - Prior Year Strategic Risk Employee Misconduct, Other - Internal Audit Universe Risk - Fraud, Other - Internal Audit Universe Risk - Internal Controls, Other - Internal Audit Universe Risk - Regulatory Non-Compliance, Other - Internal Audit Universe Risk - Effectiveness and Efficiency of Process</td>
<td>4. Pursue organizational excellence</td>
<td>Complete - In Follow-up</td>
<td>The objectives of this fraud risk assessment were to: review Store's manual and automated Information Technology (IT) vendor payment processes and internal controls for efficiency and effectiveness; identify potential risk areas; make recommendations to mitigate risks and improve internal controls and processes; and coordinate with Office of Information Technology, Security and Compliance to perform a security risk assessment on the automated parts of the process. Unit is working on corrective actions for 2 issues related to non-compliance with university IT security requirements and use of non-university vendor payment and accounting systems creating redundancy, extra work, and unnecessary risk. Report issued 3/12/19. Number of Audit Issues Remaining Open: 2 (corrective action in progress) Number of Audit Issues Closed: 0</td>
</tr>
<tr>
<td>Non-Salary Year End Transfer of Expenses</td>
<td>No - Carried Forward From Prior Year</td>
<td>Other - Internal Audit Universe Risk - Internal Controls, Other - Internal Audit Universe Risk - Regulatory Non-Compliance, Other - Internal Audit Universe Risk - Effectiveness and Efficiency of Process</td>
<td>4. Pursue organizational excellence</td>
<td>In Process</td>
<td>The objective of the audit is to review the allowability, allocability, and appropriateness of selected non-salary year end transfers of expenses that were moved onto more restrictive projects and involved expense accounts we assessed as higher risk.</td>
</tr>
</tbody>
</table>
## NC STATE UNIVERSITY INTERNAL AUDIT DIVISION
### FISCAL YEAR 2019 AUDIT PLAN AND ENGAGEMENT STATUS AS OF JUNE 28, 2019

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| Audit of Expenditures from Special Academic Program Resources             | No - Carried Forward From Prior Year    | Other - Internal Audit Universe Risk - Internal Controls | 1. Enhance student success                       | In Process | The objective of this audit is to:  
  • Assess revenues for the special academic programs to determine if they are:  
    1. collected from the appropriate students and programs at the appropriate allowable amounts per term  
    2. following the students in accordance with the program  
  • Assess whether expenditures are compliant with their approved purposes and adequate support documentation is available  
  • Assess that appropriate processes and procedures are in place to establish responsibility and accountability at the colleges over the special academic program resources |
| College of Engineering - Materials Science and Engineering - Purchasing Investigation | No - Added                             | Other - Internal Audit Universe Risk - Effectiveness and Efficiency of Process | 4. Pursue Organizational Excellence              | In Process | The objective of this audit is to determine if an employee:  
  • Used their university PCard to pay for their personal cell phone data plan without approval  
  • Made a MarketPlace purchase that appears to be items suited for a middle school students school supply list  
  • Has made any additional purchases that appear to be of a personal nature. |
| College of Engineering - Materials Science and Engineering - Purchasing Investigation | No - Added                             | Other - Internal Audit Universe Risk - Fraud | 4. Pursue Organizational excellence              | In Process | The objective of this audit is to determine if an employee:  
  • Used their university PCard to pay for their personal cell phone data plan without approval  
  • Made a MarketPlace purchase that appears to be items suited for a middle school students school supply list  
  • Has made any additional purchases that appear to be of a personal nature. |
| College of Engineering - Materials Science and Engineering - Purchasing Investigation | No - Added                             | Other - Internal Audit Universe Risk - Internal Controls | 4. Pursue Organizational excellence              | In Process | The objective of this audit is to determine if an employee:  
  • Used their university PCard to pay for their personal cell phone data plan without approval  
  • Made a MarketPlace purchase that appears to be items suited for a middle school students school supply list  
  • Has made any additional purchases that appear to be of a personal nature. |

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<tbody>
<tr>
<td>College of Engineering - Materials Science and Engineering - Vendor Management Investigation</td>
<td>No - Added</td>
<td>Other - Prior Year Strategic Risk Employee Misconduct</td>
<td>4. Pursue organizational excellence</td>
<td>In Process</td>
<td>The objective of this audit is to investigate allegations from an internal source about possible conflict of interest, pre-payment of a contract, and misuse of university funds and employee time.</td>
</tr>
<tr>
<td>College of Engineering - Materials Science and Engineering - Investigation of a Faculty Member's Research Administration Activities</td>
<td>No - Added</td>
<td>Other - Prior Year Strategic Risk Employee Misconduct</td>
<td>4. Pursue organizational excellence</td>
<td>In Process</td>
<td>The objective of this audit is to investigate a faculty member's research administration activities for potential conflicts of interest and misuse of university and federal grant assets and resources.</td>
</tr>
<tr>
<td>College of Engineering - NC Clean Energy Technology Center Investigation</td>
<td>No - Added</td>
<td>Other - Prior Year Strategic Risk Employee Misconduct</td>
<td>4. Pursue organizational excellence</td>
<td>In Process</td>
<td>The objective of this audit is to determine if employee’s involvement with 3rd party consultant is appropriate and in compliance with university policies.</td>
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<tr>
<td>Review of Corrective Actions for National Science Foundation (NSF) 2018 Performance Audit of Incurred Costs</td>
<td>Yes</td>
<td>Other - Internal Audit Universe Risk - Regulatory Non-Compliance</td>
<td>In Process</td>
<td>The objective of this audit is to perform follow-up of corrected actions for audit issues reported in the May 18, 2018 NSF Office of the Inspector General audit.</td>
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<td>Other - Internal Audit Universe Risk - Internal Controls</td>
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<td>Other - Internal Audit Universe Risk - Effectiveness and Efficiency of Process</td>
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<tr>
<td>College of Sciences (COS) - General Information Technology (IT) Controls</td>
<td>Yes</td>
<td>3 - Data or Cyber Security Breach</td>
<td>In Process</td>
<td>The objective of this audit is to evaluate governance over and effectiveness of IT controls within COS IT operations. Governance includes the organizational and administrative structure of the IT function, IT strategic decision-making, the existence of policies and procedures, availability of staff and their skills, and the overall controls in the environment. Controls include security management, change management, configuration management, contingency planning, and vulnerability management.</td>
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<td>4. Pursue organizational excellence</td>
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<tr>
<td>College of Agriculture and Life Sciences (CALS) - Cooperative Extension Services (CES) - Business Process Governance</td>
<td>Yes</td>
<td>Other - Internal Audit Universe Risk - Internal Controls</td>
<td>4. Pursue organizational excellence</td>
<td>In Process</td>
<td>The objective of the audit is to review the business processes and structures implemented by CALS NC State Extension leadership to inform, direct, manage, and monitor CES activities toward the achievement of its strategic goals.</td>
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<tr>
<td></td>
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<td>Other - Internal Audit Universe Risk - Effectiveness and Efficiency of Process</td>
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<td>Other - Internal Audit Universe Risk - Regulatory Non-Compliance</td>
<td>5. Engage locally and globally</td>
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<tr>
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<td></td>
<td>Other - Internal Audit Universe Risk - Governance</td>
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<tr>
<td>College of Agriculture and Life Sciences (CALS) - Prestage Department of Poultry Science</td>
<td>No - Added</td>
<td>Other - Internal Audit Universe Risk - Internal Controls</td>
<td>4. Pursue organizational excellence</td>
<td>In Process</td>
<td>The objectives of this audit are to evaluate the efficiency and effectiveness of the department; review internal controls; and, assess compliance with federal, state, university and CALS policies and procedures.</td>
</tr>
<tr>
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<td>Other - Internal Audit Universe Risk - Effectiveness and Efficiency of Process</td>
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<td>Other - Internal Audit Universe Risk - Regulatory Non-Compliance</td>
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<tr>
<td>Office of Finance and Administration - Environmental Health and Public Safety (SAT) - Physical Access Services</td>
<td>Yes</td>
<td>Other - Internal Audit Universe Risk - Internal Controls</td>
<td></td>
<td>In Process</td>
<td>The objective of this audit is to assess services for granting, revoking, and managing the physical access to campus locations supported by SAT.</td>
</tr>
<tr>
<td></td>
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<td>Other - Internal Audit Universe Risk - Effectiveness and Efficiency of Process</td>
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<tr>
<td>Title IX Governance Processes</td>
<td>Yes</td>
<td>Other - Internal Audit Universe Risk - Effectiveness and Efficiency of Process</td>
<td></td>
<td>On-Hold</td>
<td>The objective of this audit was to assess the effectiveness of the governance over activities within Title IX processes within the NCSU Office for Institutional Equity and Diversity. This engagement was placed on hold due to temporarily limited resources and higher priority engagements.</td>
</tr>
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<td>Other - Internal Audit Universe Risk - Regulatory Non-Compliance</td>
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<tr>
<td>Grant Expenses at Award End</td>
<td>Yes</td>
<td></td>
<td></td>
<td>Returned to Continuous Risk Assessment</td>
<td>The objective of this audit was to test financial expenditures at the end of federal grant awards for allowability, allocability, reasonableness, and compliance with applicable regulations and provisions of the award agreements. This audit was returned to the Continuous Risk Assessment process based on the annual reassessment of the audit plan.</td>
</tr>
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<tr>
<td>Hiring Process - Controls to Prevent Unallowable Hires</td>
<td>Yes</td>
<td></td>
<td>Returned to Continuous Risk Assessment</td>
<td>The objective of this audit was to review the effectiveness of the university's hiring process controls to prevent unallowable hires such as persons trespassed from the university or flagged as &quot;Do Not Hire&quot; due to prior disciplinary actions. This audit was returned to the Continuous Risk Assessment process based on the annual reassessment of the audit plan.</td>
<td></td>
</tr>
<tr>
<td>Office of Finance and Administration - Facilities - Small Construction Award Process</td>
<td>Yes</td>
<td></td>
<td>Returned to Continuous Risk Assessment</td>
<td>The objective of this audit was to review Facilities small construction contract awards for favoritism or conflict of interest. This audit was returned to the Continuous Risk Assessment process based on the annual reassessment of the audit plan.</td>
<td></td>
</tr>
<tr>
<td>College of Humanities and Social Sciences - Institute for Nonprofits - Business Processes</td>
<td>Yes</td>
<td></td>
<td>Returned to Continuous Risk Assessment</td>
<td>The objective of this audit was to evaluate effectiveness and efficiency of business processes and compliance to federal, state, and university requirements. This audit was returned to the Continuous Risk Assessment process based on the annual reassessment of the audit plan.</td>
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**CURRENT YEAR AUDIT FOLLOW-UP**

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<tr>
<td>Poole College of Management (PCOM) - Development and External Relations Investigation - Follow-up</td>
<td>No - Added</td>
<td>Other - Prior Year Strategic Risk Employee Misconduct</td>
<td></td>
<td></td>
<td>The objective of this audit was to investigate allegations from an internal source to determine if a PCOM employee inappropriately used a university-issued PCard for personal use. 1 issue was noted related to inadequate PCard transaction review. Original report issued 10/9/18. Follow-up completed 6/7/19.</td>
</tr>
</tbody>
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<tbody>
<tr>
<td>Office of Finance and Administration - Facilities - Utilities and Engineering (U&amp;E) Department - Timekeeping and Pay Investigation - Follow-up</td>
<td>No - Added</td>
<td>Other - Internal Audit Universe Risk - Effectiveness and Efficiency of Process</td>
<td>4. Pursue organizational excellence</td>
<td>Closed</td>
<td>The objectives of this investigation were to determine: if employees paid incorrectly; employee access to Facilities Human Resources (HR), University HR, and University Payroll offices was restricted; if University HR and University Payroll provided the U&amp;E Department and operators with adequate transparent communication and support regarding timekeeping and pay; and whether Facilities HR and the U&amp;E management provided operators with transparent communication and support regarding timekeeping and pay. The allegations were substantiated and unit is working on corrective action for 1 issue was noted related to insufficient communication and coordination from Facilities Human Resources following WolfTime Go-Live. Employee pay was corrected prior to issuance of the report. Original Report issued 2/19/19. Follow-up completed 6/7/19.</td>
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<td>College of Agriculture and Life Sciences - Prestage Department of Poultry Science - Feed Mill Education Unit Investigation - Follow-up [Phase 2]</td>
<td>No - Added</td>
<td>Other - Prior Year Strategic Risk Employee Misconduct</td>
<td>4. Pursue organizational excellence</td>
<td>In Process</td>
<td>The objective of this investigation was to determine if the unit's purchase of a truck owned by the unit's manager was conducted in a manner that was transparent to university administration and in compliance with state and university requirements. 3 issues were noted related to manager intentionally misrepresented facts to purchase vehicle, improper review of transactions, and culture of non-compliance. Report issued 2/19/19. Number of Audit Issues Remaining Open: 3 (corrective action in progress) Number of Audit Issues Closed: 0</td>
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The objectives of this fraud risk assessment were to: review Dining’s manual and automated Information Technology (IT) vendor payment processes and internal controls for efficiency and effectiveness; identify potential risk areas; make recommendations to mitigate risks and improve internal controls and processes; and coordinate with Office of Information Technology, Security and Compliance to perform a security risk assessment on the automated parts of the process.

Unit is working on corrective actions for 2 issues related to non-compliance with university IT security requirements and use of non-university vendor payment and accounting systems creating redundancy, extra work, and unnecessary risk.

Report issued 3/12/19.

Number of Audit Issues Remaining Open: 2 (corrective action in progress)
Number of Audit Issues Closed: 0
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<td>No - Added</td>
<td>3 - Data or Cyber Security Breach</td>
<td>4. Pursue organizational excellence</td>
<td>In Process</td>
<td>The objectives of this fraud risk assessment were to: review Store's manual and automated Information Technology (IT) vendor payment processes and internal controls for efficiency and effectiveness; identify potential risk areas; make recommendations to mitigate risks and improve internal controls and processes; and coordinate with Office of Information Technology, Security and Compliance to perform a security risk assessment on the automated parts of the process. Unit is working on corrective actions for 2 issues related to non-compliance with university IT security requirements and use of non-university vendor payment and accounting systems creating redundancy, extra work, and unnecessary risk. Report issued 3/12/19. Number of Audit Issues Remaining Open: 2 (corrective action in progress) Number of Audit Issues Closed: 0</td>
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<td>Other - Internal Audit Universe Risk - Effectiveness and Efficiency of Process</td>
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### PRIOR YEARS' AUDIT FOLLOW-UP

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<tr>
<th>No - Carried Forward From Prior Year</th>
<th>Other - Internal Audit Universe Risk - Internal Controls</th>
<th>4. Pursue organizational excellence</th>
<th>Closed</th>
<th>The objective of the audit was to determine if use of MEAS educational technology fee funds to pay for the reported salaries and severance pay were in compliance with university policy. 1 issue related to inadequate guidance. Original report issued 5/17/18. Follow-up completed 11/6/18.</th>
</tr>
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<td></td>
<td>Other - Internal Audit Universe Risk - Regulatory Non-Compliance</td>
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<tr>
<td></td>
<td>Other - Internal Audit Universe Risk - Effectiveness and Efficiency of Process</td>
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<tr>
<td>Engagement</td>
<td>On Original Fiscal Year 2019 Audit Plan?</td>
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</tr>
<tr>
<td>College of Agriculture and Life Sciences - Animal Science Department Investigation - Follow-up</td>
<td>No - Carried Forward From Prior Year</td>
<td>10 - Sexual Violence or Other Serious Crime</td>
<td></td>
<td>Closed</td>
</tr>
<tr>
<td>College of Agriculture and Life Sciences - Prestage Department of Poultry Science - Feed Mill Education Unit Investigation - Follow-up [Phase 1]</td>
<td>No - Carried Forward From Prior Year</td>
<td>Other - Prior Year Strategic Risk Employee Misconduct</td>
<td></td>
<td>Closed</td>
</tr>
<tr>
<td>Engagement</td>
<td>On Original Fiscal Year 2019 Audit Plan?</td>
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<td>---------------------------------------------------------------------------</td>
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</tr>
<tr>
<td>Campus Enterprises - NCSU Dining Timesheet Investigation - Follow-up</td>
<td>Yes</td>
<td>Other - Prior Year Strategic Risk - Employee Misconduct</td>
<td></td>
<td>Closed</td>
</tr>
<tr>
<td>University Employee Time and Leave Management - Follow-up</td>
<td>No - Carried Forward From Prior Year</td>
<td>Other - Internal Audit Universe Risk - Internal Controls</td>
<td></td>
<td>Closed</td>
</tr>
</tbody>
</table>

**Key:**
- Closed
- In Process
- Not Started
- On-Hold
- Complete
- In Follow-up
- Canceled
- Returning to Continuous Risk Assessment
### NC STATE UNIVERSITY INTERNAL AUDIT DIVISION
### FISCAL YEAR 2019 AUDIT PLAN AND ENGAGEMENT STATUS
### AS OF JUNE 28, 2019

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</thead>
<tbody>
<tr>
<td>College of Agriculture and Life Sciences (CALS) - Business Processes - Follow-up</td>
<td>Yes</td>
<td>Other - Internal Audit Universe Risk - Internal Controls</td>
<td>4. Pursue organizational excellence</td>
<td>Closed</td>
<td>The objective of this audit was to review internal controls and effectiveness of the CALS business processes as related to previous investigations and to determine the status of other improvements in areas where corrective action was needed. 5 issues related to procedures for: financial oversight, monitoring and oversight of personnel charges, additional compensation payments, salary redistributions, and administration of faculty departures. Original Report issued 4/19/17. Follow-up completed 6/7/19.</td>
</tr>
<tr>
<td>User Controls Over Ultra-Sensitive Data - Follow-up</td>
<td>Yes</td>
<td>3 - Data or Cyber Security Breach</td>
<td>4. Pursue organizational excellence</td>
<td>In Process</td>
<td>The objectives of this audit were to: determine whether university users with access to ultra-sensitive data are adequately protecting the data throughout business process lifecycles; identify - to the extent possible - previously unknown areas where ultra-sensitive data is transmitted and stored; and, assess whether current university ultra-sensitive data users have a legitimate business need for the data. 23 issues related to guidance, training, storage, retention, verification processes, access, and approval processes. Original Report issued 3/26/18. Number of Audit Issues Remaining Open: 12 (corrective action in progress) Number of Audit Issues Closed: 11</td>
</tr>
</tbody>
</table>

**Key:**
- **Closed**
- **In Process**
- **Not Started**
- **On-Hold**
- **Complete In Follow-up**
- **Canceled**
- **Returning to Continuous Risk Assessment**
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</thead>
<tbody>
<tr>
<td>College of Agriculture and Life Sciences (CALS) - Warren County Cooperative Extension Service (CES)</td>
<td>No - Carried Forward From Prior Year</td>
<td>Other - Prior Year Strategic Risk Employee Misconduct</td>
<td></td>
<td>Closed</td>
<td>Consulted with the CALS Human Resources, CES and Warren County CES regarding a potential mishandling of funds.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Other - Internal Audit Universe Risk - Fraud</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Other - Internal Audit Universe Risk - Internal Controls</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>College of Agriculture and Life Sciences (CALS) - Scotland County Cooperative Extension Service (CES)</td>
<td>No - Added</td>
<td>Other - Internal Audit Universe Risk - Internal Controls</td>
<td></td>
<td>Closed</td>
<td>Consulted with CES Director to evaluate processes and financial controls related to the CES checking accounts and reviewed the 4-H account transactions for appropriateness.</td>
</tr>
<tr>
<td>College of Agriculture and Life Sciences - Integrated Pest Management Research</td>
<td>Yes</td>
<td>Other - Internal Audit Universe Risk - Internal Controls</td>
<td></td>
<td>Closed</td>
<td>Consulted with Integrated Pest Management Research management regarding an issue with non-compliance with university policy on compensation and implementation of improvements.</td>
</tr>
<tr>
<td>Office of the State Auditor (OSA) Information Technology (IT) General Controls Audit</td>
<td>Yes</td>
<td>3 - Data or Cyber Security Breach</td>
<td></td>
<td>Closed</td>
<td>Consulted with the Office of Information Technology - Security and Compliance to facilitate OSA's audit of NCSU's IT General Controls. The State Auditor's audit included review and consideration of Internal Audit IT audit reports and documented issues to avoid duplication of effort as appropriate.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Key:</th>
<th>Completed</th>
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### NC State University Internal Audit Division

**Fiscal Year 2019 Audit Plan and Engagement Status**

**As of June 28, 2019**

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</thead>
<tbody>
<tr>
<td>NC State Wolf Pack Club Consulting</td>
<td>No - Added</td>
<td>Other - Internal Audit Universe Risk - Internal Controls</td>
<td></td>
<td>Closed</td>
<td>Consulted with NC State Wolf Pack Club regarding employee salary payments.</td>
</tr>
<tr>
<td>Office of Global Engagement - NC State European Center in Prague Information Technology (IT)</td>
<td>No - Added</td>
<td>Other - Internal Audit Universe Risk - Effectiveness and Efficiency of Process</td>
<td>Other - Internal Audit Universe Risk - Identification and Risk Management</td>
<td>Closed</td>
<td>Consulted with the Office of Global Engagement Associate Director for NC State European Center in Prague to assist in determining IT needs in Prague as their current support contract ended in December 2018. Consultation closed 1/10/19. Audit engagement opened; see College of Agriculture and Life Sciences - Prestage Department of Poultry Science on page 10.</td>
</tr>
<tr>
<td>College of Agriculture and Life Sciences - Prestage Department of Poultry Science - Chicken Education Unit - Consulting</td>
<td>No - Added</td>
<td>Other - Internal Audit Universe Risk - Regulatory Non-Compliance</td>
<td></td>
<td>Closed</td>
<td>Consulted with Sponsored Programs and Regulatory Compliance Services, Director of Compliance regarding a potential conflict of interest. Consultation closed 1/10/19. Audit engagement opened; see College of Agriculture and Life Sciences (CALS) - Prestage Department of Poultry Science on page 10.</td>
</tr>
</tbody>
</table>
## NC STATE UNIVERSITY INTERNAL AUDIT DIVISION
### FISCAL YEAR 2019 AUDIT PLAN AND ENGAGEMENT STATUS
#### AS OF JUNE 28, 2019

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<tr>
<td>WolfTime Post-Implementation</td>
<td>No - Added</td>
<td>Other - Internal Audit Universe Risk - Internal Controls</td>
<td></td>
<td>Closed</td>
<td>Consulted with Human Resources regarding the post-implementation of WolfTime.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Other - Internal Audit Universe Risk - Effectiveness and Efficiency of Process</td>
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<td></td>
<td>Other - Internal Audit Universe Risk - Regulatory Non-Compliance</td>
<td></td>
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</tr>
<tr>
<td>Research Administration Systems Replacement - ERA (Enterprise Research Administration)</td>
<td>Yes</td>
<td>3 - Data or Cyber Security Breach</td>
<td>3. Support interdisciplinary scholarship</td>
<td>In Process</td>
<td>Providing advisory and consulting services to the Office of Research and Innovation and the Office of Finance and Administration on their replacement of 4 legacy systems used for enterprise research administration activities.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Other - Internal Audit Universe Risk - Internal Controls</td>
<td>4. Pursue organizational excellence</td>
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<tr>
<td></td>
<td></td>
<td>Other - Internal Audit Universe Risk - Effectiveness and Efficiency of Process</td>
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<tr>
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<td></td>
<td>Other - Internal Audit Universe Risk - Identification and Risk Management</td>
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### Key:
- **Closed**
- **In Process**
- **Not Started**
- **On-Hold**
- **Complete In Follow-up**
- **Canceled**
- **Returning to Continuous Risk Assessment**
## Engagement

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</thead>
<tbody>
<tr>
<td>Implementation of Accounts Payable Vendor Management System</td>
<td>Yes</td>
<td>Other - Internal Audit Universe Risk - Fraud</td>
<td>4. Pursue organizational excellence</td>
<td>In Process</td>
<td>Consulting with the University Controller's Office on their implementation of a vendor management system application.</td>
</tr>
<tr>
<td>Health Insurance Portability and Accountability Act (HIPAA) Security Implementation Project</td>
<td>No - Added</td>
<td>3 - Data or Cyber Security Breach</td>
<td>4. Pursue organizational excellence</td>
<td>In Process</td>
<td>Consulting with Office of Information Technology - Security and Compliance on implementation of recommendations from an outside consultant to ensure all risk areas identified are addressed.</td>
</tr>
</tbody>
</table>

### Key:
- **Closed**: Task completed and no further action required.
- **In Process**: Task is ongoing and progress is being monitored.
- **Not Started**: Task has not yet begun or started.
- **On-Hold**: Task is temporarily paused or delayed.
- **Returning to Continuous Risk Assessment**: Task is returned to a continuous risk assessment process.

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### NC STATE UNIVERSITY INTERNAL AUDIT DIVISION
**FISCAL YEAR 2019 AUDIT PLAN AND ENGAGEMENT STATUS**
**AS OF JUNE 28, 2019**

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<tbody>
<tr>
<td>Quality Assurance Review (QAR) - Self-Assessment</td>
<td>No - Carried Forward From Prior Year</td>
<td>N/A</td>
<td>4. Pursue organizational excellence</td>
<td>Closed</td>
<td>A QAR is mandated by the Institute of Internal Auditors (IIA) Professional Standards and by the State of NC for all internal audit units every five years. The principal objectives of the QAR were to: assess the internal audit activity’s conformance to The Institute of Internal Auditors’ (IIA) Standards, evaluate the internal audit activity’s effectiveness in carrying out its mission as set forth in its charter and expressed in the expectations of the University’s Board of Trustees and university executive leaders, identify opportunities to enhance its management and work processes, and provide suggestions to enhance the audit function’s value to the university. IAD performed a comprehensive self-assessment and identified opportunities to document or improve documentation of processes that were already in practice. It is our overall opinion that the NCSU Internal Audit Division generally conforms to the IIA Standards and Code of Ethics.</td>
</tr>
</tbody>
</table>

**Key:**
- **Closed**
- **In Process**
- **Not Started**
- **On-Hold**
- **Complete In Follow-up Canceled Returning to Continuous Risk Assessment**
## Fiscal Year 2019 Audit Plan and Engagement Status

**As of June 28, 2019**

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<tbody>
<tr>
<td>Quality Assurance Review (QAR) - Independent Validation</td>
<td>No - Carried Forward From Prior Year</td>
<td>N/A</td>
<td>4. Pursue organizational excellence</td>
<td>Closed</td>
<td>A QAR is mandated by the Institute of Internal Auditors Professional Standards and by the State of NC for all internal audit units every five years. The primary objective of the validation, conducted July 12 – July 30, 2018, was to verify the assertions made in the self-assessment report concerning adequate fulfillment of the organization’s basic expectations of the internal audit function and its conformity to IIA’s Professional Standards. The independent assessor issued a report on August 23, 2018 and agreed with the internal assessment’s conclusion that the NCSU Internal Audit Division generally complies with the IIA Standards. It was also noted that IAD implemented agile auditing, which allows IAD to direct time and effort toward the issues, challenges, and risks that most affect the university’s ability to implement strategy and achieve goals. This has been accomplished through leveraging technology and data analytics across the audit life cycle to: provide broader-based, more dynamic audit scopes; streamline IAD audit processes and procedures; increase IAD’s services despite limited staffing resources; and, deliver more relevant, higher impact services. One set back within IAD is the limited audit staff. Report received from reviewer 8/23/18. Presented in BOT materials September 20, 2018.</td>
</tr>
<tr>
<td>Health Insurance Portability and Accountability Act (HIPAA) Security Assessment</td>
<td>No - Carried Forward From Prior Year</td>
<td>3 - Data or Cyber Security Breach</td>
<td>Closed</td>
<td></td>
<td>Collaborated with Office of Information Technology - Security and Compliance and the HIPAA Compliance Sub-working Group to facilitate a complete HIPAA security assessment and privacy review to evaluate the effectiveness of internal controls for protecting sensitive data in the five HIPAA covered health care components at NC State.</td>
</tr>
<tr>
<td>Other - Internal Audit Universe Risk - Regulatory Non-Compliance</td>
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<tr>
<td>Other - Internal Audit Universe Risk - Internal Controls</td>
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<tbody>
<tr>
<td>Office of Global Engagement - Financial Operations Manager Search Committee</td>
<td>No - Added</td>
<td>N/A</td>
<td></td>
<td>Closed</td>
<td>Chief Audit Officer &amp; Director was on the search committee for the Office of Global Engagement - Financial Operations Manager.</td>
</tr>
<tr>
<td>National Institute of Standards and Technology (NIST) 800-171 Compliance</td>
<td>Yes</td>
<td>3 - Data or Cyber Security Breach</td>
<td>3. Support interdisciplinary scholarship</td>
<td>Closed</td>
<td>Internal Audit Division provided advisory and consulting services to the Office of Research and Innovation, Office of Finance and Administration, Office of General Counsel, and Office of Information Technology as they developed a collaborative compliance process to assist the university in achieving its research goals while maintaining compliance with NIST 800-171 “Protecting Controlled Unclassified Information in Nonfederal Information Systems and Organizations” and NIST 800-53 “Security and Privacy Controls for Federal Information Systems and Organizations.”</td>
</tr>
<tr>
<td>Steering Team</td>
<td></td>
<td>Other - Prior Year Strategic Risk Faculty Loss (infrastructure)</td>
<td>4. Pursue organizational excellence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other - Internal Audit Universe Risk - Internal Controls</td>
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<td></td>
</tr>
<tr>
<td>University Information Technology (IT) Governance Committees</td>
<td>Yes</td>
<td>Other - Internal Audit Universe Risk - Governance</td>
<td></td>
<td>Closed</td>
<td>Internal Audit Division provided objective, independent input to various university IT committees as they recommended and implemented IT policies and technology to ensure the best possible decisions in advancing the use of technology meets the university’s mission, vision, and goals.</td>
</tr>
<tr>
<td>Business Operations Group - 2019 Steering Committee</td>
<td>No - Added</td>
<td>Other - Internal Audit Universe Risk - Effectiveness and Efficiency of Process</td>
<td>4. Pursue organizational excellence</td>
<td>Closed</td>
<td>Chief Audit Officer &amp; Director was on the steering committee for the Business Operations Group. The objectives and responsibilities of this steering committee were to: Advise the Vice Chancellor, Finance and Administration about planning for the Business Operations Group meetings, represent all colleges and units in suggesting potential topics and speakers, evaluate the effectiveness of the Business Operations Group meetings and suggest improvements, and actively participate in Business Operations Group Meetings.</td>
</tr>
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<tr>
<td>Data Analytics Internal Project</td>
<td>No - Added</td>
<td>N/A</td>
<td>1. Enhance student success</td>
<td>Closed</td>
<td>Internal Audit used data analytics software to identify anomalies, trends, and risks within financial business processes such as purchasing and journal entries. The majority of staff have been trained in the use of this software, including our student intern. This supplemented current audit activities with more efficient analysis and quicker turnaround of corrective actions. Auditors presented practical applications to NCSU accounting students of how data visualization can be used in conducting audits and reporting results.</td>
</tr>
<tr>
<td>University Compliance and Integrity Initiative</td>
<td>Yes</td>
<td>Other - Internal Audit Universe Risk - Governance</td>
<td></td>
<td>Closed</td>
<td>Collaborated with Compliance Manager office to enhance university-wide compliance activities by increasing collaboration and expanding reporting opportunities for student, faculty, and staff for ethical or compliance related concerns. The goal was to provide a positive compliance experience, to provide compliance educational opportunities, and create and provide quality resources that will optimize compliance activity.</td>
</tr>
</tbody>
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### NC STATE UNIVERSITY INTERNAL AUDIT DIVISION
### FISCAL YEAR 2019 AUDIT PLAN AND ENGAGEMENT STATUS
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<tr>
<td>Power America Information Technology (IT) Security Assessment</td>
<td>No - Carried Forward From Prior Year</td>
<td>3 - Data or Cyber Security Breach</td>
<td>In Process</td>
<td>Collaborating with Office of Information Technology - Security and Compliance (OIT S&amp;C) to assess the effectiveness of the Power America Information Technology Security and Compliance Program implementation. Assessment complete, waiting for OIT S&amp;C to issue final report.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Other - Internal Audit Universe Risk - Effectiveness and Efficiency of Process</td>
<td></td>
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<td></td>
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<tr>
<td>Office of Finance and Administration - Vice Chancellor Search Committee</td>
<td>No - Added</td>
<td>N/A</td>
<td>N/A</td>
<td>In Process</td>
<td>Chief Audit Officer &amp; Director is on the search committee for the Vice Chancellor for Finance and Administration.</td>
</tr>
</tbody>
</table>

### CONTINUOUS RISK ASSESSMENT AND AUDIT PLANNING

| Continuous Risk Assessment and Audit Planning | Yes | N/A | Closed | All team members visit faculty and staff across the university throughout the year to discuss their unit’s strategic plans, goals, and risk posture in relation to the University's Mission. This includes new and on-going activities related to their academic, research, and outreach missions and potential concerns or emerging risks to both strategic and tactical goals at the unit and university level. This process supports the identification of potential audit and consulting engagements and is used as an objective tool in the development of our Annual Audit Plan. |

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Continuous Risk Assessment and Audit Planning Process

Risk Inventory
- Strategic conversation meetings
- Informal conversations
- Out of scope items from audit fieldwork
- Allegations/hotline
- State & Federal audits
- Trends in higher education

Audit Planning Begins in February
- List of potential audits

Risk Ranking
- Risk Criteria
  - Compliance
  - Financial
  - Fraud
  - Operational
  - Reputational
  - Security
- Likelihood & impact severity analysis
- Subjective Analysis
- Final score for each potential audit

Capacity Analysis
- Estimate project hours per potential audit
- Estimate hours for follow-ups, investigations, etc.
- Estimate FTE resources

Audit Plan
- Potential audits with highest risk scores within capacity
- Potential audits that do not make the plan

Monitor
- Mitigated

Risk Inventory
- Continuous Monitoring
- Mitigated
Internal Audit Division

AUDIT PLAN

FISCAL YEAR 2020
# NCSU Internal Audit Division
## Fiscal Year 2020 Audit Plan

<table>
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<th>Audits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
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<td><strong>Audits</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Title</strong></td>
<td><strong>Description</strong></td>
</tr>
</tbody>
</table>
| Administration and Compliance Over Salary Supplements                | • Administration of supplemental salary
                                                             • University-wide compliance to requirements                                                   |
| College of Humanities and Social Sciences - Institute for Nonprofits - Business Processes | • Financial business processes, governance, and internal controls
                                                             • Efficiency and effectiveness
                                                             • Compliance with federal, state, and university requirements                                  |
| Office of Finance and Administration – Facilities – Informal Construction Contracts Award Process | • Compliance with the bid rules for informal construction contracts
                                                             • Evaluate trends in award decisions                                                          |
| Poole College of Management - Financial Business Processes           | • Financial business processes, governance, and internal controls
                                                             • Efficiency and effectiveness
                                                             • Compliance with federal, state, and university requirements
                                                             • Includes follow-up work on issues found in fiscal year 2019 audit engagements
                                                             o Audit of Expenditures from Special Academic Program Resources
                                                             o Non-Salary Year End Transfer of Expenses                                                     |
| Wilson College of Textiles - Nonwovens Institute - Business Processes  | • Financial business processes, governance, and internal controls
                                                             • Efficiency and effectiveness
                                                             • Compliance with federal, state, and university requirements                                  |
| **Information Technology Audits**                                    |                                                                                               |
| **Title**                                                             | **Description**                                                                               |
| Office of Finance and Administration - Facilities - Energy Management Systems - Cyber Security for University Power and Water Systems | • Effectiveness of information technology security and controls
                                                             • Comprehensiveness of policies and procedures                                                 |
## Fiscal Year 2019 Engagements Anticipated to be in Progress on July 1, 2019

<table>
<thead>
<tr>
<th>College of Agriculture and Life Sciences - Prestage Department of Poultry Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title IX Governance Processes</td>
</tr>
<tr>
<td>Office of Finance and Administration - Environmental Health and Public Safety - Security Applications and Technologies - Physical Access Services</td>
</tr>
</tbody>
</table>

## Investigations

The Audit Plan includes estimated time for initial analysis of allegations reported through the Internal Audit Division Hotline, Ethics Point Hotline, the Office of the State Auditor Hotline, or other internal and external sources and subsequent investigation.

## Prior Years’ Follow-up Anticipated to be in Progress on July 1, 2019

<table>
<thead>
<tr>
<th>Campus Enterprises - NC State Dining - Vendor Processes Fraud Risk Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Campus Enterprises - NC State Stores - Vendor Processes Fraud Risk Assessment</td>
</tr>
<tr>
<td>College of Agriculture and Life Sciences - Prestage Department of Poultry Science - Feed Mill Education Unit Investigation [Phase 2]</td>
</tr>
<tr>
<td>User Controls Over Ultra-Sensitive Data</td>
</tr>
</tbody>
</table>

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## Planned Follow-up

| Audit of Expenditures from Special Academic Program Resources |
| College of Agriculture and Life Sciences - Cooperative Extension Services - Business Process Governance |
| College of Engineering - Materials Science and Engineering - Purchasing Investigation |
| College of Engineering - Materials Science and Engineering - Vendor Management Investigation |
| College of Engineering - Materials Science and Engineering - Investigation of a Faculty Member's Research Administration Activities |
| College of Sciences - General Information Technology Controls |
| Non-Salary Year End Transfer of Expenses |

## Advisory Services

<table>
<thead>
<tr>
<th>Title</th>
<th>Description</th>
</tr>
</thead>
</table>
- Implementation of recommendations from HIPAA Security Assessment |
| Research Administration Systems Replacement – ERA (Enterprise Research Administration) | - Office of Research and Innovation and the Office of Finance and Administration  
- Replacement of multiple legacy systems used for enterprise research administration activities |
| Minor Consulting Services | - Requested consultative audit input on projects, new initiatives, or proper handling of problems encountered |
## Special Assignments

<table>
<thead>
<tr>
<th>Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>University Information Technology (IT) Governance Committees</td>
<td>• Long term, collaborative, independent engagement with IT stakeholders</td>
</tr>
<tr>
<td></td>
<td>• Proactively identify risk</td>
</tr>
<tr>
<td></td>
<td>• Advise decision-makers</td>
</tr>
<tr>
<td>College Information Technology Maturity Assessment</td>
<td>• College IT operations</td>
</tr>
<tr>
<td></td>
<td>• Assessment against the Control OBjectives for Information and Related Technology (COBIT) maturity model</td>
</tr>
<tr>
<td></td>
<td>• Risk assessment for future IT general controls audits</td>
</tr>
</tbody>
</table>

## Continuous Risk Assessment

The Audit Plan includes estimated time for each auditor’s participation in weekly strategic conversations with university leaders, weekly internal risk meetings, and ad hoc risk assessment activities.
The Board Of Governors Of The University Of North Carolina North Carolina State University At Raleigh; CP; Public Coll/Univ - Unlimited Student Fees

Primary Credit Analyst:
Ken W Rodgers, New York (1) 212-438-2087; ken.rogers@spglobal.com

Secondary Contact:
Mary Ellen E Wriedt, San Francisco (1) 415-371-5027; maryellen.wriedt@spglobal.com

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Outlook
Enterprise Profile
Financial Profile
The Board Of Governors Of The University Of North Carolina
North Carolina State University At Raleigh; CP; Public Coll/Univ - Unlimited Student Fees

Credit Profile

<table>
<thead>
<tr>
<th>The Brd of Governors of the Univ of North Carolina, North Carolina</th>
<th>North Carolina St Univ at Raleigh, North Carolina</th>
</tr>
</thead>
</table>

**Rationale**

S&P Global Ratings' long-term rating and underlying rating (SPUR) on North Carolina State University at Raleigh's (NC State) existing revenue bonds is 'AA'. In addition, the short-term rating on NC State's outstanding commercial paper (CP) notes is 'A-1+'. Total debt outstanding at fiscal year-end June 30, 2018, is approximately $554 million including capitalized leases and $20 million of CP notes. The outlook, where applicable, is stable.

We assessed NC State's enterprise profile as very strong, characterized by healthy year-over-year growth in full-time equivalent (FTE) enrollment in each of the past two fall enrollment periods, with other favorable demand metrics and sound management and governance. In addition, NC State's economic fundamentals are excellent, operating in a state that has S&P Global Ratings highest rating. We assessed the university's financial profile as very strong, characterized by robust financial performance with recurring full accrual operating surpluses, good financial policies and a low to moderate debt burden with modest financial resources for the rating. Combined, we believe these credit factors lead to an indicative stand-alone credit profile of 'aa' and a long-term rating of 'AA'.

The short-term CP rating reflects the ample liquidity provided by UNC-Chapel Hill to pay the purchase price of CP notes unsuccessfully remarkedeted. UNC-Chapel Hill includes NC State's full $100 million CP authorization in its self-liquidity adequacy calculation in addition to its own $250 million authorization. The commercial paper program, issued for the benefit of both NC State and UNC-Chapel Hill and updated last on Nov. 16, 2017, has been in effect since 2002.

The ratings are supported by our view of NC State's:

- Role as North Carolina's land-grant university and one of two comprehensive research institutions in the 17-campus University of North Carolina (UNC) System;
- Recent firmer enrollment trend, coupled with highly competitive admissions at both the undergraduate and graduate levels;
- Very sound financial management practices, evidenced by solid operating performance and prudent controls over
investments and additional debt issuance; and

- Historically healthy funding for operations and capital from North Carolina.

In our opinion, partly offsetting credit factors include NC State's:

- Low financial resources for the rating category, with adjusted unrestricted net assets (UNA) of $355.6 million as of June 30, 2018, accounting for 20% of adjusted operating expenses and 64% of total debt; and

- Modest, for a major research university, but growing endowment of $1.29 billion, as of fiscal year-end 2018, most of which is restricted.

The university's outstanding general revenue bonds are payable from, and secured by, available funds of the university. The available funds pledge includes a broad range of university funds, which we consider equivalent to an unlimited student fee pledge. We understand NC State may issue up to $86 million in additional debt over the next two years to provide partial funding for new engineering and plant sciences buildings and renovations to its Carmichael Gym. In our view, assuming a commensurate growth in financial resources, NC State has debt capacity to absorb this issuance without adversely affecting its rating and outlook.

North Carolina State University at Raleigh was established in 1887 as a land-grant institution by the North Carolina General Assembly. Today, it is a comprehensive research university organized into 10 colleges spread across the 2,100-acre campus offering more than 300 undergraduate and graduate degree programs. The university offers programs in agriculture and life sciences, design, education, engineering, humanities and social sciences, management, natural resources, sciences, textiles, and veterinary medicine and is currently the largest four-year institution in the UNC System.

**Outlook**

The stable outlook reflects our expectation that, during the next two years, NC State's enrollment trend is favorable, financial performance on a full accrual basis is positive and financial resources grow commensurate with an anticipated modest additional debt issuance.

**Downside scenario**

We could consider a negative outlook if enrollment declined leading to weaker financial resources ratios relative to current levels, given modest additional debt issuance plans.

**Upside scenario**

A higher rating would require a significant increase in financial resource ratios and continuation of positive operating performance on a full accrual basis, coupled with state appropriation remaining firm.

**Enterprise Profile**
Industry risk

Industry risk addresses the higher education sector's overall cyclicality and competitive risk and growth by applying various stress scenarios and evaluating barriers to entry, levels and trends of profitability, substitution risk, and growth trends observed in the industry. We believe the higher education sector represents a low credit risk when compared with other industries and sectors.

Economic fundamentals

In our view, the university's geographic diversity is limited by the board of governors' policy requiring an 18% cap on incoming freshmen from out of state. As such, our assessment of NC State's economic fundamentals is anchored by the state of North Carolina's gross domestic product (GDP) per capita.

Market position and demand

NC State is the largest university in the UNC System with total headcount enrollment now exceeding 35,000 students. Over the past five fall enrollment periods, total headcount enrollment was positive in three out of five years compared with the prior periods' enrollment. For the past two fall enrollment periods, growth is healthy on both a total headcount and total FTE basis. Total headcount enrollment climbed 2% in fall 2017 and 3.2% in fall 2018. Total FTE enrollment climbed 3.6% and 3.1%, respectively, for the same years. Total headcount was 35,550 in fall 2018 and total FTE enrollment was 31,922. Graduate enrollment has become a somewhat larger portion of enrollment in recent years and accounted for 29% of total students for fall 2018, up from 27% in fall 2010. Management anticipates enrollment will be similar to fall 2018 for the incoming fall 2019 class.

First-year applications totaled 30,364 in fall 2018, a 14% increase from the previous year. In fall 2016, the university adopted the common app, when applications increased by nearly 25%. The university's selectivity ratio in fall 2018 was 46.8%, compared with 50.8% and 47.0% for fall 2017 and fall 2016, respectively. A solid 42.3% matriculated for fall 2018, a steep increase compared with fiscal 2017's 34.8% matriculation rate.

Management reports that out-of-state applicants have increased, although the Board of Governors policy dictates that out of state students represent less than 18% of the incoming freshmen class. Student quality, as measured by standardized test scores, is above average, with SAT scores of 1,319 for fall 2018. First-year retention rates are also excellent at approximately 94%, and graduation rates remain well above the public university national average.

For the 2018-2019 academic year, undergraduate tuition and fees for state residents is $9,101 and for out-of-state students is $28,444, which we consider modest compared with peers. Tuition is frozen for the third consecutive year for resident undergraduate students for fall 2019, although NC State has flexibility to raise fees where necessary.

Graduate admissions are also highly competitive. For fall 2018, the university received 15,267 applications for admission and selected a low 23.9% of those applicants. Fall 2018 was the first year that a residency requirement for first-year students was instituted, and occupancy for university owned housing is near full capacity according to management with the need to construct additional student housing in the future. NC State can house more than 9,000 students in 20 residence halls and five apartment complexes.

A major strategic initiative at the university is fundraising. The alumni participation rate remains low at 10% in fiscal 2018. The university completed a successful capital campaign in 2008, in which it raised $1.37 billion. We understand
its current initiative dubbed the “Think And Do the Extraordinary” capital campaign is doing very well. Launched in October 2016 this capital campaign's goal is $1.6 billion, with funds geared toward the university endowment, programs and professorships, and scholarships. We understand that the campaign is expected to conclude in December 2021; however, the university is close to raising the $1.6 billion goal now and is evaluating whether to raise the goal and continue the campaign or end the campaign early.

**Management and governance**

The NC State Board of Trustees comprises 13 members with eight elected by the UNC Board of Governors, four of whom are appointed by the governor, and one who is the president of the student government (ex-officio). The board's purpose is to advise on matters pertaining to the university and to serve as advisers to the chancellor. Certain responsibilities of the board involve approvals as delegated by the UNC Board of Governors.

We understand management and governance is stable and only one vacancy exists in the senior leadership team for the permanent Vice Chancellor for Finance and Administration and that position is expected to be filled shortly. We also understand, NC State is about to launch its next strategic plan development process as the existing 10-year plan ends in fiscal 2020. The strategic plan currently in effect focuses on realizing improved efficiencies and reallocates resources at both the academic and operational level enabling growth in high impact areas that facilitate meeting the state's need for the workforce of the future. In addition, we view positively management's conservative budgeting practices.

NC State has taken a number of actions to enhance its cyber-security. These actions include maintaining cyber-insurance, staff training and other testing and security measures that the university prefers to keep confidential. We view these actions positively and indicative of utilizing best practices to minimize this type of risk. NC State also has a robust enterprise risk management program.

We also understand NC State is currently reviewing next steps and determining the appropriate response to a recent NCAA notice of allegations in connection with alleged rules violations following the federal government's inquiry into men's college basketball.

**Research**

NC State's campus includes a central campus; the Biomedical Centennial Campus; and Centennial Campus, a 1,334-acre research and technology-transfer park that includes corporate and government research, as well as development centers and business incubators. The university, along with the UNC-Chapel Hill and Duke University, constitute the backbone of the Research Triangle. Research Triangle is a world-leading research development park, which we believe provides long-term stability to the university's role.

In our opinion, the university conducts a high level of research for an institution without a medical school. Grants and contracts account for 17% of revenues for fiscal 2018, the largest contributor of which is the National Science Foundation. We understand research expenditures in fiscal 2018 exceed $500 million. The university's indirect cost recovery rate is 52%.
Financial Profile

Financial management policies
The university has formal policies for endowment, investments, and debt. It operates according to a 10-year strategic plan and has an unwritten reserve liquidity policy. The university meets standard annual disclosure requirements. The financial policies assessment reflects our opinion that, while there may be some areas of risk, the organization's overall financial policies are not likely to weaken its future ability to pay debt service. Our analysis of financial policies includes a review of the organization's financial reporting and disclosure, investment allocation and liquidity, debt profile, contingent liabilities, and legal structure and a comparison of these policies with comparable providers.

Financial performance
In our view, a key credit strength of NC State is its financial operating performance. Operations have historically been robust with positive operations on a full-accrual basis in each of the past five audited fiscal years through June 30, 2018. In fiscal 2018, NC State posted a 3.2% adjusted net operating margin, which is comparable with prior years.

Total assets for fiscal 2018 were $3.4 billion. NC State posted positive financial operations in fiscal 2018, despite the aforementioned tuition freeze in effect for resident undergraduate students, by realizing a 1.8% increase in state appropriation, trimming expenses, and realizing a 7.5% increase in net tuition revenue (the latter due, in large part, to the 3.6% increase in total FTE enrollment in fall 2017).

Adjusted net income before capital appropriations and additions to endowment totaled $51.3 million in fiscal 2018. Management's expectations are for another healthy surplus in fiscal 2019. Management anticipates fiscal 2020 performance will also result in a surplus although there is some uncertainty as North Carolina hasn't finalized its fiscal 2020 budget and NC State, along with other public colleges and universities, is operating under a temporary continuation budget.

State appropriations continue to grow and were $515.4 million in fiscal 2018 and for fiscal 2019 estimated at $522.6 million. Capital appropriations have historically been modest and were $18.9 million in fiscal 2018 and estimated at $49.6 million for fiscal 2019.

Available resources
The university's financial resources are adequate to support the rating but somewhat low for the rating category in our view. The principle reason financial resources growth is somewhat lackluster is the impact of the undergraduate resident tuition freeze, investments made in faculty and staff to attract the most academically qualified class in fall 2018 and funds the university has expended to maintain its campus with an impressive 10.9 year average age of plant. Adjusted UNA totaled $355.6 million as of June 30, 2018, equal to just 20.4% of adjusted operating expenses and 64.2% of total debt. This latter figure, on a pro forma basis, would decline to 55.6% if NC State proceeds with plans to issue additional debt of up to $86 million over the next two years.

Total market value for the NC State associated entities and the university endowment fund was $1.29 billion as of fiscal year-end 2018. Management attributes the increase in 2018 to successful fundraising associated with its capital campaign as well as solid investment returns of 11.4% for the year. The majority of the university's endowments are
pooled into the North Carolina State Investment Fund (NCSIF). About 90% of these funds are managed by the UNC Management Co. Inc. Annual distributions are about 5% of the average market value of the endowment during the previous 20 quarters.

NC State has sufficient liquidity as part of its long-term investment portfolio, in our view. Operating funds are generally invested in the state treasurer's investment fund, which provides same-day funds, and to a lesser degree, in NC State investment Fund's Intermediate Term Fund.

**Debt and contingent liabilities**

As of fiscal year-end 2018, the university has approximately $554.0 million in total debt outstanding. Of the $554.0 million, $488 million are revenue bonds secured by a pledge of available funds. We understand NC State intends to issue up to $86 million in new debt over the next two years for various capital projects. Incorporating this proposed additional debt total pro forma debt is $640.0 million. We view the self-supporting nature of the general revenue bonds and internal policy of 1.2x debt service coverage (per project) as positive and believe they help mitigate some of the risk associated with the large overall debt level. All of the university's debt is fixed rate.

In 2010, the university entered into a direct-placement loan with BB&T Bank, with $15.7 million outstanding at fiscal year-end 2018). Also, the university has a direct-placement obligation with Bank of America outstanding at fiscal year-end 2018 in the amount of $49.5 million. In addition, the university entered into a $50 million direct-placement loan with PNC in 2017. We have reviewed the terms of the loans and view them as on parity with general revenue bonds, which means there are no additional rate covenants, immediate acceleration, or cross-defaults as is stipulated in the general trust indenture.

NC State participates in North Carolina's Teachers' and State Employees' Retirement System (TSERS)-a cost sharing, multiple-employer, defined-benefit pension plan. TSERS is the largest of several defined-benefit pension plans administered by North Carolina. We understand the university contributed $35.7 million to the plan for the year ended June 30, 2018, recognized pension expense of $49.8 million and reported a liability of $176.6 million for its proportionate share of the collective net pension liability.

We understand the state does not separately break out the funded ratio for TSERS alone, however, the funded ratio for all plans it administers is strong at 90.7%. In addition, faculty and staff may alternatively join The Optional Retirement Plan (ORP)-a defined contribution pension plan. The university had a total payroll of $796.0 million in fiscal 2018 of which $308.9 million was covered under ORP. NC State made contributions to ORP in fiscal 2018 of $21.1 million.

We also understand NC State participates in North Carolina's two postemployment benefit plans, the Retiree Health Benefit Fund (RHBF) and the Disability Income Plan of North Carolina (DIPNC). The university's contributions to the RHBF were $38.8 million for the year ended June 30, 2018, and to the DIPNC were $896,700. As of June 30, 2018, the university reported a net other postemployment benefit (OPEB) liability of $1.2 billion for RHBF and a net OPEB asset of $2.4 million for its proportionate share of the collective net OPEB asset for DIPNC.

In our view NC State's pension and OPEB funding requirements are well within its means to handle and do not present any incremental credit risk.
## North Carolina State University At Raleigh, North Carolina Enterprise And Financial Statistics

<table>
<thead>
<tr>
<th>Enrollment and demand</th>
<th>2019</th>
<th>2018</th>
<th>2017</th>
<th>2016</th>
<th>2015</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Headcount</td>
<td>35,550</td>
<td>34,432</td>
<td>33,755</td>
<td>34,015</td>
<td>33,989</td>
<td>MNR</td>
</tr>
<tr>
<td>Full-time equivalent</td>
<td>31,922</td>
<td>30,954</td>
<td>29,864</td>
<td>29,874</td>
<td>29,937</td>
<td>35,846</td>
</tr>
<tr>
<td>Freshman acceptance rate (%)</td>
<td>46.8</td>
<td>50.8</td>
<td>47.0</td>
<td>49.8</td>
<td>51.4</td>
<td>67.8</td>
</tr>
<tr>
<td>Freshman matriculation rate (%)</td>
<td>42.3</td>
<td>34.8</td>
<td>34.4</td>
<td>40.3</td>
<td>41.9</td>
<td>MNR</td>
</tr>
<tr>
<td>Undergraduates as a % of total enrollment (%)</td>
<td>70.9</td>
<td>70.1</td>
<td>70.6</td>
<td>66.0</td>
<td>67.4</td>
<td>78.6</td>
</tr>
<tr>
<td>Freshman retention (%)</td>
<td>94.0</td>
<td>94.0</td>
<td>93.8</td>
<td>93.7</td>
<td>93.0</td>
<td>86.0</td>
</tr>
<tr>
<td>Graduation rates (six years) (%)</td>
<td>81.0</td>
<td>79.0</td>
<td>76.0</td>
<td>76.0</td>
<td>N.A.</td>
<td>MNR</td>
</tr>
</tbody>
</table>

## Income statement

<table>
<thead>
<tr>
<th>Adjusted operating revenue ($000s)</th>
<th>N.A.</th>
<th>1,711,697</th>
<th>1,650,273</th>
<th>1,559,235</th>
<th>1,508,039</th>
<th>MNR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adjusted operating expense ($000s)</td>
<td>N.A.</td>
<td>1,656,965</td>
<td>1,604,049</td>
<td>1,530,726</td>
<td>1,452,024</td>
<td>MNR</td>
</tr>
<tr>
<td>Net adjusted operating income ($000s)</td>
<td>N.A.</td>
<td>54,732</td>
<td>46,224</td>
<td>28,509</td>
<td>56,015</td>
<td>MNR</td>
</tr>
<tr>
<td>Net adjusted operating margin (%)</td>
<td>N.A.</td>
<td>3.30</td>
<td>2.88</td>
<td>1.86</td>
<td>3.86</td>
<td>1.50</td>
</tr>
<tr>
<td>Estimated operating gain/loss before depreciation ($000s)</td>
<td>N.A.</td>
<td>153,653</td>
<td>141,867</td>
<td>117,230</td>
<td>138,094</td>
<td>MNR</td>
</tr>
<tr>
<td>Change in unrestricted net assets (UNA; $000s)</td>
<td>N.A.</td>
<td>(1,702,283)</td>
<td>(3,984)</td>
<td>23,327</td>
<td>(39,135)</td>
<td>MNR</td>
</tr>
<tr>
<td>State operating appropriations ($000s)</td>
<td>N.A.</td>
<td>515,353</td>
<td>506,419</td>
<td>502,534</td>
<td>481,548</td>
<td>MNR</td>
</tr>
<tr>
<td>State appropriations to revenue (%)</td>
<td>N.A.</td>
<td>30.1</td>
<td>30.7</td>
<td>32.2</td>
<td>31.9</td>
<td>19.2</td>
</tr>
<tr>
<td>Student dependence (%)</td>
<td>N.A.</td>
<td>25.2</td>
<td>24.5</td>
<td>24.6</td>
<td>23.9</td>
<td>39.7</td>
</tr>
<tr>
<td>Health care operations dependence (%)</td>
<td>N.A.</td>
<td>N.A.</td>
<td>N.A.</td>
<td>N.A.</td>
<td>N.A.</td>
<td>MNR</td>
</tr>
<tr>
<td>Research dependence (%)</td>
<td>N.A.</td>
<td>17.2</td>
<td>17.5</td>
<td>17.9</td>
<td>17.8</td>
<td>MNR</td>
</tr>
<tr>
<td>Endowment and investment income dependence (%)</td>
<td>N.A.</td>
<td>2.4</td>
<td>2.1</td>
<td>0.6</td>
<td>1.3</td>
<td>1.4</td>
</tr>
</tbody>
</table>

## Debt

<table>
<thead>
<tr>
<th>Outstanding debt ($000s)</th>
<th>N.A.</th>
<th>553,988</th>
<th>573,203</th>
<th>574,549</th>
<th>561,961</th>
<th>828,692</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proposed debt ($000s)</td>
<td>N.A.</td>
<td>86,000</td>
<td>N.A.</td>
<td>N.A.</td>
<td>N.A.</td>
<td>MNR</td>
</tr>
<tr>
<td>Total pro forma debt ($000s)***</td>
<td>N.A.</td>
<td>639,988</td>
<td>N.A.</td>
<td>N.A.</td>
<td>N.A.</td>
<td>MNR</td>
</tr>
<tr>
<td>Current debt service burden (%)</td>
<td>N.A.</td>
<td>5.67</td>
<td>2.36</td>
<td>1.93</td>
<td>2.03</td>
<td>MNR</td>
</tr>
<tr>
<td>Current MADS burden (%)</td>
<td>N.A.</td>
<td>2.63</td>
<td>2.79</td>
<td>2.70</td>
<td>2.84</td>
<td>3.50</td>
</tr>
</tbody>
</table>

## Financial resource ratios

<table>
<thead>
<tr>
<th>Endowment market value ($000s)</th>
<th>N.A.</th>
<th>1,293,700</th>
<th>1,122,900</th>
<th>998,600</th>
<th>984,000</th>
<th>990,083</th>
</tr>
</thead>
<tbody>
<tr>
<td>Related foundation market value ($000s)</td>
<td>N.A.</td>
<td>688,435</td>
<td>625,523</td>
<td>569,822</td>
<td>576,686</td>
<td>688,435</td>
</tr>
</tbody>
</table>
### North Carolina State University At Raleigh, North Carolina Enterprise And Financial Statistics (cont.)

<table>
<thead>
<tr>
<th></th>
<th>2019</th>
<th>2018</th>
<th>2017</th>
<th>2016</th>
<th>2015</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash and investments ($000s)</td>
<td>N.A.</td>
<td>691,428</td>
<td>611,322</td>
<td>594,841</td>
<td>446,080</td>
<td>MNR</td>
</tr>
<tr>
<td>UNA ($000s)</td>
<td>N.A.</td>
<td>(1,465,834)</td>
<td>236,449</td>
<td>240,433</td>
<td>217,106</td>
<td>MNR</td>
</tr>
<tr>
<td>Adjusted UNA ($000s)</td>
<td>N.A.</td>
<td>337,993</td>
<td>351,171</td>
<td>346,854</td>
<td>348,529</td>
<td>MNR</td>
</tr>
<tr>
<td>Cash and investments to operations (%)</td>
<td>N.A.</td>
<td>41.7</td>
<td>38.1</td>
<td>38.9</td>
<td>30.7</td>
<td>54.0</td>
</tr>
<tr>
<td>Cash and investments to debt (%)</td>
<td>N.A.</td>
<td>124.8</td>
<td>106.7</td>
<td>103.5</td>
<td>79.4</td>
<td>168.3</td>
</tr>
<tr>
<td>Cash and investments to pro forma debt (%)</td>
<td>N.A.</td>
<td>108.0</td>
<td>N.A.</td>
<td>N.A.</td>
<td>N.A.</td>
<td>MNR</td>
</tr>
<tr>
<td>Adjusted UNA to operations (%)</td>
<td>N.A.</td>
<td>20.4</td>
<td>21.9</td>
<td>22.7</td>
<td>24.0</td>
<td>35.3</td>
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<tr>
<td>Adjusted UNA plus debt service reserve to debt (%)</td>
<td>N.A.</td>
<td>64.2</td>
<td>64.3</td>
<td>63.0</td>
<td>65.4</td>
<td>97.8</td>
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<tr>
<td>Adjusted UNA plus debt service reserve to pro forma debt (%)</td>
<td>N.A.</td>
<td>55.6</td>
<td>N.A.</td>
<td>N.A.</td>
<td>N.A.</td>
<td>MNR</td>
</tr>
<tr>
<td>Average age of plant (years)</td>
<td>N.A.</td>
<td>10.9</td>
<td>10.5</td>
<td>10.3</td>
<td>10.3</td>
<td>13.0</td>
</tr>
</tbody>
</table>


This report does not constitute a rating action.

#### Ratings Detail (As Of August 7, 2019)

**North Carolina St Univ at Raleigh ICR**

*Long Term Rating*  
AA/Stable  
Current

**The Brd of Governors of the Univ of North Carolina, North Carolina**

North Carolina St Univ at Raleigh, North Carolina  
*The Brd of Governors of the Univ of North Carolina (North Carolina St Univ at Raleigh) gen rev rdfg bnds*  
*Long Term Rating*  
AA/Stable  
Current

**Univ of North Carolina Brd of Governors (North Carolina St Univ at Raleigh) (CP)**

*Short Term Rating*  
A-1+  
Current
MARKET COMMENTARY

Following a disappointing and volatile end to 2018, global markets bounced back nicely in the first quarter of calendar year 2019. Returns were strong across asset classes with equities, real estate, and corporate bonds producing the strongest returns. Reversing its hawkish communications of 2018, the Federal Reserve and other central banks, stated their intentions to be more data dependent and accommodative with future rate hikes, thus leading to a strong rally in risk assets. Domestically, the US Treasury yield curve inverted, which has historically been a precursor to a recession. As a recession indicator, however, yield curve inversions have produced numerous false positives and the lag between inversion and recession has varied widely. Other economic indicators (unemployment, inflation, GDP) are still strong and a recession does not appear to be on the near-term horizon.

Domestic equities, as measured by the S&P 500 Index, were up significantly during the quarter, gaining 13.6%. Mid- and small-cap stocks, as measured by the Russell Mid Cap Index and the Russell 2000 Index, posted even stronger returns, up 16.5% and 14.6%, respectively. For the one-year period ended March 31, 2019, large-, mid-, and small-cap stocks are back in the positive, returning 9.5%, 6.5%, and 2.0%, respectively.

International equities, as measured by the MSCI EAFE Index returned 10.1% for the quarter. Over the last year, the index is down -3.2%. Uncertainty around an effective Brexit resolution, U.S. trade policies and slowing growth concerns continue to cast a shadow on international markets.

Emerging markets, as measured by the MSCI Emerging Markets Index, also were positive, gaining 10% for the quarter. Within emerging markets, China provided a significant boost following renewed optimism over a trade agreement with the US and ongoing government support for its domestic economy.

The first quarter of 2019 also saw a drop in 10-year Treasury yields following dovish communications by the Fed. Long-dated corporate debt, as measured by the Bloomberg Barclays US Long Corporate Index, produced some of the strongest returns within fixed income, gaining nearly 8% during the period. The more broadly diversified Bloomberg Barclays US Bond Index produced a return of 2.9%, bringing its one-year gain to 4.5%.

Looking ahead, central bank policy is once again primed to be the main driver of asset returns. The Federal Reserve appears to have flexibility to continue on its dovish path as low unemployment has not led to significant pressure on wages or inflation to date. Internationally, trade policy and Brexit introduce significant tail-risks, with the outcomes of each potentially having major global implications. Within fixed income, market participants continue to monitor the inversion of the U.S. Treasury yield curve and the validity of its predictive prowess. Overall, at least domestically, the path of least resistance, still appears to be up in the near-term. Risks including corporate debt and decreasing consumer confidence will continue to be monitored, but for now it appears that risk is back on.
INVESTMENT STRATEGY

The Fund is managed as a broadly diversified portfolio with exposure to seven primary asset classes and many sub-strategies within each asset class. The Fund seeks to diversify exposure to the sub-strategies through the use of multiple investment managers that utilize a variety of investment approaches. The purpose of diversification is to provide reasonable assurance that no single security, class of securities, or investment manager has a disproportionate impact on the Fund's aggregate results. At times, the Fund invests in passive strategies. In working toward the Fund’s investment strategy, through UNCMC, the Fund invests in a number of niche managers that can employ different types of hedging strategies such as short-selling and derivative investing to help reduce the volatility of the Fund. The focus on controlling volatility preserves capital and benefits Fund participants through the power of compounding.

ASSET ALLOCATION

- Long Biased Equity: 33.1%
- Long/Short Equity: 3.2%
- Diversifying: 5.6%
- Fixed Income: 4.8%
- Cash: 8.9%
- Private Equity: 8.7%
- Real Estate: 12.9%
- Private Credit: 1.7%
- Energy & Natural Resources: 21.1%

ALLOCATION BY MANAGER

- UNCIF: 85.6%
- Blackrock LPP: 1.6%
- STIF-NCSIF: 1.9%
- NCSIF Private Assets: 10.9%

UNC MANAGEMENT CO.

The UNCMC was established on January 1, 2003 as an exempt 501 (c)(3) organization. It is a professionally-staffed asset management company created to provide investment services to the University of North Carolina at Chapel Hill and its affiliated entities, to the constituent institutions of the UNC system and system affiliated foundations, associations, trusts, and endowments. With over 40 employees, UNCMC has two teams, Investment Management and Operations. The Investment Management team manages all public and private investments of the UNCIF. Their responsibilities include evaluating and monitoring investment managers, recommending changes to investment objectives and asset allocation, monitoring risk, and implementing investment decisions approved by the UNCIF’s Executive Committee. The Operations Team performs all administrative, legal, compliance, accounting, and performance reporting duties.

HISTORY OF THE FUND

The NC State Investment Fund, Inc., (Fund) was established in April 1999 to combine NC State University’s and its affiliated entities’ endowments in an external pooled investment vehicle. The goal of the investment program for the Fund is to provide a real total return from assets invested that will preserve the purchasing power of Fund capital, while generating an income stream to support the spending needs of the University. Effective July 2008, the Fund partnered with UNC Management Company (UNCMC) to invest in the UNC Investment Fund (UNCIF), with the remaining investments committed to a Liquid Policy Portfolio (LPP) of Exchange Traded Funds (ETF’s) and to seven private equity managers which includes an allocation for cash to fund capital calls. The transition of assets to UNCMC was completed December 2009.

This report is based on information available at the time of distribution. The information comprising this report has not been audited and is subject to change.

Third Quarter Fiscal Year 2019
NC State Intermediate Term Fund

NC State University, Campus Box 7207, Raleigh, NC 27695-7207

Inception Date: July 3, 2014

PERFORMANCE

<table>
<thead>
<tr>
<th>Market Value</th>
<th>$186,395,686</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th></th>
<th>QTD</th>
<th>FYTD</th>
<th>1 Year</th>
<th>3 Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITF Fund</td>
<td>2.4%</td>
<td>3.8%</td>
<td>3.9%</td>
<td>2.3%</td>
</tr>
<tr>
<td>Barclays 1-3 yr Treasury</td>
<td>1.0%</td>
<td>2.5%</td>
<td>2.7%</td>
<td>1.0%</td>
</tr>
<tr>
<td>Barclays Universal 1-5 yr</td>
<td>2.0%</td>
<td>3.6%</td>
<td>3.7%</td>
<td>2.0%</td>
</tr>
<tr>
<td>DoubleLine</td>
<td>2.0%</td>
<td>4.0%</td>
<td>4.3%</td>
<td></td>
</tr>
<tr>
<td>PIMCO Income</td>
<td>3.0%</td>
<td>4.4%</td>
<td>3.9%</td>
<td></td>
</tr>
<tr>
<td>Vanguard Short Term</td>
<td>2.2%</td>
<td>3.5%</td>
<td>3.7%</td>
<td>2.1%</td>
</tr>
</tbody>
</table>

**Net of Fund expenses**

**STATISTICS**

<table>
<thead>
<tr>
<th>Fund</th>
<th>Index (1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volatility</td>
<td>1.2%</td>
</tr>
<tr>
<td>Sharpe Ratio</td>
<td>-0.5</td>
</tr>
<tr>
<td>SEC Yield</td>
<td>3.4%</td>
</tr>
<tr>
<td>Effective Duration</td>
<td>2.5</td>
</tr>
<tr>
<td>FYTD Net Interest &amp; Dividends**</td>
<td>$5,004,752</td>
</tr>
<tr>
<td>Net Interest &amp; Dividends Since Inception**</td>
<td>$22,598,060</td>
</tr>
</tbody>
</table>

*Net of Fund expenses Note 1: The iShares Core 1-5 Year Bond ETF is used as a proxy for the benchmark for Statistics information

MANAGERS

Vanguard’s Short Term Fund has a low tracking error and is a low cost portfolio option consisting primarily of investment grade corporates.

PIMCO’s Income Fund is a portfolio of a broad range of intermediate-duration bonds that is actively managed to maximize current income while maintaining a relatively low risk profile.

DoubleLine’s Total Return Fund seeks to maximize total return by exploiting inefficiencies within the subsectors of the mortgage market while maintaining active risk management constraints.

SECTOR ALLOCATION

- ITF
- iShares Core 1-5 Year USD Bond ETF

MANAGER ALLOCATION

- DoubleLine, 15%
- PIMCO Income, 24%
- Vanguard Short Term, 61%

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Third Quarter Fiscal Year 2019